

Certainly Uncertain: Nietzschean Pessimism for an Optimistic World

Stephen Bailey

ABSTRACT: In this paper, I contrast pre- and post-Socratic Greek thought, particularly with respect to Apollonian optimism and Dionysian pessimism. I show how Socrates' judgment of a "right" way of living undermined Greek pessimism and was the first step towards modern scientific optimism, the belief that the world can be understood. I then argue that new developments in quantum physics make this optimism untenable, and I finally assert that Nietzschean pessimism is a coherent and beneficial metaphysical perspective.

Introduction

...it is always a metaphysical belief on which our belief in science rests – and... even we knowing ones of today, the godless and anti-metaphysical, still take our fire from the conflagration kindled by a belief a millennium old, the Christian belief, which was also the belief of Plato, that God is truth, that the truth is divine... But what if this itself always becomes more untrustworthy, what if nothing any longer proves itself divine, except it be error, blindness, and falsehood; what if God himself turns out to be our most persistent lie?

– Friedrich Nietzsche, *The Gay Science*



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It is hard to be pessimistic in a society where cell phones have made physical separation meaningless, where designer medicines are gradually eradicating disease, where new technology has allowed the sequencing of entire human genomes. The contemporary reader of Friedrich Nietzsche may be quick to admit that God is dead – but lo, Science certainly lives! The seemingly unstoppable progress of knowledge appears to give a strong reason for believing that the human situation is improving; that we are coming out of the darkness of not-knowing; that maybe one day, mankind will finally be able to put down its telescopes and spectrometers, take a deep breath, and relax, having attained full knowledge of the world. This intellectual optimism can be a stable and comforting pillow on which to rest a man's existential burden. Yet, on the highest peaks of physical science, the scientist can get vertigo. She may begin to think that maybe Nietzsche was right all along, that maybe it was not only the God of the Christians that is dead but also the god of Science. In this discussion, I seek to elucidate the historical foundations of scientific optimism; show that this belief, since the advent of quantum mechanics in physics, contradicts itself; and employ Nietzschean pessimism to give new hope to the scientific man.

The Olympic Synthesis

Nietzsche was formally a philologist, an expert in classical civilizations, and his philosophy is grounded in the historical development of human culture. He had a special admiration for the Greeks, and his first book, *The Birth of Tragedy*, extensively covers the changes in Greek thought between the 6th and 4th centuries B.C.E. He pays particular attention to their devotion to Apollo and Dionysus, two of the twelve Olympians. In this dichotomy, Apollo, "the god of all plastic energies," and the "soothsaying god," represents sculpture, individuality, and science; Dionysus, the

god of wine and revelry, represents music, oneness, and mysticism.¹ Nietzsche contends that the tension between the two modes is fundamental to human existence and that the early Greeks were remarkable for not only recognizing but embracing both of these forces in their culture. This synthesis was artistically embodied in the great Greek tragedies of Aeschylus and Sophocles, plays that managed to affirm life despite meaninglessness. Some pre-Socratic philosophers like Heraclitus and Democritus metaphysically reinforced this ordered-yet-chaotic approach to the universe.

To understand the peculiarity of this balance, I must give a brief overview of Greek religion. These early humans, Nietzsche says, “knew and felt the terror and horror of existence,” so they created the Olympians to exist alongside them.² To the modern reader, the gods can seem almost silly – they are more adulterous and pugnacious than nearly any mortal – and one may wonder what their religious significance could really have been. In Nietzsche’s analysis, it was precisely the fallibility of the Olympians that made them holy to those Greeks. The Olympians gave a divine justification for human emotions, desires, and follies. Their pantheon honored the whole breadth of human experience: there was a god for revenge, for motherhood and family, for work, for wine and revelry.³ Though the Greeks created an Apollonian form (i.e. a mythology) for their instincts, there is a Dionysian acknowledgement of the significance of all emotions.

