

# Reality

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For other uses, see [Reality \(disambiguation\)](#).

**Reality**, in everyday usage, means "the state of things as they actually exist." In a sense it is what is real.<sup>[1]</sup> The term *reality*, in its widest sense, includes everything that [is](#), whether or not it is [observable](#) or [comprehensible](#). Reality in this sense includes [being](#) and sometimes is considered to include [nothingness](#), where [existence](#) is often restricted to being (compare with [nature](#)).



[Hand-coloured](#) version of the anonymous wood engraving known as the [Flammarion woodcut](#) (1888).

The term 'reality' First appeared in the [English language](#) in 1550, originally a [legal term](#) in the sense of "fixed [property](#)." It originated from the [Modern Latin](#) term 'realitatem' which was from [Late Latin](#) 'realis'; The meaning such as "real existence" is from 1647 onwards."<sup>[2]</sup>

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## Phenomenological reality

On a much broader and more subjective level, private experiences, curiosity, inquiry, and the selectivity involved in personal interpretation of events shapes reality as seen by one and only one individual and hence is called [phenomenological](#). While this form of reality might be common to others as well, it could at times also be so unique to oneself as to never be experienced or agreed upon by anyone else. Much of the kind of experience deemed [spiritual](#) occurs on this level of reality.

**Phenomenology** is a [philosophical method](#) developed in the early years of the twentieth century by [Edmund Husserl](#) and a circle of followers at the universities of [Göttingen](#) and [Munich](#) in [Germany](#). Subsequently, phenomenological themes were taken up by philosophers in France, the United States, and elsewhere, often in contexts far removed from Husserl's work.

"Phenomenology" comes from the Greek words *phainómenon*, meaning "that which appears", and *lógos*, meaning "study". In Husserl's conception, phenomenology is primarily concerned with making the structures of [consciousness](#), and the [phenomena](#) which appear in acts of consciousness, objects of systematic reflection and analysis. Such reflection was to take place from a highly modified "[first person](#)" viewpoint, studying phenomena not as they appear to "my" consciousness, but to any consciousness whatsoever. Husserl believed that phenomenology could thus provide a firm basis for all human [knowledge](#), including scientific knowledge, and could establish philosophy as a "rigorous science".<sup>[3]</sup>

Husserl's conception of phenomenology has been criticised and developed not only by himself, but also by his student and assistant [Martin Heidegger](#), by [existentialists](#), such as [Maurice Merleau-Ponty](#), [Jean-Paul Sartre](#), and by other philosophers, such as [Paul Ricoeur](#), [Emmanuel Levinas](#), and [Dietrich von Hildebrand](#).<sup>[4]</sup>

## Truth

*Main article:* [Truth](#)

The term truth has no single definition about which a majority of professional philosophers and scholars agree, and various theories of truth continue to be debated. [Metaphysical objectivism](#) holds that truths are independent of our beliefs; except for propositions that are actually about our beliefs or sensations, what is true or false is independent of what we think is true or false. According to some trends in philosophy, such as [postmodernism/post-structuralism](#), truth is subjective. When two or more individuals agree upon the interpretation and experience of a particular event, a consensus about an event and its experience begins to be formed. This being

common to a few individuals or a larger group, then becomes the 'truth' as seen and agreed upon by a certain set of people — the [consensus reality](#). Thus one particular [group](#) may have a certain set of agreed truths, while another group might have a different set of consensual 'truths'. This lets different [communities](#) and [societies](#) have varied and extremely different [notions](#) of reality and truth of the external world. The [religion](#) and beliefs of people or communities are a fine example of this level of [socially constructed](#) 'reality'. Truth cannot simply be considered truth if one speaks and another hears because individual bias and fallibility challenge the idea that certainty or objectivity are easily grasped. For [Anti-realists](#), the inaccessibility of any final, objective truth means that there is no truth beyond the socially-accepted consensus. (Although this means there are truths, not truth).

For [realists](#), the world is a set of definite [facts](#), which exist independently of human perceptions ("The world is all that is the case" — *Tractatus Logico-Philosophicus*), and these facts are the final arbiter of truth. [Michael Dummett](#) expresses this in terms of the principle of [bivalence](#)<sup>[5]</sup>: [Lady Macbeth](#) had three children or she did not; a tree falls or it does not. A statement will be true if it [corresponds](#) to these facts — *even if the correspondence cannot be established*. Thus the dispute between the realist and anti-realist conception of truth hinges on reactions to the [epistemic](#) accessibility (knowability, graspability) of facts.

