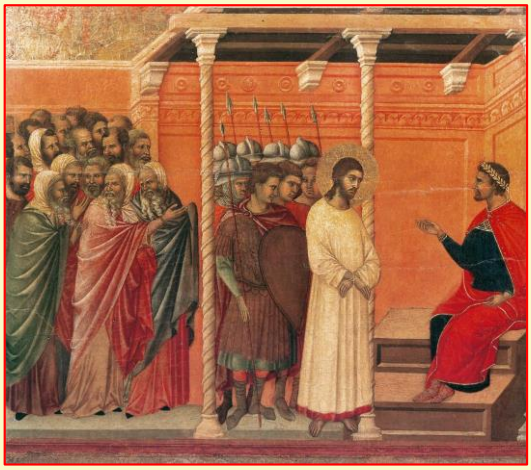


Duccio di Buoninsegna, panel from *Maestà*, 1311

Intersections between Religion, Art and Science

Prologue

This course will consider some different approaches to truth. Truth is difficult to define. Everyone knows what truth is: it is what we believe. However, no one can really say why we be believe what we do – other than by using the circular argument that it is true. Religions consider truth through revelation, art through intuition and science through observation.

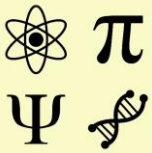
This course will mainly be concerned with the relations between religion and science. However, I have found that art is an excellent go-between.

The story of Christ before Pilate illustrates some of the difficulty is determining what is true:

Then Pilate entered into the judgment hall again, and called Jesus, and said unto him, Art thou the King of the Jews?
Jesus answered him, Sayest thou this thing of thyself, or did others tell it thee of me?
Pilate answered, Am I a Jew? Thine own nation and the chief priests have delivered thee unto me: what hast thou done?
Jesus answered, My kingdom is not of this world: if my kingdom were of this world, then would my servants fight, that I should not be delivered to the Jews: but now is my kingdom not from hence.
Pilate therefore said unto him, Art thou a king then? Jesus answered, Thou sayest that I am a king. To this end was I born, and for this cause came I into the world, that I should bear witness unto the truth. Every one that is of the truth heareth my voice.
Pilate saith unto him, What is truth? And when he had said this, he went out again unto the Jews, and saith unto them, I find in him no fault at all.
(John 18: 33-38)

The story illustrates some of the problems of metaphor. Jesus is talking about a metaphorical kingdom, Pilate is worried about a real kingdom. We shall consider metaphor more fully toward the end of this session.

Science



Originally the word meant **knowledge** of any kind

Nowadays it means knowledge about the natural world derived through the **observation**, analyzed by **reason**, and tested by **experiment**

Sometimes it is differentiated from **technology**, which is the application of knowledge to control the world.

Religion

An organized system of **beliefs** about matters that are beyond the grasp of science ("transcendent")

A set of **precepts** that teach us how to act

A program of **rituals** that display a community's beliefs

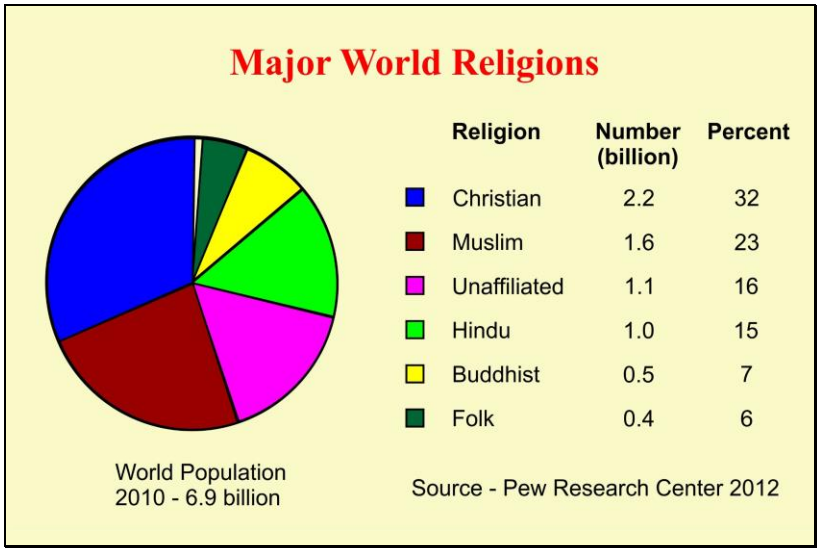
A collection of **scriptures** that delineate the beliefs, teachings and rituals

The word "science" derives from *scire* – to know. This likely comes from the Indo-European root *skie* meaning to cut or divide. This etymology focusses on the way science discriminates between things.

