ARCHIMEDEAN ETHICS

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**Abstract**

What effect has finding the Archimedean point in ourselves had on how we look at ethics? The modern era of philosophy began with Descartes finding within himself an unshakable point from which to pursue knowledge of the world and himself. This intellectual alienation from the world into the universal mathematical structures of the human mind has led to a reversal where, henceforth, production, rather than contemplation, of knowledge became epistemologically superior. Guided by Hannah Arendt’s discussion of the Archimedean point and Earth alienation in the *Human Condition*, I will argue that this scientific form of thinking made its way into ethical investigation in the age of modern philosophy. Furthermore, I will provide an analysis of Kant’s categorical imperative and John Stuart Mill’s utilitarianism to show that despite modern science’s success in elucidating universal laws of nature, a scientific approach to ethics has not universalized our judgments of good and evil.

**The Archimedean Point**

Archimedes supposedly claimed that, given a long enough lever, a solid point, and a place to stand on, that he could displace the Earth. Theoretically, he was right, however he would have needed a very long lever. The Archimedean point is “a point ‘outside’ from which a different, objective or ‘true’ picture of something is attainable.”[[1]](#footnote-1) In Archimedes’ time, transcending the world and viewing it objectively from the heavens was only possible for humans in imagination and thought. For most of its existence, humanity was trapped in a world which it could not understand and could not depart. But this condition would not last forever. With the advent of modern philosophy and modern science, we finally found the Archimedean point - but not where we expected. Arendt writes, “He [sic] found the Archimedean point, but he used it against himself; it seems that he was only able to find it under this condition.”[[2]](#footnote-2) We found the Archimedean point in ourselves, but how did this happen?

Modern philosophy began with René Descartes and his famous conclusion: “I am, I exist.”[[3]](#footnote-3) In his *Meditations on First Philosophy*, Descartes engages in radical doubt, questioning the foundations upon which he has built all of his knowledge. Going as far as throwing the existence of reality into question by considering the possibility that the world around him is just an illusion sustained by an evil demon, Descartes begins the *Meditations* with certainty of nothing. Descartes was in search of his Archimedean point, a point from which “great things are also to be hoped for if I succeed in finding just one thing, however slight, that is certain and unshaken.”[[4]](#footnote-4) Descartes realized that the truth he could not deny, no matter how radical his doubt, was that he was *doubting*, for even if there were a demon deceiving him about the existence of the world, the demon had to be deceiving *someone*, and that demon, no matter how clever, could never convince Descartes that he was not actually thinking and not actually doubting. Descartes realized that there was nothing that he could be more certain of than that he was a thinking being, and there, in the solitary recesses of his mind, did he drop the anchor for his Archimedean point.

 Cartesian doubt foreshadowed the momentous transition that was to occur with the rise of modern science. Thirty-two years before Descartes published the *Meditations*, Galileo Galilei had built a telescope that could magnify objects twenty times.[[5]](#footnote-5) He used it to observe the heavens and concluded, polemically, that the Ptolemaic geocentric model of the universe was incorrect. He found through his observations that, contrary to our sense experience and the accepted common sense of the Catholic Church, the Earth is in orbit around the Sun. Galileo “put within the grasp of an earth-bound creature and its body-bound senses what had seemed forever beyond his reach, at best open to the uncertainties of speculation and the imagination.”[[6]](#footnote-6) This was the beginning of a revolution and reveals the “hallmark of modern science”[[7]](#footnote-7): Earth alienation. Galileo had finally made it possible to establish an Archimedean point from which to observe and “unhinge” our world. It was decisive for Hannah Arendt that this revolution was reined in by the toolmaker rather than the philosopher. Here began modernity’s retreat into the mind; the beginning of a rising conviction that “objective truth is not given to man but that he can only know what he makes himself.”[[8]](#footnote-8) We began to understand that to know anything with certainty we had to produce the knowledge ourselves and examine it in the solitude of the mind.