Apollo, the “shining one”, is the god of light, and in the Nietzschean opposition, he stands for the art of reasoning and speculative philosophy.⁴ The Apollonian ideal is immensely attractive to mankind for its beauty and perfection. For example, the perfect Greek sculpture seems to exist independently of all else: it is proportional, symmetrical, untainted but it is also untouchable. For the man entrenched in harsh reality, Apollonian

1. Friedrich Nietzsche, *The Birth of Tragedy*, in *Basic Writings of Nietzsche*, ed. Walter Kaufmann (New York: Random House, 2000): 36.

2. *Ibid.*, 42.

3. Friedrich Nietzsche, *The Genealogy of Morals*, in *Basic Writings of Nietzsche*, ed. Walter Kaufmann (New York: Random House, 2000): 465.

4. Nietzsche, *The Birth of Tragedy*, 35.



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constructions like Justice, Wisdom, Liberty, and the Good are tantalizing. However, it is one thing to recognize perfection and another to believe that it is humanly attainable. Dionysian rituals, such as orgies, demonstrated that the pre-Socratic Greeks tempered this rational understanding with an emotional mysticism and a belief that the world could not be completely understood by forms and language.

Any balance between the two forces is fragile, as each strives for dominance over the other. Leaning too far towards Dionysus tends to weaken a society's moral and social structure; moving the opposite way makes society rigid and more prone to destruction from emotional rebellion. In the 5th century B.C.E., Greek civilization hit its cultural and political Golden Age, and the two forces were synthesized into a culture so brilliant that modern civilization still looks back in awe. Like a star that burns brightly but quickly, the brilliant culture could not radiate forever, and a devastating civil war left Greek culture reeling at the end of the 5th century B.C.E. Some of the brightest Greek minds began to rebel against the sophistry of powerful aristocrats, and a stable but rigid Apollonian society began to solidify.

The Socratic Revaluation of Values

The "demon" that dissolved the delicate synthesis was Socrates.⁵ His three maxims – "Virtue is knowledge; man sins only from ignorance; he who is virtuous is happy" – would reshape Greek culture and set the stage for the next 2,400 years of Western intellectual development.⁶ Socrates does not acknowledge a mystical, Dionysian element to life, only illusory or confusing ideas, and he stakes his life on the existence of one True way of living. With this judgment, Nietzsche believes that Socrates has spilled the "magic potion" of the Greek genius into the dust.⁷ A dis-

5. *Ibid.*, 82.

6. *Ibid.*, 91.

7. *Ibid.*, 88.

connect has been introduced between instinct and the right way of living. No longer must a person be of noble birth or do heroic deeds to be good; he need only be knowledgeable – and incorrect knowledge meant that a person was not good.

Socrates' central conflict was with the sophists, and it is easy for the modern reader to side with Socrates and say, "Those sophists! Where is their integrity? Where is their pride?" There lies the problem: the Sophists' pride was actually in their sophistry. In Plato's dialogues, Socrates questions all those around him and concludes that they know nothing, that they operate "only by instinct."⁸ What is Greek piety? Instinct. Greek justice? Convention. Many of Socrates' conversations conclude in confusion, and in fact, Socrates admits that he truly knows nothing. Nevertheless, he advocates the search for sure knowledge as the path to virtue. His disciple, Plato, would make this valuation even more extreme by stating that true existence could only be attained through contemplation of the forms. In doing this, he affirms a world in which only absolute knowledge can make life understandable and provide comfort to the existing human. Consequently, he rejects the Dionysian wisdom that acknowledges ignorance yet embraces physical, human existence.⁹

Nietzsche asserts that the natural human instinct is creative-affirmative, while the consciousness is critical. In Socrates, the instinct became critical and the conscious creative. Here, "the logical nature is developed[...] excessively."¹⁰ Nietzsche should not be misunderstood as saying that Socrates' excessive logical instinct was an abomination; rather, he was a re-valuator of values, an übermensch. It took a character of his enormous intellectual strength to topple Dionysus and pursue rationality to his death. After his martyrdom, men flocked to try the Socratic method themselves and found great pleasure in it. Nietzsche acknowledges that no craving is

8. *Ibid.*, 87.