## Fact



Refracted sun rising over Virginia Beach

*Main article:* [Fact](#)

A fact or factual entity is a [phenomenon](#) that is perceived as an elemental principle. It is rarely one that could be subject to personal interpretation. Instead, it is most often an observed phenomenon of the natural world. The proposition 'viewed from most places on Earth, the sun rises in the east', is a fact. It is a fact for people belonging to any group or nationality, regardless of which language they speak or which part of the hemisphere they come from. The [Galilean](#) proposition in support of the [Copernican theory](#), that the [sun](#) is the center of the [solar system](#), is one that states the fact of the [natural world](#). However, during his lifetime Galileo was ridiculed for that factual proposition, because far too few people had a consensus about it in order to accept it as a truth,<sup>*[citation needed]*</sup> and at the time the [Ptolemaic model](#) was just as accurate a predictor. Fewer propositions are factual in content in the world, as compared to the many truths shared by various communities, which are also fewer than the innumerable individual [worldviews](#). Much of [scientific exploration](#), [experimentation](#), [interpretation](#) and [analysis](#) is done on this level.

This view of reality is well expressed by [Philip K. Dick's](#) statement that "Reality is that which, when you stop believing in it, doesn't go away."<sup>[6]</sup>

## What reality might *not* be



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"Reality," the concept, is contrasted with a wide variety of other concepts, largely depending upon the intellectual discipline. Some believe that it can help to understand what we mean by "reality" to note that what we say *is not* real because we see it through different perspectives, therefore there is no basis for reality. But usually, if there are no original and related proofs, it isn't reality. Others believe that reality is consistent for all people, and it would be the perceptions and interpretations of this common reality that are different. An example of this is the belief that rain is the work of gods rather than a natural occurrence that has a [scientific explanation](#). The perception and interpretation of rain is that it involves the supernatural, but this belief does not change the fact that rain is caused by water moving from a [gaseous state](#) into a [liquid state](#). The reality is consistent, and it is the interpretation that is different, not the cause of the event.

In [philosophy](#), reality is contrasted with [nonexistence](#) (penguins do exist; so they are real) and mere [possibility](#) (a mountain made of gold is merely possible, but is not known to be real—that is, actual rather than possible—unless one is discovered). Sometimes philosophers speak as though reality is contrasted with [existence](#) itself, though [ordinary language](#) and many other philosophers would treat these as synonyms. They have in mind the notion that there is *a kind of* reality — a mental or [intentional](#) reality, perhaps — that imaginary objects, such as the aforementioned golden mountain, have. [Alexius Meinong](#) is famous, or infamous, for holding that such things have so-called subsistence, and thus a kind of reality, even while they do not actually exist. Most philosophers find the very notion of "subsistence" mysterious and unnecessary, and one of the [shibboleths](#) and starting points of 20th century [analytic philosophy](#) has been the forceful rejection of the notion of subsistence — of "real" but nonexistent objects.

Some schools of [Buddhism](#) hold that reality is something void of description, the formless which forms all illusions or [maya](#). Buddhists hold that we can only discuss objects which are not reality itself and that nothing can be said of reality which is true in any absolute sense. Discussions of a permanent self are necessarily about the reality of self which cannot be pointed to nor described in any way. Similar is the [Taoist](#) saying, that the [Tao](#) that can be named is not the true Tao, or way.

It is worth saying at this point that many philosophers are not content with saying merely what reality *is not* — some of them have positive theories of what broad categories of objects are real, in addition. See [ontology](#) as well as [philosophical realism](#); these topics are also briefly treated below.

In [ethics](#), [political theory](#), and the [arts](#), reality is often contrasted with what is "[ideal](#)."

One of the fundamental issues in ethics is called the [is-ought problem](#), and it can be formulated as follows: "Given our knowledge of the way the world 'is,' how can we know the way the world 'ought to be'?" Most ethical views hold that the world we live in (the *real* world) is *not ideal* — and, as such, there is room for improvement.