 The challenge to the credibility of our senses was further compounded, notably, by momentous achievements such as Newton’s unification of astronomy and physics and Einstein’s theory of General Relativity. Key to these monumental achievements was the use of mathematics. Arendt notes that while the idea that the universe had a mathematical structure had been around since Plato (and before him, Pythagoras), what was decisive and “un-Platonic” about the work of Newton and Einstein was the reduction of matter, its motion, and the substance of reality itself into mathematical symbols.[[9]](#footnote-9) In a simple equation, Newton quantified the force with which all massive bodies in the universe attract each other, and developed his own system of mathematics – calculus - to study the movement of stellar bodies. Einstein’s theory of General Relativity provides a mathematical description of the universe where space and time were unified into one fabric: spacetime, from which gravity emerges as a property of its geometric configurations.[[10]](#footnote-10) We learned from relativity that any point or frame of reference that we may place our Archimedean point is just as valid for observing the universe as any other; we no longer needed an impossibly large lever to unhinge the world. The distance one needed to see the world, and in fact the universe, from above, could be found in the mind. At last, we found the Archimedean point and it was with us all along.

 Before we were displaced from the center of the universe and reality had not been reduced to the mathematical structures of the mind, truth was to be found in contemplation. It is important to distinguish, as Arendt does, the difference between contemplation and thought.

Since Plato, and probably since Socrates, thinking was understood as the inner dialogue in which one speaks with himself… and although this dialogue lacks all outward manifestation and even requires a more or less complete cessation of all other activities, it constitutes in itself a highly active state.[[11]](#footnote-11)

This highly active state prepared the soul for the stillness in which a truth that is *arrhetōn*, beyond speech, reveals itself. This placid state, in contrast to the tumult of thinking, is contemplation. In the absence of the instruments and mathematics that revolutionized our world and produces our knowledge, it was the philosopher in contemplation that claimed to know truth. For the philosopher, the world inspires *thaumazein*, a sense of wonder at everything that is.[[12]](#footnote-12) They did not, like Einstein or Newton, completely withdraw from the outer world of the senses to investigate the nature of reality. Reality had to be seen and felt before the philosopher could let it inspire them and eventually arrive at truth in the stillness of contemplation. This is not to say that the ancients were all empiricists, because this is clearly false. It is to say that the absolute transformation of the universe into mathematics was more extreme than even Plato’s metaphysics, where reality as we perceive it is at least a semblance of the perfect world of forms. In the ancient world, humanity was the anchor for truth, and held a central role in a universe where all its celestial bodies seemed to revolve around that most wise and superior form of life.

It is important also to note the powerful influence of the Christian tradition in the West. In this tradition, God, the highest, most powerful and benevolent entity in existence, created Man in his image. Indeed, it was accepted as fact by most of the Christian world that humans were the stewards of life on Earth, and therefore above and distinct from it, and that the race created in the image of God could occupy nothing less than center stage in the universe. Cartesian doubt, inspired by Galileo’s survey of the heavens, compromised the foundations and legitimacy of academic philosophy as much as it carried doubt into the heart of modern religion.[[13]](#footnote-13)

 The existential shock that ensued was foreshadowed by the Church’s accusation of heresy against Galileo. How could humanity not be the center of the universe? There was much resistance against Galileo’s claims, but it was in vein, for the truth he glimpsed could be observed by anyone who could build or acquire a decent telescope. We see the immediate effects of this discovery on Western civilization embodied in Descartes, who, as a Catholic mathematician and philosopher, was in an unique position to personify the confrontation of religion, mathematics, and philosophy in his work. It is striking that in order to escape his state of solipsism and reclaim the world by ‘proving’ the existence of God, Descartes relied heavily on his certain and clear perception of numbers and geometry.[[14]](#footnote-14) Here we find that from the very beginning of the modern era not even God could escape subordination to the mathematical structures of the human mind.

