

SCOTT DOUGLAS JACOBSEN

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News Intervention: Assemblage	2

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Thank you for your attention.

Scott

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### Philosophy of Economics Crash Course 7

Scott Douglas Jacobsen April 25, 2019

Dr. Alexander Douglas specialises in the history of philosophy and the philosophy of economics. He is a faculty member at the University of St. Andrews in the School of Philosophical, Anthropological and Film Studies. In this series, we will discuss the philosophy of economics.

Scott Jacobsen: With psychology classified as a natural science by you, what are the most substantiated and broad-reaching strong conclusions of psychology relevant to economics?

**Dr. Alexander Douglas:** I'm no expert on this. Behavioural economics is the main area in which the findings of clinical psychology have been integrated. The major challenge attacks, as Robert Sugden puts it, the notion of 'integrated' preferences, according to which each agent is defined by a stable set of preferences that has to be tailored to fit her choice behaviour in all circumstances. So if I choose soup over salad today, and salad over soup tomorrow, then the assumption that I am *rational* compels us to redefine the objects in my preference-set. It would be irrational to prefer salad to soup and soup to salad *tout court*, but not, e.g., to prefer soup to salad when I've eaten 1000 soups in my life but salad to soup when I've eaten 1001 soups.

But is it *rational* for what I've eaten in the past to influence what I choose today? What about the lighting in the restaurant? What about what other people are eating? And then, of course, every soup is unique and every salad is unique: perhaps I prefer *this* soup to *this* salad, but not *that* soup to *that* salad. But then if the descriptions under which I choose become *so* specific, economic predictions become impossible: nothing about what I choose today will inform us about what I'll choose tomorrow, since tomorrow everything will be slightly different.

Economists, it turns out, make a lot of implicit assumptions about what can and what can't go *rationally* into what is called the 'framing' of a choice: past consumption is permitted to be relevant, but not seemingly extraneous factors like the day of the week on which a choice is made. But who is to say what it is rational to consider relevant to a choice? A lot of behavioural economics is about coming to terms with the importance of framing; people can be found, e.g., to choose to save 98 out of 100 lives but not to condemn two out of 100 people to death. Behavioural economics seeks to know how people typically frame their choices, and how the framing affects what they choose.

In a way, it tries to honour the ideal of 'value-neutrality' that underpins modern economics: it looks like a value-judgment to say that past consumption can rationally influence a choice but not the day of the week. Behavioural economists want to get by without even that value judgment. We shouldn't say that people are irrational just because they take to be relevant what economic theorists take to be irrelevant.

Sugden believes, by the way, that even without identifying people's preferences as such we can make some judgments about the sorts of economic institutions that they would rationally choose. I'm sceptical. He believes that people will rationally choose an economically liberal arrangement, in which free agents can engage in voluntary exchange in pursuit of a better allocation to themselves — and so they might, under *that* description. But how about under the sort of description Thomas Carlyle might give to such an arrangement: an unearthly ballet of

higgling and haggling, conducted by little profit-and-loss philosophers; an array of pig-troughs where the pigs run across each other in unresting search of the tastiest slops, etc. etc.? Framing matters when agents 'rationally' choose institutions, just as much as when they 'rationally' choose goods. Public choice theory, I think, must also come to terms with the centrality of framing.

# Jacobsen: How might, or are, these most substantiated and broad-reaching strong conclusions of psychology influence the philosophizing about economics?

**Douglas:** Once we bring framing into the question, I think the whole way of modelling human behaviour has to radically change. I don't see how this can be avoided. A standard 'utility function' in economics will look something like this: U=f(x), where U is the overall utility or wellbeing of an agent and x is some vector of magnitudes, each representing the amount of a certain good consumed. To take framing into account, we'd need to replace x with a vector of *descriptions* of goods. These can't be simple magnitudes, and so the whole project of a mathematisation of human behaviour is undermined. Could you not just expand the vector of magnitudes to have one argument for every good consumed under every possible description? You'd have one magnitude for coffee in the morning on my own, one for tea in the afternoon with a friend, one for tea in the afternoon with a work colleague, one for coffee in the evening with my beloved, etc. etc. The problem, of course, is that every good will fall under an infinite number of possible descriptions. And worse, there are descriptions of descriptions: choosing off a menu isn't the same as choosing from a buffet, and so on.

Moreover, it is hard to see how we can get solid experimental evidence on how people frame choices. We might, using the above example, find that people will choose to *accept the loss* of two people but not to *condemn two people to death*. These framing effects matter a great deal, as our spin doctors know well. But how do we define the difference? That too is far from clear — our spin doctors know that too. I think that properly taking these subtleties into account would make economics into a qualitative, hermeneutic, 'soft' science — more akin to anthropology than physics.

Behavioural economists are attempting to walk the tightrope between hermeneutic anthropology and quantitative science, but I believe that the tightrope is of infinitesimal width, and sooner or later they'll topple over onto one side.

# Jacobsen: Do any of the aforementioned strong conclusions influence the treatment of time-inconsistency first considered by Spinoza and into the present with professional philosophers such as yourself?

**Douglas:** Spinoza has an idea of rationality that, I think, sits very badly with economics in general. For him it is irrational to discount the future at all. I might prefer one marshmallow today to two marshmallows tomorrow, but tomorrow I would, if I could, certainly not give up two marshmallows to have had one in the past. It is arbitrary to identify *myself* with myself at a particular moment in time. Thus he says that the rational person does not value a good differently depending on whether it is past, present, or future (*Ethics* 4p62).

When modern economists talk about time inconsistency, they mean something much weaker than this. They're talking about a time-discounting function that is hyberbolic, or generally non-linear. Only a few concede that time-discounting, *in general*, is irrational; Joan Robinson calls

it 'an irrational or weak-minded failure to value the future consumption now at what its true worth ... will turn out to be' (*The Accumulation of Capital*, 394).

If agents didn't engage in time-discounting, economic explanations of interest rate, profit, and so on wouldn't work. Economists certainly don't want to say that economic equilibrium depends on profound irrationality in the agents involved. In fact, I think you could argue that their equilibriums depend on forced labour or coercive extraction of some sort. If I take on a loan today, my future self will have to work to pay the interest. He gets no direct benefit from what happened in the past. Or, even if he does, he is unlikely to set the relative value of the past benefit as high as his past self did. But he simply wasn't consulted in the decision. My past self can be paternalistic or exploitative towards my future selves, but, in any case, there is a dictatorship of the present. Economists treat as coercive a situation in which the preferences of a select group determine the outcomes for everyone. But that is exactly what happens when, in their models, agents at time zero determine what all their future selves will pay and receive, by negotiating with other agents present at time zero.

We could, of course, *identify* all the future selves of an agent with that agent at time zero, but then we would have an agent with deeply inconsistent preferences. Again: today I prefer to give up the promise of two marshmallows tomorrow for one today, but tomorrow I certainly wouldn't give up two marshmallows in order to have had one in the past. So a single diachronic agent with a nonzero time-discounting rate would have preferences that are not just 'inconsistent' in some weak sense but plainly contradictory.

This isn't only an academic exercise; it gets to the heart of why markets can't plan – an issue rendered very palpable in our day by the climate crisis. James Galbraith points this out somewhere in *The Predator State*. You shouldn't make the mistake of thinking that futures markets allow markets to plan: what they allow is for present agents to divide up the spoils of what they plunder from future generations by contractual obligations or irreversible natural processes. In this way, as in many others, Spinoza has never been more relevant.

Jacobsen: Thank you for the opportunity and your time, Alex.

# **Philosophy of Economics Crash Course 8**

4 Scott Douglas Jacobsen

**April 28, 2019** 

Dr. Alexander Douglas specialises in the history of philosophy and the philosophy of economics. He is a faculty member at the University of St. Andrews in the School of Philosophical, Anthropological and Film Studies. In this series, we will discuss the philosophy of economics.

Scott Jacobsen: I want to shift the conversation into a brief foray in pseudoeconomics. Things purporting to be economics or some precise notion of international and national finance but, simply speaking, not connecting to the real world and, in fact, doing some time widespread damage. What defines pseudoeconomics?

**Dr. Alexander Douglas:** I don't think 'pseudoeconomics' is a particularly useful category. To show why, let me say something about pseudoscience in general. Engaging in pseudoscience means aping the concepts and terminology of the sciences without taking on the critical methods that make them reliable. On this definition, to put it bluntly, much of economics is pseudoscience. These are fighting words, so let me try to explain carefully.

The concepts and terminology aped by economists consists mostly of mathematical notions. Since Stanley Jevons, economics has become increasingly mathematical; today it is probably the most heavily-mathematised applied subject with the possible exception of physics. But whereas certain areas of physics, quantum mechanics for example, can boast astonishing powers of predictive precision, economists don't gain rewards in predictive power in proportion to their mathematical pains. The mathematics seems to be there only for show, or for intimidation. And this is a symptom of pseudoscience; one thinks of the intricate yet, in the end, irrelevant probability equations found in the work of Intelligent Design proponents like Michael Behe.

Alexander Rosenberg explained the lack of predictive precision in economics back in 1994, and I think the explanation holds. Physicists build complex mathematical models based on laws that have been rigorously tested empirically. Observation and experiment confirms that the crucial laws hold, and hold to very precise degrees. Something that really helps for testing a fundamental law is having distinct laws that concern the same properties. Take the Newtonian law, force equals mass times acceleration. To test this, you need to measure mass, but most ways of measuring mass – using scales for instance – presuppose the truth of the law. Happily, there are other laws, e.g. Hooke's spring law, that let you test mass without presupposing the truth of the Newtonian law. By measuring the mass of an object using the spring law – the way we measure it in outer space – you can then measure acceleration and force to see whether the Newtonian law bears out. In economics, however, you have laws that relate human behaviour to 'utility functions', yet there is no way to test a utility function except by observing behaviour. To infer a utility function from behaviour, you need a law connecting the two, yet you can't test how well that law holds up unless you know some utility functions. Thus any alleged law-like connection between utility and behaviour – the assumption of maximisation – is something that we can't test to any degree of precision. So why build incredibly complex mathematical models around functions representing causal relations that, for all we can scientifically know, might be quite wrong? This, to me, looks like pseudophysics: it copies the style but not the substance.

Economists often reply to me, when I make this point, that not all economists believe in utility-maximisation. There are models, they say, where this assumption is relaxed and replaced with more 'realistic' ideas about how people's utility-functions govern their behaviour. What they don't realise is that there is no empirical basis for saying that such assumptions are any more or less realistic. Assume that people don't fully maximise their utility – say they use heuristics and 'satisfice'. Now we can read a different utility function off their observed behaviour. How do we know that this assumption is 'realistic'? Certainly not by seeing whether observed behaviour is what we would expect given the 'satisficing' assumption. For to know that, we need to know the utility function as well as the observed behaviour. And yet we just saw that we can only get to it by making the assumption we were trying to test.

Utility, said Joan Robinson, is a concept of impregnable circularity: there just isn't any way for experiment and observation to break into the circle.

Naturally there is a great deal of mathematical interest in, say, decision theory and game theory. Interesting theorems can be proven in these branches of applied mathematics. To apply them to human behaviour in any predictively powerful way, we would need bridge-laws, formulating the degree to which real human behaviour implements the abstract mathematical model described in those sciences. But since human behaviour is the only observable thing, there just isn't any scientifically respectable way to derive such bridge-laws.

Simply *assuming* that the results of a branch of applied mathematics have any relevance to the behaviour of a physical system – that's pseudoscience rather than science. It has the outward elements of much modern science – mathematics and observation. But it fails to connect them together in the manner of a proper science. Since economics is, to this extent, pseudoscience, I don't think it's very useful to talk about pseudoeconomics; in a way I'd say that all economics is pseudoeconomics and a proper, mathematically-advanced science of human action lies in the future at best. But I'll try to answer your further questions about pseudoeconomics by trying to imagine myself in the point of view of a working economist.

Jacobsen: What are some examples of pseudoeconomics in action? Examples of pseudoeconomics on the Left and on the Right, because this may be a non-partisan issue, but something of importance in the light of known damage from pseudoscience and pseudomedicine. How can pseudoeconomics be combatted?

**Douglas:** Again, I'm sceptical of the whole enterprise of economics, so the best I can do is report what economists say on this. Simon Wren-Lewis has written actively about what he would probably be happy to call 'pseudoeconomics'; he's collected this writing into <u>a book</u> called *The Lies We Were Told*. Some of his examples:

- (1) The consensus among macroeconomists at top universities was that austerity was a damaging and unnecessary policy for the UK government to pursue, but the media reported this as a matter of contention among economic experts.
- (2) The consensus among academic economists in general, as well as most experts with relevant knowledge, was that Brexit would have serious, harmful economic consequences. Again the media reported this as a balanced debate splitting the experts.
- (3) Economic opinion on the economic effects of immigration does not bear out the alarmism that politicians such as Donald Trump exploit during their campaigns.

Note that these aren't really cases of bogus economics; they are, rather, cases of misrepresentation. You're not lying, nor even engaging in pseudoscience, if you go against the consensus opinion of academic economists. But you're lying if you suggest that there is a consensus where there isn't, or vice-versa. That seems to me to be the sort of thing Wren-Lewis is talking about. I'm happy to defer to his expertise on the question of what academic economists tend to believe.

Those are examples of pseudoeconomics on the Right, I suppose. I think Wren-Lewis could cite a similar example on the Left, in the case of Modern Monetary Theory (some of his posts on it are <a href="here">here</a>). MMT is a school of economics that has a growing following on the blogosphere and is mentioned positively by Alexandria Ocasio-Cortez among others. Wren-Lewis is a critic of MMT, but his criticism is of what it says about mainstream economics. I think he'd agree with a statement something like this: MMT portrays mainstream macroeconomists, such as Wren-Lewis, as supporting policies that keep the unemployment rate higher than it needs to be, simply because they don't understand the mechanisms of state spending. Wren-Lewis strenuously denies this, of course, though I don't think he disagrees with any of the other factual claims made by MMT (he disagrees with MMT economists on policy recommendations, but it's standard for economists to disagree over those).

Paul Krugman seems, for example in this blog post, to suggest that MMT is 'pseudoeconomics' in a stronger sense: it overlooks some crucial facts about how our economic institutions work. Krugman, however, doesn't seem particularly well-informed about what MMT economists actually claim (one of them, Stephanie Kelton, took him to task on this). This, then, is a case of Krugman doing pseudoeconomics on my modified definition: representing economists as believing things they don't actually believe.

Pseudoeconomics in this sense is only effective because of the prestige accorded to the opinions of economists. If the ratings agencies of the mind downgraded their opinions, nobody would bother with pseudoeconomics. Nobody bothers misrepresenting an unvalued opinion.

# Jacobsen: Similar to the demarcation problem with science and non-science, how can we draw a line between economics and pseudoeconomics?

**Douglas:** I have no working theory on the demarcation problem. But I've tried to explain why I see economics as being on the 'wrong' side of the demarcation. To the extent that much successful modern science involves the application of mathematics to the natural world, the application itself is governed by a set of critical, empirical methods. Working on conic sections is amusing and edifying, but only a good track record of predicted observation justifies us in applying parabolas to the motion of projectiles.

Economics tries to skip to the end by working hard on the mathematics and then merely assuming its applicability to a portion of the natural world, namely the one made up by our bodies, our tools, and their various motions around the surface of the globe. This certainly forms a physical system of some sort, and we might one day hit upon a mathematical model that tracks its behaviour. But I see no reason to think that model will have anything to do with rational choice theory, which is really just a mathematical elaboration of our untested intuitions about human rationality, nor with the supposedly more realistic 'behavioural models', which are just mathematical elaborations of our untested intuitions about human irrationality.

Jacobsen: Thank you for the opportunity and your time, Alex.

### **Update Conversation with Md. Sazzadul Hoque**

**Scott Douglas Jacobsen** 

May 11, 2019

Md. Sazzadul Hoque is an exiled Bangladeshi secularist blogger, human rights activist, and atheist activist. His writing covers a wide range of issues, including religious superstition, critical thinking, feminism, gender equality, homosexuality, and female empowerment. He's protested against blogger killings and past/present atrocities against Bangladeshi minorities by the dominant Muslim political establishment. He's also written about government-sponsored abductions and the squashing of free speech; the systematic corruption in everyday life of Bangladeshis; and the denial of the pursuit of happiness.

In 2017, after receiving numerous threats, he was forced to leave Bangladesh out of safety concerns.

Scott Douglas Jacobsen: We can see the development of ex-Muslim councils around the world. Council of Ex-Muslims of Bangladesh is a new one. Why found one amongst the most dangerous regions, and countries, for ex-Muslims?

Md. Sazzadul Hoque: We do things not because it is easy, but because it is hard (JFK). either we confront the evil now or later, regardless the cost is high relative to the time when it is fought. We must live free or die trying. We must stir and start the process of contradiction in the subjugated mind of Bangladesh. Bangladesh is the ground zero to kill this evil. Historically Bangladesh was Shanatan then Buddhist then turned to Shanatan (Hindu) then to Muslim. If we can change Bangladesh, it will change the surrounding country. Majority of Bangladesh population is growing population, if we can have the right kind of message to these people, they will bring about the change Bangladesh had seen historically. If Bangladeshi changes India, Pakistan, Indonesia, Afghanistan, Iran will follow. Just these mentioned countries combined over a billion people.

# Jacobsen: How does this council provide a beacon of light in a shroud of some fundamentalist darkness there?

**Hoque:** Information is power, information is the gateway to freedom, this council will with the help of the right kind of people have the right kind of information to change minds. We as Bengali are not new to this fundamentalism. We must have a platform where people can draw their inspiration seeing other Ex-Muslim in such platform.

# Jacobsen: What are volunteer opportunities through the Council of Ex-Muslims of Bangladesh?

**Hoque:** There many people out there, but there is not a single unified platform from where people can collectively work together. People are working from their point of view and position, to my understanding it is time to act collaborate with Bangladesh and internationally.

#### Jacobsen: How can ex-Muslims protect themselves?

**Hoque:** The majority of these people are in hiding, to protect them self-one should write under a pen name in both internet and while publishing on paper, however they must take serious consideration to preserve their identity. If they are using the internet, they may use VPN service to mask their IP address.

Jacobsen: What will be the goals for the Council of Ex-Muslims of Bangladesh in 2019/2020 as it is starting up?

**Hoque:** The activity of 2019/2020 is to inform people such a platform exists, and we are here to stay.

Our mission to have a platform where we are able to collectively express our views or feelings, most importantly a place where ex-Muslim can safely empathize with one another, a place where we are able to tell the world how we are brutalized by this hate mongering repressive regressive faith that subjugate. Our platform is to convey support to those who are in dire need of psychological support and many other supports that we may be able to offer as we grow stronger in the future.

Jacobsen: Thank you for the opportunity and your time, Sazza.

### The Best Places for Foreign Workers

### Scott Douglas Jacobsen May 14, 2019

For those workers looking for the best place to find some good or solid working experience in an international locale, one of the best places for you to find some work will be within the context of the reports by the <u>World Economic Forum</u> on research.

According to the Boston Consulting Group's Decoding Global Talent, there appear to be workers more often wanting to head to the United States of America more than any other nation.

In addition, even with the some of the travel bans and antics happening in America, and with the increase in some talent drainage headed for the US going to Canada, the US continues to dominate the overall charts of those places that individuals want to garner some better lives and work in advanced sectors of work.

This has been a strength of America, not its primary and secondary school system. But, rather, the ways in which high-level talent and menial labor – the high and low end, so to speak – funnel into the US and work for applicable wages, where some are illegal and others require the genius passport or the H1-B.

The most appealing for the respondents, according to the WEF, are, in the order presented from most to least desirable, the US, Germany, Canada, Australia, the UK, Spain, France, Switzerland, Italy, and Japan.

As reiterated in the article, "Despite recent policy changes that are less than welcoming towards immigrants, the US remains the most attractive country for foreign workers. It is the number one choice of people living in Latin America, the Caribbean, and sub-Saharan Africa, and second among workers from the Middle East and North Africa and Europe. "

America is the place to be, according to the votes of feet crossing borders to get to it. Canada is a highly desirable for the young and the educated from around the world.

"Germany has replaced the UK in second position. According to the report, workers from countries like Spain, Denmark, Poland, and Romania who were previously keen on the UK, now have their eye on Germany. The country has welcomed many foreigners in recent years, and has a booming economy," the report stated.

With the fourth spot given to Australia, it made a leap by appearing in the top five for this time. Since 2014, the UK has dropped three spots into fifth. One may speculate as to the relation of this to Brexit.

1/3rd of the non-British workers are looking to leave within 5 years. That's simply a fact of the political instability of a country and the economic consequences of a country, not in the immediate but in the years henceforth.

"However, despite the UK's decline in popularity, London remains the world's number-one city for foreign workers to move to," the report stated, "Spain, France, Italy, Switzerland and Japan make up the remainder of the top 10, with France and Switzerland both dropping places."

Over the last few years, the trend has been, in fact, trends with one of them being the set of workers simply not wanting to move. 57% said that they would want to move now. 64% were happy to move in 2014. This is a moderate but noticeable trend if calculated over several economies.

The WEF stated, "This is particularly the case in China, where a booming economy means that workers don't have to look elsewhere for a job, and also in Eastern European economies that are experiencing stronger growth."

With more closure of nation-states around the world, this could be influencing the situation, too. At the same time, there was some commentary on the nature of the globalization of work.

There is a rising nationalism and authoritarianism while, in simultaneity, a rise in the global nature of the work, i.e., remote and other means by which to work at a distance.

"However, not every country saw a drop in enthusiasm among workers for a cross-border move. More than 90% of Indians and 70% of Brazilians now say they would be willing to move to another country for the right job, up significantly since 2014," the report stated.

### **Phantom Threats Depend on Human Directionality**

#### **Scott Douglas Jacobsen**

May 19, 2019

*Nature* reported on a pressing and prescient warning of the dangers of a neutral tool: artificial intelligence. What is the threat of a neutral tool?

Of course, the threat comes in the form of the uses or utility functions provided to the AI by human beings, either as individuals or collectives.

Nonetheless, Benkler reported on the ways in which private industry or industry in general continues to shape the ethic and, thus, the utility functions of a powerful and sophisticated hammer, artificial intelligence.

May 10, 2019, is the due date for letters of intent to the National Science Foundation of the United States constructed for a new funding program entitled Fairness in Artificial Intelligence.

This follows from the European Commission "Ethics Guidelines for Trustworthy AI." It was described, by an academic member of the commission, as "ethics washing" with the utter industry domination of the content.

Google formed an AI ethics board in March, which fell apart in a week based on controversy. Even earlier, in January, Facebook invested 7.5 million USD into an ethics and AI centre at the Technical University of Munich, Germany.

What does this mean for the direction of the future of AI and its ethic schemata? It means the blueprints are being laid by the chickens of industry.

The input from industry, according to Benkley, remains crucial for the development of the future of AI. However, there should not be a monopolization of the power and the ethics.

Both governments and industry should be transparent and publicly accountable in the development of the ethical frameworks developed for AI.

Benkley stated, "Algorithmic-decision systems touch every corner of our lives: medical treatments and insurance; mortgages and transportation; policing, bail and parole; newsfeeds and political and commercial advertising. Because algorithms are trained on existing data that reflect social inequalities, they risk perpetuating systemic injustice unless people consciously design countervailing measures."

He provided an example of artificially intelligent systems capable of predicting recidivism. Those who differentially affect black and white, or European and African heritage communities.

In addition, or similarly, this could impact policing and job candidacy of applicants. With the black box of the inclusion of algorithms and systems into an artificial intelligence, these could simply reflect the societal biases, which would be "invisible and unaccountable."

"When designed for profit-making alone, algorithms necessarily diverge from the public interest—information asymmetries, bargaining power and externalities pervade these markets," Benkley stated, "For example, Facebook and YouTube profit from people staying on their sites and by offering advertisers technology to deliver precisely targeted messages. That could turn out to be illegal or dangerous."

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# Staged or Not, Individual Instances Do Not Negate Hate Crime Trends

### Scott Douglas Jacobsen May 19, 2019

According to Ran Ukashi, National Director of the League for Human Rights or on behalf of B'nai Brith Canada, there was a purported antisemitic attack on the BerMax Caffé in Winnipeg, which turned out to <u>staged</u>.

As with the Jussie Smollett staged attacks and the African-American community, and as with the apparently staged attacks here, there should be, as per the note by Ukashi, a condemnation of the fabrication of a hate crime, especially in a period of a rise in hate crimes based on religion, ethnicity, and so on.

Ukashi stated, "Making false allegations of antisemitism does nothing to quell the rise of racism and discrimination in Winnipeg and across Canada and will embolden the conspiracy theorists and purveyors of anti-Jewish hatred who blame the entirety of society's ills on the Jewish community."

False attacks should not detract from the seriousness with which hate crimes on Jewish peoples, Muslims, African-Americans, and so on, are taken in the public discourse, as hate should never be tolerated against the general citizenry or individual citizens in this manner.

These false allegations make human rights work difficult for all human rights organizations, including B'nai Brith Canada and others. There is a unified effort to combat hate and bigotry in all its forms, as it arises, whether in anti-Muslim sentiment, in antisemitism, and others.

### **Merchants of Death**

# Scott Douglas Jacobsen May 19, 2019

According to a recent report by the *British Medical Journal*, there is an often unethical misrepresentation of the work of corporations in the work for "social responsibility" or in their "social responsibility activities," as these present a "sanitized and soft public image."

This can be detrimental if not devastating to the work of corporations within the context of health and wellness, so wellbeing, of the general public.

Kamran Siddiqi, Professor in Global Public Health at the University of York, in the editorial, stated, "Among its many tactics, the tobacco industry has long been using corporate social responsibility activities to present a sanitized and soft public image while they continue to produce and promote their lethal products."

This clean representation of that which is not clean creates a cloaked representation to the public compared to the complete reality of the situation. This could lead to "substantial damage to public health" based on the manipulation of public policy for corporate benefit without regard for the health of the general public.

A prime example is given with the Prime Minister (of Pakistan) Imran Khan offered a purported donation to fund a new dam for solving the energy and water crisis of the country.

Siddiqi said, "This happened a few days after the administration took a U-turn on their flagship policy of introducing 'health levy' on cigarettes as a way to increase public revenue and expenditure on health."

About 20% of Pakistani adults consume tobacco on a regular basis. The definition or rate and extent of "regular" is not provided within the article. Nonetheless, this reported as leading to 160,000 deaths every year in Pakistan.

As a signatory of the World Health Organization's Framework Convention to Tobacco Control (WHO FCTC), Pakistan put in place some measures in order to reduce the level of harm associated with tobacco.

"...including smoking ban in public places, restricting cigarette sale in packs of 20 only and increasing the size of pictorial health warning on cigarette packs," Siddiqi explained, "However, the country has taken regressive steps on tobacco taxation, which is generally considered to be the most effective policy tool to curb tobacco use."

Two years ago, the government of Pakistan implemented a three-level system of taxation. This permitted tobacco companies to alter the popular products from the higher tax to the lower tax, or the second tier to the third tier.

This is correlated with an increase in tobacco consumption by the general Pakistani public linked to more profits, by implication of increased sales, for the tobacco industry relative to Pakistan.

Siddiqi said, "Recently, the government has also allowed companies to start re-manufacturing cigarettes in packs of 10 for 'export' purposes, which might be brought back into the internal Pakistani markets, as many anti-tobacco campaigners fear."

Thus, we come to the rather messy and not-so-clean image of the tobacco industry, in fact, compared to the one in the image. Now, the industry, the tobacco industry, is working to expand the "corporate social responsibility activities" into the Pakistani media, even further.

"These include offering cigarette gift packs to Pakistan Naval Forces and Prime Minister's house, building a cigar lounge for members of parliament inside the Parliament House, setting up mobile hospitals and computer centers, launching tree plantation campaigns and sponsoring conferences and sign boards for public bodies," Siddiqi stated.

The article concludes that the slowing progress on control of tobacco and its harmful effects on the public have begun to slow down. The recent legislation is working to increase the warning about the harms of tobacco.

There was a health levy, but this was regressed substantially. Leading to a response by the Federal Board of Revenue, it said the tobacco tax increases may increase the illicit tobacco trade.

More in the article listed in the reference.

#### Reference

Siddiqi, K. (2019, January 9). The hidden power of corporations. Retrieved from <a href="https://www.bmj.com/content/364/bmj.14/rr-4">https://www.bmj.com/content/364/bmj.14/rr-4</a>.

### Taiwan's Same-Sex Marriage Bill Passed

### Scott Douglas Jacobsen

May 19, 2019

According to the *South China Morning Post*, there was a landmark decision on Friday regarding the equality of same-sex couples within Taiwan, which is a first for the Asian region, apparently.

On the next Friday, gay couples in Taiwan can legalize their marriages within government agencies. It has been hailed by Bruce Chu who campaigned for the passage of the bill as a historic moment and, indeed, a victory for Taiwan.

As the legislature in Taiwan voted in favour of the bill, there was "thunderous applause from some 40,000 supporters." This, in essence, became an important moment for the legality of same-sex unions as a legal entity and the equality of homosexuals as individuals (and as a category) in Taiwan and, thus, in Asia.

It's historic and exciting for those interested in equality and human rights. The chief coordinator for Marriage Equality Coalition Taiwan, views the legislation as imperfect but sufficient because this does not meet most of the needs of the same-sex couples.

Lu stated, "Taiwan is moving in line with the world's trend as it echoes the universal call for rights equality... I believe the disputes over same-sex marriage will soon come to an end. People will find that the day is still bright and the Earth still moves after same-sex people start registering for marriage."