I have defined science in terms of "knowledge" rather than belief. However, knowledge is generally considered as justified true belief. We shall return to this later in this session.

Very few people try to define "religion." I have defined it in opposition to science. Perhaps this displays my biases. I have listed its main attributes.
The etymology of the word "religion" is not known. Some have proposed that it derives from *relegare* - to read again – this focuses on devotion to the scriptures. Another idea is that the word comes from *religare* – to bind – this considers the obligation of the believer to God and to his fellow believers. A third etymology is *religiens* – careful (as opposed to *negligiens*) – this points to the moral aspect of religion.

The scientific symbols are to illustrate the physical, mathematical, psychological and biological sciences. The religious symbols show the four main world religions.



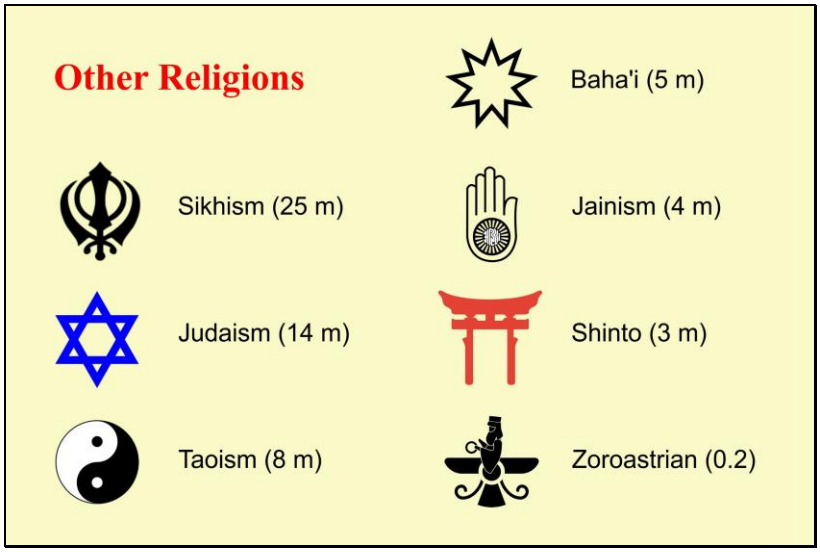
Ways to remember the religions – 1 in 3 are Christian, 1 in 4 are Muslim, 1 in 6 are Hindu.

About half of Christians (1 billion) are Catholic; just over a third (800 million) are Protestant; just over 10% (250 million) are Orthodox. The rest include the Mormons (15 million) and Jehovah's Witnesses (8 million).

Within Islam, about 85% are Sunni and 10% are Shia. Various other denominations (Sufis, Alawites) sometimes distinguish themselves from the main traditions.

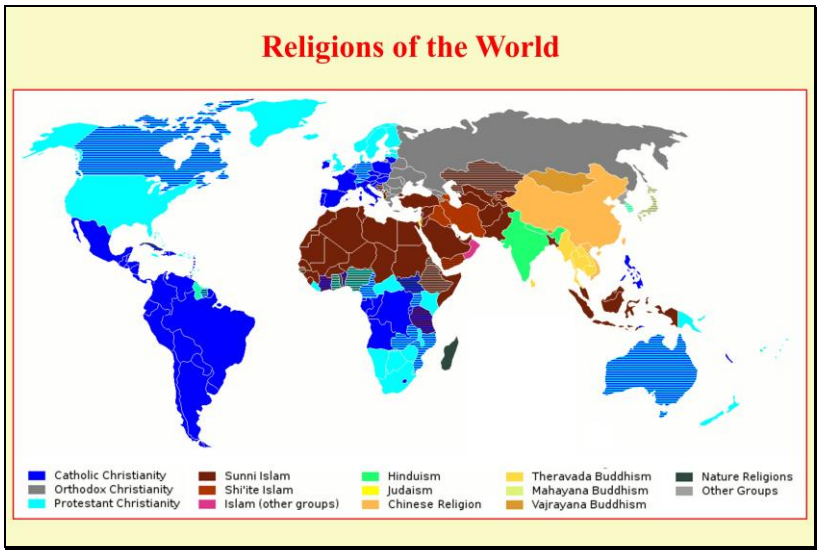
Hinduism does not have much central doctrinal authority. Adherents may concentrate on Vishnu (Krishna), Shiva or Shakti as their preferred deity.