 Events, such as Galileo’s look into his telescope, which confirmed the Heliocentric model of the universe, and Sir Arthur Eddington’s observation of gravitational lensing, corroborating Einstein’s theory of General Relativity, reassured the modern person that “man’s thirst for knowledge could be assuaged only after he had put his trust into the ingenuity of his own hands.”[[15]](#footnote-15) *Only when we produced the experiments necessary to empirically confirm our mathematical theories of the natural world could we assure ourselves that we had produced rather than contemplated knowledge.* Physics, combining mathematical theories with empirical observation, is, then, the modern scientific discipline *par excellence*. Contemplation, which before the modern era had yielded many “truths” that were blatantly at odds with the findings of modern science, “became altogether meaningless.”[[16]](#footnote-16) Arendt notes that in this reversal of contemplation and production, philosophy suffered more than any other discipline of human endeavor[[17]](#footnote-17), and that the philosopher no longer turns to the world around him or another world of eternal truths, but rather is forced to “withdraw into himself.”[[18]](#footnote-18)

With the advent of modernity, the scientific model that we saw advanced in the theories of Newton and Einstein would infiltrate moral inquiry. It seems almost inevitable that utilitarianism - a science of morality based on the calculus of pleasure - and Kantian ethics - which develops a supreme concept of morality from universal principles – should have come about in this period. Yet for all our success in applying this model of investigation to the natural world, we find ourselves with no more certainty in the objectivity of our moral values now than we did four hundred years ago.

**Modern Ethics**

 What effect has finding the Archimedean point in ourselves had on how we look at ethics? It is useful first to have an idea of what ethics is. In *Applying Moral Theories*, C.E. Harris, Jr. begins his discussion of the nature of ethics by focusing on the nature of moral statements. Harris notes that moral statements are also normative statements, as opposed to factual statements. First, let us define normative statements: “A *normative statement* expresses a value judgment of some kind, and its correctness is determined by reference to a norm or standard.”[[19]](#footnote-19) There are many kinds of normative statements we could make. We could say someone is a great artist, which refers to an aesthetic standard; we could say that it is illegal to steal, which refers to a legal standard; we could say it is rude to open a door without knocking, which refers to a standard of etiquette. Ethical statements, such as “it is wrong to commit murder” or “it is wrong to lie”, refer to a moral standard. On the other hand, factual statements are those that “can be confirmed or disconfirmed by experiment, observation, or research.”[[20]](#footnote-20) Someone might tell us, referring to their observations, that the Sun is shining, or that upon conducting experiments in a lab with falling bodies that the gravitational acceleration on the surface of the Earth is 9.8 meters per second squared, referring to their experimental results.

 Harris notes that moral statements (normative), cannot be confirmed by factual statements (presupposing a fact/value dichotomy). He uses the following example, a Humean is-ought distinction[[21]](#footnote-21), to illustrate this point: “The wealth of the United States is at present unevenly distributed among its citizens. Therefore, the present distribution of wealth in the United States is morally wrong.”[[22]](#footnote-22) The first statement is a fact that can be confirmed by an economist by scientific means. The second statement, the conclusion, is an ethical one. This conclusion cannot be deduced without assuming a moral rule. In this case, we cannot say that wealth inequality in the United States is morally wrong without assuming that “an uneven distribution of wealth in a country is wrong”. We see here that while the first statement can be supported by reference to facts, the second cannot. The assumption that something is morally wrong requires some sort of underlying ethical system to support it. This is the object of ethics, succinctly, to develop and study normative systems that prescribe rules for how we should or should not behave in any given circumstance. We cannot look into our telescopes and search for ethics in distant galaxies or take a microscope and search for morality in our DNA – because, as I will show in my analyses of Kantian ethics and utilitarianism, we will not find any. We will see that the modern reversal of contemplation and production has problematized how we look at morality. Having turned to the coupling of mathematics and experiment for truth, modern ethics attempts to transform the normative nature of ethics into a factual one.