Most of the rights in Taiwan granted to heterosexual unions in Taiwan will be provided to the homosexual or gay couples within the civil code of the country. In fact, one of the partners in the union can adopt a child who is a blood relative.

The reportage further stated, "In addition, the authorities will recognize marriage between a Taiwanese citizen and a foreign national if the home country of the foreign national has also legalized same-sex partnerships."

This is in line with some recent changes to the context of Taiwan and marriage since a 2017 constitutional court ruling that stated the laws of the island denying the right for same-sex couples to marry is a violation of the constitution of the island. Some of the areas in discrimination for same-sex couples include the inability to file joint income tax declaration or the inability to give consent for any medical care for their intimate partner.

One legislator from the Democratic Progressive Party, Hsiao Bi-khim, stated, "They don't need to worry about that any more...After today, there is no need for them to face discriminatory treatment from others."

President Tsai Ing-wen said that this move shows "kindness and conscience" in Taiwan. Ing-wen stated, "I congratulate our gay friends for being able to win society's blessing, and I also want to say thanks to those who have different beliefs."

According to the reportage, the move is disliked by both conservative and Christian groups while also being a fulfilled campaign promise of Ing-wen.

"Opponents of the measure staged protests, some of which ended in violence, and threatened to withdraw support from legislators who back the legislation," the article stated, "Opposition

Kuomintang legish the bill, both of w	hich watered down	protections for s	ame-sex couples.	,	ions of
	ive propositions fai				

### **Mormonism and Minorities**

# Scott Douglas Jacobsen May 21, 2019

According to the *Toronto Star*, the Church of Jesus Christ of Latter-day Saints has taken a position on a comprehensive nondiscrimination bill stated to protect LGBT rights

It gives broad protections. This became the crux of the issue for the Church of Jesus Christ of Latter-day Saints or the LDS. The representatives of the LDS church stated that the bill, or the Equality Act, will be a direct threat to religion.

In the following senses, it will post a threat to religious employment standards, to religious education, and to the funding of religious charities.

As reported, "The church pointed out the importance of religious and religious schools having the right to create faith-based employment and admissions standards."

The other religious groups who have stood in solidarity with the LDS in opposition to this have been the Southern Baptist Convention and the Roman Catholic Church.

This legislation adds gender identity and sexual orientation to the current federal nondiscrimination laws in "employment, housing, education, and public spaces and services."

The Equality Act simply protects vulnerable individuals in society who, as of recently, have begun to have some modicum of respect, dignity, and representation within the society.

"The bill has widespread Democratic backing and seems certain to pass the House, but the chances appear slim in the Republican-controlled Senate," the *Toronto Star* stated, "The Utahbased faith, widely known as the Mormon church, said it favours 'reasonable' measures to protect LGBT people's access to housing, employment and public accommodations, but that such efforts shouldn't erode the right for people to live and speak freely about their religious beliefs."

The LDS church has been progressing in ways not seen, in terms of rapidity, in other faiths, which took much longer while other have not moved at all (or much).

The LDS church lives with the difficult context of wanting to affirm the rights of the LGBTQ community while also sticking within the boundaries of the faith on homosexual marriage and intimacy of same-sex couples.

This is difficult to straddle this line.

The article informed, "The church points to a 2015 Utah anti-discrimination law it backed. That measure made it illegal to base employment and housing decisions on sexual orientation or gender identity, while also creating exemptions for religious organizations and protecting religious speech in the workplace. The faith said the federal Equality Act doesn't strike the right balance." In the minds of the officials of the LDS church, the difficulty lies between religious liberty and the rights of the LGBT community. They see the proposal in the Equality Act as something that is eroding the free practice of religion while also "preventing diverse Americans of good will from living together in respect and peace." U.S. Sens. Mitt Romney and Mike Lee have opposed the legislation.

# Norway's Life Expectancy and SES Status

#### **Scott Douglas Jacobsen**

May 21, 2019

According to <u>JAMA</u>, in some recent research published on the life expectancies of the Norwegians between 2005 and 2015, there has been some interesting or intriguing general findings in the decades-long study on life expectancy amongst the general population in accordance with a slice of the economic and social strata of the society.

If an individual is amongst the wealthier in the country, even in a "largely tax-financed universal health care system and moderate income differences" nation-state, we can see the question asked, "does life expectancy vary with income, and are differences comparable to differences in the United States?"

It becomes an important question too. If we look at some of the issues surrounding the context of Norway, the country should seem healthy and functional in regards to income inequality.

By many metrics, this country appears to be reported as a healthy society on the levels of income inequality within the society and on the provision of a functional healthcare system to its citizenry.

One of the issues seen here is the way in which income differences or social strata differentials can lead to alterations in the life outcomes of individuals within society.

3,041,828 persons at age 40 were studied for the ten-year period.

As reported, "...the difference in life expectancy between the richest and poorest 1% was 8.4 years for women and 13.8 years for men. The differences widened between 2005 and 2015 and were comparable to those in the United States... Inequalities in life expectancy by income in Norway were substantial and increased between 2005 and 2015."

This may have an application to other advanced industrial economies and Western, socially and culturally speaking, societies.

### Abortion Not to be Reopened as an Issue in Ontario, Canada

# Scott Douglas Jacobsen May 21, 2019

The *Toronto Star* reported on statements by a Canadian politician from a pro-life perspective, which created some stir and a tad of controversy.

The Progressive Conservative MPPs, according to Ford, will have the opportunities to speak as they deem fit. But the government of the province of Ontario will not touch the issue of abortion anymore.

Ford said, "I don't dictate to anyone what their beliefs are." This was following statements of Sam Oosterhoff of Niagara West. He spoke at a pro-life or anti-abortion rally. Those who wish deny the right of abortion to women through some measures including illegality in many, most, or all respects.

Ford continued, "Can any of my members speak their mind? Yes, they can speak their mind, because not everyone in this legislature thinks the same... We have a big tent there."

However, Ford was clear on the orientation of the provincial government not taking part in the opening of the abortion debate any longer. Oosterhoff and others stood to applaud the statements by Ford.

The article stated, "The MPP, who was also in the news last week after his <u>constituency</u> <u>office</u> called Niagara region police on a senior citizen's book club that was protesting library budget cuts, told the crowd of hundreds of protesters last week he will work to make abortion 'unthinkable' and later quoted a children's author to explain his position."

The children's book author was Dr. Seuss mentioning the mattering of someone no matter their size or "how small." Oosterhoff has been an outspoken pro-life or anti-abortion politician in his early career to date.

One concern amongst the New Democrats is that the funding for the abortion services funded by the province could be cut to some degree in the midst of budgetary cuts by the government of Ontario under the premiership of Doug Ford.

"In the PC leadership race last year, Ford raised concerns he was cosying up to social conservatives by questioning why <u>teens need parental consent notes</u> to go on school trips but not to get abortions," the *Toronto Star* stated.

MPP Suze Morrison stated that women have taken a long fight for bodily autonomy; with the cuts to the budget, this becomes a major concern for the women who rely on the health care system in Ontario for some of the services regarding reproductive health rights, including abortion services. All remain fundamental human rights.

The denial of the rights to abortion, for one, becomes a human rights violation as this would deny the fundamental right to abortion for women. Thus, this would become a violation of the right stipulated for decades by the United Nations.

"Ford referred the question to Children and Community and Social Services Minister Lisa MacLeod, who noted she supported <u>legislation passed by the previous Liberal government</u> to have 50-metre safety zone outside abortion clinics so women can enter free of harassment," the article concluded, "This government will continue to stand up for women's rights across this province, despite the rhetoric from the members opposite,' said MacLeod, adding, 'We respect debate internally within our caucus."

### **Dossier on Gay Priests and Seminarians**

### **Scott Douglas Jacobsen**

May 21, 2019

*Newsweek* reported on a massive dossier, at 1,200 pages, listing several priests and seminarians who are labelled as "actively gay" in Italy alone.

This was sent to the Vatican via the archdiocese of Naples. Francesco Mangicapra created the document. He is a gay male escort and did not like the hypocrisy of the priests and decided to do something about it.

He said, "The aim is not to hurt the people mentioned, but to help them understand that their double life, however seemingly convenient, is not useful to them or to all the people for whom they should be a guide and an example to follow."

Now, an Italian Cardinal and the Archbishop of Naples, Crescenzio Sepe, stated that none of the named priests are currently stationed in Naples. Note, this does not deny the veracity of the claims in the large dossier.

Now, this is simply adding to the pile of accusations against members of the Catholic hierarchs around the world but, this time, focused on Italy in particular.

As reported, "Last month, an Italian court issued a 14-month suspended sentence to a Vatican tribunal judge for sexual molestation and possessing child pornography. Monsignor Pietro Amenta, a judge on the Rota (a court that hears mostly family cases), was arrested last March for publicly fondling an 18-year-old man in Rome."

With the examination of the computer, the authorities found pornographic images of the young on the person computer. Then there was a plea bargain accepted by Paloma Garcia Ovejero, Vice Director of the Vatican Press Office. In an email from the Catholic News Service, it stated that he had "resigned as the prelate auditor of the Roman Rota."

# Human Rights Watch (Israel and Palestine) on Common Rights and Law Violations

**Scott Douglas Jacobsen** 

May 25, 2019

Omar Shakir is the Israel and Palestine Director for Human Rights Watch (Middle East and North Africa Division). Here we talk about rights and law violations, and more.

Scott Douglas Jacobsen: With regards to the Israeli and Palestinian conflict or issue, there are violations of international law on both sides. When these violations happen, what are common streams of international law in this conflict? How are they consistently violated?

**Omar Shakir:** Because Israeli authorities have occupied the West Bank, including East Jerusalem, and the Gaza Strip since 1967, international humanitarian law applies to the situation on the ground. International humanitarian law, otherwise known as the law of war or the law of occupation, provides one layer of protection to the occupied Palestinian population.

But, of course, in addition to international humanitarian law, international human rights law applies to the Israeli authorities, but also to the Palestinian authorities vis-a-vis their own populations and vis-a-vis Israelis.

Different bodies of law will apply depending on the particular circumstances. For example, when there are armed hostilities, missiles fired back and forth between the Gaza Strip and Israel, international humanitarian would apply.

It would also perpetually apply because Palestinians are protected persons. Sometimes, a particular event might trigger a different body of law. For example, when Palestinians in Gaza are protesting or even in Ramallah are protesting, and there are Israeli forces there policing the demonstration, whether across the fence with Gaza or in Ramallah, the body of law that would govern would be human rights law because that body of law applies to policing situations.

So, different bodies of law will govern. When we're talking about the Palestinian Authority dealing with its own citizens, for example, arrests or conditions of detention, that would be governed by international human rights law, because it is the obligations of a power that has some authority over people within its jurisdiction.

Jacobsen: For those who may hear the basic phrase of "right to self-defense," what does this mean in the context of the conflict? How is this typically applied in the media? But then, also, how is this properly applied within a legal context?

**Shakir:** The UN Charter has a prohibition against using force, except as a means to self-defense. There have been different analyses over the years on what exactly constitutes self-defense. Some argue this means only attacking when one has been attacked. Others have stretched the meaning to pre-emptive attacks at different levels of distance from imminence.

There are two main governing bodies of law. There's what you call *jus ad bellum* and *jus in bello*.

Jus ad bellum concerns the legality of using force in general. Then there is jus in bello, which governs how force is used in the context of conflict. Human Rights Watch itself focuses mostly

on the latter. We don't generally make pronouncements on whether or not war, occupation, or the beginning of hostilities is or isn't justified.

Jus ad bellum is a body of law that's generally been underdeveloped.

Most of our focus is on when force is used: is the use of force legitimate regardless of whether the war, occupation, or hostilities itself was justified?

Most of HRW's focus is on research pertaining to abuse of all parties pertaining to the laws of war, which is, in essence, *jus in bello* versus *jus ad bellum* – which would concern a decision whether to go to war or ignite hostilities is itself justified.

Jacobsen: For those organizations like HRW, and others, covering several sides of the issue in terms of human rights violation and breaches of international law. You can get bad press from all sides.

You might get credit from one side for critiquing one side in terms of application and human rights violations and pointing out breaches of international law, and vice versa.

What would be a proper response to those who may be critiquing what seems to me like a very legitimate work that you're doing in terms of having a comprehensive perspective in the application of human rights and international law?

**Shakir:** Certainly, one of the most common critiques of HRW in the nearly 100 countries that we operate in across the world is one side or the other claiming that we underfocused on the other side's abuses while focusing on them. That we have a bias.

I used to cover Egypt for HRW. When we were covering the abuses of Mohamed Morsi and the Muslim Brotherhood when they were in power in 2012-2013, we were accused of being against them.

Then when there was a coup, and the military government was gunning down protestors and arbitrarily arresting thousands, we were accused of supporting the Muslim Brotherhood.

It is a similar pattern everywhere. Israel-Palestine, we have seen the same dynamic. The Israeli government says that we are biased against them.

When we released reports, as we have done for more than two decades, on arbitrary arrests by the Palestinian Authority or Hamas, or the unlawful use of force by them, we are accused by of being part of an agenda of Israel and the United States to undermine them.

Even in the last year, we have seen accusations from both Israelis and Palestinians. I think the way to respond to that is to be methodologically consistent, to use the same tools, and to document the abuses of all parties. That doesn't mean that we have a ledger and then count how many reports we issued on each party's abuses to make sure that it is equal, because human rights abusers are not equal in the amount of the abuse that they inflict on the others.

But it means that you bring the same tenacity and bring the same seriousness and rigour and approach, and use the same tools, to measure abuse, and the consistently reach the same conclusions for the same abuses in different contexts.

That's the work that we try to do in the nearly 100 countries that we operate in, including every country in the Middle East and North Africa.

Jacobsen: Thank you for the opportunity and your time, Omar.

# Conversation with Tarek Fatah, the renowned Islamic Scholar

#### **Scott Douglas Jacobsen**

June 1, 2019

Scott Douglas Jacobsen: Please let us know a bit about your personal background...

**Tarek Fatah:** I was born in Karachi, which is now Pakistan. It used to be the capital of the part of British India. I grew up there. I went to a Catholic School. I went to college over there. I went to prison over there. I got thrown out from Pakistan television in 1979.

It was a charge of sedition or treason, but formally "sedition." I spent about 10 years in Saudi Arabia doing advertising. I have spent 30 years now in Canada, living one day at a time, watching things go down the drain.

Jacobsen: Over those 30 years, in reflection, based on the phrase, "Going down the drain," can you unpack that for us, please?

**Tarek Fatah:** When I came here in 1987, you had leaders like Jean Chretien, Brian Mulroney, Joe Clark, the Quebec Separatists, the BQ. Everything was discussed was political in nature, whether the Oka Crisis or otherwise.

It was about ideas across social, political, and economic issues. Mr. Broadbent from Oshawa had one aspect. Mr. Mulroney had a different one. Mr. Clark had a different one. The British Columbians had a viewpoint. Over the last 30 years, it has descended into a very low standard of leadership, where ethnic vote banks have risen.

There always used to be. The Orange Order would determine who ran Toronto. The Catholics must live North of a certain street in Toronto [Laughing]. I used to get bashed by the Orange Order. The Jews got beaten up in a very famous place, a park in Toronto.

All that aside, most were small. It came down to the idea of this as a battle of ideas. All the concepts settled down into a balance, then came the collapse of the Soviet Union. Now, the ideas do not matter anymore.

The background matters more, "I am proud to be from Latvia." What does that mean?!

#### Jacobsen: [Laughing].

**Tarek Fatah:** Everyone is proud to be a Lithuanian. How does it matter between Bolivian, and an Ecuadorian, or an Indian and a Pakistani? But the crafty manner, the dumbest of political activists manipulated the nominated system of the political party candidates.

To be very honest, a white person cannot get nominated from any part of Mississauga or Brampton. White people do not have tribes anymore. So, the Sikhs can get anyone elected, even anyone as right-wing as Jagmeet Singh.

By "right-wing," his thinks in terms of religion. It means he is medieval rather than right-wing and can pose as a left-wing activist. He can afford to say, "Who said what to whom about white supremacy?"

Now, it is the latest. He can become the leader of the NDP. In 1988, can you imagine Broadbent stepping down and being replaced by Jagmeet Singh or Brian Mulroney being replaced by Mr. Scheer who has no personality?

Or the Conservative Party leader who has become a leader in Brampton. You simply must have props with you, to look more exotic. People like me are like circus animals. We need to stand behind politicians. You are younger than me.

You would not know that there was never a time to stand behind politicians as props and not look someone in the face and cheering him. That is the norm today! You have been selected to sit or stand at the back of the person speaking without watching their face and getting enamoured. That is dumb! – Capital D.

That's where we are today. The mayor of the City of Toronto does not know about the major issue of the Saudi woman landing in her city. He does not know which vote bank to get. It is hilarious.

You can do the Oka Crisis today. You would not know who to deal with. It is like the pipeline. The band councils think it is fine. Then you find out about the other issue o the heritage treaties. No one is interested in factual issues.

It is how you cajole how you were born. The disgrace has been that ideas went away for my DNA. It means a person cannot speak, cannot have ideas. We have dropped that way in 30 years before my eyes.

I ran for politics on the NDP ticket. I voted NDP most of my life. I cannot imagine voting for someone who thinks hair is the most important thing to them in a turban. I cannot say that. What I would be, anti-Sikh?

A high percentage of the Sikhs do not wear turbans. Similarly, I cannot be taken as a Muslim because I am not ugly enough to be considered Muslim so far. To be a Muslim, I must have a beard, no moustaches.

The moment I do that. I will have MPs standing next to me. I can put on a guttural accent. We cannot even stand up and say that a burqa is a disgrace on the face of women. We cannot say that. I can say that. Nobody else can say that.

The layers of the burqa. Someone asked me if it was a choice. I said, "Next time some drug addict walks into a train. You say, 'Oh, he made a choice. It is a democracy!" When someone wants to commit suicide, back in Toronto, they made a choice.

A person who disguises a persona, not showing their face, is being tolerated. Because otherwise, you would be called a racist. Nobody wants to be a racist. This is what we are facing as crises.

Jacobsen: If we are looking at the growth of arguments dependent on identity, something that someone was not merited with; they were born with it. It is congenital rather than acquired in this sense.

With this, it makes conversations more difficult, more fraught, and, in the phrase, as if one is 'walking on eggshells.' How does this prevent, as you are noting and getting at, more serious political conversations and social dialogues?

**Tarek Fatah:** We are at war. There is a world war ongoing between international Islamism and secular liberal Western democracy. Effectively, the enemy, which is essentially The Muslim

Brotherhood, the Taliban, or ISIS, there are 50 different bodies that are enemy Muslims within our countries.

They can shut us down. It has become the story. A Muslim woman who is a young student refused to go to the prom but is perfectly happy to become the wife of the jihadis under ISIS. The places like Tunisia have tens of thousands of pregnant women coming back after willingly, accepting, that rape by jihadis as an act of worship.

It is half of a million dead in Syria. They cannot seem to figure out that what we own today has been inherited by those who worked in the far North over 200-300 years ago. They would lay down their workers who did not have central heating.

When people say, "I pay my taxes." Those assets were invested by people who did not have running water. I lived in a neighbourhood called Cabbagetown in Toronto. It is not a joke there. People over there literally grow cabbages in their front yards.

That is what their food was, Irish, and others. Other than getting beat up by the Orange Order. They made food to make liberal democracy what it is today, especially after the Second World War. The idea of individual liberty got embedded in the United Nations 1948 *Universal Declaration of Human Rights*.

This is core to civilization. It is the crystallization of Britain, France, and the United States. Even after Osama Bin Laden comes in a burqa, we say, "Who could that be behind it? Is it a bank robber?" You cannot say it. But that guy wears a leather jacket and rides a motorbike.

Therefore, we better take him down. That is how stupid we are. To sum, we are going downhill. Unless, we recognize the idea that our enemies are in philosophy in a way. The fighting of Nazis before fighting the Nazis.

As with the First World War, how many millions died? We still have not learned. We keep going back to the same thing. 17 times a day, Jews are cursed in Muslim prayer. Every mosque.

It is the opening prayer of Islam. Surah Al-Fatiha, "The path of those on whom You have bestowed your grace, not (the way) of those who have earned Your anger, nor of those who went astray." [Not the one used, I had trouble finding it, and hearing it properly.]

It is the opening thing. Now, if the mullahs say, 'We denounce the *hadiths*." It becomes a different story. Then it becomes, "Well, the short and straight path," but not the path of the murderer, of the pedophile, of the smuggler. Right?

But when you publicly say one thing when the microphone is on, then someone asks. You say, "Brother, it is the Jews." Every Muslim knows that this is going on. On Fridays, we literally pray to Allah to give Muslims the better treatment over the *kafirun*. That is, you, the *kafir*.

Nobody is coming to speak out against it, and saying, "Don't spread hate. We will not finance you with taxpayer money." The cooperation of the government is funding a situation. There are the issues of anti-Semitism in the 1930s. They would rather have that conversation.

We are focusing on the Maple Leafs, the Blue Jays, and so on. Everyone wearing the same hat. The gladiators who are coming home, the BBQ. People are laughing at us. There is nobody in Pakistan, Saudi Arabia, Iran, Yemen, who believes 9/11 happened.

There is nobody. I can tell you 90% of Canadian Muslims, in my community, who openly say, "5,000 Jews didn't die." As soon as you ask them, "Do you condemn it?" They say, "Yes, it is very bad." They say one thing in one context and another thing in another context.

The leaders, no one believes anyone unless they are a Saudi style or other dress. They see this as the Islam way. Most of what is Islam has no relation to any Islamic ideology. There were Muslims before the Quran was written.

There were Muslims who did things before fasting, praying, and the like. How did they become Muslims? The *Quran* is not a chronological order in which it was revealed. But we shall make you memorize it. It makes it hard to learn. The mullah says, "You do not have read the book in Arabic."

Because many have memorized it. We can not go back. Because the people who have memorized it will fail the test.

#### Jacobsen: Right [Laughing].

**Tarek Fatah:** They have memorized it in an order, which is incorrect. Something fundamental to Islam is no priest class. There is nothing between yourself and the divine. The Pope, the priest, the rabbi, the mullah, this was an attraction; you were free.

The some said, "The Christians have a good thing going. They have a Dome." This is how this came. There was no Dome in Islam. It was the Eastern Orthodox. The Sikhs took it, too. It is an Eastern Orthodox Church replica from Damascus.

What I am saying, it is historically accurate, but, from the Islamic point of view, blasphemy. To save ourselves from blasphemy, we have been becoming dumber and dumber, day by day.

Jacobsen: By which you mean, more historically illiterate in its development and history.

**Tarek Fatah:** I have never met an illiterate radical Muslim. 80% of Muslims still cannot read or write. You will never find a terrorist who cannot read or write. It means all jihadis and others come from the educated class.

When Malala says, "Give me a book, give me a book," nothing! The moment you read the book; you become crazy because you have enemies. You realize, "Th computer, I have nothing to with it. The light, no! The chair, no!" There is no contribution to our community to any invention in the last 200 years.

What do we have? We have the 8th century to look up to. So, should we move forward or put the car in reverse gear? Then we complain. Gear number one should be forward. The Sun does not set in a rule of mud.

It is not fair. I have seen it. Why would I believe in scholars who believe the world was flat? Can some imam ride a bicycle in the 8th century or 9th century? I can; therefore, I am better than him. Just because he had a guttural accent and a long name, a name that never ends.

Who is he? There are 17 diverse types of the same guy. Tell that to a Pakistani, they will say, "Tarek is lying." Why? Because that person has the imam telling them. Because Islam came to ordinary men from the priests.

Islam's last verse – it is very interesting – or the last words of the revelation are "I have completed the faith for you." The Arabs said, "No, no, no." 100% of the text has been written after supposedly God said, "Today, I have finished everything."

By the way, what I am discussing with you, there is no place on Earth that this can be discussed.

## Jacobsen: Any thoughts on the larger conversation around a single secular public-school system?

**Tarek Fatah:** It must be. When you started with the Catholic school system, it began some of the vote banks. Then the Indians and the others started their own. Thank goodness for Father [did not get name], who is in his 90s.

He helped us. I did not know that. We learned that there was a subject about character building. We learned how a Muslim, a Christian, and a Jew lived together. They are no longer in Pakistan. We learned what was geography, history, mathematics, geometry, trigonometry, and, also, we had character building, where ethics and morals were taught to us.

We were supposed to write about character. We had a thing about doing one good deed a day. It did not matter what. My patrol leader was Catholic. The real victims were the Muslims who were willing to become American aid and tanks, and money, to become the foot soldiers of the United States.

Because the Serbs did not want to fight the Soviets after Vietnam. With Afghanistan, Iran, and Pakistan have been ruined now, Iran with Khomeini, The Americans got in there. It is not as if Khomeini was with the USSR.

The Americans overthrew the elected Prime Minister Mohammad Mosaddegh. He was socialist. It was people sitting in the House of Representatives [Laughing]. If we do not wake up, we might survive – secular democracy and liberalism, and ethics in government by humanity rather than ordered by the divine.

We can get religion as a moral compass. We can get our guidance. I am not going to get guidance necessarily. I am not a copy. I do not think God wanted me to tell people what to do in their backyard, "No pig rolls there!"

Jacobsen: How do we shift this conversation from where, typically, someone's own religion is seen as universal into a situation in which humanity is seen as the universal and religion is seen as a flavour – so to speak – or the particulars of that universal?

**Tarek Fatah:** You cannot change this overnight. Muslims will be 2 billion soon. Most Muslim imams think that the more Muslims there are the better. 1 billion was not enough. So, they want 2 billion [Laughing]. The only way to do this is to separate religion and state public policy and public life.

You cannot respect someone for being stupid. He has a right. She has a right to be an idiot. You are not asking anyone to take away that right. But to fund it?! You give tax breaks to someone who is cursing Jews. Do you see this?

Can you imagine someone having a memorial for Hitler? India has memorials for Muslim invaders that destroyed their cities! I am visiting India very soon. The holiest place in India is the confluence of three rivers.

Every 12 years when Jupiter and Earth are in line; there is a festival. I have calculated that this could be my last time to visit it, as I am 70. I will 82 next time. I better visit this place now. The holiest place in Hinduism. Guess its name?

Allahabad [Laughing], they put "Allah" right in the name.

Over here, the invaders came here, took over the holiest city, named it after their God, and then said, "Anyone who changes it is against India." Give me another example of it. So, it only stems when people either lose self-respect, which I think many Canadians are losing.

They are losing self-respect. They are embarrassed. They do not know what their parents left for them. They did not get it by working hard. Your parents' generation is responsible for the *Charter* or the UN *Declaration* and the concept of individual liberty and the concept of the man and the woman, the respect for the child, the court system that says that you are innocent until proven guilty.

These are new things. It used to be that you are guilty until you are proven innocent. We, as a civilization, turned this around. We are tolerating a king that killed Turkey. We are calling him a reformer. A murder takes place in a sovereign country.

As soon as Trump got in, he is only a one-term president. What is going to do? It is for the businesses. This is the level at which we have sunk to here. Kudos to our prime minister, I am not much of a liker of the Liberals. But Trudeau gave a kick and stood up; it hurt the Saudis. I salute him for it.

There is one woman. Chrystia Freeland said, "I am getting this girl, giving her citizenship, and making sure that she has full protection. This is Canada."

Jacobsen: When we look at the literalists in every tradition or the fundamentalists in the secular and in the ideologies, most of the violent offenders, of those literalist fundamentalist interpreters of a faith, which is not necessarily an interpretation, are men.

Why are men more often attracted to these kinds of interpretations – so to speak – or these ideologies?

**Tarek Fatah:** Men and women are very different, constructed in very different ways. I just bought a book on it. The thought processes are different. The entire biologies are different. Women create people. We create a mess. They are supposed to clean it up.

Therefore, you do not have as many female warriors. They are in the business of nurturing. I am strictly speaking of the biology and the neuroscience. They are wired differently; the female brain is different. You also must understand that the mobility issues for women were being locked up.

A woman could not go about a month's travel without a problem. On a horse, probably, she had to sit cross-legged. A major development in women's independence was the pill; I think it was the pad. I think the mobility was it. The lessened restrictedness at that time and now. Where do you go now?

There was nothing to do. This was in the 20<sup>th</sup> century. They could not do anything. Women were dependent on men. So, men have dominated and exploited and made sure that the woman does not come up. Therefore, you have polygamy, but you do not have polygyny to the same extent.

There are some places. This needs to be studied more. I am not an expert. But the main impediment in Muslim development has been, even in the Christians in this sense, polygamy, multiple wives and this means multiple heirs to the throne and multiple wars over it.

Europe, you must understand; one wife, one prince, two brothers or three brothers maximum, right? In the European empires, there were the issues of 200 princes fighting it out. I am giving you context at that level. Women, how are they subjugated? It is primarily for this reason. It will take a few hundred years for things to change.

Because this is how a gene pool happened and changed, and how certain traits were passed onto men, how we think of our sons, how we think of our daughters, and so on. Why do men go into body building? The odd woman will go to work in wrestling.

The most educated and enlightened woman still wear heels. [Laughing] Women, we saw what happened at 9/11. There were hundreds of thousands of heels left over there. The men ran and then women had to throw their stilettoes and others down, so they ran barefoot. They were impeded in running and escaping.

It is a story ongoing of dependency. It will, it will, come to a balance. In many ways, religion, the moment it goes into being a moral compass, will allow women to be free. Imagine Indian women who love to wear black shrouds voluntarily, all their lives; *all their lives*. That is a great challenge.

If the world cannot stand up and ban the *burga*, then they are cowards.

Jacobsen: Thank you for the opportunity and your time, Tarek.