9. Friedrich Nietzsche, *The Gay Science*, trans. Thomas Common (New York: Barnes & Noble Books, 2008): 177.

10. *Ibid.*, 88.



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more violent than the one a person gets for the thrill of a Socratic insight, because it embraces the “whole world of appearances” and makes life more tolerable.¹¹ However, it is still an embracing of illusions, and the pleasure of the devotee depends on the belief that the nature of things is fathomable. This Socratic faith would eventually generate the scientific method, and despite the new instruments and approach, the initial optimistic insight remains intact: if we question enough, if we search enough, we can find Truth in this world.

The Scientific Fixation

In theory, science is value-free. An experiment is supposed to be repeatable by anyone, anywhere, and at any time, thus preventing inaccurate or biased conclusions from being made by overeager scientists. Like Socrates, a scientist begins in a state of doubt, researching and questioning her predecessors. She must remove herself from the process as far as possible, and “all [of her] convictions must condescend to the modesty of a hypothesis.”¹² The honest scientist never hopes to come up with facts, only supported hypotheses. However, human beings are not good at building a world made solely of conjectures, no matter how well supported. Every worker approaches a problem with a vested interest in solving it – for power, for knowledge, for money, for grades – and she also brings the belief that it can be solved. When a theory is supported with enough evidence, humans intuitively accept it as fact into their world, regardless of how much “science” disapproves of the leap. After enough intellectual victories, scientists become particularly vulnerable to this error, and, adopting the hubris of the optimist, reduce themselves into theoretical men.

We say “reduced” because Nietzsche affirms both the Apollonian and Dionysian aspects of existence, and the theoretical man embraces only one of these. This man “in whom the scientific instinct... for once blossoms

11. Nietzsche, *The Birth of Tragedy*, 97.

12. Nietzsche, *The Gay Science*, 176.

and blooms to the end is certainly one of the most precious instruments there; but he belongs in the hand of one more powerful.”¹³ Nietzsche does not deny that there is a certain innate appeal to the search for knowledge; indeed, he sees that very desire in himself.¹⁴ However, the pleasure that drives men to believe that everything is knowable, that they might in the end close the system, is destructive. He who finds his identity in such a belief is a “man without substance,” and his soul is a mere mirror of his metaphysical conviction that the universe is knowable.¹⁵

The tendency for scientists to fall into optimism is troubling to Nietzsche, and he sees in the scientific method an inherent decadence. He calls it, “most recent and noblest refinement” of the ideal which humans strive for in order to negate themselves and feel fulfillment.¹⁶ He exclaims, “How often the real meaning of all this [scientific industry and craftsmanship] lies in the desire to keep something hidden from oneself!”¹⁷ He understands that science has technologically pushed civilization in incredible ways, but he also knows that we are still the same animals, torn by the same impulses as the Greeks: to destroy and to create. By negating the Dionysian aspect of life, the optimist denies herself life in the real, existing world, and consequently sets herself up for destruction. In 1871, Nietzsche wrote: “Science, spurred by its powerful illusion, speeds irresistibly toward its limits where its optimism, concealed in the essence of logic, suffers shipwreck.”¹⁸ In 1925, the scientific enterprise crashed on that shoreline.

13. Friedrich Nietzsche, *Beyond Good and Evil*, in *Basic Writings of Nietzsche*, ed. Walter Kaufmann (New York: Random House, 2000): 317.

14. Nietzsche, *The Gay Science*, 177.

15. *Ibid.*

16. Nietzsche, *The Genealogy of Morals*, 582.

17. *Ibid.*, 583.