 Before the period of modern philosophy (beginning in the early 17th century with Descartes (1596-1650) and ending with Kant (1724-1804)) ethical questions in the West were largely matters of Christian theology. Moral standards were rooted in the divine authority of God. This is what Harris calls the “Divine Command Theory”. Using God as the anchor for good and evil attempts to make morality objective; to characterize ethical statements as matters of fact - for what could be more objective than the command of an omniscient being? Before Christianity, we saw a similar conflation of what is good with the divine - the Good. In the *Republic*, Plato uses the Sun as an analogy for the Good. In a dialogue with Glaucon, Socrates points to how we speak of things as being beautiful or good, but that we also speak of the beautiful or the Good themselves, i.e. as having their own being. He distinguished the two by noting that “we say that the many beautiful things and the rest are visible but not intelligible, while the forms (beauty and the Good) are intelligible but not visible.” [[23]](#footnote-23) The Good for Plato transcends our physical world and renders the forms - which reside in a perfect and eternal realm - intelligible, much as the Sun makes our world visible. For Aristotle, *eudaimonia* is the end, or *telos*, of ethics. *Eudaimonia*, roughly translated to “happiness”, “is composed of two parts: “*eu*” meaning “well” and “*daimon*” meaning “divinity” or “spirit”.”[[24]](#footnote-24) Thus, to achieve *eudaimonia* means to have lived in a manner favored by a god. We will see how Cartesian doubt and the reversal of contemplation and production undermined the divine nature of morality.

 Descartes’ philosophy asks us to doubt any truth claim that cannot be proven rationally. We cannot provide empirical evidence that the moral standards of the Bible are true, as much as we cannot conduct an experiment to prove the existence of God. This is not to imply that God does not exist, for this cannot be proved either, but merely that science, due to its empirical nature, can never experimentally prove the existence of purely metaphysical entities. With the success of the coupling of Cartesian doubt and the reversal of contemplation and production, it became clear that the foundation of our ethical systems could not be proven with the certainty that we can say that force equals mass times acceleration. Once our divine moral standards began to lose their legitimacy, we started digging a trench between truth and ethics.

 Friederich Nietzsche captured the spirit of the revolution of modern science in his declaration that “God is dead. God remains dead. And we have killed him.”[[25]](#footnote-25) What Nietzsche is referring to is how we lost our air of divinity. Appeals to the divine or to the Good could no longer be used to understand the nature of the world or of humans. We unveiled “The unconscious disguise of physiological needs under the cloaks of the objective, ideal, purely spiritual”.[[26]](#footnote-26) With this damning verdict, Nietzsche looked to expose philosophers and Christians who had disguised their metaphysical claims under the veils of objectivity and divinity. However, despite the blows suffered by philosophy and theology in this scientific revolution, we could not throw out ethics altogether. As Hannah Arendt notes, the human condition is one of plurality (even a hermit is defined by their relation to others). It is in our nature to develop moral codes and pass moral judgments in our interactions with each other. Therefore, in order to find a trustworthy foundation for ethics, philosophers were “forced to withdraw into themselves” in search of more “scientific” moral arguments. Two compelling ethical theories emerged in the modern period: Kantian ethics and utilitarianism.

*Kantian Ethics*

With his formulation of the categorical imperative (CI) in the *Groundwork of the Metaphysics of Morals*, Immanuel Kant attempts to derive a supreme moral law from universal principles, i.e. retreating, much like an Einstein or a Newton, into the human mind in search of nature’s most elusive secrets. However, as is already implied in the title of the *Groundwork*, moral science for Kant is metaphysical. Conclusions derived from moral inquiry will necessarily resist empirical re-production, since metaphysical cognition lies beyond experience. It is tempting, then, based on the argument developed thus far, to dismiss Kant’s attempt at universalizing ethics since the theory cannot be empirically investigated. However, this would be disingenuous. For Kant, it is only rational beings that are bound by moral duties, therefore it would be absurd to expect that we can somehow reproduce morality outside of our mental faculties - we must meet Kant on his own terms. Much like analyzing a geometric proof, when we inspect his arguments, we must be open to the possibility that Kant reaches conclusions that are logically irrefutable and are thereby produced through pure practical reason.