Tarek Fatah: Thank you! Take care.

\*This Interview has been abridged.\*

## Conversation with Faisal Saeed Al Mutar on Ideas Beyond Borders

### Scott Douglas Jacobsen

June 15, 2019

<u>Faisal Saeed Al Mutar</u> is the founder of Ideas Beyond Borders and Bayt Al-Hikma 2.0, Global Secular Humanist Movement. He is an Iraqi refugee, satirist, and human rights activist. He is also a columnist for Free Inquiry. Here, we continue to talk about the recent work.

Scott Douglas Jacobsen: What is new? What is new within the mission and mandate of Ideas Beyond Borders?

Faisal Saeed Al Mutar: There are many things. I want to focus on a few. We have assembled a team of editors and translators to make many of the articles that were not available to be available on Wikipedia.

Only a small portion of the articles are available in Arabic, for a language spoken by more than 400 million people. We have successfully moved the Arabic language to the 16th. There is a lot of work to be done.

But I am confident in the team that is constantly growing. We have translated roughly one million words in less than 6 months. We have a team from all over the region who constantly are trying to fill in the missing elements or information.

That the closed societies try to deal with. We have secured a partnership with Wikimedia Levant. Wikimedia is the mother of Wikipedia and other projects. In partnerships with other wikis, we are able to issue certificates, so that they can advance in their own career.

That element of empowerment that we deal with. On other subjects, on the books, we have translated roughly 10 so far. We are acquiring more and more to be released in our digital library. It is designed by the company of WordPress itself, which has generously featured us in their campaign for doing anything.

For people interested, they have listed IBB as one of their success stories. They have designed our website. They are also designing our library website, which is Bayt al-Hikma 2.0. It will be where there will be most of the content in terms of books.

People can also go to IBB Wikipedia to see the list of articles translated and are translating. It is constantly growing. We are tapping it, to start new programs and features and more stories of some of the heroes – I would say.

Those who are on the day-to-day basis fighting extremism, not necessarily with a gun. They are sharing a positive counternarrative that is enlightening and counter to the way the extremists tell us how the world is going badly — and the only way to change it is via extremist ideology.

It is why we are glad to have Stephen Pinker in the Advisory Board, who is about the counternarrative. It is Enlightenment values and a positive outlook. That the world is getting much better than the extremists show.

2018 was a tremendous year. It was a year of foundation, of trying to figure out who is who, building relationships, building partnerships, and so on. I see 2019 as the year of growth and constantly trying to expand our team, expand our network, expand our impact.

Our page grows roughly 1,000 likes a day. We have multiple social media managers working all across the region. Today, I got the statistics. We have roughly 5,000 likes from Iraq, 10,000 from Algeria, 7,000 from Egypt. We have an impact all across the world.

That impact is constantly increasing. I am pretty happy. This year is going to be the year of creating more content. As we also continue to do more on the ground, we have campus programs from last year expanding from the east coast to the west coast.

We are partnering in the creation of workshops. Those are trying to fight extremism through culture, through arts, through positive ideas. Stephen Pinker on the AB said that ideas can change the world.

Extremism is an idea. It can change the world. We are trying to counter the narrative with a positive image. I am pretty excited about what is coming.

Jacobsen: If we are looking at the global threat of extremism and terrorism, according to the 2016 UN Arab Human Development Report within the IBB Annual Report 2018, what does this indicate about the Middle East-North Africa region and work IBB does in terms of education and other means?

Al Mutar: The development report is an important element. It is why we mentioned it in the report. For a region that is very small, it is a source of constant conflicts. It has produced a lot of attacks and a lot of refugees.

On *The Rubin Report*, I said, "The Middle East is like Las Vegas, but happens in the Middle East doesn't say in the Middle East."

Jacobsen: [Laughing].

Al Mutar: What helped as a pre-requisite, it is the language. It is helpful. We are developing these educational projects because many of the wars launched against the region have been dealing with the iceberg.

Some have been dealing, even with the region defeat of ISIS, with a lot. I definitely celebrate the defeat. But the environment that permits groups like ISIS to exist is still there. The issue of extremism is multilayered, so is the issue of extremism.

It is multilayered, so is the issue of terrorism. The ideological and ideas element is important. That is why I think we can have the most impact by making the ideas of the Enlightenment accessible in that region.

Russia has its narrative in the Arab world. The extremists have their narrative in the Arab world. There is no institutionalized narrative of Enlightenment in the Arab world. I think that is what IBB can do. That is what we have been successful in doing over the past year.

I think we will continue to do that.

Jacobsen: In terms of the *Universal Declaration of Human Rights*, Article 19 speaks to freedom of expression, which is more general than freedom of speech – especially in an international context.

How does arguing for freedom of expression as one of the most important rights stop the spread of extremism?

Al Mutar: That is a very good question. There is a distinction, in my mind, between conversation and violence. When conversation stops, violence, in general, is the only outlet that people use to justify the spread of their ideas and ideals.

If you look at many of the countries with censorship across the Middle East, you will see this in many extremist groups. Because when you censor or kill anybody who disagrees with you, as many of these dictatorships do, extremists and the people who do not care about life.

They will the only people to show disagreement and most often violently. We take freedom of speech for granted in the Western world. Even though, it is being challenged here. We always have to remember that the element of freedom of expression and combatting censorship in that part of the world.

It is an extreme element of combatting extremism. When people find a way to express themselves through outlets and newspapers, there can always be differences of opinion. I do not think people go to violence as the first route.

I often think violence is the last resort. I think most issues can be resolved through conversation. It might be heated. It could be the dislike between people with different opinions. But I think the resort to violence will be much less if we allow all the other options for democratic participation.

People with the right to freedom of assembly, freedom of religion, freedom of thought. I was, recently, in a conversation with a representative from a Syrian group in Iraq. He was telling me for ages. Many of their Syrians have existed peacefully in Iraq. But many of them, because of the conflict, are picking up arms to defend themselves.

When there was a peaceful situation in which people were considered citizens and then there were no attacks against them, one of the oldest groups in Iraq have existed in peace and never resorted to violence.

Now, they are doing it, forming militias. When there is a conversation, when human rights are respected, when civil societies can participate and protect rights and advocate for these rights, then, definitely, something positive can happen here. It is a counter to extremism.

Jacobsen: What would be the biggest thing IBB can do, and other individuals and groups can support IBB in doing, in 2019 to further the advancement of the Article 19 right to freedom of expectation from the *Universal Declaration of Human Rights* in addition to the empowerment of individuals on the ground in the Middle East-North Africa region who may not have access to rights and the information that people, such as ourselves, simply have as a privilege?

**Al Mutar:** One of the main things that we're incorporating as part of our growth is building a global network. Building a global network has a lot of positives in which a lot of other people try to help other people achieve their goals, as I say, one of the main elements of IBB is the institutionalization and building the network.

There are many missing elements in the ideas world. There are many individuals working by themselves. They are not getting enough advice. Having one institution, it is allowing things to grow. As you can see, our AB is constantly growing.

This is in addition to the ambassadors and employees. All of these people, they work together. Everybody can play a major role, whether they can donate their skills within the getting involved section of our website or in donating money.

I think building the network is what makes IBB helpful. It is what has been missing in most of these networks. There have never been any successful attempts to bring a network together. I think IBB is doing this already.

I think it will do this successful more and more. I have seen more and more people from the region getting involved.

Jacobsen: If we look at individuals such as Malala Yousafzai, and other human rights activists, what is the importance of women coming forward and adding their voices and being given platforms to add their voices to this progressive work, human rights activism, and advancement of freedom of expression in the Middle East-North Africa region?

**Al Mutar:** Very good question, I think it is important. There is an Arab proverb that comes from poetry. If we empower women, then we empower the next generation. Women are also not just mothers. But they are also teachers, doctors, and all of that.

If you look at one of the main things that extremists have been trying to express across the Middle East, they are the number one victim of extremism. One of the major conversations happening right now in Afghanistan is what would a Taliban return to Afghanistan look like.

Many people who have been writing articles and advocating the Taliban is women. Because they would be denied human rights by these terrorist organizations. Malala being one from the region. There are also many others across not just the Arab world but the Muslim world, even the whole world. It is to be involved, as a message, and organized.

I think IBB is definitely playing a role in that. Also, in terms of getting more people to know about these ideas, there are several issues in the region, because of the existence of patriarchy in the Muslim world. Males have to be educated.

Within our translation project, it counters some of these elements within societies. It is exposing many people across the region to the idea of women's rights, human rights, and civil rights, too. We have done multiple campaigns about that.

These societies will start to become more open. Women, hopefully, will be beneficiaries of it. I think it is their fight as much as our fight as well. That struggle is the struggle against extremism.

Jacobsen: Thank you for the opportunity and your time, Faisal.

Al Mutar: Thank you, Scott!

# On Unintended Consequences in the Domain of "Do No Harm": Non-Cardiac Surgery Leading to Heart Problems

**Scott Douglas Jacobsen** 

June 30, 2019

Professor Gordon Guyatt, MD, MSc, FRCP, OC is a Distinguished University Professor in the Department of Health Research Methods, Evidence and Impact and Medicine at McMaster University. He is a Fellow of the Canadian Academy of Health Sciences.

The British Medical Journal or BMJ had a list of 117 nominees in 2010 for the Lifetime Achievement Award. Guyatt was short-listed and came in second-place in the end. He earned the title of an Officer of the Order of Canada based on contributions from evidence-based medicine and its teaching.

He was elected a Fellow of the Royal Society of Canada in 2012 and a Member of the Canadian Medical Hall of Fame in 2015. He lectured on public vs. private healthcare funding in March of 2017, which seemed a valuable conversation to publish in order to have this in the internet's digital repository with one of Canada's foremost academics.

For those with an interest in standardized metrics or academic rankings, he is the 14th most cited academic in the world in terms of H-Index at 240 and has a total citation count of more than 247,000. That is, he probably has among the highest H-Indexes, of any Canadian academic living or dead.

Scott Douglas Jacobsen: So, you have some areas of more applied research as opposed to guideline research. One of them deals with non-cardiac surgery leading to heart problems or creating extra problems. What is going on there?

**Distinguished Professor Gordon Guyatt:** So, first, to acknowledge that one of the guys who trained with me, he has now become an international research superstar. I am privileged to be working with him. His name is P.J. Devereux. He works at our institution here at McMaster University. He has become by far the leading worldwide investigator.

Jacobsen: What about the work that he's done? Where is it going?

**Guyatt:** So, the first thing was that he recognized. There was a problem that we had not paid of attention to, and that problem is people undergoing surgery – not for their heart. So, they get a hip replacement. They get a colonoscopy. They may have a gall bladder problem. They have surgery for an ulcer. They have surgery for cancer.

All these non-cardiac surgeries. More and more, we do these surgeries in older people. So, in the past, if you were 90 years old, no way anybody would think of doing a hip replacement. Nowadays, 90-year-olds get hip replacements, appropriately, if they are active.

So, the population in whom we do surgery is older than it used to be, we do more extensive surgery. So, Albert Einstein died of a ruptured aortic aneurysm. Everybody knew he had an aneurysm. Nobody could do anything about it. Today, we have major surgery for people with ruptured aneurysms. We replaced their aorta the biggest blood vessel in the body. They do okay.

#### Jacobsen: Wow!

**Gordon Guyatt:** So, whereas, we are taking older people and with bigger surgery. The result of all that is some people have described it as a major surgery. That the stress it puts your body through is like running a marathon.

If you are 70-years-old and sedentary, that is probably not going to be such a great thing to suddenly be running a marathon. So, what happens is people have cardiac complications, heart attacks, they die of their heart attacks.

So, this non-cardiac surgery is the cardiac complications of non-cardiac surgery are a huge worldwide problem. It was a neglected problem, not too many people paid much attention to it. Dr. Devereux came along. He has a suspicion. The first thing he noticed as he checked it out. He was suspecting is that we were only seeing the tip of the iceberg.

The reason we were only seeing the tip of the iceberg was you go in and have surgery afterward and after surgery you come out; you your body has been assaulted in this major way. Inevitably, you have pain. You are given major pain-killers, narcotics.

They put you to sleep for a couple of days. You get through it. However, if you have had a heart attack during those couple of days, you may not have noticed it because you were under the narcotic. Then Aspirin was never the last. You suffer from the consequences of that heart attack, maybe even die from a cardiac arrhythmia of the heart.

The heart is not beating regularly or you end up with heart failure with your heart not pumping properly. You are short of breath. Your activities go down, and so on.

So, nowadays, we have what we call cardiac enzymes. So, when you have a heart attack, when your heart tissue dies because a blood vessel has closed off, the heart releases these enzymes. We can measure them sensitively nowadays.

What Dr. Devereux found out, we were missing 80 percent of the heart attacks. 80 percent of the heart attacks because the people were too sedated to tell us they were having one. So, normally, you are walking around. I have got chest pain. Right, so, you go to emergency. We do a cardiogram.

We check your enzymes. We say, "Yes, you are having a heart attack." We might do emergency putting in of a stent in one of your blood vessels and giving drugs, and so on and so forth.

What happens when you have these narcotics after surgery, you are not awake enough to say, "Oh, I am having chest pain." Nobody notices, nobody does the enzymes. Nobody notices that you've had a heart attack.

So, the first thing that Dr. Devereux did is he started looking to measure the enzymes after people had non-cardiac surgery. He found that we are missing 80 percent of the heart attacks. So, that was a big deal.

So, now, the world is changing its practice as we speak in response to Dr. Devereux's work. Now, people are starting to look, but we do not know what to do with those heart attacks. They are different from the heart attacks coming through the emergency room.

So, 70s with a heart attack. What do we do? We could treat them the way we do. The people coming to emerge, but we were not so sure about it anyway. Devereux 's latest study has shown

that giving these people anticoagulants thinning blood thinners, as we call them, after their non-cardiac surgery reduces their major cardiac events.

It strongly suggests that we should be giving aspirin, for instance; that we give it to people with heart attacks in the emergency room after you've had these heart attacks after cardiac surgery. He is in the start of his program.

We will be thinking of how to prevent these heart attacks. He's already done one of his first studies showing that a drug that everybody thought would prevent heart attacks, prevented the heart attacks, but caused strokes.

It, in fact, probably increased deaths, which is not such a good idea. So, he's leading the world in this work. Eventually, it is changing worldwide practice. In the end, people are going to do much better in terms of not having heart attacks or having them treated properly, when they have non-cardiac surgery.

#### Jacobsen: Thank you for the opportunity and your time, Professor Guyatt.

We conducted an extensive interview for In-Sight: Independent Interview-Based Journal before: here, here, here, here, here, and here. We have other interviews in Canadian Atheist (here and here), Canadian Science (here), Canadian Students for Sensible Drug Policy, Conatus News, Humanist Voices, and The Good Men Project (here, here, he

### **Professor Gordon Guyatt on Bleeding in Hospitals**

**Scott Douglas Jacobsen** 

July 2, 2019

Professor Gordon Guyatt, MD, MSc, FRCP, OC is a Distinguished University Professor in the Department of Health Research Methods, Evidence and Impact and Medicine at McMaster University. He is a Fellow of the Canadian Academy of Health Sciences.

The British Medical Journal or BMJ had a list of 117 nominees in 2010 for the Lifetime Achievement Award. Guyatt was short-listed and came in second-place in the end. He earned the title of an Officer of the Order of Canada based on contributions from evidence-based medicine and its teaching.

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Scott Douglas Jacobsen: When it comes to some of the issues with regards to bleeding in hospitals, what are the forms of being in hospitals that you have looked into?

**Distinguished Professor Gordon Guyatt:** The main areas that we have explored have been two major ones. One is bleeding related to surgery and the other is bleeding in the intensive care units. So, those are the major ones. The bleeding, the bleeding in surgery, has been the reason we have been interested in it because it is related to prevention of thrombosis.

There are two major forms of thrombosis. One is in the venous system. So, the veins that bring blood back to the heart. Clots in the veins in the legs is a common problem. It is a problem when people sit around and do not move. So, it is a post-surgical problem. As a result, it has been now routine in many forms of surgery. Any surgery that involves prolonged mobilization of any sort to give anticoagulants or anti-platelet agents.

Anticoagulants, the clotting system platelets are a little thing circulating in the blood that get the clotting process started and drugs like aspirin inhibit the platelets. Then we have anticoagulants that inhibit the clotting system.

So, we give these to people around surgery to prevent clots, but, unfortunately, anything that prevents clots causes bleeding. We also are worried about clots on the arterial side, so the most awful consequences of clots in the arterial side are strokes.

So, lots of people, lots and lots of people, around the world are using medication to prevent clots on the arterial side. People prevent it. People with heart attacks are, sometimes, using three medications to prevent clots. People who have strokes are using anti-platelet agents to prevent further strokes.

So, there are lots of people walking around taking these things. All of them increase bleeding. In the peri-operative setting, when people come into hospital, they are taking these medications to reduce thrombosis clots on the arterial side. The question is, "Should they continue through surgery or should they not continue through surgery?"

So, I have been involved in work around this tradeoff between bleeding and clotting in patients undergoing surgery.

Jacobsen: Canada has an older population than many places in the world. How does this factor into that as a consideration? People as they get older are more likely to get surgery.

**Gordon Guyatt:** Yes, a couple of things. First, Canada has an older population than developed countries, but they are compared to what are called developing countries or low income countries. However, it has a younger population than, for instance, Japan and Europe.

So, we are far from the oldest of the oldest. However, our populations have been getting older. People are living longer. Lifespan is increasing. Not only older people need more surgery, but we are doing surgery on older people than twenty years ago.

We would not have been doing surgery on them, simply because we would have said, "Sorry, you are too old. We almost, almost can do it." It is rare that we say, "You are too old to anybody now."

We are certainly doing surgery on people in their 90s. We would not have been doing that before. So, we do not turn down people who need surgery because of age much anymore. So, and clearly, the older you are, the more you are at risk of bad things happening, be they clots or bleeding.

Jacobsen: So, when it comes to the types of medications, what are some of the standard medications? What are some of the risks associated with that?

**Gordon Guyatt:** Commonly, aspirin is a good agent for decreasing clotting, but it is also a good agent for increasing bleeding. So, that is one. Then there is another class of drugs. Another class of anti-platelet agents, of which examples are Lipitor.

These are even more potent anti-platelet agents than is the aspirin. Then there are anticoagulants for many years' including Warfarin or Coumadin. It was the only anticoagulant around. But in the last decade, we now have a whole army of new anticoagulants that have a major advantage from warfarin.

You needed to check the level of anti-coagulation in the blood all the time, regularly. With these new anticoagulants, you do not have to do it. You can check it. So, they have these convenience antigens.

So, these are the major drugs we are using in terms of preventing clots but causing bleeding.

Jacobsen: What is the statistical difference when someone does use an anticoagulant as opposed to when they do not – or at least when you use different ones over another or none? What are the comparative statistics in terms of the bleeding rates that would be a concern?

**Gordon Guyatt:** So, typically, anti-platelet agents increase or individually increase bleeding less than the anticoagulants. However, if you are taking two of them together, you are getting to a bleeding risk that might be similar to the anticoagulants.

Jacobsen: Okay, where you are going to be taking this research at present or in the future?

**Gordon Guyatt:** Oh! It is interesting. All sorts of things are interesting to us. It might not be interesting to other people. But one thing, there has been a huge evolution in the way people have been treating patients around surgery.

We are mobilizing much less quickly. So, this has been most dramatic in the case of hip and knee replacements, where people usually sit around. They gave them plenty of time to develop nice clots that would kill them, when the clots develop in the leg. Then they break off into the heart, into the lungs.

But the mobilized surgical technique is getting better. Now, we are getting more people out of bed right after their surgery getting them to walk around as soon as possible. It has markedly decreased the risk of clotting after surgery.

So, this question, "Do we need any of this?" So, for instance, the standard is to give an anticoagulant for up to a month after a hip replacement. However, it is not at all clear that this is necessary anymore. As a matter of fact, I am getting a hip replacement. I am going to walk.

I expect to be getting out of bed and walking around on day one. If I am lucky, I want to use an anticoagulant, aspirin, which is less effective against clotting but also causes less bleeding.

I am going to talk to my surgeon, but I am going to be using aspirin. So, because I am going to get myself up, it hurts, but I am going to walk. I am going to decrease my risk of clotting. So, that is the evolution of what is happened around surgery.

So, it is changing the way we think about things.

Jacobsen: I want to give a decades long perspective or even half century perspective to people reading this.

**Gordon Guyatt:** 50 years ago, people would die of their clocks. Maybe, it was same after heart attacks. Maybe, going back 60 or 70 years, we used to think it was all you. I had a heart attack. You better rest, you better stay in bed for a while. Anyway, the result was people developing all these clots and dying on their Venous Thromboembolism (VTE).

Then we decided that is not such a good idea. Now, we are getting people up. We can even be more aggressive in getting people up than we have it now. We do not have people sit around. Then maybe 40 years ago, people were still sitting around longer than we would think reasonable now.

People said, "Okay, we are the people developing all these clots. We better prevent them." Then all of the prevention strategies came in. Now, we are saying, "Okay, got people out and maybe, we do not have to be so aggressive about preventing the clots as mobilizing. They will decrease."

Jacobsen: Now, you gave a side comment there. You would be more aggressive. Ideally, what would be moving your most aggressive stance in terms of getting people out?

**Gordon Guyatt:** I am not sure. I am not sure that we cannot have people walking around the wards on the same day; they are having their heart attack, but, maybe, that is being too, maybe, aggressive.

Jacobsen: What would be a response from someone within the field to that recommendation?

**Gordon Guyatt:** Oh my goodness, you are having a heart attack. Please give the person a day's rest anyway.

Jacobsen: Let's project this project this 10 year forward, it is with things that you would know better than most of people, in terms of whether it is a new set of drugs or new evidence in terms of practice. For example, we can take on board: same day getting up, for instance, after a heart attack. What would things look in 10 years from now? Approximately.

**Gordon Guyatt:** It is difficult. We get surprised. So, I do not know what is going to happen in terms of drug development. I am no expert on what is the latest, even now, in what is going on in drug development.

So, a small thing that we are thinking now. One of the trials we would first is asking the question, "Do you need any anticoagulants at all?" However, if you are going to give it the traditional methodology, you would give it right after surgery.

However, the big bleeding risk is in the 48 hours after surgery, maybe 72 hours, the first day. The most in the second day, after that, the bleeding risk falls off. But the thrombosis risk goes on for a month.

So, if you are going to give anti-thrombic agents, maybe, you should wait for a couple of days before you start. On the other hand, maybe, those days are crucial in terms of setting the stage for clots that happen later.

We do not know. So, that is one of the things that I would want to sort out if you are going to use anticoagulants in surgical situations that are higher risk. When should they start? So, perhaps, one way is to view it as a trivial question, but, potentially important, in terms of minimizing bleeding risk while still getting the benefits of clot reduction.

#### Jacobsen: Thank you for the opportunity and your time, Professor Guyatt.

We conducted an extensive interview for In-Sight: Independent Interview-Based Journal before: here, here, here, here, here, and here. We have other interviews in Canadian Atheist (here and here), Canadian Science (here), Canadian Students for Sensible Drug Policy, Conatus News, Humanist Voices, News Intervention, and The Good Men Project (here, here, h

## Fractures of Bones and the Costs of Competent Research

**Scott Douglas Jacobsen** 

July 3, 2019

Professor Gordon Guyatt, MD, MSc, FRCP, OC is a Distinguished University Professor in the Department of Health Research Methods, Evidence and Impact and Medicine at McMaster University. He is a Fellow of the Canadian Academy of Health Sciences.

The British Medical Journal or BMJ had a list of 117 nominees in 2010 for the Lifetime Achievement Award. Guyatt was short-listed and came in second-place in the end. He earned the title of an Officer of the Order of Canada based on contributions from evidence-based medicine and its teaching.

He was elected a Fellow of the Royal Society of Canada in 2012 and a Member of the Canadian Medical Hall of Fame in 2015. He lectured on public vs. private healthcare funding in March of 2017, which seemed a valuable conversation to publish in order to have this in the internet's digital repository with one of Canada's foremost academics.

For those with an interest in standardized metrics or academic rankings, he is the 14th most cited academic in the world in terms of H-Index at 240 and has a total citation count of more than 247,000. That is, he probably has among the highest H-Indexes, of any Canadian academic living or dead.

Scott Douglas Jacobsen: So, you've also done some work with regards to fractures of bones. Now, it is not necessarily your main stream of research. We were talking off tape about two particular narratives.

One with regards to the pluses and minuses of a big nail and a small nail with the regards to the tibia. Another with regards to an ultrasound device. You noted the devices have a less strict qualification system to get them certified than do pharmaceuticals or drugs.

**Distinguished Professor Gordon Guyatt:** Yes! It is dramatic. The standards to get a drug on the market are moderately high. They are not as tough as they used to be, and that is an area of controversy, but they are still substantially more stringent than devices.

Devices can get out there much easier than you can drugs. The review process and the barriers you have to jump over are much less with devices than drugs.

Jacobsen: That also leads to of question that is a preface to all of this. Why did the strictures for pharmaceuticals go down? Why are devices less strict than pharmaceuticals in general?

**Guyatt:** In terms of the first question, there is a controversy, so there is a trade-off. So, some people would say, "Let's get new drugs out to people, where previously it took too long." We had these drugs that are beneficial.

There are all these obstructions and the poor patients are suffering because the drugs are not coming out soon enough. On the other hand, there is another argument that it is not infrequent

that drugs come out. We find out bad things about them later; that even apparent benefits do not benefit people. So, on the one hand, good drugs get out, and do not make people wait.

On the other hand, be appropriately cautious, make sure that people are benefiting, and make sure and be more careful about the potential adverse effects, that is the argument back and forth. I am not sure that there is any definitive right or wrong.

But there are many of us who have concerns about the pharmaceutical industry and the way the pharmaceutical industry operates. We are on the side of, "Come on. Wait. Do not do it too soon. Make sure it is right, and better too. There are lots of good drugs on the market now."

"Unless, something is a real breakthrough. Wait to make sure that it is a breakthrough," it is more of an small incremental game. Let's test it before it gets out. So, that is the tension as far as that is concerned.

Jacobsen: To the second question, it had to do with devices having much lower standards.

**Guyatt:** It is a historical accident. So, way back in the early 60s, what changed the landscape with respect to drugs was thalidomide, it was given to women to prevent the nausea of pregnancy. It ameliorated the problem.

However, it caused these horrible limb abnormalities in the kids. People said, "Oh! You've got to do things differently here. This is bad news." So, it changed the environment as far as drugs. Where I suppose, there haven't been any particular catastrophes in terms of devices.

They are seen as potentially less dangerous and the culture of tough regulation has never grown up.

Jacobsen: Now with regards to fractures of bones, what is the background with regards to doing some side research with Jason W. Busse regarding?

**Guyatt:** First, there is Mohit Bhandari. So, Mohit Bhandari is an orthopaedic surgeon who came to me when he was still in his training as an ambitious young guy. He came to me wanting to train in research methods, which is what I train people in. He said, "I'd like to do a big orthopaedic trial."

So, I said, "I tell you what. Here is the trial you want to do," and it was this trial of when people fractured their tibia. You need to put a nail in to hold the pieces of the tibia together again properly.

There are two ways of putting the nail in. You put in a little nail that maintains the blood supply in the bone marrow. Or you put in a big nail that requires reaming out the bone marrow and the little nail has the advantage of maintaining the blood supply, which is promoting healing.

The big nail has the advantage of the structural bed being a better structure. So, Mohit said, "It is a real controversy whether we should be using these big nails or small nails. We should sort that out."

So, I said, "Okay, tell you what, tell me who the leading guy in North America is in this field. Let's see if he would be interested in heading up a trial where we do this."

So, we got in touch with him. He is in the States. Let's talk to him. So, we talked to him. We said, "We are want to do clinical trials. Would you be interested in leading the trial because we need some established authority to lead to trial?" So, he said, "Sure."

So, he helped us gain access to leading orthopaedic colleagues." Eventually, we got the trial funded in part in Canada and in the States. Mohit led the trial. By the time the trial was finished, he was on faculty as an investigator and ended up leading the trial to completion and getting the appropriate credit as the leader of the trial.

So, we enrolled over twelve hundred patients, which was a big trial at the time. It was one of the biggest in orthopaedic trauma that had previously been done. It found out that, overall, it did not make much difference whether you used a big nail or the small nail, but possibly a small nail was better in the more severe fractures.

The big nail was better in the less severe fractures and ended up as one of the first big major orthopaedic trauma trials.

#### Jacobsen: Why the small nail for big fractures and the big nail for the small fractures?

**Guyatt:** The theory: surgeons before they started had this suspicion. They said, "In the cases of the more serious fractures, the maintaining of the blood supply may be more important. In the less serious fractures, the maintaining of the blood supply is not as important."

That was the rationale beforehand. They had the idea. So, it became more credible because they had the idea in advance when we found that the small nail seemed to be better in the more serious fractures. The big nail in the less serious.

It made us more inclined to believe that because that was the hypothesis that the surgeons stated and they had some biology for it before the trial started.

Jacobsen: with regards to the last part of the research which regards to fracture bones at least that we have talked about on tape one of them has to do with an ultrasound device.

**Guyatt:** Okay! So, story, there is so a guy named Jason W. Busse. Another guy who did a Ph.D. with me. By training, he is a chiropractor, but he got interested in research. He came to work with us. He was also working closely with Mohit.

So, the opportunity came along; I am sure through Mohit. I do not remember the details. It was with a company that makes an ultrasound device, which was reportedly enhancing the healing of fractures and in keeping with the lower standards of evidence for our devices.

