

# How Things Really Are Actually and Potentially

Thomas E. Vaughan

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## 1 Introduction

There is a great war raging. Western civilization is under seige. By “Western Civilization” I mean the civilization that grew out of the marriage between ancient Israel and classical Greece. First, the old traditions became intertwined in the writing of the *Septuagint*.<sup>1</sup> Then the two became one in Christianity, which required both traditions in order to express doctrine. Christians converted the declining Roman empire to the Faith, defended Europe against the onslaught of Muslim invaders,<sup>2</sup> and finally established a new civilization, among whose fruits are modern science<sup>3</sup> and laws respecting the rights of man. One enemy of Western civilization is a modern form of atheism. The New Atheists<sup>4</sup> deny the Aristotelian metaphysical basis for understanding reality while claiming for themselves the mantle of science, much as the Soviet Communists did during the Cold War. The present talk is motivated by my interest in combating erroneous views about modern science. Now that I have introduced the context of the great war and my general motivation, I point to the philosophical conflict concerning how things really are.

<sup>1</sup>The *Septuagint* is the first translation of the Hebrew *Old Testament*. The translation, into Greek, was made before the Christian era. See the article (<http://www.newadvent.org/cathen/13722a.htm>) on the *Septuagint* at New Advent. See also Pope Benedict XVI’s comments on the marriage of Greek and Hebrew culture in each of [Ratzinger \[2005\]](#) and [Ratzinger \[2007\]](#).

<sup>2</sup>See Chapter 4 of [Belloc \[1938\]](#) for a brief overview of the circumstances leading up to the First Crusade.

<sup>3</sup>The terms “science” and “scientific” are by etymology misleading. In Latin, the verb “scire” means “to know,” but what we call a “scientific theory,” is in many cases something that can never be known as a truth. There are, of course, truths in modern science; primarily, these are *observational* truths: Every repeatable observation is a truth of modern science, a truth at least in the weak sense in which the observation is truly repeatable, and so any theory must explain that. Further, a scientific theory that refers only to perceptible things might in principle be known as a truth, if it be a descriptive theory, such as the arrangement of the bones in the human body. However, a scientific theory that refers to something imperceptible, like the electron for example, might some day be superseded by a new theory making no reference to the imperceptible thing. Its existence in reality is therefore not certain, and so the theory referring to it cannot be known as a truth. There are many who would argue that the electron’s existence is certain, but arguments for scientific realism have problems. See <https://plato.stanford.edu/entries/scientific-realism>.

<sup>4</sup>“New Atheism” is a term widely used to refer to ideas popularized by Richard Dawkins, Sam Harris, Daniel Dennett, and Christopher Hitchens in the first decade of the 21st Century. See [Feser \[2008\]](#).

The story of the conflict begins in ancient Israel. The relevant idea from *Genesis* is that things have not always existed. God, Who is not a thing, initially created things. A new thing, such as a pot, might come into existence by transformation from a pre-existing thing, such as a lump of clay. However, according God’s revelation to the Israelites, there was in the past a beginning when the first things were created from nothing (*ex nihilo*), not by transformation. The fundamental distinction made by the ancient Israelites is between God and what God creates.

Another thread of the story begins in classical Greece. The early philosophers struggled to understand how things change, and their tradition culminated in the writing of Aristotle. Aristotle explained that for a thing to change is for what had existed only potentially in the thing to begin existing actually. The fundamental distinction is between actuality and potentiality. This distinction is the root of what has come to be called “Aristotelian metaphysics.”<sup>5</sup>

When, after having been lost for a time, Aristotle was reintroduced into the West by Saint Thomas Aquinas, he perfected the metaphysical theory so that it could explain not only change by transformation but also creation *ex nihilo*. Aquinas showed how, even if there had been no beginning in time, there would still be creation *ex nihilo* at every moment in time! Although Aristotle’s metaphysical theory naturally led to the emergence of modern science in the West, Aristotle’s opponents in the present conflict ironically mount their attack under the banner of science. The self-proclaimed “science advocate” typically proposes a clear error: *scientism*,<sup>6</sup> according to which everything that exists is describable by modern science. He also typically proposes a dubious position: *scientific realism*,<sup>7</sup> according to which an imperceptible thing proposed as part of a scientific theory is certain to exist. We shall see

<sup>5</sup>The word, “metaphysics,” originates from the accidental fact that in the traditional list of Aristotle’s writings, his writing on the distinction between act and potency came after (meta) his writing on nature (physics). These days, any theory about what lies at the root of being or becoming is called “a metaphysical theory.”

<sup>6</sup>There are many arguments against scientism. See, for example, Thomas Nagel’s argument from the problem of qualia, or subjective experience. It is summarized here: <http://www.nybooks.com/articles/2017/06/08/how-to-imagine-consciousness>. Note that Nagel is an atheist, though he is out of favor with the typical modern atheist, whose materialism takes the form of scientism.

<sup>7</sup>As in a previous note, see again <https://plato.stanford.edu/entries/scientific-realism>.

in what follows how Aristotelian metaphysics provides powerful arguments against these errors. First, however, we must explore the key Aristotelian distinction, which allowed Aquinas to form a synthesis of the Judeo-Christian idea of creation and the Greek explanation of change.

## **2 Act and Potency**

### **2.1 The General Theory**

#### **2.1.1 Example: Silly Putty**

### **2.2 Causal Powers and Laws of Nature**

## **3 Efficient and Final Causality**

## **4 Formal and Material Causality**

## **5 Essence and Existence**

## **References**

- Belloc, H. *The Great Heresies*. Sheed and Ward. London. 1938.
- Feser, E. *The Last Superstition: A Refutation of the New Atheism*. St. Augustine's Press. 2008.
- Feser, E. *Scholastic Metaphysics: A Contemporary Introduction*. editiones scholasticae. Heusenstamm. 2014.
- Ratzinger, J. *Truth and Tolerance: Christian Belief and World Religions*. Ignatius Press. San Francisco. 2004.
- Ratzinger, J. *Jesus of Nazareth*. Doubleday. New York. 2007.