Buddhism has three major divisions. Over one half follow Mahayana ("great vehicle') Buddhism. These adherents are mainly in China, Vietnam, Korea and Japan. Just over one third are Theravada ("school of the elders"). This is mainly in Sri Lanka and South-East Asia. The rest are mainly of the Vajrayana ('diamond vehicle") school, mainly in Tibet Mongolia and Western China.

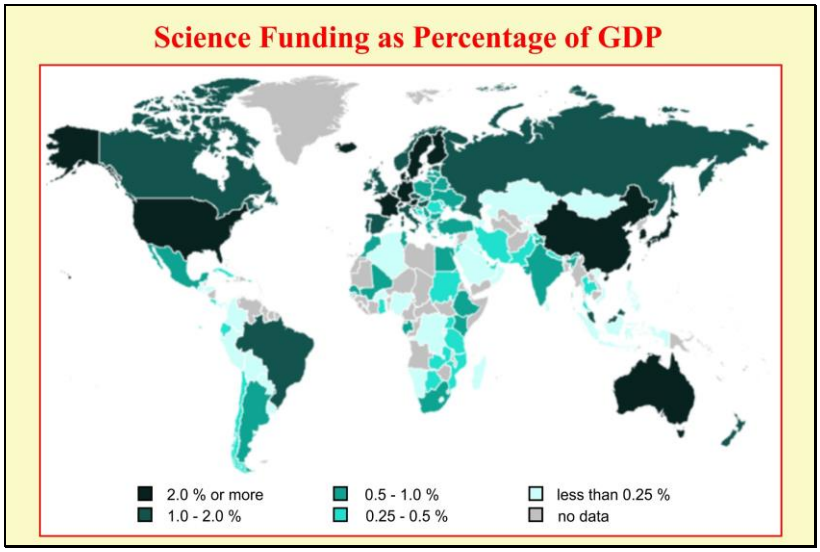


Some religions are very difficult to place. Mormons believe in Christ but many Christians would not consider their beliefs as truly Christian.

This slide shows the smaller world religions. Some religions have far greater recognition than their numbers warrant. The number of active scientologists is about 100,000.



This map shows the geographic distribution of the world's religions. Only the major religions are shown in each country. The map shows the subdivisions of the major religions. Of note are the "pockets" – Catholicism in the Philippines, Protestant Christianity and Buddhism in South Korea.



This slide shows the funding or science in the world.
Data are from UNESCO (2016). In general about 60% of funding for research is provided by private companies, and about 30% by government grants.

The map shows the percentage of GDP. This is itself highly correlated with the actual GDP – the richer countries devote more of their wealth to research than poorer countries. In absolute terms, therefore, by far the most research funding occurs in the richest countries.

Several scholars have noted relationships between science and capitalism, and between capitalism and early Protestant religion. The latter was even more obvious before the recent economic rise of China and India.

If we consider the Nobel Prizes in Science, the two religions that are over–represented relative to their world population are Protestant Christianity (about 40%) and Judaism (about 20%).

