

# Truth and Reality

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## Abstract

This paper looks at the relationship between truth and reality. It identifies a number of terms that are relevant, like personal, shared, subjective, objective, observation, belief, idea, illusion and real. The question of whether universals exist in and of themselves is discussed, and it is concluded that some universals are imaginary and cultural rather than real and universal. If this is so, then there is no necessity for any universals to be real and universal. However, for completeness, universals are included in the analysis.

The terms are grouped under four headings: the Category, Scope, Class and Usage. Together, these factors form a four dimensional array. Such an array is inherently difficult to visualize, but it can be represented in two parts by mapping the Usage against the Scope and the Category against the Class. A table representing the full array is then produced by embedding the Category against Class array in each cell of the Usage against Scope array.

## Reality

The term "real" is used to describe entities that exist whether we perceive them or not. This can be subdivided into:

- "physical" entities - the material and electromagnetic universe.
- "abstract" entities - universals (see below).

Then there are "imaginary" entities, that only exist within our perception. These can be subdivided into:

- "observations" - our perception of reality.
- "ideas" - concepts, beliefs, axioms and other ideas.

The term "existence" encompasses entities that are real or imaginary.

## Universals

"Universals" are abstract entities that are thought to be real, i.e. they exist whether we are aware of them or not. These include numbers and their relationships.

"Realists" maintain that universals are real. "Nominalists" maintain that they are not.

It seems to me that at least some universals are neither real nor universal. This is because we have universals for things that are not, and never have been, real. Like fairies, gnomes, goblins and unicorns. Since these creatures exist only in stories and our imaginations, it seems logical that their universals are equally imaginary. If so, it follows that they only exist in the minds of those people who have heard of them. So they are cultural rather than universal.

Furthermore, if some universals are imaginary and cultural, then there is no *necessity* for *any* universals to be real and universal. They could all be imaginary and cultural. This does not prove that they are not real, but it does question why we should assume that *any* universals are real? One reason is that with universals such as numbers, there seems to be a genuine universality. Numbers and their relationships are the same irrespective of what they are called, and irrespective of whether we are aware of them. However, is this universality inherent in numbers themselves, or in the behaviour of physical reality?

For example, if science were to show that in some extreme circumstance the universe did not obey the universality of numbers, then numbers would no longer be universal. Hence their universality is dependent upon the behaviour of the universe, not the other way round. So I conclude that these universals could be concepts describing the universality (as far as we know) of the behaviour of physical reality.

Hence, it is arguable that universals are just another type of ideas. However, for completeness, we include universals as a class of entity, with the proviso that they may or may not be real.

## Truth

As with all words, the word "truth" means what you define it to. No more, no less. However, although superficially a simple concept, the truth can have many different meanings in different contexts. So this is an attempt to provide a comprehensive and consistent definition of truth...

### Truth in Observations, Beliefs and Ideas

Observations, belief and ideas are thoughts, i.e. they exist in our minds:

- An observation is something that is experienced. It may be real or an illusion. The person observing it does not necessarily believe it to be real, but it is true that they observed it.
- A personal observation is something that is observed by one person. So if one person watches an illusionist who is apparently plucking coins out of thin air, it is true that they see him pluck coins out of thin air, but that does not mean that they believe it, nor that it is real. It can be (and in this case is) an illusion.
- An shared observation is where a number of people observe the same thing. But no matter how many people see an illusionist pluck coins out of thin air, it still is an illusion.
- All observations are subjective, because they unavoidably involve interpretation. Hence there is no such thing as an objective observation. However, an observation can be objectively true, if it matches reality.
- An illusion is something that is observed, but is not real. It may or may not be believed to be real by the observer, but it is true that they observed it.
- A belief is something that is held to be real. It does not necessarily have to be observed, nor real, but it is true that it is believed.

- A personal belief is something that one person believes is true. So if one person sees an illusionist plucking coins out of thin air, and believes it to be real, that is a personal belief.
- A shared belief is held by more than one person. So if a number of people see an illusionist pick coins out of thin air, and believe it to be real, that is a shared belief.
- An idea is something that is thought. It does not necessarily have to be observed, believed, nor true. A true idea matches reality.
- A subjective belief or idea is one that does not wholly match reality.
- An objective belief or idea is one that matches reality.
- Reality is what exists, whether we observe it, or believe it to be so, or not.
- An observation, belief or idea may be partially true. If so, it may be broken down into true and false parts.

## Truth in Statements

A statement is the externalization of an observation, belief or idea. The truth of a statement can be quite separate from the truth of the idea it describes. Thus I may say "I believe that the moon is made of green cheese". Whether this statement is true or not does not depend on whether the moon is actually made of green cheese. It only depends upon whether I believe this to be so. As such it is a statement of belief.

Whereas the statement "The moon is made of green cheese" is only true if:

- The moon *is* made of green cheese. Or...
- The moon is made of a material that is *known* as "green cheese".

The first is an example of an absolute (or literal) truth. The second is an example of relative (or metaphorical) truth. Hence this is a statement of fact (which may, or may not, be true).

A statement may be partially true. If so, it may be broken down into true and false parts.

