

Ethics Dispatch

“The object of philosophy is the logical clarification of thoughts. Philosophy is not a theory but an activity.”

– Ludwig Wittgenstein

Hot Topic

Perspectives on Vaccine Hesitancy

We have previously discussed vaccination and the modern movement colloquially known as “anti-vaxxers” (Ethics Dispatch November 2019). In that discussion, we argued that “these families are dealing with myriad concerns including distrust, fear, safety, options/other alternatives, and confusion that afford multiple opportunities for further engagement. Communication and shared decision making typically result in better outcomes for both the patient and the provider” (Ethics Dispatch, November 2019), and we continue to support this argument.

But due to Covid-19 and the development of vaccines for Covid-19, the anti-vaccine mentality has taken a fundamental shift and expansion since we previously addressed this topic. Specific Covid-19 reluctance is now described as “vaccine hesitancy,” and it presents a meaningful challenge to continued attempts to manage and control the spread of the virus and attempts to return life to some degree of “normalcy.”

Autonomy v. Public Health

As has been discussed by others, one of the challenges regarding vaccine refusal is the interplay between personal autonomy and public health ethics. This fundamentally comes down to a distinction between positive and negative rights. While a person may have the positive right to personal autonomy, which they choose to express through a refusal to receive a vaccine, others have a negative right to not have to be exposed to such a virus if possible. The question becomes does a person’s positive right outweigh another’s negative right? And vice versa, can a person’s negative right compel the behavior and action of another’s to go against their positive right?

While seemingly an interesting academic exercise, real world implications, particularly regarding vaccine hesitancy involving COVID-19 vaccines, exist. As stated by Rosenbaum in the *New England Journal of Medicine*, it is understood that “Though estimates vary, public health officials suggest that about 80 to 85% of Americans would need to be vaccinated for the country to achieve herd immunity. Vaccine confidence seems to be rising, but recent polling suggests that about 31% of Americans wish to take a wait-and-see approach, and about 20% remain quite reluctant. The behavioral obstacles to wide-spread vaccination are thus as important to understand as the scientific and logistic hurdles.” (Rosenbaum, 2019, p. 1367). It is important for vaccine acceptance and mass distribution to be successful, but individual hesitancy can minimize the benefits of the vaccine on an overall population.

A Global Issue

This is a global issue. While the United States is a high contributor, it is not the only country seeing hesitancy, with global acceptance rates being “Among adults representing the general public, the highest COVID-19 vaccine acceptance rates were found in Ecuador (97.0%), Malaysia (94.3%), Indonesia (93.3%) and China (91.3%). However, the lowest COVID-19 vaccine acceptance rates were found in Kuwait (23.6%), Jordan (28.4%), Italy (53.7), Russia (54.9%), Poland (56.3%), US (56.9%), and France (58.9%)” ([Sallam, 2021](#)). In a study involving hesitancy rates in

Ireland and the United Kingdom, researchers found “estimates across seven European nations where 26% of adults indicated hesitance or resistance to a COVID-19 vaccine and in the United States where 33% of the population indicated hesitance or resistance.

Rates of resistance to a COVID-19 vaccine also parallel those found for other types of vaccines. For example, in the United States, 9% regarded the MMR vaccine as unsafe in a survey of over 1,000 adults, while 7% of respondents across the world said they “strongly disagree” or “somewhat disagree” with the statement “Vaccines are safe.” Thus, upwards of approximately 10% of study populations appear to be opposed to vaccinations in whatever form they take.” [\(Murphy et al. 2021\)](#) This shows that while COVID-19 vaccine hesitancy is a new example, it is a familiar mentality. It is likely that COVID-19 vaccine hesitancy touches on more deeply rooted beliefs that are being brought to light, with attempted psychological characteristics of vaccine hesitancy being “associated with conspiratorial, religious, and paranoid beliefs, while mistrust of authoritative members of society, such as government officials, scientists, and health care professionals, has been linked to negative attitudes towards vaccinations, as has endorsement of authoritarian political views, societal disaffection, and intolerance of migrants.” [\(Murphy et al. 2021\)](#)