In the opening sentences of the *Groundwork*, Kant calls attention to the division of Ancient Greek philosophy into physics, ethics, and logic. Kant further distinguishes between *formal* philosophy – the domain of logic which concerns itself with reason in itself and the form of understanding – and *material* philosophy – the domain of physics and ethics which concerns itself with “determinate objects and the laws to which they are subject”.[[27]](#footnote-27) Physics and ethics concern themselves with the laws of nature and freedom, respectively, where the former investigates the laws governing how everything happens and the latter with how everything ought to happen. Our will determines our actions, therefore the laws of morality, of how we ought to act, concerns our willing.

According to Kant, the CI commands us to “*act only according to that maxim through which you can at the same time will that it become a universal law.”[[28]](#footnote-28)* For Kant, the will is the causality of a rational being. That is, our actions (effect) are determined by our wills (cause). While one could certainly question the validity of the concept of causality, Kant provides a solution to this question with what he calls synthetic *a priori* judgments. So, for the purposes of this work, we will accept the positive connection between cause and effect as a given. Since morality concerns how we ought to act and our actions are determined by our willing, for Kant it follows that a moral agent must necessarily be autonomous, i.e. possesses a free will, since it would not make sense to speak of how we ought to act if our actions were predetermined by the laws of physics. The validity of the CI as a universal law of morality hinges on whether or not rational beings have free will, so we must analyze Kant’s argument for accepting this proposition.

The third section of the *Groundwork* is devoted to an analysis of freedom and its relation to the autonomy of the will. Clarifying his definition of freedom, Kant states that

Since the concept of causality carries with it that of *laws* according to which, by something that we call a cause, something else, namely the consequence, must be posited: freedom, though it is not a property of the will according to natural laws, is not lawless because of that at all, but must rather be a causality according to immutable laws, but of a special kind; for otherwise a free will would be an absurdity.[[29]](#footnote-29)

By immutable laws of a special kind, Kant is referring to the fact that the laws of physics cannot possibly govern the will of rational beings for this would a imply that our actions are predetermined and therefore not free. However, Kant does not mean that a free will is lawless. The will is a causality, and relationships of cause and effect are necessarily law-full, for if every cause had a random effect, we could not arrive at an idea of causality in the first place. Therefore, we must concede that the laws that govern the will cannot be random, but must be fixed and applicable to the will of all rational beings if we are to preserve the causality of the will. It then follows that free will is autonomy – “the property of the will of being a law to itself”.[[30]](#footnote-30) Therefore, a free will is the same as a will governed by moral laws, since the proposition that “the will is in all actions a law to itself, designates only the principle of acting on no maxim other than that which can also have itself as its object as a universal law.”[[31]](#footnote-31)

 After defining freedom, Kant must show that this autonomy of the will is truly present in all rational beings. At this point, Kant appeals to a distinction he makes in the *Critique of Pure Reason* between the phenomenal and the noumenal world. The phenomenal world is the world with which we have acquainted ourselves with our five senses. As Christine Korsgaard puts it in her introduction to the *Groundwork*, “We must therefore think of the world as generating, or containing something which generates, those appearances – something which is their source, and gives them to us.”[[32]](#footnote-32) We can think of this world of “things in themselves” which generates appearances as the noumenal world. The phenomenal world is the deterministic realm of physics, so, as was previously mentioned, we cannot possibly find freedom here. However, this does not mean that freedom is not a feature of the noumenal world. In fact, while we are members of the phenomenal world and are subject to its physical laws, we also regard ourselves as the authors of our own thoughts and actions, as the original cause of our actions. The existence of a noumenal world of things in themselves, where freedom exists, would therefore explain this discrepancy of being autonomous agents in a deterministic world. Therefore, insofar as we consider ourselves to be part of the noumenal and the phenomenal world, we have “an independent reason for regarding ourselves as free”.[[33]](#footnote-33)

