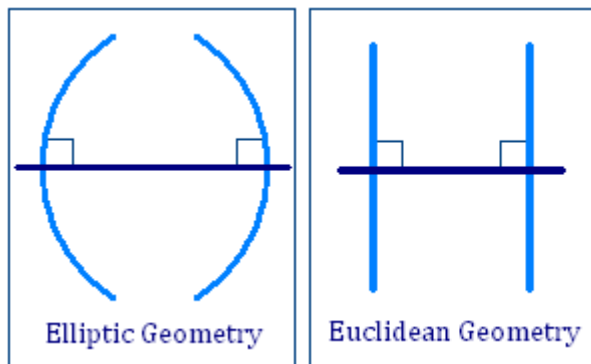


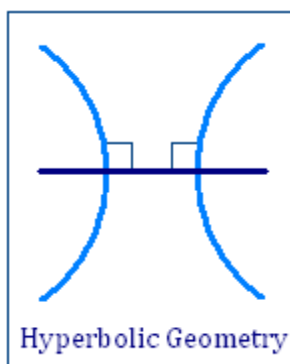
“Context is all.” (Margaret Atwood). Does this mean that there is no such thing as truth?

The pursuit of truth is a uniquely human fascination, yet what truth precisely “is” continues to elude our grasp. This essay will argue that there is such thing as truth, but it is contingent on the context against which it is examined. Thus, while coherent, pragmatic and correspondent truths exist, there cannot be an absolute truth that supersedes all others because, by definition, a context cannot be universal. This essay will demonstrate through the Areas of Knowledge of mathematics, human and natural sciences that “context is all” in determining coherent and pragmatic truth, as context sets the parameters by which truth is judged. Correspondent truths in natural sciences arguably are the closest to absolute truth, yet still fall short of universality.



Mathematics might seem a logical starting point in the search for truth, as there is a relatively high degree of certainty in the statement $1+1=2$. In actuality, these truths are not absolute but coherent truths, in which a statement is true if it is logically consistent with other beliefs that are held to be true. This is particularly pertinent to geometry, an area of mathematics concerned with the properties of space. Euclid is credited with establishing the

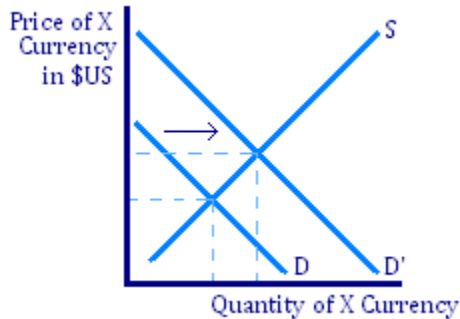
axiomatic approach in geometry. Mathematical propositions are explained and proven through logic and deduction by using five main propositions, or axioms. These axioms generate accurate descriptions of the physical reality we are familiar with. The first four axioms were and continue to be accepted, but this certainty did not extend to the fifth or parallel postulate, which states that parallel lines never meet. In the 19th century, two challenges to the parallel postulate emerged through non-Euclidean geometries, where the postulate was radically altered. Hyperbolic geometry asserts that parallel lines never meet, but grow ever closer together. More radically, parallel lines always intersect in elliptic geometry.



Despite the obvious divergence from traditional Euclidean teachings, the resulting non-Euclidean geometries are logically sound and have been proven more exact in describing the properties of physical space. Elliptic geometry contributed greatly to Einstein’s theory of relativity, proving that light does not travel in a straight line. Within their individual frameworks, each geometry is an equally valid coherent truth. The outcomes are so different that it is tempting to view each non-Euclidean geometry as an independent discovery. In effect, these geometries are simply the product of reorganising existing assumptions with one major alteration. In this example, applying the

Euclidean concept of parallel lines on a spherical plane, instead of the traditional one, created an entirely new but functional system. Extrapolating this concept to mathematics in general demonstrates that there

can be no absolute truth. Each rearrangement creates a different coherent truth that is just as valid within the ambit of its assumptions. Context is therefore vital in determining coherent truths in mathematics.

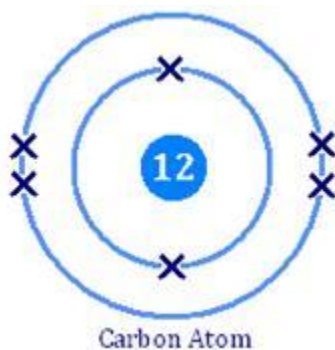


Similarly both human and natural sciences may also be thought of as sources of absolute truths. Closer inspection exposes these truths as pragmatic truths, in which a statement is true if it can be verified by creating models that produce useful predictions about the world. This is especially true of human sciences, specifically in economics, the study of how people use limited resources to try and satisfy unlimited wants. Economic theory dictates that increasing interest rates will create greater demand for the currency, causing it to

appreciate in value. As an Economics student, I am taught that this model is considered fundamental economic theory. Applying this model to Thailand, my home of three years, the Baht will strengthen if interest rates are increased.