This device has been licensed for use on the basis of some evidence – not convincing, not strong. These are not high quality studies. It is based on the enhanced radial x-ray healing of fractures and the company then said, "We think our device is great. Let's get some randomized trials strong and randomised trial evidence about the effect of the device."

So, we arranged. We made a deal with the company. Jason W. Busse was leading the trial. He set up a randomized trial of this ultrasound device. We got some funding from the industry. We got some funding from the Canadian Institute of Health Research. So, off we go, we are doing our trial, early on when we were doing the trial.

Jason did a systematic review of all the evidence that was available thus far. The evidence said, "We are not so sure of this radiological healing. There is no evidence at all that anybody functionally benefits from this. Because if your x-ray looks better, and if you cannot walk sooner or have less pain or something like this, who cares if the x-ray looks better?"

We published this in the British Medical Journal (BMJ), this review. The company was not thrilled. In fact, Jason was the first author of this. The company told Mohit, "We want nothing more to do with Jason, get rid of this Jason. He has stabbed us in the back."

However, Jason was the principal investigator in the study. We were not going to Jettison Jason. So, although, the company did not want in on meetings and so on. Anyway Jason continued to lead the trial. So, usually with these studies, we are committed to go to the end to get as definitive an answer as possible.

We do not go looking at the data partway. However, the company had access to the data part way. They looked at the data. They find nothing good is happening. They say, "Let's stop the trial."

So, we fought with them. We managed to continue longer than we would otherwise. However, eventually, they stopped the trial, but not before we would have enrolled 500 patients. That was enough to get a reasonable conclusion.

Then we did not get the complete follow up. Some because they stopped it, but not bad. So, the trial is finished. No benefit whatsoever either on fracture healing or on function in the patients. One of the issues was there was only about 70% or 80% compliance with the device not bad.

What about in terms of what you would expect out in the real world anyway, they obviously did not get the result. So, the first thing, they made all sorts of arguments about how we should present the results.

Either the results said that this compliance was so low, it is not a problem or there is a subgroup that benefits. Anyway, we went through a prolonged discussion about that. We said, "No, sorry, there are not any subgroups who benefit from this device as far as we can tell. It does not do any good."

So, they tried. They delayed us. They threatened us all with a couple of years between when we would have had to publish and when we published. Because of all their obstruction and so on. Then, of course, they fund going to meetings and say, "Do not pay any attention to this trial and so on."

But eventually, we published that in the British Medical Journal. In addition, we have another initiative that tries to get ground-breaking evidence that might be practiced, changing out to clinicians as soon as possible.

Then we published one of these rapid recommendations about do not use this ultrasound along with the trial. So, that was an adventure.

#### Jacobsen: Thanks for the opportunity, anytime.

#### **Guyatt:** A pleasure.

We conducted an extensive interview for In-Sight: Independent Interview-Based Journal before: here, here, here, here, here, and here. We have other interviews in Canadian Atheist (here and here), Canadian Science (here), Canadian Students for Sensible Drug Policy, Conatus News, Humanist Voices, News Intervention (here and here), and The Good Men Project (here, here, her

## Chat with Faisal Saeed Al Mutar on Translation and Its Contents

**Scott Douglas Jacobsen** 

July 7, 2019

Faisal Saeed Al Mutar is the founder of Ideas Beyond Borders and Bayt Al-Hikma 2.0, Global Secular Humanist Movement, and a columnist for Free Inquiry

Scott Douglas Jacobsen: What should a North American audience, global audience, or Indian audience, know about Bay Al-Hikma 2.0? How can they replicate its efforts in advocating for science, humanism, and enlightenment values through translation projects – Arabic, Kurdish, etc.?

**Faisal Saeed Al Mutar:** One of the things that we function as is a bridge. One of my friends is a Princeton professor in South Asian Studies. He has helped to identify progressive voices there.

Many people in the Arab world do not know that they exist. When people look at the stuff that we translate from English writings of authors coming from South East Asia and Asia.

People, generally, the main thing that we always need to do to continue our translation project is funding and donations to keep the translation going. Also, if people have skills that we need, there are many people who help connect us to many people, e.g., graphic designers, audiovisual editing, video editing, and so on.

If people have skills in social media marketing, all of these things; we need these to help expand our project. When it comes to South Asia, as we expand more and more, and build more successful programs across the Arab world, and we focus on there because I am from there, we have the translators and all of that.

We plan to expand to Urdu. I heard of many of my friends from Pakistan. Many Pakistanis speak English and are educated, but much is coming from the British.

At the same time, there are many people in Bangladesh that do not speak English in a professional way or in an advanced way. So, that way, the knowledge that we care about in terms of Enlightenment values and others are not available for these people who speak only one language.

So, we have had a very successful program so far, with the Arab world. I hope it will be successful as we expand to Bengali and Urdu.

Jacobsen: Thank you for the opportunity and your time, Faisal.

## Ideas Beyond Borders and Wikipedia Arabic Educational Outreach

Scott Douglas Jacobsen
July 10, 2019

Faisal Saeed Al Mutar is the founder of Ideas Beyond Borders and Bayt Al-Hikma 2.0, Global Secular Humanist Movement, and a columnist for Free Inquiry

Scott Douglas Jacobsen: What are some other milestones?

**Faisal Saeed Al Mutar:** There have been some pretty amazing milestones since our last conversation. Over the last few months, we have Wiki groups in the Levant mainly.

We have a number of translators and people focused on different subjects emphasizing the Arabic language. Unfortunately, the Wikipedia Arabic used to be the 18th language.

But, fortunately, we were able to translate more than a 1,000 articles as we speak. These articles never existed before in Arabic. This would be the Civil Rights movement figures.

Today, I was reading a story about how Saudi women's rights activist for driving was inspired by Rosa Parks. That has been translated into Arabic by our group.

Also, the library of evolution has been translation. It is a banned subject in many education systems across the Arabic world. I have been focusing over the past few months until now on the building of a full library of evolution.

It would be from the beginning to the end. It is already gaining us a lot of momentum with partnering with groups in the Middle East. We are really definitely creating and institutionalizing a movement that is very helpful for new ideas.

The Wikipedia Arabic project has been working really well. We have expanded our translation efforts to expand to Kurdish too. We have expanded beyond just the Arabic language.

Now, we have included articles in Kurdish and about 15 or so in Farsi. These have been in subjects including freedom of the press, pluralism, John Stuart Mill and the concept of liberty, progressive values, and also the values of the Enlightenment.

Many of these articles did not exist in these languages before. We are happy to be a part of this movement. We are expecting other countries in the Middle East, including Iran and the Northern part of Iraq and Kurdistan.

It has been going perfectly. We are releasing our books very slowly as we are trying to make sure that the reach and the partnerships that we are building in the region will help distribute them, to make sure it is a success and the quality of the translation is the highest possible in the organization.

We are very happy to work with experts in translation.

Jacobsen: Thank you for the opportunity and your time, Faisal.

## Humanist activist and family threatened by Government of Pakistan: Government Canada urged to intervene in the human rights campaigner's case

#### Scott Douglas Jacobsen July 24, 2019

TORONTO – July 18, 2019 – <u>PRLog</u> — <u>Humanist Canada</u> continues to join a growing chorus of denunciation of the Government of Pakistan in its treatment of <u>human rights campaigner Gulalai Ismail</u>, including Humanists International and other human rights groups. Denunciation followed by calls to drop the sedition charge against Ismail.

Once more, we call on the Government of Canada to request and urge the Government of Pakistan to drop the charges of sedition against Ismail, as she worked, in a peaceful protest, to bring attention to the rape and murder of a 10-year-old girl, Farishta. Now, Humanist Canada extends the call to stop the (alleged) harassment of Ismail's family.

"If the reports about Ismail and her family stand as sufficiently factual and accurate, the charge of sedition against Ismail remains suspicious, even potentially contrived, and the harassment, or state discrimination, of the family remains unjust and unfair with the appearance of the conscious punishment of Ismail's family in the light of a possible spurious sedition charge against Ismail," Humanist Canada Board Member and Young Humanists International Secretary-General, Scott Jacobsen, explained. "For example, according to reportage, the family of Ismail continues to suffer threats and harassment, a raid of the family home, with Ismail's parents, recently, booked under First Information Reports (FIRs) with accusations of involvement in and monetary support of anti-state and terrorist organizations."

Martin Frith, President of Humanist Canada, echoed the sentiments, saying, "The intransigence of the Pakistani authorities means that Gulalai's only hope is public pressure from the international community. The Canadian government voiced support for human rights in the past. We urge the Government of Canada to act on the principles of support for human rights defenders and protection of human rights by publicly intervening in the case of Gulalai with the appropriate Pakistani officials."

"They are under serious threat of arrest and in-custody torture. These are extremely serious allegations, [and] can cause their immediate arrest and long term [imprisonment]. It is [meant] to [torture] Gulalai Ismail and her family for being Human Rights Defenders and peace activists... Gulalai Ismail's mother is a house-wife and has been dragged [into] the matter to torture Gulalai Ismail and her family," Saba Ismail, Gulalai's younger sister, said.

We urge members of the Canadian public and the international freethought community to email support to the Pakistani embassy in Ottawa at parepottawa@rogers.com. Human rights defenders and campaigners fight for the rights of others. Often, this comes with risks to themselves. Sometimes, they need defenders and campaigners, too.

"Ismail represents one of those rare and rarefied individuals known as human rights campaigners and defenders with the resilience, persistence, and moral courage to speak out on instances of unfairness and injustice with the full knowledge of the difficult circumstances in which this happens and the probable legal, penal, and livelihood consequences of voicing unpopular and

uncomfortable truths on fundamental issues of human rights important for the protection of the weak, often voiceless, and vulnerable," Jacobsen stated.

For more information from Humanists International, please see here:

About Humanist Canada

Humanist Canada is a national not-for-profit charitable organization promoting the separation of religion from public policy and fostering the development of reason, compassion and critical thinking for all Canadians through secular education and community support.

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### JAMA – Shared Decision-Making in Practice

#### **Scott Douglas Jacobsen**

#### August 13, 2019

Beach and Sugarman (2019) provided an analysis of the SDM or shared decision-making framework in clinical practice, in which clinicians are encouraged to engage patients on the values and preferences of the patients.

"Professional societies and other groups generating screening and treatment guidelines specifically recommend SDM. In 2015, reimbursement from Medicare for lung cancer screening was made contingent on SDM," the authors of the JAMA article stated.

If the values and preferences of the patients sit on morally firm foundations, then there can a more reliable process moving forward for the benefits of the patients. It respects the cultural and individual variations in values and preferences while also dignifying the independent judgment of the patient about their own health and welfare.

Even so, SDM, as a practice, is "rarely achieved in practice." The reasons provided for this theory and practice gap is the multifactorial nature of the problem. There are many factors leading to reduced implementation of it.

"Studies show that patients tend to think they have been involved in making decisions when direct observation suggests they have not," Beach and Sugarman reported, "This may be because patients are unaware that a decision was made, the measurement standards for observed behavior are too dogmatic, or both."

Then the coding of the information can be problematic as well as creating an environment in which patients know their role in decisions and processes with the medical professionals. Further time placed into the hands of the medical professionals to explain to the patients may be wasted time better spent on other medical issues or medical duties. Benefits of more time explaining remain uncertain.

The positions of the author of the paper is that SDM should be implemented in medical settings more in spite of the lack of clarity in the reportage. They provided solutions including more specificity for the task in the calls for SDM, the use of decision aids to become more routine and available, the prioritization of decisions requiring SDM over others to increase its prevalence, the facilitation of engagement with a better interpersonal environment, and the importance of the communication models of practitioners more conducive to the independence of the patients and the giving of recommendations by the medical professionals with a modicum of prudence.

"SDM is a means to an end. The principal goals of SDM are to respect patients as individuals and to deliver care consistent with their values and preferences. Achieving these goals will sometimes involve explicitly engaging patients in decision-making. But decision-making can be emotionally demanding, and imposing a standard by which patients are expected to engage in all (or even most) decisions is not only unrealistic and inefficient, but also potentially burdensome to patients and clinicians," the authors concluded.

#### Reference

Beach MC, Sugarman J. Realizing Shared Decision-making in Practice. *JAMA*. Published online July 25, 2019. doi:10.1001/jama.2019.9797

### Interview with the Editors of WIN ONE Magazine: Graham Powell and Krystal Volney

**Scott Douglas Jacobsen** 

August 15, 2019

His Lordship of Roscelines, Graham Powell, earned the "best mark ever given for acting during his" B.A. (Hons) degree in "Drama and Theatre Studies at Middlesex University in 1990" and the "Best Dissertation Prize" for an M.A. in Human Resource Management from the University of Newcastle-upon-Tyne, England in 1994. Powell is an Honorary Member of STHIO Society, Former President of sPIqr Society, Vice President of Atlantiq Society, and a member of British Mensa, IHIOS, Ingenium, Mysterium, High Potentials

Society, Elateneos, Milenija, Logiq, and Epida. He is the Full-Time Co-Editor of WIN ONE (WIN-ON-line Edition) since 2010 or nearly a decade. He represents World Intelligence Network Italia. He is the Public Relations Co-Supervisor, Fellow of the Royal Society for the Encouragement of Arts, Manufactures and Commerce, and a Member of the European Council for High Ability. A previous comprehensive interview in parts through In-Sight: Independent Interview-Based Journal here.

<u>Krystal Volney</u> is the new <u>Journal Editor</u> of <u>United Sigma Korea</u>. Volney is known for her computing interviews for <u>WIN ONE Magazine</u> (World Intelligence Network) as a tech writer, Co-Editor and publications in Award-winning/bestselling educational books that can be found in bookstores and libraries around the world, journals, blogs, forums & magazines such as <u>Thoth Journal</u> of Glia Society and <u>City Connect Magazine</u> since 2012-present. She is the author of <u>Cosmos and Spheres</u> poetry book and the <u>'Dr. Zazzy'</u> children's series.

Here Powell and Volney took some time to describe the nature of editing a high IQ publication, whether from a veteran position of Powell or a fresh perspective of Volney, for the largest Umbrella high IQ organization, World Intelligence Network, journal in the entire world, WIN ONE.

Scott Douglas Jacobsen: What was the original point of high IQ journals?

**Lord Graham Powell:** High IQ journals are a medium for displaying the talents and thoughts of the society members. They unify interest and are a means for expressing the current initiatives and ethos of participatory societies – most journals represent more than one society.

**Krystal Volney:** To provide the very intelligent with a place to publish their ideas, essays, articles, poetry and be interviewed.

Jacobsen: What have been some notable successes of high IQ journals in the past?

**Powell:** The journals have helped forge friendships and when friends collaborate to produce not only articles, but aide participation in conferences and get-togethers as well, I think that a hugely positive corollary of journal collaboration.

**Volney:** *Celebrating the work of geniuses around the world.* 

Jacobsen: Some prolific authors can be known as part of the high IQ community, though dead, e.g., Isaac Asimov. Who have been lesser-known and fruitful writers in the high IQ community?

**Powell:** Both Krystal and I have produced books. Some more are being planned now. Yet, other authors who spring to mind are: Thomas Hally, Jason Betts, Greg Grove, Liliana Alam, Anja Jaenicke and Elisabetta di Cagno. Greg Grove founded a society for poets, all of whom had to be within the top one percent of IQ scores. One influential poet within that society was Thom Hadley, though his influence on me mainly stemmed from the utterly noble way he faced death from cancer. I will never forget him. His humility and resignation towards the inevitable and his supreme dignity in that, for me, made him a great man.

Jacobsen: General intelligence as the basis for societies and umbrella organizations presents issues. Within the context of the journals or magazines happening to arise within some, we can note the ways in which the content sets an average bar to access of the content in comprehension disregarding background knowledge or interest in the subject matter, or persistence, for the moment. Graham, we have talked about some of this before. What should the creators of a high IQ journal, whether linked to a society or independent of one, bear in mind regarding expectations – positive and negative – about the size of the and quality of the readership?

**Powell:** The potential readership is increasing, not only due to demographics, but other factors such as the Flynn Effect (I.E., that IQ scores are increasing over time, though that is now slowing) and access to technology. The high IQ community is, however, even more transitory in interest than the average (in my opinion) so magazines, or, indeed, anything pitched towards the high IQ community, has to change, evolve and stimulate to a high extent. It has to undergo criticism, stark analysis and, at times, fierce debate. It has to face rejection as a medium, then react and resurface with gusto. In the modern world, the concept of a magazine seems almost anathema to the ever-changing flow of ideas and discussion. They are fixed moments in time, even if they express universal, long-term concepts and beliefs. This can of course be a positive aspect, the journal becoming a historical document and record of the thoughts, even the zeitgeist, of a particular moment in human existence. The creator has to maintain a broad view of what they are doing and why.

Jacobsen: What forms of content seem more affected by the singular factor of general intelligence: brief articles, interviews, philosophical essays, poetry, or others? Different types of submissions would seem, intuitively, effected in different ways and to different extents by the level of general intelligence expected by the readership (if connected to a society, then, more often, the membership).

**Powell:** Puzzles, conundrums, quizzes: these stimulate readers in this realm of society and members enjoy creating them. Any article with precise language and a well backed-up, scientific or philosophical thesis will appeal and hold interest too. Mathematical theses, discussions and explanations are esoteric, but of interest to the high IQ community, especially to those members who are extraneous to the academic community, yet have an in depth knowledge of mathematics and physics. The Leonardo journal, which I text edit for the AtlantIQ Society, has some recurring themes, these expressing the focus of that society on art and science, with the interests of the main compiler, Beatrice Rescazzi, taking precedent. She is primarily a scientist, with a particular passion for 3D printing and robotics, though we also have many poets in the society, so poetry also appears in each edition. The focus of the editorial teams that I form a part of is shifting these days, the perceived need for the high IQ community to be actually doing something positive for humanity becoming ever more fervent. The dominant ethos within the high IQ world has been for self-promotion (even by proven charlatans) yet this is being countered now by a few who are

intent on being genuinely philanthropic and altruistic. Gradually, this will appeal to more and more of the high IQ community, many of whom have felt subjugated by the more egocentric members. It is restoring a balance, one which, I think, reflects more closely other sectors of society.

#### Jacobsen: How did this editorial relationship start for the two of you?

**Powell:** Krystal was a stalwart supporter of the book "The Ingenious Time Machine" – which I edited and produced for the World Intelligence Network (WIN). I already knew Krystal from the WIN and I was contacted by her to write some reviews of her creative writing. Recently, I felt her innate enthusiasm ideal to help rekindle interest in the WIN On-Line Edition, the WIN's magazine. I suggested that she help me and was pleased to hear that she accepted.

**Volney:** I discussed the collaboration with Lord Graham and he saw it as a very good idea. Doing the first issue as Co-Editor was very pleasant with him. I am looking forward to the second magazine because I expect it to contain more submissions from High-IQ members as well as guest contributors.

## Jacobsen: What were the pluses and minuses of collaborative versus solo editing for the two of you?

**Powell:** This first edition under our collaborative umbrella was almost entirely procured by Krystal, at least in terms of the content for it. I issued adverts to attract participation, but was too busy to spend hours and hours creating and soliciting submissions. For me, the arrival of content was refreshing because it did just that: arrive. It was only after looking closely that I realised that almost all of the content this time consisted of poetry. I was hoping for some in-depth articles, but they weren't amongst the contributions. That resulted in the 'Poetry Edition' coming out, which was not a bad thing, but it was different from expectation. Krystal and I have, however, vowed to work harder and over an extended period of time so that the next edition will have more variety within it. Krystal was also a useful commentator on what was prepared by me, especially because I had to do it quickly. We agreed on adjustments efficiently and effectively, which was a positive factor in the collaboration. I think my experience of the post-production process also helped because the uploading of the magazine took a long time, which disheartened Krystal at first. We managed to get the magazine released in the Facebook groups (which was a first) and I think the next magazine will be something progressive and diverse from anything previously produced for the WIN.

**Volney:** I did not have any minuses. A plus was that we got along working together on the first issue for World Intelligence Network's magazine and there were not any arguments. This connotes that we are both easy to work with.

## Jacobsen: Where can people find the work edited by the two of you – in the past and into the future?

**Powell:** As already noted, the <a href="www.iqsociety.org/interactions/winone">www.iqsociety.org/interactions/winone</a> page shows all the magazines produced for the World Intelligence Network. The Leonardo magazine is on the AtlantIQ society website: <a href="www.atlantiqsociety.com/leonardo-magazine.html">www.atlantiqsociety.com/leonardo-magazine.html</a> and both are accessible by the general public. The book The Ingenious Time Machine can be bought from the Amazon site. Just type in the title and it will come up! It is also on the "Goodreads" website.

**Volney:** On the World Intelligence Network's site- https://www.igsociety.org/.

Jacobsen: Thank you for the opportunity and your time, Graham and Krystal	1
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Powell: Any time, Scott.	
Volney: Not a problem Scott. It was lovely!	

## **Nature Communications: Some African CO2 Emissions Higher Than Previously Thought**

#### **Scott Douglas Jacobsen**

August 15, 2019

The tropical ecosystems contain massive stores of carbon with a high vulnerability to anthropogenic climate change. With the "sparseness of ground-based measurements," the estimates as to how much carbon has been sunk into the topic and how much has been released retained a great margin of error.

A lot of uncertainty for an important metric of a pressing global problem. As noted in the *Nature Communications* article, the knowledge of the net sink or net contributor to atmospheric carbon levels remains uncertain. These labelled +ve and -ve, respectively, for net annual source or net annual sink for carbon.

By "sink," this means something akin to the oceans be sinks. In that, the oceans and the tropics absorb more carbon than they emit. They hold the carbon as opposed to releasing it. The release contributing to the levels of carbon in the atmosphere, as noted at levels of parts per million.

The paper published, based on independent – rather than dependent – satellite data sets, shows the land tropics to be +ve as opposed to -ve, or net annual sources rather than net annual sinks of carbon – not a positive finding for those wishing for easier solutions to the problem of human-induced global warming.

Carbon dioxide emissions from the North Africa region are higher than previously estimated in other words.

As stated, "These pan-tropical estimates reflect unexpectedly large net emissions from tropical Africa... The largest carbon uptake is over the Congo basin, and the two loci of carbon emissions are over western Ethiopia and western tropical Africa, where there are large soil organic carbon stores and where there has been substantial land use change. These signals are present in the space-borne CO<sub>2</sub> record from 2009 onwards."

#### References

Palmer, P.I. et al. (2019, August 13). Net carbon emissions from African biosphere dominate pan-tropical atmospheric CO2 signal. Retrieved from <a href="https://www.nature.com/articles/s41467-019-11097-w">https://www.nature.com/articles/s41467-019-11097-w</a>.

# Global Democracy's Sword of Damocles – The Politics of Science and Survival, or the Dance of the Polichinelles

Scott Douglas Jacobsen August 29, 2019

I

Values enacted construct societies.

Lenny Bruce once said, "Let me tell you the truth. The truth is what is, and what should be is a fantasy. A terrible, terrible lie that someone gave to the people long ago."

Before the death of Albert Einstein on April 18, 1955 in Princeton, New Jersey ("New Joi-Zee"), United States of America, he continued to work on the prevention or attenuation of the negative derivative effects of the theories starting 50 years earlier in 1905 with Special Relativity and, in particular, 40 years earlier with General Relativity in 1915 (Nature, 2019). In the former, in Special Relativity, a uniform motion of objects or observers, or non-accelerating objects or observers, means identical referential laws of physics, or "the laws of physics are the same... in all inertial frames of reference" and the speed of light remains the same for all observers or objects in the universe(Tate, 2009; The Editors of Encyclopaedia Britannica, 2018a).[1] "Observers," in this context, does not limit to critters like us or even the category of living things. In this sense of observation, the universe "interacts" with itself or observes itself, or objects within the cosmos function as observers, whether subatomic particles, organic creatures, planets and planetary satellites, or galactic filaments. Stuff interacts. It's the nature of nature. In the latter, in General Relativity, space and time unify as space-time and matter in the universe warps the curvature of space-time while space-time affects matter in a mutual dance with gravity included in the relativistic due to General Relativity's advancements of Special Relativity (Kaku, 2019; The Editors of Encyclopaedia Britannica, 2018a; Perkowitz, 2019; Physics of the Universe, 2019).[2] Einstein may not have seen the engineering applications in totality of the twin theories with both positive derivatives, e.g., GPS technologies, and negative derivatives, e.g. nuclear weapons in massive stockpiles and the long run of the Cold War – though he lived to see some of the latter. One of the negative derivative effects found in thermonuclear weapons, i.e., the splitting of the Uranium atom in 1938 changed everything (Encyclopaedia Britannica, 2010; American Museum of Natural History, n.d.).[3] Knowledge of these weapons will haunt the species into the indefinite future as the theoretical foundations for the weapons exist, the engineering knowhow for the weapons exist, the materials for the creation of the weapons exist, and, indeed, the weapons in the current moment exist, and the social and political tensions exist in sufficient spurts, too.

#### II

Einstein wrote a letter to President Franklin D. Roosevelt (National Geographic, 2017).[4] Grossman (2019) stated, "That letter from Einstein triggered the Manhattan Project, an emergency program by the United States to build atomic weaponry — to construct atom bombs before Nazi Germany. And it led to a widening of nuclear technology and ushered in what has been called the 'Atomic Age.'" Words hold power. Einstein's letters become multi-million-

dollar objects (Jacobsen, 2018b). Einstein's August 2<sup>nd</sup> letter to Roosevelt alongside U.S. intelligence operatives' reports about Adolf Hitler's scientists working on atomic weapons set forth the nationalist security imperative to construct a massive initiative to race into first place to build a workable thermonuclear weapon called the Manhattan Project (History.Com, 2019). To Einstein's credit, the Manhattan Project began in late 1941, where Einstein "was not involved in it" based on the denial of a security clearance in July of 1940 because of "pacifist tendencies" (Green, 2015; Atomic Heritage Foundation, 2019a). Prior generations made mistakes; we live with them. Mistakes do not mean evil, necessarily, but show the limits in human beings with restraints in context. Although, Margaret Atwood said, "Stupidity is the same as evil if you judge by the results." This seems correct. As in the other cases, there is simple intent to murder. Grossman (2019) explains Einstein provided robust qualification about the entrance into war effort involvement with the Americans against the Germans regarding the atom bomb.

Even though, anthropogenic climate change remains an enormous problem, looming, as the Intergovernmental Panel on Climate Change continues onward with its Sixth Assessment Cycle – in progress (IPCC, 2019).[5] In addition, global population continues well beyond reasonable numbers with current technologies and the birthrates needing lowering, on average, with an increasing required in some areas, e.g., some of East Asia, Western Europe, Oceania, and North America, and decreasing in other areas, the Middle East and Africa, for stability of the global population to maintenance levels at 2.1 children for an average woman (World Population Review, 2019; The World Bank, 2017; Searchinger, T., et al, 2013).[6] Even with these other associated and large problems, nuclear proliferation continues to threaten several nations and, in turn, the world, including potential lethality internal to the state, e.g., the recent explosion, killing several, in Russia, or internationally, e.g., claims of a Russian "Intercontinental Nuclear-Powered Nuclear-Armed Autonomous Torpedo by the U.S. government" in development in 2014 with projected deployment (not launching, readiness capacity) by 2020, or simply the 6,490 nuclear warheads of Russia, 6,185 of the United States of America, 300 of France, 290 of China, 200 of the United Kingdom, 160 of Pakistan, 140 of India, 90 of Israel, and 30 of North Korea as of June, 2019 (Reuters, 2019; Sutton, 2019; Davenport, 2019).[7] Nearly 14,000 nuclear warheads, in other words, with 90% in either Russia or the United States, who remain the worst offenders in the over-stocking of nuclear weapons (Davenport, 2019). The Ministry of Defence of the Russian Federation confirmed the recent explosion and deaths (Roth, 2019a; Roth, 2019b). Iran, correctly, notes the United States as the first and only nation to use nuclear weapons (O'Connor, 2019) while India remains committed to not using them based on some reportage (Miglani, 2019). The Russian Tupolev Tu-154M spotted over the American Midwest, recently, poses no threat as this functioned and functions as part of the Treaty on Open Skies (Law, 2019). This and other documents represent national efforts decrease fear and increase trust; these remain only some of the news notes, too.