 While Kant’s argument is ingenious, the distinction between a noumenal and phenomenal world only provides the ground for us to think of ourselves as free. Kant does not affirm that freedom characterizes the noumenal world, only that it could, since Kant admits that we cannot know this world as it really is. The distinction between the noumenal and phenomenal world, then, is only a heuristic that enables us to understand how we *could* be free given the conditions that 1) this distinction is valid in the first place and 2) if freedom is a characteristic of the noumenal world. Therefore, while Kant provides the grounds for regarding ourselves as free, providing grounds that we are free is not equivalent to a an irrefutable proof that we are free, upon which the validity of Kant’s argument depends. I would like to clarify that I am certainly not arguing for a deterministic world. I agree with Kant that speaking of morality only makes sense insofar as we regard ourselves as possessing free will, but this is a pragmatic assumption from which the *fact* of free will does not necessarily follow. What I am arguing is that Kant’s CI, by the standards of modern science, cannot be considered “true”, since he is not able to produce a valid proof of the freedom of the will.

Next, we will examine utilitarianism which, as opposed to the categorical imperative, derives its strength from its being grounded on our experience of pain and pleasure.

*Utilitarianism*

According to Arendt,

His happiness, the sum total of pleasures minus pains, is as much an inner sense which senses sensations and remains unrelated to worldly objects as the Cartesian consciousness that is conscious of its own activity.[[34]](#footnote-34)

Inevitably, questions of morality arise in our interactions with the world, and we find that what we can know with certainty is how these interactions make us feel. However, we could still say that our emotions are arbitrary and subjective, for what makes one person happy might bring despair to another. But what we can safely assume is that every human being at some point or another will suffer. Quoting Élie Halévy[[35]](#footnote-35), Arendt notes that pain is an ultimate end, for if you press someone why they wish for good health they will say that sickness is painful; if you ask for a reason why they hate pain, it is impossible that they could ever give you one. Arendt explains that

The reason for this impossibility is that only pain is completely independent of any object, that only one who is really in pain senses nothing but himself; pleasure does not enjoy itself but something besides itself. Pain is the only inner sense found by introspection which can rival in independence from experienced objects the self-evident certainty of logical and arithmetic reasoning.[[36]](#footnote-36)

The solitary experience of pain provides a solid foundation upon which to rebuild ethics, and it is on this ground that utilitarianism was developed.

 We find evidence for this claim in chapter IV of *Utilitarianism* titled “Of What Sort of Proof the Principle of Utility is Susceptible”. Like Halévy’s conclusion of the self-evident certainty of pain, John Stuart Mill affirms that “No reason can be given why the general happiness is desirable, except that each person, so far as he believes it to be attainable, desires his own happiness.”[[37]](#footnote-37) Furthermore, affirming that pain and pleasure are simply two sides of the same coin, Mill claims that one’s will can only be made virtuous if the person desires virtue, for

it is by associating the doing right with pleasure, or doing the wrong with pain, or by eliciting and impressing and bringing home to the person’s experience the pleasure naturally involved in the one or the pain in the other, that it is possible to call forth that will to be virtuous.[[38]](#footnote-38)

For Mill, the motivation to be virtuous is born from our experiences of pleasure and pain. If this is the case, and since happiness is an ultimate end in and of itself, it follows that our standard of morality should be to act in that manner that maximizes aggregate happiness, i.e. utility, for oneself and those affected by our actions, taking every individual’s claim to happiness to be of equal worth. Furthermore, in addition to its grounding in experience, Mill affirms the mathematical nature of utilitarianism in asserting that “the truths of arithmetic are applicable to the valuation of happiness, as of all other measurable quantities.”[[39]](#footnote-39)