In the arts there was a broad movement beginning in the 19th century, [realism](#) (which led to [naturalism](#)), which sought to portray characters, scenes, and so forth, realistically. This was in contrast and reaction to [romanticism](#), which portrayed their subjects idealistically. Commentary about these [artistic movements](#) is sometimes put in terms of the contrast between the real and the ideal: on the one hand, the average, ordinary, and natural, and on the other, the superlative, extraordinary, improbable, and sometimes even supernatural. Obviously, when speaking in this sense, "real" (or "realistic") does not have the same meaning as it does when, for example, a philosopher uses the term to distinguish, simply, what exists from what does not exist.

In the arts, and also in ordinary life, the notion of reality (or realism) is also often contrasted with illusion. A painting that precisely indicates the visually-appearing shape of a depicted object is said to be realistic in that respect; one that distorts features, as [Pablo Picasso's](#) paintings are famous for doing, are said to be unrealistic, and thus some observers will say that they are "not real." But there are also tendencies in the visual arts toward so-called [realism](#) and more recently [photorealism](#) that invite a different sort of contrast with the real. [Trompe-l'œil](#) (French, "fool the eye") paintings render their subjects so "realistically" that the casual observer might temporarily be deceived into thinking that he is seeing something, indeed, *real* — but in fact, it is merely an illusion, and an intentional one at that.

In psychiatry, reality, or rather the idea of being *in touch with reality*, is integral to the notion of [schizophrenia](#), which has often been defined in part by reference to being "out of touch" with reality. The schizophrenic is said to have *hallucinations* and *delusions* which concern people and events that are not "real." However, there is controversy over what is considered "out of touch with reality," particularly due to the noticeable comparison of the process of forcibly institutionalising individuals for expressing their beliefs in society to [reality enforcement](#). The practice's possible covert use as a political tool can perhaps be illustrated by the 18th century psychiatric sentences in the U.S. of black slaves for 'crazily' attempting to escape. See also [anti-psychiatry](#) and one of its prominent figures, the psychiatrist [Thomas Szasz](#).

In each of these cases, discussions of reality, or what counts as "real," take on quite different casts; indeed, what we say about reality often depends on what we say it is not.

## Reality, Worldviews, and Theories of Reality

*Further information:* [World view](#)

A common colloquial usage would have "reality" mean "perceptions, beliefs, and attitudes toward reality," as in "My reality is not your reality." This is often used just as a [colloquialism](#) indicating that the parties to a conversation agree, or should agree, not to quibble over deeply different conceptions of what is real. For example, in a religious discussion between friends, one might say (attempting humor), "You might disagree, but in my reality, everyone goes to heaven."

Reality can be defined in a way that links it to worldviews or parts of them (conceptual frameworks): Reality is the totality of all things, structures (actual and conceptual), events (past and present) and phenomena, whether observable or not. It is what a worldview (whether it be based on individual or shared human experience) ultimately attempts to describe or map.

Certain ideas from physics, philosophy, sociology, [literary criticism](#), and other fields shape various theories of reality. One such belief is that there simply and literally *is* no reality beyond the perceptions or beliefs we each have about reality. Such attitudes are summarized in the popular statement, "Perception is reality" or "Life is how you perceive reality" or "reality is what you can get away with" ([Robert Anton Wilson](#)), and they indicate [anti-realism](#) - that is, the view that there is no objective reality, whether acknowledged explicitly or not. These topics will be discussed in greater detail below.

Many of the concepts of science and philosophy are often defined [culturally](#) and [socially](#). This idea was well elaborated by [Thomas Kuhn](#) in his book [The Structure of Scientific Revolutions](#) (1962).

## Philosophical views of reality

[Philosophy](#) addresses two different aspects of the topic of reality: the nature of reality itself, and the relationship between the [mind](#) (as well as [language](#) and [culture](#)) and reality.

On the one hand, [ontology](#) is the study of being, and the central topic of the field is couched, variously, in terms of being, existence, "what is", and reality. The task in ontology is to describe the most general [categories of reality](#) and how they are interrelated. If — what is rarely done — a philosopher wanted to proffer a positive definition of the concept "reality", it would be done under this heading. As explained above, some philosophers draw a distinction between reality and existence. In fact, many analytic philosophers today tend to avoid the term "real" and "reality" in discussing ontological issues. But for those who would treat "is real" the same way they treat "exists", one of the leading questions of analytic philosophy has been whether existence (or reality) is a property of objects. It has been widely held by analytic philosophers that it is *not* a property at all, though this view has lost some ground in recent decades.