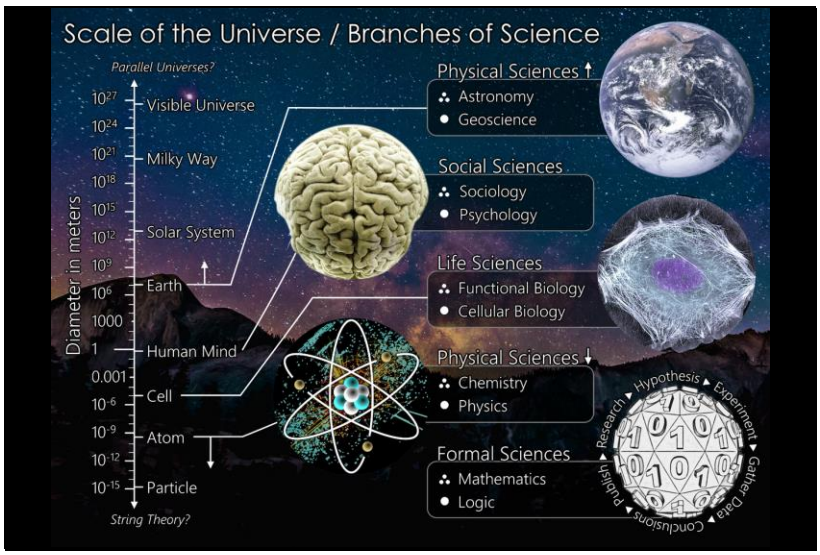


Illustration by Eric Fisk
https://commons.wikimedia.org/wiki/File:The_Scientific_Universe.png

The different sciences can be organized along different dimensions. This particular slide looks mainly at the size of what is observed. This leaves out mathematics and logic which, being independent of the physical world, were once considered among the "liberal arts."

Another organizing dimension might be "complexity." However, this is difficult to quantify. Is the brain more complex than a galaxy?

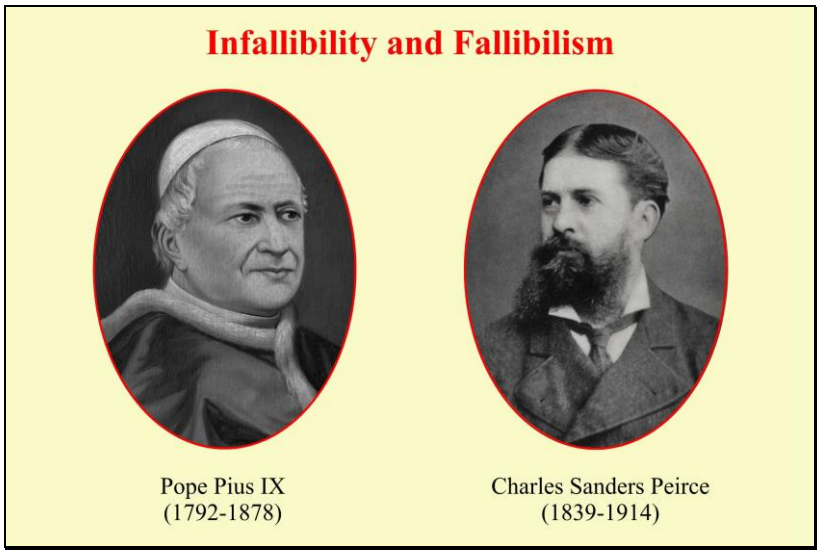
	Religion	**Science**	**Art**	**Politics**
Domain	Supernatural	Natural	Artificial	Social
Methods	Prayer Meditation Revelation	Observation Hypothesis Experiment	Conception Design Execution	Selection Communication Control
Process	Faith	Reason	Creativity	Compassion
Teaching	Scripture	Theory	Technique	Law
Purpose	Salvation	Understanding	Beauty	Justice

This slide shows some fields of knowledge wherein one can seek truth. Although we are mainly considering Religion and Science I have added politics for good measure. The distinctions are

debatable. For example, religion may also consider social behavior. And everyone who has submitted a research grant knows that politics affects science.

Truth exists in every domain. In religion, truth is what you believe in order to be saved. In science it is the way the world works. In art it may be how well the creation communicates an idea.

Truth and politics should be friends. However as Hannah Arendt says
"No one, as far as I know, has ever counted truthfulness among the political virtues."
Yet, she also concludes, in the context of how we must act to improve our society,
"We may call truth what we cannot change"
Truth and Politics (1967)



One of the clear distinctions between science and religion concerns certainty. Religion is based on certainty whereas science is always unsure.