18. Nietzsche, *The Birth of Tragedy*, 97.



The Advent of Quantum Mechanics

Physical scientists at the turn of the twentieth century were thoroughly optimistic. Some even thought that the chief goals of physics, at least, were nearly attainable. As new avenues, chiefly concerning light and atomic structure, were explored, several anomalies arose that Newtonian mechanics could not explain.¹⁹ Several enormous leaps were then made by the great thinkers of the time: Albert Einstein discovered that energy and mass were inherently related and also postulated that light could be understood as both wave and photon; Max Planck derived a quantum theory of energy; and Niels Bohr developed a new atomic theory of the hydrogen atom. It was not until 1925 and 1926 that German physicist Werner Heisenberg and Austrian physicist Erwin Schrödinger electrified the scientific community with a series of models comprising what is now known as quantum mechanics. It was this breakthrough that revitalized physics and has led to a wealth of new discoveries about the nature of the universe.²⁰ For the scientific optimist, however, this advance produces a very unsettling situation.

Schrödinger and Heisenberg found that tiny masses like electrons, being much smaller than their larger proton and neutron counterparts, operated in strange ways. Like light, electrons function as both a particle and wave. Schrödinger developed a mathematical equation that was able to describe some properties of an electron in an atomic system, and Heisenberg shortly thereafter developed his “Uncertainty Principle,” which “states that there are ultimate limits to how exact certain measurements can be.”²¹ Specifically, when one wants to observe an electron at an instant, she can choose to either measure the position or the momentum, but she cannot measure both. This principle is especially important in the instance of an electron because it is so minuscule, but on some level, this principle holds

19. David Ball, *Physical Chemistry* (Pacific Grove: Thomson Learning, 2003): 253.

20. *Ibid.*, 270.

21. *Ibid.*, 280.

for every particle in the universe, meaning uncertainty is a fundamental aspect of physical existence. If basic properties like position and momentum have “ultimate limits,” and the scientific optimist believes that we can know with absolute certainty everything in existence, then it would seem that he is stuck in a contradiction.

There are at least two objections the optimist could make here. The first is that there may be an underlying reason for our uncertainty which we simply have not discovered yet. The optimist could reject the Uncertainty Principle as not being ultimately authoritative, believing that we will eventually discover a way to know both the position and the momentum of an electron at one moment. This is quite possible, but staking one’s worldview on a prediction that contradicts the current best evidence seems suspiciously like the proverbial ostrich burying its head in the sand. Even the brightest scientists are not able to explain many of the phenomena found on a sub-atomic level, but they cannot deny that the phenomena exist and that they defy our best understanding of reality. A more realistic approach than dogmatic insistence would be to approach these discoveries with curiosity and humility. Instead of asserting “We will know,” we should ask, “Can we know?”

The second objection is that the uncertainty inherent in quantum mechanics becomes statistically insignificant as the system being observed becomes much larger. For example, there is no reason to question whether we can actually know if a car is on the road and moving at 100 miles per hour. (Even the best physicist could not weasel his way out of that ticket.) Classical physics still describes the world of sensory perception adequately. Then the optimist could say that science, even if it cannot be absolutely certain, can be probabilistically certain about reality. This is true: we have no practical reason to doubt, on account of quantum mechanics, whether the car will start in the morning or if the floor will support our next step. However, just because these principles do not affect our daily lives now,



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does not mean they will not in the future. The lives of many physicists throughout the world are centered on the problems of quantum mechanics, and it is not impossible that new technology affected by this inherent uncertainty will infiltrate homes in the future. If the quantum mechanical picture of reality is accurate, then our metaphysical understanding of the world should reflect it as much as possible.

The scientific, Apollonian understanding of the universe, as it has delved deeper and deeper into the structure of matter, has undermined its own belief in itself. Without the cushion of scientific certainty, many optimists might resign themselves to despair and nihilism. Nietzsche, however, has proposed another way out, calling for a return to a time before Socrates and the scientific fixation.