Connect to Goals

While herd immunity is an important goal and consideration to achieve, it is not the only aspect to consider, as those of vulnerable populations are more directly impacted by hesitancy as Dror et al. state, “Despite a general “herd immunity” achieved by high vaccination rates, even higher compliance is necessary among communities with individuals with higher disease risks. Sustained encouragement of particularly vulnerable people to accept the future COVID-19 vaccine could lead to reduced morbidity and mortality while simultaneously releasing valuable healthcare resources to deliver equally important ambulatory support.” [\(Dror et al. 2021\)](#)

The discussion of competing systems and concepts will continue. Whether it is positive versus negative rights, medical versus public health ethics, deontology versus consequentialism, these discussions are healthy and beneficial to the advancement of thought. And while, as we stated in the previous Ethics Dispatch, vaccine reluctance is a challenging and understandable perspective when taken from the viewpoint of the individual, it is more complicated than any simple distinction. As stated before regarding vaccine hesitancy in general, “These families are concerned with the well-being of their child, in addition to being convinced of their rightness of their skepticism about traditional systems of care.” We can all relate to that. These families want to do what’s best for their child, but understandably fall prey to the belief that others do not hold that same conviction regarding their child’s best interest, including those who are members of the more affluent majority (Yang et al., 2016).

This perspective still applies to COVID-19 vaccine hesitancy. People are likely scared, confused, and coming from deep rooted perspectives of distrust. It is important to respect individuals and connect to their perspective and goals, while also understanding our moral responsibilities to each other. This will continue to be a challenging issue.

Bioethics in the News

[Batteries and bioethics: Is sustainable tech too good to be true?](#)

[Should the COVID-19 vaccine be mandated? Debate takes center stage, as hospitals, colleges and businesses start requiring the shot.](#)

[Prepare for ectogenesis, says bioethicist](#)

[\\$24 million spent on Fort Worth toddler’s life support; hospital says Texas may intervene](#)

[Peter Singer On His New Yorker Interview](#)

[Fetal-Tissue Research: Bioethicists Weigh in on Biden Administration’s Removal of Restrictions](#)

Case Study

Sam (age 54) and Rebecca (age 56) Johnson are chatting with their neighbor and family friend Dr. Irving. During the friendly talk, the topic of COVID-19 vaccines comes up. Dr. Irving says that he just got his second dose to be fully vaccinated but that it really “knocked me down for two days.”

At this, Sam and Rebecca both say that is one of the reasons they do not think they will get the vaccine. Dr. Irving is surprised by this and politely asks about other reasons. “I don’t trust it, mostly because of how fast it was approved. We are still working on an HIV vaccine, but they can make a COVID one in a year? I don’t believe it,” says Sam. Rebecca then adds, “I also just don’t see the point. We have been working from home and socially distancing for a year. I never got it. Sam had it, but it was mild and only lasted a few days. So really, what’s the point?”

Dr. Irving started to address some of the points but did not want to alienate or endanger their friendship. All the major points that he made -- that vaccines benefit everyone and trying to reach herd immunity is important -- the Johnsons just brushed off and said they still do not want to be “guinea pigs.” Near the end, Rebecca said she is maybe 50/50 on the vaccine, and Sam is one hundred per cent against it. Dr. Irving reached out to several ethics committee members, knowing they have been working extensively on this, requesting conversation styles and techniques for further discussion with the Johnsons.

Ethical Musings

The Omnipresence of Irrationality

Typically credited as beginning with the publication of *Principia Mathematica* in 1687 by Newton and lasting until the early 1800s, the Age of Enlightenment (or simply known as *The Enlightenment*) was the fundamental shift in thinking that kicked off scientific discovery. It was a time before the world used the term *scientist* but also a period of amazing breakthroughs in politics, science and philosophy by *Natural Philosophers*. *The Enlightenment* produced some of the most famous names in philosophy, including Locke, Voltaire, Diderot, Adam Smith, David Hume and Immanuel Kant.