 Thus, the utilitarian moral standard, as opposed to the Kantian CI, does not derive its power from establishing a supreme principle of morality from universal (*a priori*) principles. Mill is aware that the power of the utilitarian moral standard is the ease with which any individual may assent to it. Little to nothing else is as evident in daily life as our suffering or lack of it, and we should not expect to find much controversy in the claim that a life with no experience of pain or pleasure cannot properly be considered a human life. However, while we might expect, like Mill, that the utilitarian moral standard can be widely assented to, it would require assent from each and every human being to prove that utilitarianism succeeds in establishing a universal theory of morality. Furthermore, in arguing for the ‘greatest happiness principle’ of maximizing overall utility, Mill has historically been accused of committing the fallacy of composition in assuming “that because the members of a collection all have some property, the collection must have it too.”[[40]](#footnote-40) For example, it does not necessarily follow that, because one apple is spherical, that a bushel of apples will be spherical too.[[41]](#footnote-41) Mill assumes that since the individual happiness of each person is a “good”, that the aggregate of everyone’s happiness is also good, but it is not clear how this necessarily follows and Mill does not give any proof for his assumption. This is not an argument against adopting the utilitarian moral standard, but rather to show that while the utilitarian ethic is grounded on empirical observation and numerical intuition, characteristics of modern science, the fundamental premises of utilitarian theory – that actions are *right* in proportion to the utility they promote and the ‘greatest happiness principle’ – cannot be proven. Once again, the scientific approach to ethics has not yielded universal truths as it has in our investigation of the natural world.

*Concluding Remarks*

 It is my hope that this paper has shown that the scientific approach to morality in the modern period of philosophy has failed to universalize our judgments of right and wrong in the manner which natural science has yielded universal theories of nature. What some of our most reliable scientific theories (heliocentrism, universal gravitation, General Relativity, quantum mechanics, among others) all share in common is how they unified theory with empirical observation. By modern scientific standards, only when we develop mathematical theories and corroborate them empirically with experiments produced by our own hands can we be certain that we have stumbled upon “truth” in the universal sense of the word. Kantian ethics, despite its ingenuity, cannot produce certainty of its fundamental proposition that humans are truly free. Utilitarianism, while providing compelling arguments that draw from our empirical and quantitative experiences of pleasure and pain, can only ever be universalized by the impossibility of obtaining assent to its moral standard from every individual that is and ever will be.

This is not a reproach against ethics. On the contrary, I believe that the arguments above reveal a boundary that modern science has not managed to, and might never, cross. The fact that a scientific approach to ethics has failed to meet the highest standards of modern science does not imply that morality itself is nonsense. If scientific objectivity were a prerequisite of ethics, any attempt at moral argument would be undermined. What this seems to imply is that we should not rely on science, which concerns itself strictly with *facts*, to answer all our *normative* questions about ethics. If normative ethics is a matter of human judgment, why would we expect science – which does its utmost to purge itself of human bias – to solve all our moral problems?