The First Vatican Council (1869–1870) accepted as dogma the principle of papal infallibility. This is limited to statements made by the pope when speaking *ex cathedra*. The only time that papal infallibility has been invoked since then was in 1950 when the Assumption of Mary was defined as an article of faith. However, previous papal proclamations such as that concerning the Immaculate Conception in 1854 were retrospectively considered *ex cathedra*.

Pope Pius IX was the longest reigning pope (1846-1878) in the history of the Roman Catholic Church.

At the same time as the church was promoting papal infallibility, the American philosopher C. S. Peirce was describing how science was based on fallibilism. A scientific statement is one that can be proven false by observation or experiment.

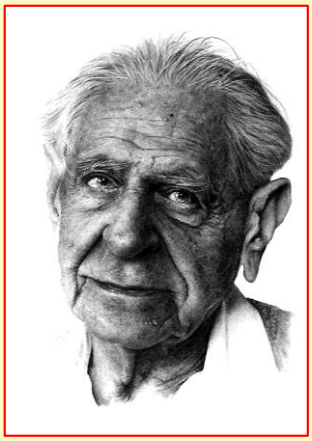
Humanum est erare

According to Peirce, all human knowledge is uncertain:

> Fallibilism is the doctrine that our knowledge is never absolute but always swims, as it were, in a continuum of uncertainty and of indeterminacy (1897).

Karl Popper extended this idea to state that science is composed of falsifiable statements that have not yet been falsified when tested:

> It must be possible for an empirical scientific system to be refuted by experience (1959)



Karl Popper (1902-1994)
drawing by John Wieser

The full Latin quote is *Humanum est errare perservare diabolicum*. (To err is human to persist in error is diabolical.) Once you make a mistake change!

Popper considered theories that cannot be tested as unscientific.

Interactions between Science and Religion

Explanation – science seeks the natural laws that underlie all phenomena, even those as yet only understood in terms of religion

Conflict – science attempts to drive defeat the forces of ignorance that hold onto power by convincing people to believe what is not true

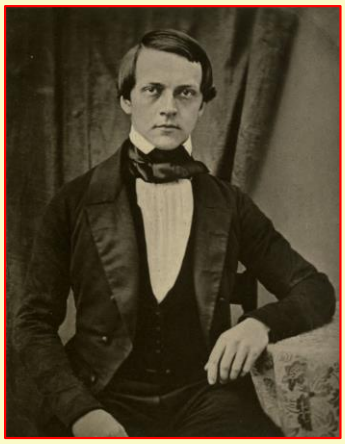
Dialogue – science and religion work together to understand creation, fitting observation to revelation, supplementing scripture with experiment

Independence – science and religion are separate domains of knowledge, one dealing with the natural world and the other with human morality

Integration – science is a way of understanding God and the purposes of his/her creation

These types of interaction overlap to some degree. The idea of explanation shares aspects with both conflict and independence. Dialogue can obviously lead to integration.

Ian Barbour (*When Science Meets Religion: Enemies, Strangers, or Partners?* 2000) distinguished 4 types of interaction: conflict, independence, dialogue, and integration. I have added explanation.



Hermann von Helmholtz
(1821-1894) 1848 daguerreotype

On the Conservation of Force (1847)

The final aim of the theoretic natural sciences is therefore to discover the ultimate and unchangeable causes of natural phenomena … it is at all events clear that the science whose object it is to comprehend nature must proceed from the assumption that it is comprehensible, and in accordance with this assumption investigate and conclude until, perhaps, she is at length admonished by irrefragable facts that there are limits beyond which she cannot proceed.

This quotes from the introduction to Helmholtz's paper *On the Conservation of Force*, now known as the conservation of energy. It is an example of science's desire to explain everything.

One gets the feeling from Helmholtz that science will never reach the limits that he suggests might exist.

A History of the Warfare of Science with Theology in Christendom (1896)

In all modern history, interference with science in the supposed interest of religion, no matter how conscientious such interference may have been, has resulted in the direst evils both to religion and to science, and invariably; and, on the other hand, all untrammelled scientific investigation, no matter how dangerous to religion some of its stages may have seemed for the time to be, has invariably resulted in the highest good both of religion and of science. (p viii)

Andrew Dickson White
1832-1918

The idea that science was in direct conflict with religion was initially stated in the book *History of the Conflict Between Religion and Science* (1874) by John William Draper. Draper was a chemist, physician and historian. The book was more of a diatribe against religion than a study of science. Draper was also famous for his history of the American Civil War and for taking the first daguerreotype of the moon.