On the other hand, particularly in discussions of [objectivity](#) that have feet in both [metaphysics](#) and [epistemology](#), philosophical discussions of "reality" often concern the ways in which reality is, or is not, in some way *dependent upon* (or, to use fashionable [jargon](#), "constructed" out of) mental and cultural factors such as perceptions, beliefs, and other mental states, as well as cultural artifacts, such as [religions](#) and [political movements](#), on up to the vague notion of a common cultural [world view](#), or [Weltanschauung](#).

The view that there is a reality independent of any beliefs, perceptions, etc., is called [realism](#). More specifically, philosophers are given to speaking about "realism *about*" this and that, such as realism about universals or realism about the external world. Generally, where one can identify any class of object, the existence or essential characteristics of which is said not to depend on perceptions, beliefs, language, or any other human artifact, one can speak of "realism *about*" that object.

One can also speak of *anti-realism* about the same objects. [Anti-realism](#) is the latest in a long series of terms for views opposed to realism. Perhaps the first was [idealism](#), so called because reality was said to be in the mind, or a product of our *ideas*. [Berkeleyan idealism](#) is the view, propounded by the Irish [empiricist George Berkeley](#), that the objects of perception are actually ideas in the mind. On this view, one might be tempted to say that reality is a "mental construct"; this is not quite accurate, however, since on Berkeley's view perceptual ideas are created and coordinated by God. By the 20th century, views similar to Berkeley's were called [phenomenalism](#). Phenomenalism differs from Berkeleyan idealism primarily in that Berkeley believed that minds, or souls, are not merely ideas nor made up of ideas, whereas varieties of phenomenalism, such as that advocated by [Russell](#), tended to go farther to say that the mind itself is merely a collection of perceptions, memories, etc., and that there is no mind or soul over and above such [mental events](#). Finally, anti-realism became a fashionable term for *any* view which held that the existence of some object depends upon the mind or cultural artifacts. The view that the so-called external world is really merely a social, or cultural, artifact, called [social constructionism](#), is one variety of anti-realism. [Cultural relativism](#) is the view that [social issues](#) such as morality are not absolute, but at least partially [cultural artifact](#).

A [Correspondence theory of knowledge](#) about what exists claims that "true" knowledge of reality represents accurate correspondence of statements about and images of reality with the actual reality that the statements or images are attempting to represent. For example, the [scientific method](#) can verify that a statement is true based on the observable evidence that a thing exists. Many humans can point to the [Rocky Mountains](#) and say that this [mountain range](#) exists, and continues to exist even if no one is observing it or making statements about it. However, there is nothing that we can observe and name, and then say that it will exist forever. Eternal [beings](#), if they exist, would need to be described by some method other than scientific. <sup>[[citation needed](#)]</sup>

## Quantum Mechanical Implications

*Further information:* [Principle of locality](#), [Interpretation of quantum mechanics](#), and [Philosophy of physics](#)

[Quantum mechanics](#), a branch of [physics](#) founded in the early 20th century, has established a number of highly counterintuitive experimental results. Some individuals have asserted those results are relevant to a conception of reality. In particular, the [experimental data](#) suggests two facts about the [universe](#) at very small distances (on the scale of individual [protons](#)):

1. first, that the universe is [non-deterministic](#), and
2. second, that the concept of an objective measurement is, strictly speaking, meaningless.

These two [truths](#) are interrelated but worthy of separate attention. For those interested only in the philosophical implications, not the details of the [physical theory](#), the following two sections may be skipped.

Non-determinism of [quantum systems](#) follows directly from the [Schrodinger Equation](#). This equation solves only for *probabilities*, not for determinate values. For example: a child has \$5,

and wants to spend \$2. The child asks his father how much of the original \$5 he will have after spending \$2, and the father tells him that he will have \$3 remaining. The father is using the arithmetic to offer a *determinate prediction*, which claims that if you have \$5, and you spend \$2, you will have \$3. It is not possible that you will have \$1 remaining, it is not possible that you will have \$6 remaining: the amount of the remainder is determined to be \$3.

$$i\hbar\frac{\partial}{\partial t}\Psi(\mathbf{r}, t) = \hat{H}\Psi(\mathbf{r}, t)$$

where

- $i$  is the [imaginary unit](#)
- $\Psi(\mathbf{r}, t)$  is the [wave function](#), which is the [probability amplitude](#) for different [configurations](#) of the system.
- $\hbar$  is the [reduced Planck's constant](#) (often normalized to 1 in [natural units](#)).
- $\hat{H}$  is the [Hamiltonian operator](#).