#### Ш

The *Treaty on Open Skies*, according to the Organization for Security and Co-operation in Europe, "established a regime of unarmed observation flights over the territories of State Parties. It specifies, inter alia, quotas for observation flights, the notification of points of entry, the technical details and inspection for sensors" (1992).[8] "States Parties" applies to the states of the United States and Russia here. However, the U.S. President Donald Trump and Russian Federation President Vladimir Putin pulling out of the Intermediate-Range Nuclear Forces Treaty (INF) signed by then-President Ronald Reagan and Soviet leader Mikhail Gorbachev in

1987 remains an enormous concern in the escalation of the possibilities of nuclear war and, thus, nuclear catastrophe. Where climate change is alarming and "looming" and overpopulation is concerning, nuclear catastrophe is regularly and increasingly hair-raising in the reinvigorated Strongmen Era.[9]

Many around the world see a strongman in Prime Minister of India Narendra Modi (Siddiqui et al, 2019; Chaudhary & Dilawar, 2019; Mukherjee, 2019; Asghar, 2019; Crabtree, 2019; Marlow & Chaudhary, 2019). Others see President of the People's Republic of China Xi Jinping as another one (Branigan, 2017; Tisdall, 2019; Roxburgh, 2019; Hemmings, 2019; Hartcher, 2019; Seidel, 2019). President of Russia, Vladimir Putin, gets the same wrap (Carroll, 2019; Roxburgh, 2019; The Editorial Board, 2019). President Trump of the United States garners the same reputation (Kroll, 2019; Walter, 2019; Walker, 2018). The Supreme Leader of North Korea, Kim Jong-Un, earned the same status (Watson, 2019; Nueman, 2019; Saunders, 2019). President of Egypt Abdel-Fattah el-Sissi got the same moniker (DW, 2019; CNN, 2019). President of Turkey Recep Tayyip Erdoğan lives in this coterie of titles as well (Ahval, 2019; Sonmez, 2019; Washington Examiner, 2019). President of Hungary Viktor Mihály Orbán operates within the same name (Whitman, 2019; Than & Szakacs, 2018; Hirsch, 2019; Liptak, 2019). Those who influenced Orban functioned on a platform of myths, of long-time tales, rather trivial and shallow (Robinson, 2018a; Robinson, 2018b). Stories matter; but why not make new ones? President of Brazil, Jair Bolsonaro, got himself the same old title (Rachman, 2018; van Wagtendonk, 2019; Trinkunas; Royden, 2018). Philippines Rodrigo Duterte earned the label to some (Roughneen, 2019a; Todd, 2019; Roughneen, 2019b). Imran Khan, Prime Minister of Pakistan, did too (Waraich, 2018; Bukhari, 2018). Same with the Prime Minister of Israel Benjamin Netanyahu (Judah, 2018; Zeveloff, 2019). Identical for British Prime Minister Boris Johnson (Plummer, 2019; Plummer, 2019). These strongmen associate with one another too (Montanaro, 2017). Taking the populations of these countries, more than half of the world's populations remain under the thumb of strongman politics. Not original now, not original in history, even with the United States, not unique in the 21st or in the 20th century.

At the outset of this current crisis, the United States wanted to retain its absolute control of nuclear armaments at the beginning of the nuclear era. Despite this nationalist imperative, the science and technology of massively destructive weapons took a turn in July, 1945 with the first nuclear test explosion and then the dropping of two atomic bombs on Nagasaki and Hiroshima in August, 1945 (Davenport, 2019). The Soviet Union conducted its first nuclear test in 1949; the United Kingdom conducted its first in 1952; France conducted its first in 1960; and China conducted its first in 1964 (Ibid.). The threat levels of possible nuclear war increasing and, possibly, with the continued problem of rising competition in the nuclear domain set the United States and "other like-minded states" to negotiate for the creation of the nuclear Nonproliferation Treaty (NPT) and the Comprehensive Nuclear Test Ban Treaty (CTBT) (Ibid.).

The NPT went into force in March, 1970 with the classification of the world's states-parties, 191 countries, to the NPT placed into one of two categories: nuclear weapon states (NWS) or non-nuclear-weapon states (NNWS), where North Korea announced withdrawal from the NPT on January 10, 2003 with the reneging effective January 11, 2003 (Kimball, 2012). Of those NWS labelled within the NPT, i.e., China, France, Russia, the United States, and the United Kingdom, they agreed to "commit to pursue general and complete disarmament, while the NNWS agree to forgo developing or acquiring nuclear weapons" (Ibid.). The NPT maintains a near universal

membership and, thus, one of the broadest adherences of any arms control treaties (Ibid.).[10] The NPT developed an interesting history too (Kimball, 2018).

The Comprehensive Test Ban Treaty (CTBT) was the other treaty founded as a complement to the NPT signed on September 10, 1996 with China, Democratic People's Republic of Korea, Egypt, India, Iran (Islamic Republic of), Israel, Pakistan, and United States of America having failed to ratify the CTBT to this date – noting France, the Russian Federation, and the United Kingdom of Great Britain and Northern Ireland ratified it (Kimball, 2019a; Collina & Kimball, 2010).[11] Besides the NPT and the CTBT, there have been several concerns over the years (Davenport, 2019).[12] The successes outweigh the failures in spite of the difficulties, according to Davenport (2019). The United Nations with several conferences continues to work to expedite the facilitation of bringing into force the CTBT (United Nations Office for Disarmament Affairs, 2019).

The NPT worked. When it concluded, the nuclear stockpiles of the United States and the Soviet Union/Russia were counted in the tens of thousands compared to the only, relatively speaking, about 14,000 present in all nuclear states mentioned earlier (Ibid.). The United States and Russia, rather than the world multilateral treaties, worked on several bilateral arms control agreements and initiatives with limitations on and reduction of the scale of their mutual nuclear arsenals, including SALT I, SALT II, START I, START II, START III Framework, SORT (Moscow Treaty), New START, and Intermediate-Range Nuclear Forces (INF) Treaty (Kimball, 2019b).[13] As Davenport (2019) states, "Today, the United States and Russia each deploy roughly 1,400 strategic warheads on several hundred bombers and missiles, and are modernizing their nuclear delivery systems... Scholars globally are feeling the heat from politicians. They should take inspiration from scientists in the 1950s who raised the alarm over nuclear weapons." Scientists and public citizenry can, and should, raise alarms in all known nuclear states at this time. These following from nuclear proliferation and the threat, ongoing, of nuclear war and, thus, nuclear catastrophe, the Manhattan Project, the letter to Roosevelt with additional warnings of U.S. army personnel, and the original discovery-invention of Special Relativity and General Relativity making this a possibility as a concern in the first place.

#### IV

Also prior to Einstein's death, and closer to it, he co-authored a report on avoiding nuclear war (Nature, 2019). Einstein wrote an article in November of 1947 emphasizing several important points in the avoidance of nuclear war as well. He opened, "Since the completion of the first atomic bomb nothing has been accomplished to make the world more safe from war, while much has been done to increase the destructiveness of war. I am not able to speak from any firsthand knowledge about the development of the atomic bomb, since I do not work in this field" (Einstein, 1947). He goes on to note the ways in which the nuclear bombs could become larger, more destructive with the resultant catastrophic effect of radioactive gases, even with a note, to a more modern issue, of the possibility of bacteriological warfare with bacteriological warfare taking the same position as digital warfare as a fifth dimension in war in the present moment as bacteriological warfare took in Einstein's moment (CIA, 2007; Lockheed Martin, 2019; Ratheon, 2019; The Editors of Encyclopaedia Britannica, 2017b). Einstein spoke to the concerns of bombs of a larger size, of the importance of a supranational governing body for control of atomic weaponry or for the mediation of said nuclear armaments, of the lack of initiative of the United States and of the Soviet Union in working towards these aims of mutual benefit, and more.

He affirmed the moral position, "In refusing to outlaw the bomb while having the monopoly of it, this country suffers in another respect, in that it fails to return publicly to the ethical standards of warfare formally accepted previous to the last war. It should not be forgotten that the atomic bomb was made in this country as a preventive measure; it was to head off its use by the Germans, if they discovered it. The bombing of civilian centers was initiated by the Germans and adopted by the Japanese. To it the Allies responded in kind—as it turned out, with greater effectiveness—and they were morally justified in doing so. But now, without any provocation, and without the justification of reprisal or retaliation, a refusal to outlaw the use of the bomb save in reprisal is making a political purpose of its possession; this is hardly pardonable" (Ibid.).

Einstein believed the Americas should "manufacture and stockpile the bomb" in order to deter other nation-states from making an offensive maneuver, an attack, with an atomic weapon. The nuclear armaments, suggested at the time, for development in the United States for this to comprise a deterrence capacity. He affirmed deterrence and diplomatically working on a multilateral level to create a supranational entity for the coaxing of the Soviet Union into working within the international community instead of utilizing fear and war rhetoric because this "only heightens antagonism and increases the danger of war" (Ibid.). He described the emergence from war as an, in a manner of speaking, acceptance of degrading low moral bars with "starting toward another war degraded by our own choice" (Ibid.).

The improved capacity and know-how in the construction of the weapons of mass destruction formed a basis for strategic concern or worry for Einstein as these mean cheap nuclear weapons and widely available, and thus more easily accessible, nuclear weapons. Democracy lies in the hands of the governed. Citizens can demand higher ethical standards of behaviour of the government's representatives of them as far as the state retains some semblance of representativeness. Einstein stated, "Unless there is a determination not to use them that is stronger than can be noted today among American political and military leaders, and on the part the public itself, atomic warfare will be hard to avoid. Unless Americans come to recognize that they are not stronger in the world because they have the bomb, but weaker because of their vulnerability to atomic attack, they are not likely to conduct their policy at Lake Success or in their relations with Russia in a spirit that furthers the arrival at an understanding" (Ibid.).

American reluctance to outlaw the atomic bomb, in his view, was the reason for a lack of Soviet agreement on nuclear arms control. As one may tell from the CTBT, in the current era, the United States did not ratify the treaty while the Russian Federation has ratified it (Kimball, 2019a; Collina & Kimball, 2010). This reasoning may echo here and remain valid. Einstein (1947) continued, "That the Russians are striving to prevent the formation of a supranational security system is no reason why the rest of the world should not work to create one. It has been pointed out that the Russians have a way of resisting with all their arts what they do not wish to have happen; but once it happens, they can be flexible and accommodate themselves to it." This becomes the basis for diplomacy at the time. Einstein felt comfortable with the creation of a supranational authority with or without the Russians in 1947.

Although, he noted, "These are abstractions, and it is not easy to outline the specific lines a partial world government must follow to induce the Russians to join. But two conditions are clear to me: the new organization must have no military secrets; and the Russians must be free to have observers at every session of the organization, where its new laws are drafted, discussed, and adopted, and where its policies are decided. That would destroy the great factory of secrecy where so many of the world's suspicions are manufactured" (Einstein, 1947).

He believed in a requirement of the supranational security system involving the assembly and council including election by the people rather than the government to "enhance the pacific nature of the organization" (Ibid.). He believed democratic institutions are not appreciated by the lands in which they have taken root and harboured the collective will of the people (more or less). Einstein, in admission of the practical limit of the ideals stipulated in the statements, said, "I do not hide from myself the great difficulties of establishing a world government, either a beginning without Russia or one with Russia. I am aware of the risks. Since I should not wish it to be permissible for any country that has joined the supranational organization to secede, one of these risks is possible civil war. But I also believe that world government is certain to come in time, and that the question is how much it is to be permitted to cost. It will come, I believe, even if there is another world war, though after such a war, if it is won, it would be world government established by the victor, resting on the victor's military power, and thus to be maintained permanently only through the permanent militarization of the human race" (Ibid.).[14]

The catastrophe of the result of nuclear arms stockpiling can come from accidents with apparent miraculous saving of the human species from rapid extinction due to said nuclear obliteration of, likely, all mammalian life of the planet. Einstein did not believe in the power of prayer, rejected a personal God, and, in essence, agreed with the God of Spinoza with a belief in human affairs left to human beings to solve or not; hence, the proposal of a "supranational" entity, not a corporation, rather than the transcendent (Jacobsen, 2018c; Letters of Note, 2009).[15] The word God becomes a product of human weakness rather than a stipulation of faith about the penultimate source of being. Something akin to an ill-defined concept and ill-conceived word where human frailties leave one to mutter, not incoherently but, in one's inability to coherently explain, "God did it. It was God." Failures, directly or indirectly, committed by human oversight, ignorance, or general stupidity.

#### $\mathbf{V}$

These exist in the record of the Nuclear Era too. One came from the NORAD computer chip malfunction(s) between November 1979 and June 1980 (Wright, 2015; Wright, 2016). Here, during the 1945 to 1990 Cold War, and in this malfunction, period mentioned, there were several false alarms of Soviet Union nuclear attacks on the United States (Wright, 2016). June 3, 1980 some consider "by far" the worst of the false flags when the "main US warning centers" were notified of a "large incoming nuclear strike" in which the National Security Advisor, Zbigniew Brezezinski, to the American President awoke at 3 am with a phone call stating the urgent need to deal with a large nuclear attack on the United States and the, apparent, urgent need to prepare a call to the President of the United States (Ibid.). Brezezinski did not awaken his wife because he assumed everyone would be dead within 30 minutes (Ibid.). Failure in automated and human-designed equipment with the possibility for the annihilation of humanity if not for human intervention. [16] [17]

The SAC-NORAD communications error was another big issue (Floss Books, n.d.). [18] One means by which to determine if a missile attack will head towards one's own countries comes from the advanced warning systems built to show this or not. Other ways include proxies of this. The probability of a complete warning systems and communications system shutdown seems low. In this latter case, one may assume aggressive intent from an enemy state. On November 24, 1961, this happened with the U.S. Strategic Air Command (SAC) and NORAD systems (Ibid.). The systems went silent, dead (Ibid.). This cut the SAC system off from the Alaska, England, and Greenland early warning systems with a widespread communications breakdown considered

impossible at the time (Ibid.). There were several fail-safes in place and, therefore, the conclusion: Soviet nuclear strike immanent (Ibid.). Subsequently, all SAC bases were placed on alert with B-52 bombers ordered into readiness with planes warmed and on the runways with a final order required for a nuclear strike on the Soviet Union (Ibid.).

Another instance came with a face (Aksenov, 2013). A single individual, Stanislav Petrov, saved the world from nuclear annihilation after midnight on September 26, 1983 with sole control left to Petrov in Moscow, at a command center, in which systems warned of five intercontinental ballistic missiles incoming from the United States, and fast, which implied a standard protocol (Ibid.). The standard protocol stated Petrov should inform higher authorities of an incoming attack from the United States against the USSR with such an action leading to a possible nuclear confrontation and war (Ibid.). Petrov decided to disobey; the original virtue of the species, to disobey (Ibid). As we remain alive here, obviously, we can appreciate the decision of Petrov to disobey because the system malfunction resulted from a solar alignment, which scrambled some of the Soviet radar satellite systems creating a false alarm (Ibid.).

The Cuban Missile Crisis represented another stark moment in the history of the Cold War and of the Nuclear Age in which the world could abruptly come to a halt for the human species (Office of the Historian, n.d.). Many commentators consider this the single most important 13 days of the Cold War because of the possibility for nuclear obliteration, mutually assured destruction, with a single misstep (Ibid.). The Cuban Missile Crisis followed the Bay of Pigs failed invasion with the discovery of Soviet-sanctioned missiles in Cuba 90 miles from the state of Florida (Ibid.; The Editors of Encyclopaedia Britannica, 2019c). [19] This violated a nuclear superpower bilateral agreement with a rapid escalation over the next couple of days in which the United States deliberated on whether or not to send an air raid or an invasion to Cuba in order to wipe out the missiles (Office of the Historian, n.d.). This may have resulted in war (Ibid.). With the tense negotiations ongoing at the time, several dangerous moments almost led to an all-out conflict with the implication of death for both superpowers, but President John Kennedy and Soviet leader Nikita Khrushchev agreed on a deal, last minute, for removal of WMDs by the Soviet Union and for the United States to halt possible invasion of Cuba (Ibid.).

Another potential global catastrophe was averted with the training tape accident on November 9, 1979 (Wright, 2016). The U.S. Missile Warning Command Center received warning of an incoming attack from the USSR with an immediate high alert warning placed for the entire country (Ibid.). NORAD, the Strategic Air Command, and other organizations went into readymode for this incoming nuclear attack from the USSR, and 10 fighter-interceptor planes were launched (Ibid.). President Carter's plane left the ground as well, and, humorously enough — probably in a panic, without Carter (Ibid.). All this instigated from a training tape placed into the NORAD mainframe, which then broadcast to the command center in North America — distinct error (Ibid.).

Amongst the closest, according to Boris Yeltsin, times the Russians came to a full attack on the United States came from the Norwegian rocket accident where an accident with a missile detected by the Russians along their northern border (Atomic Heritage Foundation, 2018; History.Com, 2009). In 1995, the Russians prepared for high alert, and a nuclear world war, presumably (Ibid.). The missile plunged harmlessly into the Arctic Ocean with the stray missile as part of a Norwegian and American experiment involving the Northern Lights (Ibid.).

Noting the remarkable fact, this began with the theorizing of a young patent clerk who created the theoretical foundations for the weaponry and, in a fit of pressure and a modicum of coercion, fell into writing a letter to Roosevelt to set forth the Manhattan Project and the events such as these. Einstein does not seem responsible here. He invented the theory or discovered the descriptive principles of existence of the universe – some of them, but he did not push for the aggressive use of the atom bomb or its creation except as a deterrent in order for the creation of a "supranational" entity to regulate the production of thermonuclear weapons and control its use if constructed and stored in weapons stockpiles once more as a deterrence strategy in a supranational monopoly or collective nuclear polyopoly as deterrent.

Einstein did not foresee, or more properly expect, the development of the bomb in his lifetime and considered the bombing of Nagasaki and Hiroshima the result of U.S.-Soviet politicking (Green, 2015). He considered the militarism and nationalism as the main issues superseding nuclear weaponry, or superordinate to nuclear weapons (Ibid.). As Green stated, "Einstein hoped that the added threat of atomic weapons might facilitate his broader objective of establishing a supranational authority, and he wanted the 'secret' of the atomic bomb to be monopolised by such an authority. He wanted the US to renounce the use of atomic weapons pending the creation of a supranational authority or if supranational control was not achieved" (Ibid.).[20]

Einstein appeared on the NBC News program and spoke of the "mechanistic, technical-military psychological attitude" producing inevitable and, thus, predictable consequences within societies and between them (A. & N., 1950). Einstein cautioned, explained, and judged, "The idea of achieving security through national armament is, at the present state of military technique, a disastrous illusion. On the part of the U.S.A. this illusion has been particularly fostered by the fact that this country succeeded first in producing an atomic bomb. The belief seemed to prevail that in the end it would be possible to achieve decisive military superiority. In this way, any potential opponent would be intimidated, and security, so ardently desired by all of us, brought to us and all of humanity. The maxim which we have been following during these last five years has been, in short: security through superior military power, whatever the cost" (Ibid.). In many ways, this attitude continues into the present. The illusion amongst major nuclear players needs disabusing in order to realize this critique aimed solely at the United States in 1950 – 5 years before the death of Einstein – and more applicable to the whole set of the nuclear armed Member States of the United Nations.

On the internal dynamics of a nation, Einstein commented, "Within the country: concentration of tremendous financial power in the hands of the military; militarization of the youth; close supervision of the loyalty of the citizens, in particular, of the civil servants, by a police force growing more conspicuous every day. Intimidation of people of independent political thinking. Subtle indoctrination of the public by radio, press, and schools. Growing restriction of the range of public information under the pressure of military secrecy." He saw the tit-for-tat between the "U.S.A. and the U.S.S.R." as assuming a "hysterical character" (Ibid.). "Every step appears as the unavoidable consequence of the preceding one. In the end, there beckons more and more clearly general annihilation," Einstein said, "...All of us, and particularly those who are responsible for the attitude of the U.S.A. and the U.S.S.R., should realize that we may have vanquished an external enemy, but have been incapable of getting rid of the mentality created by the war" (Ibid.).

He strongly emphasized the need for ridding ourselves of the problems of mutual distrust and fear – there referencing the United States and the then-Soviet Union – connected to a "solemn

renunciation of violence," where this should be applied to the global nuclear players now – more than ever (Ibid.). The risks and threats to human life seem too great, especially with the concomitant problem of anthropogenic climate change exacerbated by excessive human population size and human population growth on the Earth.[21].[22]

Green (2015) concluded on some words in print by Einstein from 1945, 5 years earlier, in which he states, "To give any estimate when atomic energy can be applied to constructive purposes is impossible. ... Since I do not foresee that atomic energy is to be a great boon for a long time, I have to say that for the present it is a menace." Einstein, a devout pacifist forced by international prominence and bi-national circumstance ("U.S.A. and the U.S.S.R") into writing a letter to the most powerful man in the world at the time, Roosevelt, leading to the development of a program, the Manhattan Project, and nuclear weaponry and arsenal proliferation, and stockpiling, with severely negative possible implications with the consistent attitude of distrust, fear, and commitment to violence as a universal value and salve. He was a dismayed pacifist (Ito, 2005; American Museum of Natural History, 2019).

### VI

Einstein did not live an entire life fighting against the possibility of nuclear catastrophe befalling the human race or species alone, but, rather, worked with some of the most distinguished minds in history and of the time where this included names beyond the bounded geography of the United States with another widely respected, deceased person, a philosopher, Bertrand Russell (Monk, 2019; The Nobel Prize, 2019; Irvine, 2019). An immensely prominent and respected figure in 20th-century history, Bertrand Russell, joined with Einstein in order to produce the Russell-Einstein Manifesto with other prominent signatories including Max Born, Percy W. Bridgman, Leopold Infeld, Frederic Joliot-Curie, Herman J. Muller, Linus Pauling, Cecil F. Powell, Joseph Rotblat, and Hideki Yukawa (Atomic Heritage Foundation, 2019b). The manifesto issued on July 5, 1955 was released months after Einstein's death (Ibid.).

Einstein thought highly of Russell's *A History of Western Philosophy* (1945) saying, "Bertrand Russell's *History of Philosophy* [sic] is a precious book. I don't know whether one should more admire the delightful freshness and originality or the sensitivity of the sympathy with distant times and remote mentalities on the part of this great thinker. I regard it as fortunate that our so dry and also brutal generation can point to such a wise, honourable, bold and at the same time humorous man. It is a work that is in the highest degree pedagogical which stands above the conflicts of parties and opinions" – love at first book, how fitting, or love at Bert sight (Wikiquote, 2019).

An amicable mutual perception of one another with the possibility for cooperation on this basis, where a coordinated effort worked between the two of them to create The Russell-Einstein Manifesto leading to the Pugwash Conferences (Nature, 2019; Pugwash Conferences on Science and World Affairs, 2019). Einstein died before the release of the manifesto and, by implication, the founding of the Pugwash Conferences. The Pugwash Conferences on Science and World Affairs began with Bertrand Russell, Einstein, Frédéric Joliot-Curie, and others of similar stature making urgent appeals for a meeting of scientists to "discuss problems" of "nuclear weapons and world security" in the midst of the "arms race" and the "Cold War" (The Editors of Encyclopaedia Britannica, 2019b; Pugwash Conferences on Science and World Affairs, 2019). [23] These Pugwash Conferences "helped create non-proliferation agreements" (Nature, 2019). [24] Einstein and Russell set forth the Pugwash movement, in other words (Ibid.).

### VII

Societies construct values worth enactment.

"I am not a propagandist, but a prophet. I do not say that what I say should come to pass, but what I think is likely to come to pass, and what is inevitable. While I would not be understood as advocating the desirability of such a result, I would not be understood as deprecating it," Frederick Douglass said. [25]

The values held by and, therefore, practiced through individual citizens with society form the basis for improvements in quality of life, or not, and guide the trajectory of the society in coordination with international discourse for a mutual feedback between international laws & international human rights, and national values, for different overall outcomes and improved net global results (New World Encyclopedia, 2016; Schroeder, 2016; The Editors of Encyclopaedia Britannica, 2015; United Nations, 2019a; United Nations, 2019b; United Nations, 2019c; OECD, 2017; Social Progress Initiative, 2019; WHO, 2019; Jenkinson, 2019; Smith, 2016; OHCHR, 2019a; OHCHR, 2019b; The Editors of Encyclopaedia Britannica, 2018b). [26] [27] [28] [29] [30] [31] [32] Nature and others reported on the continual invisible to the wider public international issue impacting the scientific communities through the imposition of governmental systems to dampen institutions of science or control them in part or whole, which continues to garner expert attention and comprises the fuel of the anger sufficient for popular marches (Tollefson, 2019a; Tollefson, 2019b; Tollefson, 2018; Angelo, 2019; Levin, 2017; Schwagerl, 2016; Andrade, 2019; Mega, 2019). The institutions harbouring the practitioners of the most powerful process, especially if applied with modern tools, in the literal hands of and minds of human beings to the present day, as the late Dr. Carl Sagan, largely and substantially but not entirely[33], correctly observed and commented in his last interview before death on December 20, 1996, due to bone-marrow disease myelodysplasia (Kragh, 2019):

...science is more than a body of knowledge. It's a way of thinking. A way of skeptically interrogating the universe with a keen understanding of human fallibility. If we are not able to ask skeptical questions, to interrogate those who tell us that something is true, to be skeptical of those in authority, then we're up for grabs for the next charlatan political or religious who comes ambling along. (Speakola, 1996)

Science as technical, organized processes mediated by human beings – even amplified by computational engines – and subsequent accumulations of probabilistic points of information about the natural world, including a fundamental attitude of skepticism about human authority or rich and robust acknowledgement of the fallibility of human beings (The Editors of Encyclopaedia Britannica, 2019a; Jacobsen, 2019b).[34] The developments of technology come from the successful application of the discoveries of science. Both exist as human endeavours. The former as means of application and the latter as more means of discovery.[35]

# VIII

The social and political focus on terms, e.g., "fake news" and "post-truth," remain rather humorless distractions – not unimportant, but mere symptoms of larger problems in critical thought levels in the general population due to institutional failures over years (Grammarist, 2019; The Learning Portal: College Libraries Ontario, 2019). [36]. At the same time, trust in scientists, in the United States, sits at the level of trust in the military while concerns about misconduct and conflicts of interest remain steadfast (Ledford, 2019). The humorless distractions

from the real consequences of budget cuts to science around the world, hostile takeover of science by governments, and distrust in science leading to pseudo-religious and dogmatic movements who fill the void of positive popular movements and communicative feedback between the community of the general lay public and the community of expert scientists.

A communicative feedback foundational to an informed populace to decide on important scientific and technological aspects of society in advanced industrial economies and, in many ways, digital pluralistic democracies with some more polyarchies & plutocratic in orientation. As we see in ongoing social and political unrest, governments want to use force, military and police force, to crush autonomy and natural democratic tendencies and thrusts of populations (Post Editorial Board, 2019; Withnall, 2019; Applebaum, 2019).[38] Similarly, governments who observe inconvenient scientific evidences emergent from institutions or whole disciplines work to cut funds or defund them entirely, or, as with Hungary, take them over. As Abbott (2019) notes about the Hungarian government of Prime Minister Viktor Mihály Orbán, international outcries continue in the midst of the (hostile) takeover of the research institutions of the nation by the government with a direct impact on academic freedom and independent intellectual enquiry within Academia and the negative consequences for science and, therefore, for society including its citizens.

In other cases, as in autocratic Russia, new laws impose fines and jail time for acts considered disrespectful, not of individual politicians or public figures but, the state, the government (Van Sant, 2019). In Saudi Arabia, journalist Jamal Khashoggi was murdered (BBC News, 2019b). UNESCO condemned the killing of journalist in large numbers, in the hundreds since the 1990s and into the 2010s (UNESCO, 2019). The Committee to Protect Journalists tracks individuals murdered or killed as journalists (Committee to Protect Journalists, 2019). Even benign reportage on the environment, journalists get killed with "impunity" and leaders of the world continue to ignore, justify, or command the murders of journalists themselves, as stark attacks on freedom of the press and freedom of expression (or speech if American) through the ending of human life (Garside & Watts, 2019; Mohdin & van der Zee, 2018; Robertson, 2019; The Globe and Mail, 2018; Longman, 2019; Tangen, 2019a).

Journalists expose governmental lies. Government leaders do not like it. Thus, there exists an interest in silencing the journalists, at times in extreme ways. The message: Do not explore this, write about it, or report on it, or else. One could cite hundreds of articles with the headlines and contents covering the murder of journalists. UNESCO (n.d.) views press freedom as a foundation of peace, which seems right. Amnesty International (2019) sees the violent crackdown on mostly peaceful protests as a violation of this principle for citizens' freedom to express themselves. Article 19 of *The Universal Declaration of Human Rights*, in theory or as a principle, should protect the freedom of expression of journalists (United Nations, 2019c; Article 19, 2019; ).[39].[40] One global phenomenon, as noted by Adele M. Stan, editor of Right Wing Watch, comes in the form of the far right (Internationale Politik und Gesellschaft, 2019), and the rise of the strongman (Mayhew, 2018).

In some of North America, to some home turf, human rights experts consider American President Donald Trump's attacks on the press a significant problem (OHCHR, 2018). Free expression groups in Canada opposed the province of Ontario move by the provincial government planned for universities and colleges (Canadian Journalists for Free Expression, 2018a), as they opposed the conviction and sentencing of Pelin Unker (Canadian Journalists for Free Expression, 2019). Canadians agree with the protections of journalists' source material from

authorities, from police (Canadian Journalists for Free Expression, 2018b). Apparently, Canadians agree with NWA in "Straight Outta Compton" on this issue. Tanzania approved the "Electronic and Postal Communications (Online Content) Regulations 2018" to restrict online freedom of expression (Canadian Journalists for Freedom of Expression, 2018c). Thankfully, online resources for protection of journalists by others or themselves exist (Canadian Journalists for Free Expression, n.d.).[41]

South Sudan sees restriction on the freedom of expression (UN News, 2018). Indonesia's Papua region experiences restrictions on freedom of expression (Westerman, 2019). Campus journalists in Indonesia are pushing back (Llewellyn, 2019). Vietnam is experiencing freedom of expression problems (HRW, 2019a). Ukraine experiences some of the same problems (HRW, 2019b). Lebanon has issues around freedom of expression but restrictions found in co-existent laws (Majzoub, 2019). Singapore has free expression issues (HRW, 2019c). Russia sees the same crackdown on freedom of speech (Vladimirov, 2018). Nepal sees the same problem (HRW, 2019d). Same with India, Nigeria, Mauritania, Crimea, Thailand, Cambodia, Kuwait, Malaysia, and elsewhere (HRW, 2019e; HRW, 2019f; HRW, 2019g; HRW, 2019h; HRW, 2019i; HRW, 2019j; HRW, 2019l). We can see this same problem in Iraq (Osman, 2019). One could list many, many other countries or the same countries with multiple, ongoing cases of the violation to freedom of expression. Not only in freedom of expression, we can see in the study of the natural world from the strongmen with weakman politics innervation of and restriction of scientific investigation and the dissemination of the findings to the public.