Andrew Dickson White was a politician and historian. Together with Ezra Cornell he founded Cornell University in 1865 and became its first president. He wanted universities to have no religious affiliation. His two-volume book describe the relations between science and theology as "warfare" rather than "conflict." White's books contained numerous examples. However, he exaggerated the differences between science and religion and did not distinguish between religion and superstition.

Kites and Keys and Lightning Rods

Benjamin Franklin's experiments on atmospheric electricity (1747-50) led him to recommend the use of lightning rods on tall buildings. The idea was to provide a low-resistance pathway for excess atmospheric electricity to be drained to ground, or for an actual lightning strike to reach ground.

A. D. White was particularly critical of churches who refused to put lightning rods on their church steeples, since they believed that lightning was controlled by God. However, many churches began to use lightning rods soon after Franklin's reports.

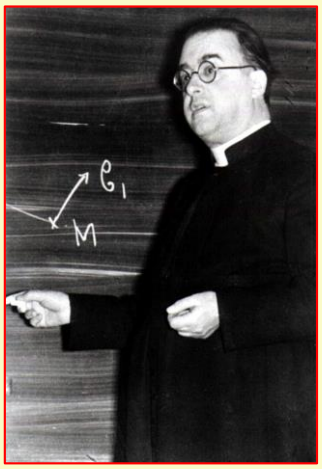
Benjamin Franklin Drawing Electricity from the Sky
Benjamin West, 1816

The idea of lightning rods is one of the examples that White used to show the recalcitrance of religion in the face of scientific advances. However, although some refused, most churches rapidly applied lightning rods to their steeples.

The painting shows one of Franklin's experiments. It falsely suggests that the scientist tapped a lightning strike. Actually he flew his kite when there was no actual lightning. Furthermore he kept himself dry under a roof. The advice to those who wish to replicate his results is "Do not do this!"

The beginning of the world from the point of view of quantum theory (1931).

Clearly the initial quantum could not conceal in itself the whole course of evolution; but, according to the principle of indeterminacy, that is not necessary. Our world is now understood to be a world wherein something really happens; the whole story of the world need not have been written down in the first quantum like a song on the disc of a phonograph. The whole matter of the world must have been present at the beginning but the story it has to tell may be written step by step.



Georges Lemaître (1894-1966)

This is a primary example of the dialogue between religion and science. Lemaître was a Catholic priest who first described the idea of the Big Bang theory of the origin of the universe. He was triggered to study the expansion of the universe by his reading of the book of *Genesis*. That the universe was divinely created out of nothing (*ex nihilo*) is an essential part of the Judeo-Christian doctrine. Interestingly, in this quotation he tries to reconcile the ideas of determinism and free will.

Stephen Jay Gould (1941-2002)

Non-Overlapping Magisteria

The net, or magisterium, of science covers the empirical realm: what is the universe made of (fact) and why does it work this way (theory). The magisterium of religion extends over questions of ultimate meaning and moral value. These two magisteria do not overlap, nor do they encompass all inquiry (consider, for example the magisterium of art and the meaning of beauty). To cite the old clichés, science gets the age of rocks, and religion the rock of ages; science studies how the heavens go, religion how to go to heaven. (*Rocks of Ages*, 1999)

This is an example of the independence of science and religion: science deals with the real world (what is) and religion deals with morality (what should be).
Stephen Jay Gould was a paleontologist, an evolutionary scientist and a noted essayist. He wrote about such disparate things as the fossils of the Burgess Shale, the frescoes of San Marco, baseball statistics, intelligence testing, and the Panda's thumb. We shall consider him again when we get to evolution.

When Gould attributes "how the heavens go" to science and "how to go to heaven" to religion, he is quoting Galileo, who was himself quoting Cardinal Cesare Baronio (1538-1607), an ecclesiastic historian.

Francis Collins (1950 -)

The Language of God (2006)

The God of the Bible is also the God of the genome. He can be worshipped in the cathedral or in the laboratory. His creation is majestic, awesome, intricate, and beautiful – and it cannot be at war with itself. Only we imperfect humans can start such battles. And only we can end them.