By contrast, if the child asks which side a flipped quarter will land on ([heads or tails](#)), the answer is different. This answer is *probabilistic*, in that it is given not in the form of a specific prediction, but in the form of a general claim about the results as a whole: the coin has a 50-50 chance of landing on heads (and the same chance for tails). Practically speaking, this roughly means that the more times you throw the quarter, the closer your heads-tails results will get to being half of one, half of the other. It does not tell you the outcome for any particular [coin toss](#).

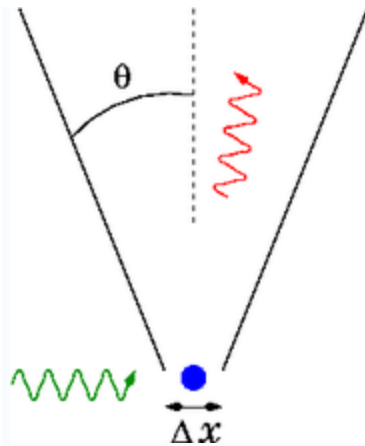
Photons, as well as other particles, have been shown to possess a [wave-particle duality](#); specifically, this means that their probabilistic nature is given by an oscillating probability wave.

## Heisenberg Uncertainty Principle

In [quantum physics](#), the **Heisenberg uncertainty principle** states that certain pairs of [physical properties](#), like position and momentum, cannot both be known to [arbitrary precision](#). That is, the more precisely one property is known, the less precisely the other can be known. It is impossible to measure simultaneously both position and velocity of a microscopic particle with any degree of accuracy or certainty. This is not a statement about the limitations of a researcher's ability to measure particular quantities of a system, but rather about the nature of the system itself and hence it expresses a property of the universe<sup>[\[citation needed\]](#)</sup>.

There are two ways of measuring small particles: Hitting them with one kind of radiation gives more information on their position (at the time) of measurement and hitting them with another kind of radiation gives more information on their momentum. The abilities of the two measurements to describe the pre-measurement system vary inversely to one another. Furthermore, the limit cases at each end are also unattainable: we cannot get, even alone, a measurement of either, for the principle demands that such a measurement would have to 'infinitely' alter the other.





Heisenberg's gamma-ray microscope for locating an electron (shown in blue). The incoming gamma ray (shown in green) is scattered by the electron up into the microscope's aperture angle  $\theta$ . The scattered gamma-ray is shown in red.

Such results have led some, such as [Amit Goswami](#), a theoretical [nuclear physicist](#) and member of the University of Oregon, to assume that there is no reality existing, independent of our own consciousness as observer. However, there is no clear evidence that human consciousness has any special role to play beyond the influence of instrument-settings on result. These phenomena can also be given the more cautious interpretation that quantum systems do contain properties, but not properties directly corresponding to measurements performed on the system by macroscopic instruments.<sup>[7]</sup>

Heisenberg's Principle is often misinterpreted to mean that the human act of observing something has some magical, intangible way of changing physical objects. This is not what the principle claims. To measure something about a particle, whether it is that particle's location or its spin, a potential observer needs to hit that particle with radiation. We do this all the time in our daily lives: we need to hit objects with light radiation in order to see them; however, on very small particles, such as those that inspired Heisenberg's Principle, even the tiniest, gentlest forms of radiation have a significant effect. Like two pool balls knocking together, the radiation particle would, in hitting the particle to be measured, change the latter's position or momentum or both. In the time it would take for the observer to read the measured results, the particle being measured would have changed from its original state in some significant way.

However, it is not literally the act of observing the measured results that creates this change. Although it would be impossible to know for sure because it would require observing the results, one can assume that any particle hit with similar radiation would be altered similarly, regardless of whether the results were observed or not.

## See also

- [Absolute \(philosophy\)](#)
- [Biocentrism](#)
- [Demonstration](#)
- [Church of Reality](#)
- [Simulated reality](#)
- [Virtual reality](#)

- [Explanatory model](#)
- [Hyperreality](#)
- [Real life \(reality\)](#)
- [Real world](#)
- [Reality in Buddhism](#)
- [Social constructionism](#)
- [Solipsism](#)

## Sources

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