Pessimism as the Cure to Optimism

The primary difference between the pre-Socratic Greek and the post-Socratic scientist is the lack of homage paid to Dionysus by the modern man. Those Greeks had a Dionysian pessimism which enabled them to see the world in its cruel reality, yet affirm life to a nearly unsurpassed extent. To adhere to this pessimism, one must be strong enough to learn the “art of this-worldly comfort” and of laughing in the face of reality. In 1925, Heisenberg revived the possibility of Dionysian revelry by giving it some scientific credibility, and today the cultural landscape is fertile for a new Apollonian/Dionysian synthesis.²² Before I expand on what this might look like, we must come to a better understanding of Nietzsche’s Dionysian pessimism.

Dionysian pessimism is neither a moral nor metaphysical code. It is a prescriptive attitude to help cope with the chaos and lack of universal meaning in the world. Scientific optimism had given man a pleasurable, tolerable world to enjoy and control. The pessimist must learn to live in a

22. Ball, *Physical Chemistry*, 280.

much less comfortable world in order to live a much more genuine life.²³ However, he does not need to reject scientific progress outright. He should acknowledge that “without a constant falsification of the world[...] man could not live.”²⁴ It is the theoretical man’s will to absolute truth that makes the implosion of scientific optimism so painful; for the pessimist who rejects that initial value judgment, this blow is hardly felt! She understands that the human-dependent illusions of mathematics, science, and logic are not fundamental to human existence and that by not setting them up as gods, she is free to interact with them as tools. The Apollonian instinct is not harmful if it is controlled by Dionysian wisdom. Conversely, Dionysian urges are not nihilistic if tempered by personally meaningful Apollonian constructions.

Balancing the Dionysian element with logic is critical, as it is easy for the unanchored man to slip into a destructive state of mind. The siren’s call of nihilism can particularly affect the former optimist, but for the constructive pessimist, the knowledge that the world is chaotic should merely lead one to constantly qualify her goals. We no longer have the authority to condemn self-centeredness, but pessimism does not necessarily insist that one should only tend one’s own garden; it insists rather that one should “[know] the limits to one’s actions, however ambitious.”²⁵ Just as it frees us from a universal purpose, so does it free us from enslavement to the past. The pessimist believes himself to be in a constant state of transformation and does not worry about the past so much as he looks towards the future.²⁶ Nietzsche’s pessimism ultimately motivates men to localize their lives and to create their own meaning in the context of this very real world.

23. Joshua Dienstag, “Nietzsche’s Dionysian Pessimism,” *The American Political Science Review* 95, No. 4 (2001): 933, <<http://www.jstor.org/stable/3117722>> (April 28, 2010).

24. Nietzsche, *Beyond Good and Evil*, 202.

25. Dienstag, *Nietzsche’s Dionysian Pessimism*, 936.

26. *Ibid.*, 935.



Conclusion

Pre-Socratic Greek civilization developed in a world that could not insulate itself from the harsh realities of the world, so it carved a place in its culture for them, even while creating architecture, political institutions, and artwork that rivals that of any modern society. This society produced Socrates, whose extreme push for rationality provided a way of looking at the world which could not be resisted by men of knowledge. As the scientific disciplines developed in the Western world, it became increasingly easy to become overconfident in man's ability to explain the world, and consequently, those who adopted this belief forfeited their appreciation of the Dionysian aspects of existence. New discoveries in quantum science, however, have made scientific optimism untenable, and an admission of uncertainty seems inescapable.

History has led us to the point where a new synthesis may be possible: the Dionysian scientist. Such an individual would be a new and brilliant star – an artistic Socrates. Humankind needs an outlet for the tragic despair that arises out of the knowledge of his relationship to the world – so he must be an artist. Humankind must also “become the best students and discoverers of all the laws and necessities in the world” – so he must be Socratic. The path to this man lies directly through scientific endeavor. Only through such work can he attain the instruments and tools he needs to create himself, this new man... Only for the accomplishment of such a task would Nietzsche exclaim, as he does in *The Gay Science*, “Three cheers for Physics!” ❖