This is perhaps an example of the integration of science and religion. Collins led the Human Genome Project from 1993-2008 and has been head of the National Institutes of Health since 2009. He is a devout Christian. He promotes a fusion of Christianity and Biology in a movement called BioLogos:
http://biologos.org/about-us/

Metaphor

Stating that something
is what it is not

Olivia Hussey
1968

But soft! What light through yonder window breaks?
It is the east, and Juliet is the sun.
Arise, fair sun, and kill the envious moon,
Who is already sick and pale with grief,
That thou, her maid, art far more fair than she.
Be not her maid since she is envious.
Her vestal livery is but sick and green,
And none but fools do wear it. Cast it off!
It is my lady. O, it is my love!

Ian McKellan, 1977

Statements like “The genome is the language of God” are metaphorical.

Metaphor is stating that something is what it is not, thereby attributing new features to that something. Juliet is not the sun but Romeo attributes to her the sun’s brilliance and majesty. The moon is not the envious maid of the sun, but it does share the maid’s lack of beauty compared to her mistress.

Metaphors We Live By

Is that the *foundation* for your theory? The theory need more *support*. The argument is *shaky*. We need some more facts or the argument will *fall apart*. We need to *construct* a *strong* argument. I haven't figured out yet what the *form* of the argument will be. Here are some more facts to *shore up* the theory. We need to *buttress* the theory with *solid* arguments. (Lakoff and Johnson, 1980).

What, then, is truth? A mobile army of metaphors, metonyms, and anthropomorphisms—in short, a sum of human relations which have been enhanced, transposed, and embellished poetically and rhetorically, and which after long use seem firm, canonical, and obligatory to a people: truths are illusions about which one has forgotten that this is what they are; metaphors which are worn out and without sensuous power; coins which have lost their pictures and now matter only as metal, no longer as coins. (Nietzche, *Nachlass*, 1873)

Metaphors permeate everything thing we say. Lakoff and Johnson give as one of their examples the way in which we discuss theory using metaphors from building.

Nietzsche went further and pessimistically considered everything that we believe to be true as worn-out metaphors.

Sal Tlay Ka Siti

My mama once told me of a place
With waterfalls and unicorns flying
Where there was no suffering, no pain
Where there was laughter instead of dying
I always thought she'd made it up
To comfort me in times of pain
But now I know that place is real
Now I know its name
Sal Tlay Ka Siti

Sal Tlay Ka Siti isn't an actual PLACE…It's an IDEA. A metaphor.

Nikki M. James

Religious scripture is full of metaphor.
This idea is considered in the 2011 musical The Book of Mormon. In the musical the fantastical stories of the actual Book of Mormon are further garbled by Elder Cunningham who is trying to convert Ugandans to Mormonism. One of the converts Nabulungi comes to believe that Heaven

is Salt Lake City. As the musical progresses, she realizes that this is not true – it is just a metaphor. But the ideas behind the metaphor may be true or may be worth believing in?

Not just a story mama told
But a village in Ooh-Tah
Where the roofs are thatched with gold
If I could let myself believe
I know just where I'd be
Right on the next bus to paradise
Sal Tlay Ka Siti
I can imagine what it must be like
This perfect, happy place
I'll bet the goat-meat there is plentiful
And they have vitamin injections by the case
The war-lords there are friendly
They help you cross the street
And there's a Red Cross on every corner
With all the flour you can eat
Sal Tlay Ka Siti
The most perfect place on Earth
The flies don't bite your eyeballs
And human life has worth
It isn't a place of fairytales
It's as real as it can be
A land where evil doesn't exist
Sal Tlay Ka Siti
And I'll bet the people are open minded
And don't care who you've been
And all I hope is that when I find it
I'm able to fit in
Will I fit in?
Sal Tlay Ka Siti
A land of hope and joy
And if I want to get there
I just have to follow that white boy
You were right, mama
You didn't lie
The place is real
And I'm gonna fly
I'm on my way
Soon life won't be so shitty
Now salvation has a name
Sal Tlay Ka Siti

Quaedam enim falsa veri speciem ferunt. Dandum semper est tempus: veritatem dies aperit (Seneca).