In a grossly simplified description, this was a period when many different aspects of life and understanding were questioned and challenged. This was the age when reason was raised to be the high principle and logic was given its importance. If ideas were not logical, if beliefs were not established through reason, then they were not given the level of credibility that they had before. Reason became the fundamental defining characteristic of truth.

Thirst for Unreason

But this does not mean that the opposite of rational (irrational) went away and is not present in our everyday life? Irrationality might even be more prevalent in modern times, seeing a resurgence at least in part because of the rise of mass information and the internet. “Flat-earth theory, anti-vaccination beliefs and climate-change denial represent a human thirst for unreason that never goes away for long. At best, it may be channeled into imaginative works and rituals ([Smith](#)). It can be argued that a majority of human thinking is done via irrational means. This might come across as overly negative and dismissive, until you think about real-world situations that everyone has either encountered or participated in (particularly those involved in healthcare).

Take for example the family of a child born at 24 weeks gestation and now in the NICU. The statistics can be repeated to the family that expectations for meaningful improvement are low, prognosis is grim, and even if continuation of life is possible, long-term difficulties will never go away. This is a situation faced by many families, and it is always tragic, emotionally troubling, and leads to distress. It is irrational for the family to want to continue

aggressive measures with expectations of full recovery. It is irrational for the family to think that their child will make a one hundred percent recovery and be the typical everyday child. But just because it is irrational does not mean that we do not respect the wishes of the family. Even more importantly, just because it is irrational does not mean we do not understand **why** the family wants to continue aggressive measure and do everything possible. This family is not thinking about statistics; likely, they are thinking with faith, hope and belief in the possible through the impossible.

What this situation demonstrates is that logic and reason are not the only ways of coming to a conclusion. We like to think that we are rational creatures, but when you get down to it, we are not. We share and interpret dreams; we make decisions based on our gut feelings; we play the lottery because we reason "someone's got to win," which is not actually the case. What this comes down to is perfectly and famously expressed by David Hume in his *Treaties Concerning Human Nature*, "We speak not strictly and philosophically when we talk of the combat of passion and of reason. Reason is, and ought only to be, the slave of the passions and can never pretend to any other office than to serve and obey them. As this opinion may appear somewhat extraordinary, it may not be improper to confirm it by some other considerations."

Connecting to Irrationality

What is important to understand is not that irrationality is not prevalent, but what matters is how we react to irrationality. It is humorous that how we react to the discovery of irrational thinking is through more irrational thinking. Take for example Hippasus of Metapontum, who is credited for discovering irrational numbers. Hippasus was a member of the cult of Pythagoras. You may remember him from learning the Pythagorean theorem in school $a^2 + b^2 = c^2$. The cult of Pythagoras believed that the universe could be described by numbers, and thus the universe was numbers, and they literally worshipped numbers. Everything had to make sense, easy to understand building blocks of numbers that can describe everything and anything. The great irony comes when you see that their most known theorem disproves this, as Hippasus found out. Take a triangle where L = 1 and W = 1. What is the length of H? Easy right? $\sqrt{2}$. But what is the $\sqrt{2}$? Or you can write it as:

1.4142135623730950488016887242096980785696718753769480731766797379907324784621
07038850387534327641572735013846230912297024924836055850737212644121497099935831
41322266592750559275579995050115278206057147010955997160597027453459686201472851
74186408891986095523292304843087143214508397626036279952514079896872533965463318.

This is an irrational number, meaning it continues forever and never repeats (NASA has [traced it to the millionth digit](#)). So, at its simplest, the foundation of our universe is irrational. Hippasus discovered this, and because of that, he was murdered. He was tied to the edge of a boat and drowned. A very irrational decision for proving that the world is not perfectly rational at all times.

Rationality still holds a place of respect within our society. We demand people to think rationally, to act rationally, to come to all decisions rationally. But we are missing that irrationality will always be present and always have a grasp on human mind. We have to understand patients and people do not make decisions based only on rationality, so we must not try to change their minds through rationality. To find individuals who are hesitant to embrace the COVID-19 vaccine, we may have to use irrationality to connect.