In 2018, Malaysian forces arrested a Danish man, critical of the police, through anti-fake-news laws (Domonoske, 2018). Predatory journals on the periphery of the academic system peddle false science or faux credibility with India working to fight against the "determined and adaptable" foe (Patwardhan, 2019). Other cases come with gender equality initiatives abused to the point of appearance or surface improvements, even intentions, only, as Tzanakou (2019) states, "A department looks at gender-equality data not as an opportunity to gain insight and improve the working environment for all, but to present itself in a certain light in order to secure the award; it must assert that inequality is not really that bad within their unit, but that it can make clear improvements. There is a temptation to think more about what can be demonstrated than about what needs to be done."

The Union of Concerned Scientists reports (2019a) on "disappearing data, silenced scientists, and other assaults on scientific integrity and science-based policy... many other moves by the president and Congress degrade the environment for science and scientists in this country. For example, the president's Muslim ban hurts science and scientists, including those working for the federal government and the president's rescinding transgender protections is damaging to the ability of all young budding scientists to reach their full potential" (Halpern, 2017a; Halpern, 2017b). Brazil's space director was sacked and spoke out (Daley, 2019). Americans are horrified at the denial of science (Gustafson & Goldberg, 2018). All this in the midst of genetic engineering as a science moving forward (Saey, 2019). Important scientific and borderline previous science fiction questions stand before us in a long queue.

Quality production of data impacts sustainable development, as noted by Espey (2019). Loring (2019) describes the ways in which promising medicines, e.g., stem cell therapies, become occluded to the public in efficacy and obscured in reality via fakes with important work done by Elena Cattaneo and Gilberto Corbellini (2014), as noted by others too (Bianco & Sipp, 2014), especially with the selling of products prior to full efficacy shown as sufficiently evidentiarily

backed (Bianco, 2013). Piantadosi (2019) notes universities fail in their institutional upholding of values purported in public if comprised, or axed on the altar, of legal liabilities.

According to Goldman (2019), the curse of budget cuts to advisory panels will outlast the first/last term of the American president, as she emphasizes "scientists must sound the alarm." Gunsalus states, correctly, the need to make research misconduct public, which should extend to public servants, politicians, and policymakers making ethics breaches public (2019). Brazilian military invaded 20 universities in Brazil to confiscate materials on ideological grounds (The Guardian, 2018). As stated by Freedom House in *Attacks on the Record: The State of Global Press Freedom*, 2017–2018 (2018), "Today, populist leaders constitute a major threat to free expression in these open societies. Ambitious politicians around the world are increasingly willing to dispense with the norms of behavior that held their predecessors in check, in some cases blatantly undermining press freedom."

Take, again, the singular issues of nuclear proliferation, and associated risks & anthropogenic climate change/human-induced global warming and excessive levels of the human species on the planet with current technologies, several collectives continue to note the importance of literal survival of the species within the necessary immediate, deep, and comprehensive work on a colossal scale. There are several contraints, including limited time, collective will, general scientific ignorance, financial conflicts of interest, and some who hope for the cleansing of this world for the actualization of a new (hypothetical and highly unlikely) wondrous one – for them and a few co-selected.

Human-induced rapid climate warming or heating becomes a political issue as politics halts, silences, and defunds scientific investigation, findings, and practitioners and academic disciplines posited as epistemologically sound or on a firmer footing than empiricism pervade academic and, eventually, public discourse to attack scientists and scientific validity (Dillen, 2018; Kreighbaum, 2018; One Faculty One Resistannce, 2019; Polansky, 2019; Sabine Center for Climate Change Law, 2019; Showstack, 2019; Stenger, n.d.; Union of Concerned Scientists, 2019b; Webb & Kurts, 2018). Some amusing salvage of the catastrophes in the increase in bird attacks on people (Weston, 2019).

Cultures require a literate public and a press corps open to making the directing attention to governmental failures. Populism and populist leadership can create problems because of the continual charges on the part of the populist of the problem with the media, especially as the media makes factual claims of the failures of the leadership. The people can begin to doubt the media and then resent it, placing full embrace in the statements, lies, exaggerations, and outright buffoonery of the charismatic populist leaders. This becomes an attack on a pillar of democracy in real journalism and, in turn, decreases the possibility of evidence-based and factual decision-making by the public for a real democratic society. A society begins to resemble a polyarchy more and more over time. Targets become the journalists as a first salvo – and their productions found in the news – in the main war against democratic institutions with the second salvo towards the judiciary and other places (Freedom House, 2018).

Sarah Repucci, in 2019, provided a wonderful reportage on freedom of the press/media. Entitled *Freedom and the Media: A Downward Spiral* (Repucci, 2019) in which the key findings comprise the deterioration of the media around the world, the populist leaders arising in some of the most influential democracies the world has ever seen, the dangerous restriction and retraction of the right to freedom of expression and freedom of the press throughout the world in spite of

the "basic desire for democratic liberties (Ibid.). More fully, Repucci (Ibid.) stated, "Experience has shown, however, that press freedom can rebound from even lengthy stints of repression when given the opportunity. The basic desire for democratic liberties, including access to honest and fact-based journalism, can never be extinguished."

#### IX

Positive notes exist with some of the international secular and freethought communities providing some basis for working together as unified social and economic, and technological, oriented community to reduce the problems of anthropogenic climate change. One initiative comes from Humanists International, the European Humanist Federation, and Young Humanists International in the Reykjavik Declaration on the Climate Change Crisis (2019) proposed by the Board of the three aforementioned organizations (Humanists International, 2019; European Humanist Federation, 2019; Young Humanists International, 2019).[42] Humanists International dealt with ecological and environmental issues in other documents in its history, too: in 2015, in 2000, in 1974, and in 1971 (Humanists International, 2015; Humanists International, 2000; Humanists International, 1974; Humanists International, 1971).[43] Important to note, the title of Humanists International (HI) changed from the former title of the International Humanist and Ethical Union (IHEU) with an associated change in the youth organization.[44] Humanists seem prone to or to have a penchant for declarations and manifestos: "Humanist Manifesto I (1933), Amsterdam Declaration (1952), Humanist Manifesto II (1973), A Secular Humanist Declaration (1980), A Declaration of Interdependence (1988), Humanism: Why, What, and What For, In 882 Words(1996), IHEU Minimum Statement on Humanism (1996), Humanist Manifesto 2000: A Call For A New Planetary Humanism, The Promise of Manifesto 2000, Amsterdam Declaration (2002), Humanist Manifesto III/Humanism and Its Aspirations (2003), Manifeste pour un humanisme contemporain/Manifesto for a contemporary humanism (2012)," as noted in What is Canadian Humanism? (Jacobsen, 2019g).

In addition, in *On Climate Change* (Jacobsen, 2018a), NASA including 18 listed major scientific societies (2016), the Intergovernmental Panel on Climate Change (2015), The Royal Society (2016), and innumerable others, whether directly or indirectly, agree on anthropogenic climate change, if not simply global warming without human inducement, for the importance of dealing with the issue together (NASA, 2019).[45]*Skeptical Science* provided a concise and thorough rundown of the idea and facts about anthropogenic climate change and scientific consensus (2017). Also, Watts (2019) provided a nice statement, "Previous studies have shown near unanimity among climate scientists that human factors — car exhausts, factory chimneys, forest clearance, and other sources of greenhouse gases — are responsible for the exceptional level of global warming... The pushback has been political rather than scientific."

This seems to reflect socio-political, not empirical, controversies between Young Earth Creationism and Evolution Via Natural Selection, as Professor Kenneth Miller notes (Jacobsen, 2019a; Jacobsen, 2014). [46] [46] The controversies do not come from the consensus of the debating experts and practitioners, but, rather, from the socio-political context of the nation. Of course, these issues overlap with one another, e.g., larger populations contribute more, on average, to the net carbon output than smaller ones (Scientific American, 2009). The COP21 and associated conferences become important in collective action against the impacts of human industrial activity on the planet with European, North American, and Asian Member States as more culpable because of the higher per capita contributions to global warming (European Commission, n.d.; The World Bank, n.d.). Important to note, continual reports, even local ones,

state the ominous situation, we may live at the end of the human species because of a lack preparedness (The Canadian Press, 2015; Timperley, 2019; Uptime Institute, n.d.; Roston, 2019; Science News, 2019; Parry, 2011; Pyper, 2011; Parry, n.d.; Wherry, 2017; Environmental Defense Fund, n.d.; C40, n.d.). We may not have a frown ever with "Golden Brown," but we may when the skies turn as such.

### X

All this history and political context can neglect to discuss the effects of nuclear war. As with anthropogenic climate change or human-induced global warming, the problem of nuclear war run amok – basically, any amount – comes from the literal cooking of the environment. The environmental interconnected systems necessary for the maintenance of, at a minimum of individual self-interest, personal survival. If more inclined in a larger perspective, national and species survival even, if more broad minded, much of the biosphere poorly adapted to the rapidity of the warming of the Earth seen in the current moment due, in large part, to human contributions beginning with the first Industrial Revolution (The Editors of Encyclopaedia Britannica, 2019b; EPA, 2017; Government of Canada, 2019; American Chemical Society, 2019; Committee on Climate Change, n.d.). [48]. [49]. [50]. [51]. [52] One of the strong negative effects of the possibility of nuclear war comes from the infusion of radioactivity into the immediate vicinity and then the general "light, heat, blast, and radiation," which have been known to scientists since the 70s with further predictions of millions of tonnes of dust launched into the stratosphere with the return of dust within 24 hours to the Earth – dust, stones, and pebbles returned as radioactive material (The Editors of Encyclopaedia Britannica, 2017a; Martin, 1982).[53] One outcome of widespread nuclear war comes in the form of a "nuclear winter" (The Editors of Encyclopaedia Britannica, 2017a). Nuclear winter results from several nuclear warhead explosions resulting in numerous nuclear fireballs leading to uncontrolled fires or "firestorms" gusted over "any and all cities and forests within the range of them" leading to massive smoke plumes in which soot and dust would launch with their own heating, lifting the irradiated materials into high altitudes drifting for weeks on average before "being washed out of the atmosphere onto the ground" (Ibid.). Nuclear attacks, regardless of the size, come with shortterm and long-term impacts (Department of Homeland Security, 2005).[54] According to the Campaign for Nuclear Disarmament (2018), these come alongside instantaneous and nearimmediate effects to the local populations and the local environment.[55] Rather bluntly, the Campaign for Nuclear Disarmament stated, "There is currently no international plan in place to deliver humanitarian assistance to survivors in the case of a nuclear attack. Most casualties would receive at best minimal, palliative treatment. The best they could hope for would be to die in as little pain as possible" (2019). This reflects similar sentiment with the lack of preparedness of major nuclear states in the world (Jacobsen, 2019c). Fates, before death, exist worse than death.

Nuclear winter, for the human species, would create one such nightmare as daymare. "The extreme cold, high radiation levels, and the widespread destruction of industrial, medical, and transportation infrastructures along with food supplies and crops would trigger a massive death toll from starvation, exposure, and disease," The Editors of Encyclopaedia Britannica stated, "A nuclear war could thus reduce the Earth's human population to a fraction of its previous numbers" (2017). Of course, we have other urgent issues. Our society values these as important endeavours alongside of the international community. One in the form of gender equality, in particular in the labour force of Canada.

According to the Government of Canada (2018), Canadian society's labour market experienced a rapid surgence of globalization, automation, the gig economy, and economic emergence of trading partners, since the 1950s with massive players in the global market garnering more ground, i.e., India and China.[56] As Url (2018) argued, one should not deploy politics on science, but, rather, inform politics with science and then formulate differences in policy and socioeconomic solutions through the politics informed by science.[57] An international issue given the power, ubiquity, and assumed-credibility given to communications technologies and information received from them (Starbird, 2019).

As globalization, automation, the gig economy, and other trends continue to become entrenched in the international systems, there will be other associated effects of scientific discovery implemented as technology erodes old industries and creates new ones, not all nation-states will make it.

The Canadian environment for the labour force participation rate of women appears better at the lower levels and worse at the higher levels, where "lower" and "higher" represent the relative status of the positions for the jobs in terms of income and prestige. [58] The Canadian Women's Foundation reported on the low levels of women in the executive positions through the country (Canadian Women's Foundation, 2019). 27% of the seats of the House of Commons are held by women (House of Commons, 2019). Approximately 20% of the board members of Canada's top 500 companies are held by women (CBC News, 2013). Also, "8.5% of the highest-paid positions in Canada's top 100 listed companies are held by women" (CBC News, 2015). According to the Government of Canada (2018), the labour market for Canadian society has seen a surge since the 1950s with automation, globalization, the gig economy, and economic emergence of trading partners, including India and China – holding over 1 billion citizens per country in the present period.[59] Globalization increases cultural diversity, the levels of earnings for different types of workers, increases the need for diversity training, increases the standards of the workforce while on site or on the job, and influences particular types of job losses (Mcfarlin, 2019; Hoffman, 2017).[60] Automation will increase GDP of nation-states open to the market of computers and artificial intelligence connected to robotics in industries linked to Moore's Law and the decreasing cost with an associated power in complexity and computing power for the industries succumbing, almost inevitably, to the pull of workers who do not unionize or complain, or sleep (McKinsey Global Institute, 2018). The gig economy refers to the temporary and flexible jobs as a commonplace, increasingly common phenomenon throughout the economies of the world including Canadian (Chappelow, 2019; Istrate, 2017).[61] With 2-3 billion global citizens housed in India and China alone, the impacts of the rising economic partners of Canadian businesspeople will impact the future of the economy, the trading relationships, and the workers, including the women at all levels.

These reshape the global economy, the nature of international trade, and the state of life in Canadian society, even amongst the other OECD or the Organisation for Economic Co-operation and Development countries. Although, the numbers of workers who have unionized jobs, jobs covered by sponsored pension plans, or manufacturing jobs has fallen while the number of Canadian workers with a formal education has increased since the 1950s. As this continued from the 1950s into the present period, the current era exists with a massive spike in the numbers of educated women compared to the current generation of educated men in entrance into postsecondary institutions, performance in the postsecondary environment with lower GPAs for the men, more extracurriculars for the women, and even with the lower entrance into the

university arenas the lower rates of graduation for men. An unprecedented era in formal education and in the women's movement; as Canadian society – and global civilization – moves into new territory in formal education, this will, undoubtedly, change the nature of the world in which men and women study, work, and partner and mate (if they so choose). A valid problem with a concerted effort is the labour force participation of women.

Simultaneously, if we neglect the fact of three gargantuan issues hovering over this and far above this, we may regret this at the peril of the species. The issues of anthropogenic climate change and overpopulation are two of them. With recent escalations, the immediate concern seems the possible threat of nuclear war or a second cold war, which few want now or ever. Our values in practice will determine the course or directions in which we want to take global society, destruction or survival. Everything else is secondary, even noble initiatives.

We best pick values worthy of our global civilization.

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Wright, D. (2016, June 6). How Could a Failed Computer Chip Lead to Nuclear War?. Retrieved from <a href="https://blog.ucsusa.org/david-wright/how-could-a-failed-computer-chip-lead-to-nuclear-war">https://blog.ucsusa.org/david-wright/how-could-a-failed-computer-chip-lead-to-nuclear-war</a>

Young Humanists International. (2019). Young Humanists International. Retrieved from https://humanists.international/about/young-humanists-international/.

Zeveloff, N. (2019, March 12). Is this the end for strongman Netanyahu?. Retrieved from https://unherd.com/2019/03/is-this-the-end-for-strongman-netanyahu/.

#### **Footnotes**

[1] What is Einstein's Theory of Relativity? (2009) states:

The special theory of relativity was published in 1905, in Annalen der Physik ("Zur Elektrodynamik bewegter Körper", in the original German; "On the Electrodynamics of Moving Bodies" is its English translation), and the general theory of relativity published in 1915, in the Minutes of the Meetings of the Prussian Academy of Sciences (Berlin) ("Die Feldgleichungen der Gravitation" in the original German; "The Field Equations of Gravitation" is its English translation).

In its original form, special relativity is based on just two postulates (or assumptions); namely, that the speed of light (in a vacuum) is constant – no matter who measures it, or when, or where – and that the laws of physics are the same for in all inertial frames of reference (basically, for all observers who are not accelerating) … there are other, logically consistent, ways to construct SR, from different postulates, but they are equivalent to Einstein's original.

See Tate, J. (2009, November 18). What is Einstein's Theory of Relativity?. Retrieved from <a href="https://www.universetoday.com/45484/einsteins-theory-of-relativity/">https://www.universetoday.com/45484/einsteins-theory-of-relativity/</a>.

[2] *General Theory of Relativity* (2019) states:

As we have seen, <u>matter</u> does not simply pull on other <u>matter</u> across empty space, as Newton had imagined. Rather <u>matter</u> distorts <u>space-time</u> and it is this distorted <u>space-time</u> that in turn affects other <u>matter</u>. Objects (including planets, like the Earth, for instance) fly freely under their own <u>inertia</u> through warped <u>space-time</u>, following curved paths because this is the shortest possible path (or <u>geodesic</u>) in warped <u>space-time</u>.

This, in a nutshell, then, is the General Theory of Relativity, and its central premise is that the curvature of space-time is directly determined by the distribution of matter and energy contained within it. What complicates things, however, is that the distribution of matter and energy is in turn governed by the curvature of space, leading to a feedback loop and a lot of very complex mathematics. Thus, the presence of mass/energy determines the geometry of space, and the geometry of space determines the motion of mass/energy.

See Physics of the Universe. (2019). General Theory of Relativity. Retrieved from <a href="https://www.physicsoftheuniverse.com/topics\_relativity\_general.html">https://www.physicsoftheuniverse.com/topics\_relativity\_general.html</a>.

# [3] The Manhattan Project (2019) states:

In December 1941, the government launched the Manhattan Project, the scientific and military undertaking to develop the bomb.

A Letter to the President

In August 1939, Einstein wrote to U.S. President Franklin Roosevelt to warn him that the Nazis were working on a new and powerful weapon: an atomic bomb. Fellow physicist Leo Szilard urged Einstein to send the letter and helped him draft it.

Einstein: A Security Risk

In July 1940, the U.S. Army Intelligence office denied Einstein the security clearance needed to work on the Manhattan Project. The hundreds of scientists on the project were forbidden from consulting with Einstein, because the left-leaning political activist was deemed a potential security risk...

... In an interview with Newsweek magazine, he [Einstein] said that "had I known that the Germans would not succeed in developing an atomic bomb, I would have done nothing."

See American Museum of Natural History. (n.d.). The Manhattan Project. Retrieved from <a href="https://www.amnh.org/exhibitions/einstein/peace-and-war/the-manhattan-project">https://www.amnh.org/exhibitions/einstein/peace-and-war/the-manhattan-project</a>.

[4] Einstein's Letter to President Roosevelt – 1939, in full, states:

Albert Einstein Old Grove Road Peconic, Long Island August 2nd, 1939

F.D. Roosevelt President of the United States White House Washington, D.C.

Sir:

Some recent work by E. Fermi and L. Szilard, which has been communicated to me in manuscript, leads me to expect that the element uranium may be turned into a new and important source of energy in the immediate future. Certain aspects of the situation which has arisen seem to call for watchfulness and if necessary, quick action on the part of the Administration. I believe therefore that it is my duty to bring to your attention the following facts and recommendations.

In the course of the last four months it has been made probable through the work of Joliot in France as well as Fermi and Szilard in America—that it may be possible to set up a nuclear chain reaction in a large mass of uranium, by which vast amounts of power and large quantities of new radium-like elements would be generated. Now it appears almost certain that this could be achieved in the immediate future.

This new phenomenon would also lead to the construction of bombs, and it is conceivable—though much less certain—that extremely powerful bombs of this type may

thus be constructed. A single bomb of this type, carried by boat and exploded in a port, might very well destroy the whole port together with some of the surrounding territory. However, such bombs might very well prove too heavy for transportation by air.

The United States has only very poor ores of uranium in moderate quantities. There is some good ore in Canada and former Czechoslovakia, while the most important source of uranium is in the Belgian Congo.

In view of this situation you may think it desirable to have some permanent contact maintained between the Administration and the group of physicists working on chain reactions in America. One possible way of achieving this might be for you to entrust the task with a person who has your confidence and who could perhaps serve in an unofficial capacity. His task might comprise the following:

- a) to approach Government Departments, keep them informed of the further development, and put forward recommendations for Government action, giving particular attention to the problem of securing a supply of uranium ore for the United States.
- b) to speed up the experimental work, which is at present being carried on within the limits of the budgets of University laboratories, by providing funds, if such funds be required, through his contacts with private persons who are willing to make contributions for this cause, and perhaps also by obtaining co-operation of industrial laboratories which have necessary equipment.

I understand that Germany has actually stopped the sale of uranium from the Czechoslovakian mines which she has taken over. That she should have taken such early action might perhaps be understood on the ground that the son of the German Under-Secretary of State, von Weizsacker, is attached to the Kaiser-Wilhelm Institute in Berlin, where some of the American work on uranium is now being repeated.

See Einstein, A. (1939, August 2). Einstein's Letter to President Roosevelt – 1939. Retrieved from <a href="https://www.atomicarchive.com/Docs/Begin/Einstein.shtml">www.atomicarchive.com/Docs/Begin/Einstein.shtml</a>.

- [5] If you put the heater on in the room, and if you go to bed without turning the heater off, then you will likely awaken in a sweat. This amounts to the situation with continual efforts to ignore serious work needing doing on human-induced global warming.
- [6] For an introduction to some of the basics of the study of populations or demography, please see some of the currently published "Ask Dr. Weld..." series.

See Jacobsen, S.D. (2018d, October 30). Ask Dr. Weld 1 — Demography 101. Retrieved from <a href="https://medium.com/question-time/ask-dr-weld-1-demography-101-d2f42eada524">https://medium.com/question-time/ask-dr-weld-1-demography-101-d2f42eada524</a>.

See Jacobsen, S.D. (2018e, November 7). Ask Dr. Weld 2 — These Are That Which Malthusian Dreams, Or Nightmares, Are Made. Retrieved from <a href="https://medium.com/question-time/ask-dr-weld-2-these-are-that-which-malthusian-dreams-or-nightmares-are-made-c5f1f6631667">https://medium.com/question-time/ask-dr-weld-2-these-are-that-which-malthusian-dreams-or-nightmares-are-made-c5f1f6631667</a>.

See Jacobsen, S.D. (2019d, January 14). Ask Dr. Weld 3 — The Demographic Rap: Terms and Definitions. Retrieved from <a href="https://medium.com/question-time/ask-dr-weld-3-the-demographic-rap-terms-and-definitions-2636582cb106">https://medium.com/question-time/ask-dr-weld-3-the-demographic-rap-terms-and-definitions-2636582cb106</a>.

See Jacobsen, S.D. (2019e, June 6). Ask Dr. Weld 4 — Malthus King's Demographic Men (and Some Women). Retrieved from <a href="https://medium.com/question-time/ask-dr-weld-4-malthus-kings-demographic-men-and-some-women-621a9bdfb738">https://medium.com/question-time/ask-dr-weld-4-malthus-kings-demographic-men-and-some-women-621a9bdfb738</a>

See Jacobsen, S.D. (2019f, June 6). Ask Dr. Weld 5 — Complete Suite: Patois for the Demographic Categois. Retrieved from <a href="https://medium.com/question-time/ask-dr-weld-5-complete-suite-patois-for-the-demographic-categois-cfa51aad98ad">https://medium.com/question-time/ask-dr-weld-5-complete-suite-patois-for-the-demographic-categois-cfa51aad98ad</a>.

[7] Threats of nuclear war continue in the modern period, cannot stay ignored, and need diplomatic measures for a continual international reduction in their number for the safety of nation-states' civilian populations and the stability of the international community. *Nuclear Weapon: Who Has What at a Glance* (2019) states the desired aims of several countries, of their mutually consistent and independent nuclear targeted objectives:

China, India, and Pakistan are all pursuing new ballistic missile, cruise missile, and seabased nuclear delivery systems. In addition, Pakistan has lowered the threshold for nuclear weapons use by developing tactical nuclear weapons capabilities to counter perceived Indian conventional military threats. North Korea continues its nuclear pursuits in violation of its earlier denuclearization pledges.

See Davenport, K. (2019, July). Nuclear Weapon: Who Has What at a Glance. Retrieved from <a href="https://www.armscontrol.org/factsheets/Nuclearweaponswhohaswhat">https://www.armscontrol.org/factsheets/Nuclearweaponswhohaswhat</a>.

[8] The Open Skies Treaty at a Glance (1992) states:

Signed March 24, 1992, the Open Skies Treaty permits each state-party to conduct short-notice, unarmed, reconnaissance flights over the others' entire territories to collect data on military forces and activities. Observation aircraft used to fly the missions must be equipped with sensors that enable the observing party to identify significant military equipment, such as artillery, fighter aircraft, and armored combat vehicles. Though satellites can provide the same, and even more detailed, information, not all of the 34 treaty states-parties 1 have such capabilities. The treaty is also aimed at building confidence and familiarity among states-parties through their participation in the overflights.

President Dwight Eisenhower first proposed that the United States and the Soviet Union allow aerial reconnaissance flights over each other's territory in July 1955. Claiming the initiative would be used for extensive spying, Moscow rejected Eisenhower's proposal. President George H.W. Bush revived the idea in May 1989 and negotiations between NATO and the Warsaw Pact started in February 1990...

...Territory: All of a state-party's territory can be overflown. No territory can be declared off-limits by the host nation.

See Arms Control Association. (2012, October). The Open Skies Treaty at a Glance. Retrieved from https://www.armscontrol.org/factsheets/openskies.

[9] If we look into the definitions of the strongmen provided in ssome standard political orientations, we can see. If we look at the individuals who represent this well, we see . By calculation of the populations of the countries in which these men lead, the total provides some idea of the claim the majority of the world exists under a dangerous and technologically powerful form of strongman and associated politics.

[10] India, Israel, Pakistan, and South Sudan are the only states parties who function outside of the Treaty on Open Skies. Articles I and II of the NPT state NWS will not help NNWS develop or acquire nuclear weapons with the NNWS never, as a national promise or oath based on the NPT, to pursue the acquisition of nuclear armaments or thermonuclear capacity grade weapons technologies. Article III set the International Atomic Energy Agency the task of inspecting the nuclear facilities of the NNWS while providing safeguards for the "transfer of fissionable materials between NWS and NNWS. Article IV "acknowledges the 'inalienable right' of statesparties to research, develop, and use nuclear energy for non-weapons purposes. It also supports the 'fullest possible exchange' of such nuclear-related information and technology between NWS and NNWS." Article V is listed as "effectively obsolete." Article VI states states parties should "pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control." Article VII permits for the establishment of nuclear weapons free zones in regions, which remains an important and intriguing, and extremely useful, article as a tool for peace. Article VIII sets a "complex and legnthy process to amend the treaty, effectively blocking any changes absent clear consensus." Article X gives the grounds upon which states parties to the NPT may withdraw from the NPT.

# [11] Comprehensive Test Ban Treaty at a Glance (2019) states:

The Comprehensive Test Ban Treaty (CTBT) prohibits "any nuclear weapon test explosion or any other nuclear explosion" anywhere in the world. The treaty was opened for signature in September 1996, and has been signed by 184 nations and ratified by 168. The treaty cannot enter into force until it is ratified by 44 specific nations, eight of which have yet to do so: China, India, Pakistan, North Korea, Israel, Iran, Egypt, and the United States. The U.S. Senate voted against CTBT ratification in 1999, and though in 2009 President Barack Obama announced his intention to seek Senate reconsideration of the treaty, he did not pursue the initative, though the United States did see through UN Security Council Resolution 2310, which was the first UN Security Council resolution to support the CTBT.

The 2018 Trump administration Nuclear Posture Reviews notes, "Although the United States will not seek ratification of the Comprehensive Nuclear Test Ban Treaty, it will continue to support the Comprehensive Nuclear Test Ban Treaty Organization Preparatory Committee as well as the International Monitoring System [IMS] and the International Data Center [IDC]. The United States will not resume nuclear explosive testing unless necessary to ensure the safety and effectiveness of the U.S. nuclear arsenal, and calls on all states possessing nuclear weapons to declare or maintain a moratorium on nuclear testing."

In order to verify compliance with its provisions, the treaty establishes a global network of monitoring facilities and allows for on-site inspections of suspicious events. The overall accord contains a preamble, 17 treaty articles, two treaty annexes, and a protocol with two annexes detailing verification procedures.

See Kimball, D. (2019, February). Comprehensive Test Ban Treaty at a Glance. Retrieved from https://www.armscontrol.org/factsheets/test-ban-treaty-at-a-glance.

[12] *Nuclear Weapon: Who Has What at a Glance* (2019) states:

India, Israel, and Pakistan never signed the NPT and possess nuclear arsenals. Iraq initiated a secret nuclear program under Saddam Hussein before the 1991 Persian Gulf War. North Korea announced its withdrawal from the NPT in January 2003 and has tested nuclear devices since that time. Iran and Libya have pursued secret nuclear activities in violation of the treaty's terms, and Syria is suspected of having done the same.

See Davenport, K. (2019, July). Nuclear Weapon: Who Has What at a Glance. Retrieved from <a href="https://www.armscontrol.org/factsheets/Nuclearweaponswhohaswhat">https://www.armscontrol.org/factsheets/Nuclearweaponswhohaswhat</a>.

[13] The INF treaty represents the one in the news with Russia and the United States, recently.