Practically, this theory applies only in certain situations and its success is context-dependent. In the Zimbabwean context, an economist would disagree with the validity of this model. The Zimbabwean economy is crippled by hyperinflation of nearly 25,000%. However high the government raises its interest rate, the exchange rate will not appreciate due to total absence of consumer confidence in Zimbabwe's failed economy. In contrast, increasing interest rates in Thailand will cause the Baht to appreciate because of strong consumer confidence. The model therefore holds true for Thailand but not for Zimbabwe. These pragmatic truths are clearly contingent on the context against which they are examined, as demonstrated by how truth varies between situations.

It may be contended that pragmatic truths are not contingent on context as models and theories by nature are intended to be universally applicable. However, models are used to simplify information and are based on certain assumptions to make such information accessible, done at the expense of possible further permutations. Here, the economic model is based on the assumption that a certain level of price and political stability exists within a country. Thus, it is evident that pragmatic truths in human sciences are still context-specific. There is some merit in arguing that if a model is not applicable in all circumstances, it is not a truth. However, the model itself is still accurate and remains helpful in explaining complicated facts, rendering the resultant truth useful.



This closely parallels the use of atomic structures in natural sciences, the study of the natural world. Typically, atoms are represented as circular diagrams, shown in Figure 5. In reality, such representations are inaccurate as electrons never remain stationary. We continue using this model because it remains useful in explaining atomic theories, such as bonding. Furthermore, atoms consist largely of empty space. This

pragmatic truth is valid insofar as the model of the atom is concerned, but we consider atoms “solid” for practical purposes. When put into perspective, an atom’s actual size renders the empty space negligible. It would seem there are no absolute truths in human and natural sciences, as pragmatic truths are contextually-contingent.

One might argue that coherent and pragmatic truths are superficial attempts at determining truth, because they can only be understood within a certain context. Surely we can rely on natural sciences for context-free truths? Objectively, the natural world should be the same for each individual and should therefore not be context-specific. This objectivity is what people typically associate with “truth”, or correspondent truths, such that a statement is true if it corresponds to facts or reality. Of the three theories, these are perhaps the closest to absolute truth. They seem to be an exception to Atwood’s statement as they are based on objectivity and do not require a context to be true. It is assumed that every human being that lived had a brain, an organ vital to the functioning and survival of the body as it regulates virtually every human impulse and action. There is no need to establish a context for the existence and significance of the brain for it simply “is”. Correspondent truths therefore might not require a context to be true.

In coherent and pragmatic truths, the relevant context that determined truth was based either on the reasoning of a premise or economic factors. Would correspondent truths still be context-free if the context is instead a situational factor? Injury or trauma to the brain can cause complications to both physical and psychological health. Serious accidents can render a person brain dead, whereby the individual effectively can no longer communicate with those around them. In this vegetative state, can the purpose of this brain still be considered a correspondent truth? How about when the brain is used for research purposes? Outside of the human body, the organ is not performing any of the tasks that make it so crucial to life. The correspondent truth of the brain’s significance is true irrespective of the situation because it refers to the brain in its “normal” state. The brain’s role outside of the body, however, is dependant on the situation.

It can be validly argued that this distinction is merely linguistic as the brain’s importance is generally measured in its “normal” capacity. What if a statement could be phrased so precisely as to eradicate this problem? This could possibly produce a contextually-free correspondent truth. Even so, David Hume’s “scandal of induction”, would still render this statement impossible to verify. Personal experience and scientific investigation may lead me to determine that the brain is vital to human existence. However, my conclusion is effectively only based on the sample group of personal acquaintances available to me, ranging from personal acquaintances to subjects investigated in scientific journals. There is no way of conclusively proving that every single human being who ever lived had a brain and that this brain was crucial to their survival. Correspondent truths in science may thus appear to undermine Atwood’s statement, but are potentially unattainable as they are so difficult to verify.

Truth is often heralded as the greatest of all virtues, yet it is impossible to identify exactly what “truth” is. For coherent truth theorists, truth is something that complies with other beliefs held to be true. For pragmatic truth theorists, a concept is only true when it can be put to practical use. For many of us, correspondent truths are what we assume “truth” to be – the world as it is. When coherent and pragmatic truths are examined in detail, we realise that they are only as true as their contexts permit them to be. Each truth is a conclusion arrived at within a certain context, whether in geometry or economic activity. Atwood’s statement thus holds for coherent and pragmatic truths. Correspondent truths, in contrast, appear to weaken Atwood’s statement not by being contextually-dependent but because they are simply unachievable. Atwood is thus only partially correct. Truths do exist, but there cannot be an absolute truth. The truth is contingent on many factors and contexts, and a context cannot be universal.

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