It may be claimed that, objectively, statements are either true or false, i.e. they cannot be neither true nor false. This idea rests on the view that the truth value of a statement is atemporal. However, there is a contrary view that the future is not determinate. In which case, the truth value of statements about future events would be indeterminate until the events occurred.

## The Meaning of Truth

By this definition, truth is a general term that has illusory, personal, shared, subjective and objective aspects. It also encompasses observations, beliefs and ideas as things-in-themselves, and statements about them. All are aspects of truth and its relationship to reality.

We may summarise the meaning of truth as:

- Statements are true to the extent that they accurately reflect the thing they describe, either in part or whole.
- Observations and ideas are true to the extent that they accurately reflect reality, either in part or whole.
- Some universals may be true in that they accurately reflect relationships inherent in reality.
- Physical entities are real and are neither true nor false; they simply are.

## Analysis

An obvious place to start when analyzing the relationships between truth and reality is with statements. Statements may be true or false, depending upon whether they correlate to reality. Alternatively, the truth value of statements about future events may be indeterminate.

However, before we can make a statement we have to conceptualize the entities. Concepts may describe things that are real, in the sense that they exist whether we are cognisant of them or not, and those that exist entirely within our cognition:

- Physical entities are real, and exist whether we perceive them or not. They include material objects and electromagnetic phenomena.
- Universals are abstract entities, which, if real, exist outside our cognition.
- Observations - are our perceptions of reality.
- Ideas such as:
  - Concepts - Ideas that are fundamental to our comprehension.
  - Beliefs - Ideas we hold to be true without directly perceiving them.
  - Axioms - Ideas held to be true for the purposes of a particular theory.
  - Other Ideas - Ideas not necessarily held to be true.

However, statements are not the only things that may be true or false. Observations and ideas may be true in themselves, in addition to statements about them.

Then there is the scope within which an entity may be true. It may be:

- Objective Truth - That which matches reality.
- Shared Truth - Something held to be true by more than one person.
- Personal Truth - Something held to be true by an individual.

Note: A shared truth is distinguished from a personal truth because a shared truth may be considered as "knowledge", whereas it is difficult to see that a personal truth, without any corroboration, qualifies as such.

# Dimensions of Truth

The factors defining truth may be formalised into four dimensions. These are:

1. The Category:
  - True.
  - False.
  - Neither true nor false. I.e.
    - § Things whose category is indeterminate\* .
    - § Things for which the terms "true" and "false" are irrelevant.
    - § Statements that are meaningless.
  
2. The Scope:
  - Objective Truth - That which matches reality.
  - Shared Truth - Something held to be true by more than one person.
  - Personal Truth - Something held to be true by an individual.
  
3. The Class:
  - Physical entities - These are neither true nor false, and are real.
  - Universals - Which may, or may not, be real.
  - Observations - Our perceptions of reality.
  - Ideas such as:
    - § Concepts - Ideas that are fundamental to our comprehension.
    - § Beliefs - Ideas we hold to be true without directly perceiving them.
    - § Axioms - Ideas held to be true for the purposes of a particular theory.
    - § Other ideas - Ideas not necessarily held to be true.
  
4. The Usage. We may refer to either:
  - The things in themselves, or...
  - Statements about them.

\* The truth value of statements about future events may be indeterminate if the events themselves are not determinate.

## Representing Truth as an Array

A representation of truth as a four dimensional array is inherently difficult to visualize, but we can represent it in two parts by mapping the Usage against the Scope, and the Category against the Class.

A table representing the full array can then be

produced by embedding the Category against Class array in each cell of the Usage against Scope array. Each copy of the category and class array is in a different

		USAGE		CATEGORY			
		Thing-in-Itself	Statements	True	False	Neither	
SCOPE	Objective Truth						
	Shared Truth						
	Personal Truth						
		CLASS					
		Physical Entity	Universals	Observation	Idea		

context of usage and scope. Therefore each occupies a unique position in the overall table.

## The Truth and Reality Table

Some cells in the upper row of category and class arrays are shaded, as they are invalid:

- Physical entities are "neither true nor false", as the concept of truth is irrelevant to them. So the categories "true" and "false" are invalid.
- Universals can be "true" if they are relationships (like  $1 + 1 = 2$ ) or otherwise "neither true nor false" as the concept of truth is irrelevant to them. So the category "false" is invalid.
- Observations and ideas, in themselves, can only be "true" or "false". So the category "neither true nor false" is invalid.

Some groupings form sub-groups:

- The personal and shared truths are subjective truths.
- Observations, ideas and, possibly, universals are imaginary entities.

**TRUTH AND REALITY - Including Universals**

		USAGE					USAGE			
		The Thing-in-Itself					Statements			
SCOPE	TRUTH/REALITY	CATEGORY			CATEGORY			CATEGORY		
		True	False	Neither	True	False	Neither	True	False	Neither
Objective Truth/Reality	CLASS									
	Physical Entity									
	Universals									
	Observation									
Shared Truth (Subjective)	CLASS									
	Physical Entity									
	Universals									
	Observation									
Personal Truth (Subjective)	CLASS									
	Physical Entity									
	Universals									
	Observation									
Idea	CLASS									
	Physical Entity									
	Universals									
	Observation									

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