[14] Atomic War or Peace (1947) concluded:

But I also believe it can come through agreement and through the force of persuasion alone, hence, low cost. But if it is to come in this way it will not be enough to appeal to reason. One strength of the communist system of the East is that it has some of the character of a religion and inspires the emotions of a religion. Unless the cause of peace based on law gathers behind it the force and zeal of a religion, it hardly can hope to succeed. Those to whom the moral teaching of the human race is entrusted surely have a great duty and a great opportunity. The atomic scientists, I think, have become convinced that they cannot arouse the American people to the truths of the atomic era by logic alone. There must be added that deep power of emotion which is a basic ingredient of religion. It is to be hoped that not only the churches but the schools, the colleges, and the leading organs of opinion will acquit themselves well of their unique responsibility in this regard.

See Einstein, A. (1947, November). Atomic War or Peace. Retrieved from https://www.theatlantic.com/magazine/archive/1947/11/atomic-war-or-peace/305443/.

[15] The famous Einstein letter sold for several million dollars in 2018. It represents the historical significance of the man and the mind within the context of the modern period, in the cascade of events based on the world made by him. The letter amounts to some short correspondence between one man, Mr. Gutkind, and himself, in which Einstein remained rather gentle with Mr. Gutkind while holding to his own comprehension of the physics of the universe and some speculative metaphysical considerations about the universe as well.

[16] How Could a Failed Computer Chip Lead to Nuclear War? (2016) states:

By far the most serious of the computer chip problems occurred on early June 3, when the main US warning centers all received notification of a large incoming nuclear strike. The president's National Security Advisor Zbigniew Brezezinski woke at 3 am to a phone call telling him a large nuclear attack on the United States was underway and he should prepare to call the president. He later said he had not woken up his wife, assuming they would all be dead in 30 minutes.

Like the November 1979 glitch, this one led <u>NORAD</u> to convene a high-level "Threat Assessment Conference," which includes the Chair of the Joint Chiefs of Staff and is just below the level that involves the president. Taking this step sets lots of things in motion to increase survivability of U.S. strategic forces and command and control systems. Air Force bomber crews at bases around the US got in their planes and started the engines, ready for take-off. Missile launch offices were notified to standby for launch orders. The

Pacific Command's Airborne Command Post took off from Hawaii. The National Emergency Airborne Command Post at Andrews Air Force Base taxied into position for a rapid takeoff.

The warning centers, by comparing warning signals they were getting from several different sources, were able to determine within a few minutes they were seeing a false alarm—likely due to a computer glitch. The specific cause wasn't identified until much later. At that point, a Pentagon document matter-of-factly stated that a 46-cent computer chip "simply wore out."

See Wright, D. (2016, June 6). How Could a Failed Computer Chip Lead to Nuclear War?. Retrieved from <a href="https://blog.ucsusa.org/david-wright/how-could-a-failed-computer-chip-lead-to-nuclear-war">https://blog.ucsusa.org/david-wright/how-could-a-failed-computer-chip-lead-to-nuclear-war</a>.

[17] *The word God is a product of human weakness* (2009), in full, states:

### Dear Mr Gutkind,

Inspired by Brouwer's repeated suggestion, I read a great deal in your book, and thank you very much for lending it to me. What struck me was this: with regard to the factual attitude to life and to the human community we have a great deal in common. Your personal ideal with its striving for freedom from ego-oriented desires, for making life beautiful and noble, with an emphasis on the purely human element. This unites us as having an "unAmerican attitude."

Still, without Brouwer's suggestion I would never have gotten myself to engage intensively with your book because it is written in a language inaccessible to me. The word God is for me nothing more than the expression and product of human weakness, the Bible a collection of honorable, but still purely primitive, legends which are nevertheless pretty childish. No interpretation, no matter how subtle, can change this for me. For me the Jewish religion like all other religions is an incarnation of the most childish superstition. And the Jewish people to whom I gladly belong, and whose thinking I have a deep affinity for, have no different quality for me than all other people. As far as my experience goes, they are also no better than other human groups, although they are protected from the worst cancers by a lack of power. Otherwise I cannot see anything "chosen" about them.

In general I find it painful that you claim a privileged position and try to defend it by two walls of pride, an external one as a man and an internal one as a Jew. As a man you claim, so to speak, a dispensation from causality otherwise accepted, as a Jew the privilege of monotheism. But a limited causality is no longer a causality at all, as our wonderful Spinoza recognized with all incision, probably as the first one. And the animistic interpretations of the religions of nature are in principle not annulled by monopolization. With such walls we can only attain a certain self-deception, but our moral efforts are not furthered by them. On the contrary.

Now that I have quite openly stated our differences in intellectual convictions it is still clear to me that we are quite close to each other in essential things, i.e; in our evaluations of human behavior. What separates us are only intellectual "props" and "rationalization" in Freud's language. Therefore I think that we would understand each other quite well if we talked about concrete things.

With friendly thanks and best wishes,

Yours,

A. Einstein

See Letters of Note. (2009, September). The word God is a product of human weakness. Retrieved from <a href="http://www.lettersofnote.com/2009/10/word-god-is-product-of-human-weakness.html">http://www.lettersofnote.com/2009/10/word-god-is-product-of-human-weakness.html</a>.

[18] 7 close calls in the nuclear age (n.d.) states:

On Nov. 24, 1961, all communication links between the U.S. Strategic Air Command (SAC) and NORAD suddenly went dead, cutting off the SAC from three early warning radar stations in England, Greenland, and Alaska. The communication breakdown made no sense, though. After all, a widespread, total failure of all communication circuits was considered impossible, because the network included so many redundant systems that it should have been failsafe. The only alternative explanation was that a full-scale Soviet nuclear first strike had occurred. As a result, all SAC bases were put on alert, and B-52 bomber crews warmed up their engines and moved their planes onto runways, awaiting orders to counterattack the Soviet Union with nuclear weapons. Luckily, those orders were never given. It was discovered that the circuits were not in fact redundant because they all ran through one relay station in Colorado, where a single motor had overheated and caused the entire system to fail.

See Floss Books. (n.d.). 7 close calls in the nuclear age. Retrieved from <a href="https://theweek.com/articles/443900/7-close-calls-nuclear-age">https://theweek.com/articles/443900/7-close-calls-nuclear-age</a>.

[19] Bay of Pigs Invasion (2019c) states:

Bay of Pigs invasion, (April 17, 1961), abortive invasion of <u>Cuba</u> at the Bahía de Cochinos (Bay of Pigs), or Playa Girón (Girón Beach) to Cubans, on the southwestern coast by some 1,500 Cuban exiles opposed to <u>Fidel Castro</u>. The invasion was financed and directed by the <u>U.S.</u> government...

... An invasion of Cuba had been planned by the U.S. <u>Central Intelligence Agency</u> (CIA) since May 1960. The wisdom of proceeding with the invasion had been debated within the newly inaugurated administration of President <u>John F. Kennedy</u> before it was finally approved and carried out...

...The captured members of the invasion force were imprisoned. From May 1961 the Kennedy administration unofficially backed attempts to ransom the prisoners, but the efforts of the Tractors for Freedom Committee, headed by Eleanor Roosevelt, failed to raise the \$28,000,000 needed for heavy-construction equipment demanded by Castro as reparations. The conditions for the ransom changed several times during the next several months; after painstaking negotiations by James B. Donovan, Castro finally agreed to release the prisoners in exchange for \$53,000,000 worth of food and medicine. Between December 1962 and July 1965 the survivors were returned to the United States.

Some critics thought that the United States had not been aggressive enough in its support of the Bay of Pigs invasion and had left an impression of irresolution, while others later questioned U.S. misjudgment of the Cubans' fighting prowess. The incident was crucial to the development of the Cuban missile crisis of October 1962.

See The Editors of Encyclopaedia Britannica. (2019c, April 10). Bay of Pigs Invasion. Retrieved from <a href="https://www.britannica.com/event/Bay-of-Pigs-invasion">https://www.britannica.com/event/Bay-of-Pigs-invasion</a>.

[20] This may be a more relevant in the current period with some of the recent developments covered in the next portions of this production

See Green, J. (2015, April 23). Albert Einstein on nuclear weapons. Retrieved from https://www.wiseinternational.org/nuclear-monitor/802/albert-einstein-nuclear-weapons.

[21] Often, the media representation comes from climate change or global warming. However, these phrases or stipulations, or framings, of the problem grossly leave out the main actors or species responsible for this problem, the human race. Either should reference anthropogenic or human-induced at some point.

[22] Einstein concluded in *Albert Einstein Warns of Dangers in Nuclear Arms Race* (1950), "In the last analysis, every kind of peaceful cooperation among men is primarily based on mutual trust and only secondly on institutions such as courts of justice and police. This holds for nations as well as for individuals. And the basis of trust is loyal give and take"

See A., A. (Reporter), & N., N. (Anchor). (1950, February 12). Albert Einstein Warns of Dangers in Nuclear Arms Race. [Television series episode]. *NBC News*. Retrieved from <a href="https://archives.nbclearn.com/portal/site/k-12/browse/?cuecard=39895">https://archives.nbclearn.com/portal/site/k-12/browse/?cuecard=39895</a>.

[23] Pugwash Conferences: International Meeting of Science (2019b) states:

Pugwash Conferences, in full Pugwash Conferences on Science and World Affairs, series of international meetings of scientists to discuss problems of <u>nuclear weapons</u> and world security. The first of the conferences met in July 1957 at the estate of the American philanthropist <u>Cyrus Eaton</u> in the village of Pugwash, <u>Nova Scotia</u>, in response to an appeal by <u>Bertrand Russell</u>, <u>Albert Einstein</u>, Frédéric Joliot-Curie, and other prominent scientific figures. Subsequent conferences were held in many countries, including the <u>Soviet Union</u>, Great Britain, Yugoslavia, India, Czechoslovakia, Romania, Sweden, and the United States.

The chief concern of Pugwash was to bring together leading scholars from many countries to discuss ways of reducing armaments and tempering the <u>arms race</u>. During the <u>Cold War</u> it was one of the few lines of open communication between the United States and the Soviet Union. Another purpose was to examine the social responsibility of scientists toward such world problems as economic development, population growth, and environmental damage.

See The Editors of Encyclopaedia Britannica. (2019b, March 14). Pugwash Conferences: International Meeting of Science. Retrieved from <a href="https://www.britannica.com/event/Pugwash-Conferences">https://www.britannica.com/event/Pugwash-Conferences</a>.

[24] Scientists must rise above politics — and restate their value to society (2019), in full, states:

Albert Einstein and the philosopher Bertrand Russell created a manifesto warning of the dangers of weapons of mass destruction. This led to the first Pugwash Conference on Science and World Affairs, a meeting of researchers from many countries and political ideologies to discuss the hazards of nuclear weapons.

More meetings — formal and informal — followed. What became known as the Pugwash movement gave a global voice to researchers working in, or supporting, non-proliferation, and served as a channel of communication between the superpowers. Pugwash eventually contributed

to international nuclear non-proliferation agreements, culminating, in 1995, in a Nobel Peace Prize.

The researchers feeling the heat today face different and more varied challenges. That means that any attempt to use a Pugwash-style approach to address today's pressures should be strengthened by recent understanding of the importance of inclusivity — with a meaningful role for public engagement — and a place at the table for researchers from diverse backgrounds and from across disciplines, not only science and engineering.

But there are key similarities to Pugwash, too, including the need to re-emphasize the value of scholarship in solving society's problems and for a channel of communication between governments and their research communities.

As with Pugwash, crucial to any effort to give scientists a bigger voice will be the ability of international researchers to stand apart from political arguments, and to assert that support for scholarship is not an issue of left versus right, but of the very survival and prosperity of humanity itself.

See Nature. (2019, August 7). Scientists must rise above politics — and restate their value to society. Retrieved from <a href="https://www.nature.com/articles/d41586-019-02379-w">https://www.nature.com/articles/d41586-019-02379-w</a>.

[25] Noam Chomsky said, "Prophet just means intellectual. They were people giving geopolitical analysis, moral lessons, that sort of thing. We call them intellectuals today. There were the people we honor as prophets, there were the people we condemn as false prophets. But if you look at the biblical record, at the time, it was the other way around. The flatterers of the Court of King Ahab were the ones who were honored. The ones we call prophets were driven into the desert and imprisoned."

This applies to the Douglass quote as a prophet, an intellectual. Douglass spoke on race issues, but the principle behind the statement applies here, too.

[26] A field does exist within philosophy – comprised of aesthetics, epistemology, ethics, law, metaphysics, political philosophy, and social philosophy – for the consideration and determination of values called axiology, where axiology exists within aesthetics and ethics as a two-form branch of philosophy by implication with content and style of study dependent on the branch in question. Axiology (2016) states, "Axiology (from Greek ἀξία (axiā) translated as "value, worth"; and λόγος (logos) translated as "science") is the philosophical study of value. The term was first used in the early twentieth century by Paul Lapie, in 1902, and E. von Hartmann, in 1908. Axiology is the philosophical study of goodness, or value, in the widest sense of these terms." In the sense of the possibility of a value set in a society derived from the universal set of societal-cultural values possible, so the overarching ethic of a culture, in theory in other words, of human society, in societies only constructable by human beings, axiological studies becomes a wide-ranging philosophical conceptualization of value with applicability in the sense of the study of the values of a society, of an analysis of a culture's values. Those values seen as the Good and the Bad in a society or a culture. This applies to individual values too. In this way, Plato's notion of the society reflective of the individual and the individual reflective of the society as trivially true at the level of values, of an axiological ethical evaluation. When we come to the considerations of societies without values or value, or individuals without values or value, these become nihilistic in some fundamental sense, where the study of values applied to non-value – or the aforementioned nihilism – becomes near-illogical/futile and a one-step

domain of study for the budding axiologist as to study the value of that without value becomes near pointless as an endeavour, as if a research project into the Empty Set from this Universal Set with the simple acknowledgement of the Empty Set as the intersect of all subsets, sets, and power sets of the Universal Set. On the other hand, an axiological analysis of societies and then the outcomes of those societies may provide some insight into the values to wellbeing outcome measurements of society. This becomes technical and concrete, empiric in other words, rather than some mystical and emotional examination of values and life outcomes of societies, even civilizations. The commentary in the footnote on standard of living and quality of life provides some more insight into the aspects of outcomes of societies.

See New World Encyclopedia. (2016, May 4). Axiology. Retrieved from <a href="https://www.newworldencyclopedia.org/entry/Axiology">https://www.newworldencyclopedia.org/entry/Axiology</a>.

[27] The United Nations in *Human Rights* (2019a) states:

Human rights are rights inherent to all human beings, regardless of race, sex, nationality, ethnicity, language, religion, or any other status...

- ... <u>International human rights law</u> lays down the obligations of Governments to act in certain ways or to refrain from certain acts, in order to promote and protect human rights and fundamental freedoms of individuals or groups...
- ... The foundations of this body of law are the <u>Charter</u> of the <u>United Nations and the Universal Declaration of Human Rights</u>, adopted by the General Assembly in 1945 and 1948, respectively...
- ... The Universal Declaration of Human Rights (UDHR) is a milestone document in the history of human rights. Drafted by representatives with different legal and cultural backgrounds from all regions of the world, the Declaration was proclaimed by the United Nations General Assembly in Paris on 10 December 1948 by General Assembly resolution 217 A (III) as a common standard of achievements for all peoples and all nations. It sets out, for the first time, fundamental human rights to be universally protected...
- ... Human rights is a cross-cutting theme in all UN policies and programmes in the key areas of peace and security, development, humanitarian assistance, and economic and social affairs. As a result, virtually every UN body and specialized agency is involved to some degree in the protection of human rights.

As one may surmise from these straightforward and firm statements as to the nature of human rights and international human rights law, all institutions within the global body known as the United Nations functions within a framework of human rights protection "to some degree." Any enquiry into human rights begins with the United Nations and then moves into the institutional framework in which the United Nations functions alongside the *Charter* and the *The Universal Declaration of Human Rights* for universal human rights and international law, in which consensus orientations and processes within a global context provide a non-absolute and universal outcome of ethics for the naturalized inclusion of multiple valid and non-contradictory frames within a larger edifice made by human beings for human beings. On occasions of contradiction or disagreement, the discourse begins in a collective way, ideally; of course, the international scene does not play out this way in every single instance, especially in long-standing human rights violations involved in the Israel-Palestinian issue beginning at the literal

foundations of the United Nations in 1948. I suspect, as more of the global population comes online and become empowered to speak their voices into the collective chorus of humanity, the nature of the definition of "rights" to change to some degree to better approximate "universal" in a human sense, in which human nature becomes better approximated and instantiated in international documents and institutions. National power plays will continue to enforce narrow versions of 'universal' against the internationally democratic ideal of universal. I see no inevitable trajectory in one direction or the other here as these rely in a findamental manner on human decisions — to invoke such an explanatory framework, even in a secular context, implies a teleological view of that which must be or inevitably come to be, at some amorphous, unstipulated time in the future. This form of secular teleology exists as a dogma in some secular circles, not necessarily the same as those assumed in the death, burial, and resurrection of and eventual return of Christ for redemption of Mankind in the Rapture or the overthrow of the Bourgeosie by the Proletariat for the creation of a workers' paradise seen in some interpretations of Marx but similar in a brand of teleology.

See United Nations. (2019a). Human Rights. Retrieved from https://www.un.org/en/sections/issues-depth/human-rights/.

[28] Several metrics exist for the measurement of the quality of life and the standard of living of a nation-state. Quality of life and standard of living differ in some fundamental aspects in terms of scope and depth with quality of life as more meaningful in a humanistic sense and standard of living in terms of an economic one. For standard of living, this can mean the goods and services aspirations of an individual or group within a society or the level of consumption of an individual or group within a society. What can an individual or a group purchase, this becomes the basis for the level of living with the desired level of living as the standard of living with an interplay between actuality and aspirations, respectively, for the two and the individuals and groups within a society. One metric for standard of living is the GNI or the Gross National Income, as defined by Chappelow (2019) as the alternative means by which to calculate GNP or the Gross National Product through GDP and net income from overseas. However, either GNI, measuring foreign and domestic incomes, or GNP, measuring domestic income sources, limit to the frame of income, this excludes non-tangible aspects of life, including life expectancy and happiness for a better metric of wellbeing. Standard of living makes sense in a narrow way; quality of life makes sense in a broader manner. Quality of life, according to the World Health Organization (2019), is defined as something "affected in a complex way by the person's physical health, psychological state, personal beliefs, social relationships and their relationship to salient features of their environment" with the implied "environment" as one's nation, culture, and local community, even, in an extended sense, one's internal mental and psychological fitness. This means income as part of it, but not all of it or even most of it. Smith (2016) from the World Economic Forum defines quality of life as akin to this in some ways, but posits a Social Progress Index comprised of three separate parts and measured on a scale of 0 to 100. Jenkinson (2019) noted, "Examples of quality-of-life measures include the Beck Depression Inventory (BDI), the Sickness Impact Profile (SIP), and the 36-item Short Form Health Survey (SF-36)...Disease-specific measures, such as the Arthritis Impact Measurement Scales (AIMS), the 39-item Parkinson's Disease Questionnaire (PDQ-39), the Endometriosis Health Profile (EHP), and the 40-item Amyotrophic Lateral Sclerosis Assessment Questionnaire (ALSAQ-40), are designed for use with specific patient groups." Quality of life is subjective and objective, but wide in applicability. In other words, the forms of quality of life metrics focus more on the dimensions relevant to direct human wellbeing rather than economic indicators, e.g., income, for the

measurement of the health and wellness of a society, though income matters to some of the human wellbeing outcomes important for measurement of quality of life as opposed to standard of living alone.

See Jenkinson, C. (2019, July 15). Quality of life. Retrieved from https://www.britannica.com/topic/quality-of-life.

[29] Metrics for measuring human rights came in the form of the UHRI or the Universal Human Rights Index. In other words, the universal human rights of *The Universal Declaration of Human Rights* do not exist as some abstract notion alone, but come with concrete measurements and outcomes in the real world if applied in a responsible and correct way. *Welcome to UHRI* (2019a) states:

The Universal Human Rights Index (UHRI) is designed to facilitate access to human rights recommendations issued by three key pillars of the United Nations human rights protection system: the Treaty Bodies established under the international human rights treaties as well as the Special Procedures and the Universal Periodic Review (UPR) of the Human Rights Council.

The UHRI aims at assisting States in the implementation of these recommendations and at facilitating the work of national stakeholders such as National Human Rights Institutions (NHRIs), non-governmental organisations, civil society and academics as well as the United Nations.

See OHCHR. (2019a). Welcome to UHRI. Retrieved from <a href="https://uhri.ohchr.org/en/">https://uhri.ohchr.org/en/</a>.

[30] Human Rights Indicators (2019b) states:

Human rights indicators are essential in the implementation of human rights standards and commitments, to support policy formulation, impact assessment and transparency.

OHCHR has developed a framework of indicators to respond to a longstanding demand to develop and deploy appropriate statistical indicators in furthering the cause of human rights.

One of the recommendations of the World Conference on Human Rights in Vienna was the use and analysis of indicators to help measure progress in human rights.

Several years of research and consultation went into the development of this tool. It was guided by the principles of universality, impartiality, objectivity and cooperation to strengthen the capacity of Member States in meeting their human rights obligations.

See OHCHR. (2019b). Human Rights Indicators. Retrieved from <a href="https://www.ohchr.org/EN/Issues/Indicators/Pages/HRIndicatorsIndex.aspx">https://www.ohchr.org/EN/Issues/Indicators/Pages/HRIndicatorsIndex.aspx</a>.

[31] The World Health Organization (2019) states in full:

The Constitution of the World Health Organization (WHO) defines health as "A state of complete physical, mental, and social well-being not merely the absence of disease . . .". It follows that the measurement of health and the effects of health care must include not only an indication of changes in the frequency and severity of diseases but also an estimation of well being and this can be assessed by measuring the improvement in the quality of life related to health care. Although there are generally satisfactory ways of

measuring the frequency and severity of diseases this is not the case in so far as the measurement of well being and quality of life are concerned. WHO, with the aid of 15 collaborating centres around the world, has therefore developed two instruments for measuring quality of life (the WHOQOL-100 and the WHOQOL-BREF), that can be used in a variety of cultural settings whilst allowing the results from different populations and countries to be compared. These instruments have many uses, including use in medical practice, research, audit, and in policy making.

WHO defines Quality of Life as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, personal beliefs, social relationships and their relationship to salient features of their environment.

See WHO. (2019). WHOQOL: Measuring Quality of Life, Introducing the WHOQOL instruments. Retrieved from https://www.who.int/healthinfo/survey/whoqol-qualityoflife/en/.

[32] Smith in *These countries have the highest quality of life* (2016), in full, states:

Scandinavian nations scored highly in the "Social Progress Index," but more surprising are the very large countries which came lower down the list — suggesting that a strong GDP per capita is not the only gauge for a high standard of living.

Despite this, all of the top 10 countries are developed nations — so having a strong economy clear has an impact.

The "Social Progress Index" collates the scores of three main indexes:

Basic Human Needs, which includes medical care, sanitation, and shelter.

Foundations of Wellbeing, which covers education, access to technology, and life expectancy.

Opportunity, which looks at personal rights, freedom of choice, and general tolerance.

The index then adds the three different factors together, before giving each nation a score out of 100.

See Smith, M.N. (2016, July 1). These countries have the highest quality of life. Retrieved from <a href="https://www.weforum.org/agenda/2016/07/these-countries-have-the-highest-quality-of-life">https://www.weforum.org/agenda/2016/07/these-countries-have-the-highest-quality-of-life</a>.

[33] A live interview format creates problems for the comprehensive statement about most things, not a critique on this level given the nature of a live interview format for Dr. Sagan at the time. At the same time, one distinction may be between general authority and authoritative authority in which questioning authoritative authority, e.g., evolutionary biologists speaking on evolutionary theory, becomes less reasonable most of the time compared to questioning general authority, e.g., a politician known to not listen to science or scientific bodies' leaders on relevant, appropriate, and important scientific questions impacting the lives of citizens with import to public policy, political platforms, and the engineering of society based on the common interest of the pubic as decided, hopefully, democratically by the general polis. Other breakdowns can ensue here, which will not be the focus of the article and, therefore, I will stop here.

[34] Ask Dr. Silverman 5 — Limits of Mind: Possible Human Science (2019b) in full states:

Scott Douglas Jacobsen: In one view, the limitations of the human mind set boundaries on possible human science. Human empirical methods with the inclusion of artificially constructed structures can extend the reach of the human mind, whether computational constructs, e.g., algorithms or data collection systems, or tools to manifest the world with greater precision to the senses, e.g., telescopes and microscopes. However, these translate the information back into the range of experience and processing of human beings.

In another perspective, the discoveries about the world reflect the tendencies in thought, and so the limitations, of the human mind, whether individuals or groups. What we know to various degrees, seem to know, and think we know, these reflect the form of information processing of human beings at large. Hills and valleys of fidelity and complexity reflecting the internal mechanics of the mind.

Pure mathematics seems to reflect this the most exquisitely. Some discoveries would, probably, remain impossible without the aid of technology. In particular, the world of large data sets, powerful computational systems, and to-the-task algorithms to help teams of professional mathematicians.

As technology advances, and as a practical philosophical inquiry, how will science advance? Where will possible human science hit a wall? Will machines launch independent scientific enquiries in the future to make discoveries barely comprehensible to most human beings?

**Professor Herb Silverman:** Aristotle pioneered the scientific method in ancient Greece alongside his empirical biology and work on logic, rejecting a purely deductive framework in favor of generalizations made from observations of nature. Modern science began to develop in the scientific revolution of 16th- and 17th-century Europe when the scientific method was formalized.

At this point in 2019, I'm not too worried about the possibility of human scientific discoveries hitting a wall. Based on the progress of the history of science and technology, it is not unreasonable to expect that means will be found to circumvent what appear to us now to be absolute limitations.

Look at all the scientific progress we've made in just the last century. People once said that we would never fly, before the Wright brothers did. People said we would never make it into space, until we did. And then that we would never make it to the moon, but we did.

Interstellar travel is one of those future innovations that many people believe will never happen. It won't happen tomorrow or in the next year, but eventually, if we last long enough, I think we will get to Alpha Centauri, the closest star and closest planetary system to our solar system. It is 4.37 light-years from the sun. Using current spacecraft technologies, crossing the distance between our Sun and Alpha Centauri would take several millennia, which would require generations of people in spaceships. But scientists are now investigating nuclear pulse propulsion and laser light sail technology, which might reduce the journey time between our sun and Alpha Centauri to decades.

Some scientists think there will be an end to physics if a "Theory of Everything" (TOE) is discovered. This would entail an all-encompassing, coherent theoretical framework that

fully explains and links all physical aspects of the universe. In particular, such a theory would reconcile general relativity and quantum field theory. General relativity only focuses on gravity for understanding the universe in regions of both large scale and high mass: stars, galaxies, clusters of galaxies, etc. Quantum field theory only focuses on three non-gravitational forces, (strong, weak, and electromagnetic force) for understanding the universe in regions of both small scale and low mass: sub-atomic particles, atoms, molecules, etc. At present, there is no candidate for a TOE that includes the standard model of particle physics and general relativity.

A number of scholars claim that Gödel's incompleteness theorem suggests that any attempt to construct a TOE is bound to fail. Gödel's theorem, informally stated, asserts that any formal theory sufficient to express elementary arithmetical facts and strong enough for them to be proved is either inconsistent or incomplete. Stephen Hawking, originally a believer in a TOE, after investigating Gödel's theorem, concluded that a TOE was not attainable.

In fact, Gödel's theorem seems to imply that pure mathematics is inexhaustible. No matter how many problems we solve, there will always be other problems that cannot be solved within the existing rules. So, because of Gödel's theorem, physics is inexhaustible too. The laws of physics are a finite set of rules, and include the rules for doing mathematics, so that Gödel's theorem applies to them.

Also, just about any problem solved in mathematics or science seems to raise additional questions that we would like to solve. So I expect there are infinitely many questions that we would like answers to, which won't be found in a finite amount of time. There might even be infinitely many possible theories, not all of which humans can ponder. With or without machines, even now the majority of scientific discoveries are barely comprehensible (or incomprehensible) to most human beings.

The limitations on human scientific and mathematical discoveries, I expect, will be based on the limits to human life — which might end from climate change, an asteroid, nuclear war, or for some reason we don't yet know about. Now that's what should probably be a priority for us to address.

See Jacobsen, S.D. (2019b, June 16). Ask Dr. Silverman 5 — Limits of Mind: Possible Human Science. Retrieved from <a href="https://medium.com/question-time/ask-dr-silverman-5-limits-of-mind-possible-human-science-a9fc20cbe27e">https://medium.com/question-time/ask-dr-silverman-5-limits-of-mind-possible-human-science-a9fc20cbe27e</a>.

[35] Dr. Neil deGrasse Tyson reflects an amusing point of view. In an old lecture, he spoke about the philosophy of discovery and the philosophy of ignorance with science as reflective of the philosophy of discovery and religion as the philosophy of ignorance. With some further thought, this seems wrong. Some, including the Sufis and meditative branches of, religions orient with something akin to systematic introspection.

See [MrBrittish]. (2011, September 13). Neil deGrasse Tyson: The Perimeter of Ignorance. Retrieved from https://www.youtube.com/watch?v=1te01rfEF0g.