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1. *The Oxford Dictionary of Philosophy*, 2 rev, s.v. “Archimedean Point." [↑](#footnote-ref-1)
2. Hannah Arendt, *The Human Condition* (Chicago: Chicago University Press, 2018), quoted from Kafka, 248. [↑](#footnote-ref-2)
3. René Descartes, *Meditations of First* Philosophy, ed. by Roger Ariew and Eric Watkins (Indianapolis: Hackett Publishing Company, 2009), 43. Although Descartes is best known for saying “*cogito ergo sum”* (I think therefore I am), the therefore does not appear in the *Meditations*. [↑](#footnote-ref-3)
4. Ibid. [↑](#footnote-ref-4)
5. “Galileo’s Telescope,” Rice University, accessed April 30, 2020, <http://galileo.rice.edu/bio/narrative_6.html>. [↑](#footnote-ref-5)
6. *Human Condition,* 260. [↑](#footnote-ref-6)
7. Ibid., 264. [↑](#footnote-ref-7)
8. Ibid., 293. [↑](#footnote-ref-8)
9. Ibid., 265 [↑](#footnote-ref-9)
10. John D. Norton, “General Relativity,” University of Pittsburgh, Accessed April 30, 2020, <https://www.pitt.edu/~jdnorton/teaching/HPS_0410/chapters/general_relativity/> [↑](#footnote-ref-10)
11. Ibid., 291. [↑](#footnote-ref-11)
12. Ibid.*,* 273. [↑](#footnote-ref-12)
13. *Human Condition*, 275. Arendt says that this was done in large part by Søren Kierkegaard who arrived at faith not through not knowledge but through doubt. [↑](#footnote-ref-13)
14. Descartes’ ontological argument for the existence of God in Meditation V. [↑](#footnote-ref-14)
15. *Human Condition*, 290. [↑](#footnote-ref-15)
16. Ibid., 292. [↑](#footnote-ref-16)
17. Ibid., 294. [↑](#footnote-ref-17)
18. Ibid., 293. [↑](#footnote-ref-18)
19. C.E. Harris, Jr., *Applying Moral Theories* (Belmont: Thomson Wadsworth, 2007), 7. [↑](#footnote-ref-19)
20. Ibid., 8. [↑](#footnote-ref-20)
21. “In every system of morality, which I have hitherto met with, I have always remark’d, that the author proceeds for some time in the ordinary way of reasoning, and establishes the being of a God, or makes observations concerning human affairs; when of a sudden I am surpriz’d to find, that instead of the usual copulations of propositions, *is,* and *is not,* I meet with no proposition that is not connected with an *ought,* or an *ought not.* This change is imperceptible; but is, however, of the last consequence. For as this *ought,* or *ought not,* expresses some new relation or affirmation, ’tis necessary that it shou’d be observ’d and explain’d; and at the same time that a reason should be given, for what seems altogether inconceivable, how this new relation can be a deduction from others, which are entirely different from it.” David Hume, and L.A. Selby-Bigge, *A Treatise of Human Nature*, (Oxford: Clarendon, 1896), <http://oll-resources.s3.amazonaws.com/titles/342/0213_Bk.pdf>, 469. [↑](#footnote-ref-21)
22. *Applying Moral Theories,* 9. [↑](#footnote-ref-22)
23. Plato, *The Republic*, trans. G.M.A. Grube (Indianapolis: Hackett Publishing Company, 1992), 180. [↑](#footnote-ref-23)
24. “Aristotle’s Ethics,” Stanford Encyclopedia of Philosophy, last revised June 15, 2018, <https://plato.stanford.edu/entries/aristotle-ethics/>. [↑](#footnote-ref-24)
25. Friedrich Nietzsche, *The Gay Science*, ed. by Keith Ansell Pearson and Duncan Large (Oxford: Blackwell Publishing, 2006), 224. [↑](#footnote-ref-25)
26. Lesley Chamberlain, “The Political Message of Nietzsche’s God is Dead,” February 7, 2012, <https://www.theguardian.com/commentisfree/belief/2012/feb/07/political-message-nietzsche-god-is-dead>. [↑](#footnote-ref-26)
27. Kant, *Groundwork of the Metaphysics of Morals* (Cambridge: Cambridge University Press), 3. [↑](#footnote-ref-27)
28. Ibid., 34 [↑](#footnote-ref-28)
29. *Groundwork*, 56. [↑](#footnote-ref-29)
30. Ibid. [↑](#footnote-ref-30)
31. *Groundwork*, 56. [↑](#footnote-ref-31)
32. Ibid., xxxi. [↑](#footnote-ref-32)
33. Ibid., xxxii. [↑](#footnote-ref-33)
34. *Human Condition,* 309. [↑](#footnote-ref-34)
35. Ibid. [↑](#footnote-ref-35)
36. *Human Condition*, 309-310. [↑](#footnote-ref-36)
37. J.S. Mill, *Utilitarianism* (Indianapolis: Hackett Publishing Company), 35. [↑](#footnote-ref-37)
38. Ibid., 40. [↑](#footnote-ref-38)
39. *Utilitarianism*, 62. [↑](#footnote-ref-39)
40. Dale E. Miller, “Mill’s Proof of the Principle of Utility”, 1000 Word Philosophy, Published 3 September, 2019, <https://1000wordphilosophy.com/2019/09/03/mills-proof-of-the-principle-of-utility/>. [↑](#footnote-ref-40)
41. Ibid. [↑](#footnote-ref-41)