[36] Fake News?: What is Fake News? (2019) states:

Fake news is made-up, false information packaged and shared as real news. Fake news: Presents 'facts' that can not be verified, and may be hard to find anywhere else

Is usually created to advance a political agenda, for profit, mischief, or attention-seeking Appeals to emotions, hoping you'll be scared or angry enough to share without checking Is usually created by people who are not experts on the topic or even journalists

See The Learning Portal: College Libraries Ontario. (2019). Fake News?: What is Fake News?. Retrieved from <a href="https://tlp-lpa.ca/digital-citizenship/fake-news">https://tlp-lpa.ca/digital-citizenship/fake-news</a>.

[37] *Post-truth* (2019) states:

Post-truth describes a situation in which the importance of actual facts is supplanted by appeals to emotion and personal prejudices in influencing public opinion.

See Grammarist. (2019). Post-truth. Retrieved from <a href="https://grammarist.com/new-words/post-truth/">https://grammarist.com/new-words/post-truth/</a>.

[38] Beijing is prepping for a massacre in Hong Kong: time for the West to put human rights ahead of free trade (2019), in full, states:

A quarter-century ago, the West wagered that welcoming China into the world economy would seduce the Communist Party into allowing ever-more freedom. That bet's been lost.

There's precious little ideology to China's "communism" anymore and no hint of seeking economic justice. But the party will allow no challenge to its rule. Since Xi Jinping took over as president in 2013, he's rolled back freedom after freedom.

Christian churches are smashed and worshippers jailed; Xi has even bullied Rome into letting him choose Catholic bishops in China. Re-education camps house 1 million Uighers in a province teeming with hi-tech surveillance. Twelve million other Muslims suffer stepped-up repression and systematic abuses, notes Human Rights Watch. Buddhists deemed members of the Falun Gong movement pack prisons that provide involuntary "organ donors."

And Hong Kong's promised "high degree of autonomy" has become a joke. The mainland has even begun to databank its residents' biometrics (DNA, fingerprints, voice samples, etc.), the obvious basis for eventual Big Brother surveillance.

See Post Editorial Board. (2019, August 3). Beijing is prepping for a massacre in Hong Kong: time for the West to put human rights ahead of free trade. Retrieved from <a href="https://nypost.com/2019/08/03/beijing-is-prepping-for-a-massacre-in-hong-kong-time-for-the-west-to-put-human-rights-ahead-of-free-trade">https://nypost.com/2019/08/03/beijing-is-prepping-for-a-massacre-in-hong-kong-time-for-the-west-to-put-human-rights-ahead-of-free-trade</a>.

[39] The Universal Declaration of Human Rights (2019c) states:

Article 19.

Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.

See United Nations. (2019c). The Universal Declaration of Human Rights. Retrieved from <a href="https://www.un.org/en/universal-declaration-human-rights/">https://www.un.org/en/universal-declaration-human-rights/</a>.

[40] Safety of journalists and human rights defenders (2019) states:

Journalists and human rights defenders around the world face major risks as a result of their work. Governments and other powerful actors, seeking to escape scrutiny and stifle dissent, often respond to critical reporting or activism with attempts to silence them.

Threats, surveillance, attacks, arbitrary arrest and detention, and, in the most grave cases, enforced disappearance or killings, are too often the cost of reporting the truth. The protection of journalists and human rights defenders, and ending impunity for attacks against them, is a global priority for safeguarding freedom of expression.

States are under an obligation to prevent, protect against, and prosecute attacks against journalists and human rights defenders. Creating a safe and enabling environment for their work necessitates legal reform, the creation of special protection mechanisms, and protocols to guide effective investigations and prosecutions where attacks occur. A free press and active civil society are essential to ensure the public's right to know, so that governments and institutions can be held accountable.

See Article 19. (2019). Safety of journalists and human rights defenders. Retrieved from <a href="https://www.article19.org/issue/safety-of-journalists-and-human-rights-defenders/">https://www.article19.org/issue/safety-of-journalists-and-human-rights-defenders/</a>.

[41] *Journalists in Distress: Securing Your Digital Life* (n.d.) states:

Digital technologies have become extremely important to journalism work, but this also means there is a growing number of tools and platforms that can be used against journalists as means of surveillance, identification and harassment by States and non-State actors alike. Protecting yourself can no longer mean just securing your physical safety; it must also include securing your digital safety. Any breaches to your online life also put your physical life at risk.

When journalists are persecuted for their work, they often seek help from organizations around the world that operate emergency assistance programs specifically for them. If you find yourself in this precarious situation, it is important to be aware of the digital security risks that you face even when contacting these programs. Taking steps to eliminate or mitigate these risks will not only protect yourself during your search for help; it will also improve your digital security overall.

See Canadian Journalists for Free Expression. (n.d.). Journalists in Distress: Securing Your Digital Life. Retrieved

from <a href="https://www.cjfe.org/journalists\_in\_distress\_securing\_your\_digital\_life">https://www.cjfe.org/journalists\_in\_distress\_securing\_your\_digital\_life</a>.

[42] Humanists International (2019) in the *Reykjavik Declaration on the Climate Change Crisis*, in full, states:

Proposed by the Boards of the European Humanist Federation, Humanists International, and Young Humanists International

Human beings are part of the natural world, but have a disproportionate effect on the global environment and biodiversity. Throughout history, our species has used the natural world to increase individual and collective wellbeing, and the impact we have is no longer sustainable. Policies adopted by governments should be informed by scientific findings. Governments need to respect the overwhelming conclusions reached by the international scientific community, including that the overuse of natural resources and

the increase in greenhouse gas emissions is driving catastrophic climate change, threatening the diversity of life on Earth and the sustainability of human societies. Indeed, extreme scenarios pose an existential risk to humanity. The world must act with urgency and in a globally coordinated way to reduce and prevent human contributions to climate change, to mitigate climate impacts and adapt to them.

#### We recognise:

The overwhelming scientific consensus that human beings are contributing to the climate change trend of global warming;

That climate change will adversely affect human communities, non-human animals and natural ecosystems;

The threat to ecosystems caused by land-use and resource extraction, including commercial deforestation and unsustainable farming;

That investment in new renewable energy technology must happen alongside a massive reduction in the use of carbon-intensive fuels, such as coal, oil and gas;

That all countries need to work to reduce greenhouse gas emissions and to preserve habitats and species.

That economic development resulting from industrialisation has historically advantaged countries as they develop, and that wealthier countries should assist developing countries in meeting environmental obligations.

# We support:

The United Nations Framework Convention on Climate Change, and the resulting work of the 2017 Paris Agreement, and the 2017 United Nations Climate Change Conference (COP23);

The urgent work of the scientific, engineering and activist communities to research and deploy new technologies and strategies to mitigate the risks to civilisation and biodiversity;

The need for a global transition to new ways of using resources and new means of generating energy that will be socially and environmentally sustainable.

We call upon all humanist organizations, civil society in general, and all individuals around the world to:

Highlight to their governments and regional bodies the need for urgent action to reduce greenhouse gas emissions and make land-use and resource extraction sustainable, and to protect and conserve wild habitats;

Foster a social and political commitment to urgent action and long-term policymaking to mitigate and prevent climate change.

This policy supersedes the following Humanists International policy statements, and they will therefore be archived:

'Ecology', Humanists International, Regional Congress, Australia, 2000

'The extermination of birds of passage', Humanists International, World Humanist Congress, Amsterdam, Netherlands, 1974

'Ecology', Humanists International, Executive Committee, 1971

See Humanists International. (2019). Reykjavik Declaration on the Climate Change Crisis. Retrieved from <a href="https://humanists.international/policy/reykjavik-declaration-on-the-climate-change-crisis/">https://humanists.international/policy/reykjavik-declaration-on-the-climate-change-crisis/</a>.

[43] General Statement of Policy: 4. Human development and the environment (2015) states:

We realise that we are all totally dependent on the natural world for our life and well-being. Furthermore we acknowledge an obligation to bequeath to our descendants an earth that offers as good or better an environment for living as we enjoy. But unless we learn to take better care of the Earth's environment we will put at risk the health and well-being of many living today, and the very survival of those who come after us. Caring for the environment requires attention to the advice of scientists who have studied the ecology of the planet and is likely to include control of the size of the population and reduction of the emission of "greenhouse gasses" and management of resource extraction and use, with a view to the long-term survivability of life on Earth.

See Humanists International. (2015, May). General Statement of Policy: 4. Human development and the environment. Retrieved from <a href="https://humanists.international/policy/general-statement-of-policy/">https://humanists.international/policy/general-statement-of-policy/</a>.

[44] Proper spelling of "Organisation" in "International Humanist and Ethical Youth Organisation" rather than "Organization" – easy mistake to make but, also, easily rectifiable, in the past and in historical statements. IHEYO, short for International Humanist and Ethical Youth Organisation," changed to YHI for Young Humanists International. The proper titles for the organizations are Humanists International and Young Humanists International with a strong preference, in terms of outreach, for full spelling of the names instead of simple initialisms in HI and YHI.

[45] NASA (2016) in Scientific Consensus: Earth's Climate is Warming, in full, states:

#### AMERICAN SCIENTIFIC SOCIETIES

Statement on Climate Change from 18 Scientific Associations

"Observations throughout the world make it clear that climate change is occurring, and rigorous scientific research demonstrates that the greenhouse gases emitted by human activities are the primary driver." (2009)

American Association for the Advancement of Science

"The scientific evidence is clear: global climate change caused by human activities is occurring now, and it is a growing threat to society." (2006)

American Chemical Society

"Comprehensive scientific assessments of our current and potential future climates clearly indicate that climate change is real, largely attributable to emissions from human activities, and potentially a very serious problem." (2004)

#### American Geophysical Union

"Human-induced climate change requires urgent action. Humanity is the major influence on the global climate change observed over the past 50 years. Rapid societal responses can significantly lessen negative outcomes." (Adopted 2003, revised and reaffirmed 2007, 2012, 2013)

#### American Medical Association

"Our AMA ... supports the findings of the Intergovernmental Panel on Climate Change's fourth assessment report and concurs with the scientific consensus that the Earth is undergoing adverse global climate change and that anthropogenic contributions are significant." (2013)

## American Meteorological Society

"It is clear from extensive scientific evidence that the dominant cause of the rapid change in climate of the past half century is human-induced increases in the amount of atmospheric greenhouse gases, including carbon dioxide (CO2), chlorofluorocarbons, methane, and nitrous oxide." (2012)

#### American Physical Society

"The evidence is incontrovertible: Global warming is occurring. If no mitigating actions are taken, significant disruptions in the Earth's physical and ecological systems, social systems, security and human health are likely to occur. We must reduce emissions of greenhouse gases beginning now." (2007)

# The Geological Society of America

"The Geological Society of America (GSA) concurs with assessments by the National Academies of Science (2005), the National Research Council (2006), and the Intergovernmental Panel on Climate Change (IPCC, 2007) that global climate has warmed and that human activities (mainly greenhouse-gas emissions) account for most of the warming since the middle 1900s." (2006; revised 2010)

#### SCIENCE ACADEMIES

#### International Academies: Joint Statement

"Climate change is real. There will always be uncertainty in understanding a system as complex as the world's climate. However there is now strong evidence that significant global warming is occurring. The evidence comes from direct measurements of rising surface air temperatures and subsurface ocean temperatures and from phenomena such as increases in average global sea levels, retreating glaciers, and changes to many physical and biological systems. It is likely that most of the warming in recent decades can be attributed to human activities (IPCC 2001)." (2005, 11 international science academies)<sup>10</sup>

## U.S. National Academy of Sciences

"The scientific understanding of climate change is now sufficiently clear to justify taking steps to reduce the amount of greenhouse gases in the atmosphere." (2005)

# U.S. GOVERNMENT AGENCIES

# U.S. Global Change Research Program

"The global warming of the past 50 years is due primarily to human-induced increases in heat-trapping gases. Human 'fingerprints' also have been identified in many other aspects of the climate system, including changes in ocean heat content, precipitation, atmospheric moisture, and Arctic sea ice." (2009, 13 U.S. government departments and agencies)

#### INTERGOVERNMENTAL BODIES

Intergovernmental Panel on Climate Change

"Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, and sea level has risen."

"Human influence on the climate system is clear, and recent anthropogenic emissions of greenhouse gases are the highest in history. Recent climate changes have had widespread impacts on human and natural systems."

See NASA. (2016). Scientific Consensus: Earth's Climate is Warming. Retrieved from <a href="https://climate.nasa.gov/scientific-consensus/">https://climate.nasa.gov/scientific-consensus/</a>.

[46] Interview with Professor Kenneth Miller – Professor, Brown University (2019a) states:

Jacobsen: In terms of the opposition to the teaching of evolution by natural selection, broadly speaking, what has been their efforts to distort the reality of evolution by natural selection, miseducate the young, or simply lie for socio-political points?

Miller: These efforts have taken many forms, some of them attracting very little public notice. Teachers everywhere report informal pressure from parents and occasionally from students to skip or water down their treatment of evolution, despite state standards requiring it to be taught. Anti-evolution organizations like the Discovery Institute and Answers in Genesis churn out a steady stream of anti-evolution talking points, which are occasionally picked up by state and local groups hoping to challenge the teaching of evolution in their local schools. And I have already mentioned the "academic freedom" bills that regularly appear in state legislatures.

Very few of these efforts are overtly religious. Rather, they do their best to sound scientific by arguing that evolution is disproven on the basis of thermodynamics, information theory, the complexity of the genome, or by gaps and inconsistencies in the fossil record. Then, while they provide absolutely no evidence supporting special creation or intelligent design, they argue that these "theories" must be considered since they are the only possible alternatives to the theory of evolution. In effect, they have placed their ideas, without any scientific support, as the default explanation in the event evolution is rejected.

See Jacobsen, S.D. (2019a, March 25). Interview with Professor Kenneth Miller – Professor, Brown University. Retrieved from <a href="https://www.canadianatheist.com/2019/03/miller-jacobsen/">https://www.canadianatheist.com/2019/03/miller-jacobsen/</a>.

[47] Dr. Kenneth Raymond Miller: Professor of Biology, Brown University (Part One) (2014) states:

# 7. Have intelligent design theories made any predictions? Have any intelligent design theories yielded experimental results? What falsifies intelligent design?

First, it's worth noting that the arguments advanced by ID are entirely negative. Think about the claims made by Behe and Dembski. They point to a characteristic of living systems (biochemical complexity or specified information) and then argue that evolution could not have produced these characteristics. They are wrong in their arguments, of course, but the remarkable thing is that neither of these arguments actually produce anything in the way of positive evidence for ID. They simply argue that evolution couldn't do it.

"Design," therefore, is assumed to be the default explanation in the absence of an adequate evolutionary mechanism. But that is a very weak argument, even if their critiques of evolutionary mechanisms were correct. By assuming a priori that the only mechanism for living things is special creation by a "designer," they are ruling out, for no reason, a host of other possibilities. These possibilities include, incidentally, as yet undiscovered genetic mechanisms. Since the last two decades have seen several such discoveries, including RNA interference, epigenetic modification, and RNA editing, it would be foolhardy to assume that we have run the table in that respect.

Not surprisingly, a negative critique of evolution, like ID, makes no predictions of its own except that living things will have some characteristics that we cannot yet explain. If that were not true, of course, there would be no need to do research, because we would understand everything. And the "design hypothesis" has proved to be almost completely unproductive in the scientific sense.

It is also worth noting that almost nothing can falsify every claim made for "design" in the strict sense. But that's actually ID's greatest weakness. You can invoke "design" to explain anything, from the structure of the ribosome to the winner of last year's World Series, but that proves absolutely nothing. Whenever we lack a detailed explanation of a biological structure, pathway, or process, you can always throw up your hands and say "it must have been designed," and that's that. But that's not an explanation. It's really an appeal to ignorance. And my greatest problem with ID is that it proposes that we be satisfied with ignorance rather than continuing to search for answers.

See Jacobsen, S.D. (2014, July 1). Dr. Kenneth Raymond Miller: Professor of Biology, Brown University (Part One). Retrieved from <a href="https://in-sightjournal.com/2014/07/01/dr-kenneth-raymond-miller-professor-of-biology-brown-university/">https://in-sightjournal.com/2014/07/01/dr-kenneth-raymond-miller-professor-of-biology-brown-university/</a>.

[48] The Causes of Climate Change (2019) states:

Carbon dioxide ( $CO_2$ ). A minor but very important component of the atmosphere, carbon dioxide is released through natural processes such as respiration and volcano eruptions and through human activities such as deforestation, land use changes, and burning fossil fuels. Humans have increased atmospheric  $CO_2$  concentration by more than a third since the Industrial Revolution began. This is the most important long-lived "forcing" of climate change.

See NASA Jet Propulsion Laboratory. (2019). The Causes of Climate Change. Retrieved from <a href="https://climate.nasa.gov/causes/">https://climate.nasa.gov/causes/</a>.

[49] Causes of Climate Change (2017) state:

This record shows that the climate system varies naturally over a wide range of time scales. In general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes, such as changes in solar energy, volcanic eruptions, and natural changes in greenhouse gas (GHG) concentrations...

... Since the Industrial Revolution began around 1750, human activities have contributed substantially to climate change by adding CO<sub>2</sub> and other heat-trapping gases to the atmosphere. These greenhouse gas emissions have increased the greenhouse effect and caused Earth's surface temperature to rise. The primary human activity affecting the amount and rate of climate change is greenhouse gas emissions from the burning of fossil fuels...

... Nitrous oxide is produced through natural and human activities, mainly through agricultural activities and natural biological processes. Fuel burning and some other processes also create  $N_2O$ . Concentrations of  $N_2O$  have risen approximately 20% since the start of the Industrial Revolution, with a relatively rapid increase toward the end of the 20th century.

See EPA. (2017, January 19). Causes of Climate Change. Retrieved from <a href="https://19january2017snapshot.epa.gov/climate-change-science/causes-climate-change\_.html">https://19january2017snapshot.epa.gov/climate-change-science/causes-climate-change\_.html</a>.

[50] Causes of climate change: What is the most important cause of climate change? (2019) states:

Human activity is the main cause of climate change. People burn fossil fuels and convert land from forests to agriculture. Since the beginning of the Industrial Revolution, people have burned more and more fossil fuels and changed vast areas of land from forests to farmland...

... Small changes in the sun's energy that reaches the earth can cause some climate change. But since the Industrial Revolution, adding greenhouse gases has been over 50 times more powerful than changes in the Sun's radiance. The additional greenhouse gases in earth's atmosphere have had a strong warming effect on earth's climate...

... Changes in solar irradiance have contributed to climate trends over the past century but since the Industrial Revolution, the effect of additions of greenhouse gases to the atmosphere has been over 50 times that of changes in the Sun's output...

... Climate change can also be caused by human activities, such as the burning of fossil fuels and the conversion of land for forestry and agriculture. Since the beginning of the Industrial Revolution, these human influences on the climate system have increased substantially. In addition to other environmental impacts, these activities change the land surface and emit various substances to the atmosphere. These in turn can influence both the amount of incoming energy and the amount of outgoing energy and can have both warming and cooling effects on the climate. The dominant product of fossil fuel combustion is carbon dioxide, a greenhouse gas. The overall effect of human activities since the Industrial Revolution has been a warming effect, driven primarily by emissions of carbon dioxide and enhanced by emissions of other greenhouse gases.

See Government of Canada. (2019, March 28). Causes of climate change: What is the most important cause of climate change?. Retrieved from <a href="https://www.canada.ca/en/environment-climate-change/services/climate-change/causes.html">https://www.canada.ca/en/environment-climate-change/services/climate-change/causes.html</a>.

[51] What are the greenhouse gas changes since the Industrial Revolution? (2019) states:

These increases in greenhouse gas concentrations and their marked rate of change are largely attributable to human activities since the Industrial Revolution (1800). The increases and current atmospheric levels are the result of the competition between sources (the emissions of these gases from human activities and natural systems) and sinks (their removal from the atmosphere by conversion to different chemical compounds—for example,  $CO_2$  is removed by photosynthesis and conversion to carbonates).

See American Chemical Society. (2019). What are the greenhouse gas changes since the Industrial Revolution?. Retrieved

from <a href="https://www.acs.org/content/acs/en/climatescience/greenhousegases/industrialrevolution.ht">https://www.acs.org/content/acs/en/climatescience/greenhousegases/industrialrevolution.ht</a> ml.

[52] What is causing climate change? (n.d.). states:

Evidence that CO2 emissions are the cause of global warming is very robust. Scientists have known since the early 1800s that greenhouse gases in the atmosphere trap heat.

Global CO2 emissions from human activity have increased by over 400% since 1950. As a result, the concentration of CO2 in the air has reached more than 400 parts per million by volume (ppm), compared to about 280ppm in 1750 (around the start of the Industrial Revolution).

See Committee on Climate Change. (n.d.). What is causing climate change?. Retrieved from <a href="https://www.theccc.org.uk/tackling-climate-change/the-science-of-climate-change/climate-variations-natural-and-human-factors/">https://www.theccc.org.uk/tackling-climate-change/the-science-of-climate-change/climate-variations-natural-and-human-factors/</a>.

[53] The global health effects of nuclear war (1982) stated:

If the bomb is exploded at or near the surface of the earth, a large amount of dust, dirt and other surface materials will also be lifted with the updraft. Some of the fission products will adhere to these particles, or onto the material used to construct the bomb. The very largest particles – stones and pebbles – will fall back to earth in a matter of minutes or hours. Lighter material – ash or dust – will fall to earth within a few days, or perhaps be incorporated in raindrops. The radioactive material which returns to earth within 24 hours is called early or local fallout. It is the most dangerous.

See Martin, B. (1982, December). The global health effects of nuclear war. Retrieved from https://documents.uow.edu.au/~bmartin/pubs/82cab/.

[54] Nuclear Attack (2005) states:

**Short-term Effects** 

Acute Radiation Syndrome (ARS) may develop in those who are exposed to radiation levels of 50-100 rad, depending on the type of radiation and the individual. Symptoms of ARS include nausea, vomiting, diarrhea, and reduced blood cell counts. Radiation, especially beta radiation, can also cause skin burns and localized injury. Fatalities begin to appear at exposures of 125 rad,

and at doses between 300-400 rad, about half of those exposed will die without supportive treatment.2 At very high doses, greater than 1000 rad, people can die within hours or days due to effects on the central nervous system. Radiation exposure inhibits stem-cell growth; for those who die within weeks to months, death is usually caused by damage to the gastrointestinal lining and to bone marrow where stem cell growth is crucial. Fetuses are more sensitive to radiation; effects may include growth retardation, malformations, or impaired brain function.

# Long-term Effects

Radiation exposure increases the risk of developing cancer, including leukemia, later in life. The increased cancer risk is proportional to radiation dose. The survivors of the Hiroshima and Nagasaki atomic bombs have about a 10% increased risk of developing cancers over normal agespecific rates, some occurring more than 50 years following the exposure. A long-term medical surveillance program would likely be established to monitor potential health effects of survivors of a nuclear attack. There is no evidence of genetic changes in survivors' children who were conceived and born after the bombings in Hiroshima and Nagasaki.

See Department of Homeland Security. (2005). Nuclear Attack. Retrieved from <a href="https://www.dhs.gov/xlibrary/assets/prep\_nuclear\_fact\_sheet.pdf">https://www.dhs.gov/xlibrary/assets/prep\_nuclear\_fact\_sheet.pdf</a>.

[55] The Effects of Nuclear Weapons (2018) stated:

#### Instantaneous

The heart of a nuclear explosion reaches a temperature of several million degrees centigrade. Over a wide area the resulting heat flash literally vaporises all human tissue. At Hiroshima, within a radius of half a mile, the only remains of most of the people caught in the open were their shadows burnt into stone.

#### Near-immediate

People inside buildings or otherwise shielded will be indirectly killed by the blast and heat effects as buildings collapse and all inflammable materials burst into flames. The immediate death rate will be over 90%. Various individual fires will combine to produce a fire storm as all the oxygen is consumed. As the heat rises, air is drawn in from the periphery at or near ground level. This results in lethal, hurricane force winds as well as perpetuating the fire as the fresh oxygen is burnt. Such fire storms have also been produced by intense, large scale conventional bombing in cities such as Hamburg and Tokyo.

People in underground shelters who survive the initial heat flash will die as all the oxygen is sucked out of the atmosphere.

Outside the area of total destruction there will be a gradually increasing percentage of immediate survivors. However most of these will suffer from fatal burns, will be blinded, bleeding from glass splinters and will have suffered massive internal injuries. Many will be trapped in collapsed and burning buildings. The death rate will be higher than in a normal disaster since most emergency services will be incapable of responding due to their equipment being destroyed and staff killed. The sheer scale of the casualties would overwhelm any country's medical resources. The International Red Cross has concluded that the use of a single nuclear weapon in or near a populated area is likely to result in a humanitarian disaster that will be "difficult to address".

See Campaign for Nuclear Disarmament. (2018, April 3). The Effects of Nuclear Weapons. Retrieved from <a href="https://cnduk.org/the-effects-of-nuclear-weapons/">https://cnduk.org/the-effects-of-nuclear-weapons/</a>.

[56] According to *Trading Economics* in "India Population," the population circa 2017 was 1,283,600,000, approximately. The Word Bank reports the total population for China, in 2018, at about 1,393,000,000. Both over 1 billion by probably 2 to 4 hundred million citizens at this time.

See Trading Economics. (2019). India Population. Retrieved from <a href="https://tradingeconomics.com/india/population">https://tradingeconomics.com/india/population</a>.

See World Bank. (2019). Population, total; China. Retrieved from https://data.worldbank.org/indicator/SP.POP.TOTL?locations=CN.

[57] Url (2018) in *Don't attack science agencies for political gain* stated:

Three changes would help elected officials and regulatory agencies to do their separate jobs. First, questions about societal values should be framed ahead of and outside scientific work. The EU must equip itself with a legal and regulatory framework for food production that accounts for citizens' opinions on intensive agriculture, pesticide use, GM organisms and other biotechnology, and the importance of biodiversity. This will provide a forum for open, honest debate.

Second, regulatory and legal guidelines should be drawn up to govern how regulatory bodies interact with industry and handle transparency of the data that they use.

Finally, politicians need to decide whether they are willing to allow risk assessment of regulated products, such as glyphosate and food additives, to continue to be based on safety studies commissioned and paid for by the industry, as has been the case for decades. If so, politicians must have the courage to support the regulatory bodies charged with implementing these rules. If not, they must find funding for these studies elsewhere. Only once these steps have been taken will regulatory agencies be free from allegations of bias when their scientific conclusions are at odds with the political agenda of one interest group or another.

In the end analysis, these public officials harbour the title "public" because of the need to function on behalf of the public.

See Url, B. (2018, January 24). Don't attack science agencies for political gain. Retrieved from https://www.nature.com/articles/d41586-018-01071-9.

[58] Labour Force Participation Rate defined by the Government of Canada (2018) as the following:

Labour force participation rate: Total labour force expressed as a percentage of the population aged 15 and over. The participation rate for a particular group (age, sex, marital status, geographic area, etc.) is the total labour force in that group expressed as a percentage of the population 15 years of age and over in that group.

See Government of Canada. (2018, May 17). The surge of women in the workforce. Retrieved from <a href="https://www150.statcan.gc.ca/n1/pub/11-630-x/11-630-x2015009-eng.htm">https://www150.statcan.gc.ca/n1/pub/11-630-x/11-630-x2015009-eng.htm</a>.

Also, occupational prestige defined by the *Oxford Reference* as the following:

Occupational prestige refers primarily to the differential social evaluation which is ascribed to jobs or occupations. What people know about jobs, or how people view occupations, is to a greater extent a given; much more variation exists in the value that they ascribe to them.

To ask how people rate the 'general standing' of an occupation (the most common question) is taken to be a measure of occupational prestige and hence of the social status of occupations, though many other criteria have been proposed, including 'social usefulness' as well as 'prestige' and 'status' themselves.

See Oxford Reference. (2019). occupational prestige. Retrieved from <a href="https://www.oxfordreference.com/view/10.1093/oi/authority.20110803100244553">https://www.oxfordreference.com/view/10.1093/oi/authority.20110803100244553</a>.

[59] According to *Trading Economics* in "India Population," the population circa 2017 was 1,283,600,000, approximately. The Word Bank reports the total population for China, in 2018, at about 1,393,000,000. Both over 1 billion by probably 2 to 4 hundred million citizens at this time.

See Trading Economics. (2019). India Population. Retrieved from <a href="https://tradingeconomics.com/india/population">https://tradingeconomics.com/india/population</a>.

See World Bank. (2019). Population, total; China. Retrieved from <a href="https://data.worldbank.org/indicator/SP.POP.TOTL?locations=CN">https://data.worldbank.org/indicator/SP.POP.TOTL?locations=CN</a>.

[60] The Effects of Globalization in the Workplace states:

The full impact of globalization in the workplace has yet to be realized, but as more companies embrace this trend and become more diverse, certain changes are emerging. While many of these changes are good, others may not be as positive. Small business owners are learning that they have to adopt new policies and new guidelines to keep up with these changes.

See McFarlin, K. (2019, March 12). The Effects of Globalization in the Workplace. Retrieved from <a href="https://smallbusiness.chron.com/effects-globalization-workplace-10738.html">https://smallbusiness.chron.com/effects-globalization-workplace-10738.html</a>.

[61] Gig Economy (2018) states:

#### KEY TAKEAWAYS

The gig economy is based on flexible, temporary, or freelance jobs, often involving connecting with clients or customers through an online platform.

The gig economy can benefit workers, businesses, and consumers by making work more adaptable to the needs of the moment and demand for flexible lifestyles.

At the same time, the gig economy can have downsides due to the erosion of traditional economic relationships between workers, businesses, and clients.

See Chappelow, J. (2019, June 25). Gig Economy. Retrieved from https://www.investopedia.com/terms/g/gig-economy.asp.

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