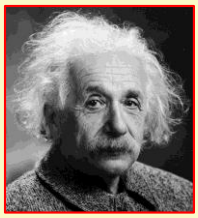
Time Unveiling Truth
Giovanni Battista Tiepolo (1758)

It is part of human optimism that we believe that truth will never remain hidden forever. Time will pass and truth will out.

The translation of the Latin: For sometimes false things bear the semblance of truth. Always allow time to pass and the new day will disclose the truth. Seneca was a Roman Stoic philosopher who lived at the same time as Christ.

The word for truth in Greek is *aletheia* which means disclosure or the state of not being hidden.

Truth



I am the way, the truth, and the life (John 14:6)
The truth shall make you free (John 8:32)

Truth is what stands the test of experience.
Einstein (1950)

"Beauty is truth, truth beauty," – that is all
Ye know on earth, and all ye need to know.
John Keats *Ode on a Grecian Urn* (1819)

Theories of Truth

Let **P** be a proposition such as

"God exists"
or "The sun goes round the earth"
or "I have two hands"

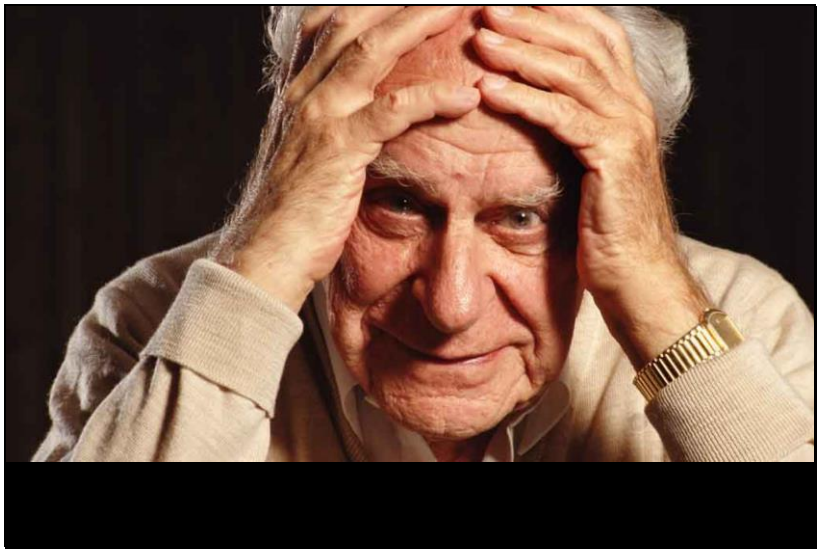
Correspondence Theory – **P** is true if it corresponds with or is identical to the facts (the way things are in the real world).

Coherence Theory – **P** is true if it is part of a coherent system of beliefs (a world view).

Pragmatist Theory – **P** is true if it satisfactorily predicts future experience and thus serves as a basis for action.

Most people tend to be realists (i.e. they believe in a real world outside of our ideas thereof) and have a correspondence theory of truth. Many scientists are aware, however, that we are uncertain about the exact correspondence and must work with the best version that we can get. This is pragmatism.

"There is no doubt that correspondence to the facts is what we usually call 'truth'; that in ordinary language it is correspondence that we call 'truth', rather than coherence or pragmatic usefulness. A judge who admonishes a witness to speak the truth and nothing but the truth does not admonish the witness to speak what he thinks is useful either for himself or for anybody else. The judge admonishes a witness to speak the truth and nothing but the truth but he does not say, 'All we require of you is that you do not get involved in contradictions', which he would say were he a believer in the coherence theory. But this is not what he demands of the witness." Popper (1966).



Knowledge, Truth and Belief

Most philosophers conceive of knowledge in terms **justified true belief.**

For a subject **S** to know **P**, the following three conditions must be met:

S believes **P**
S is justified in believing **P**
P is true

The crucial step is justification. This should be based on factual evidence. However, it could also be based on how well **P** fits with other beliefs or how well **P** provides a basis for action.

Belief is emotional:

> Belief may be no more, in the end, than a source of energy, like a battery which one clips into an idea to make it run. (J. M. Coetzee, *Elizabeth Costello*, 2003)

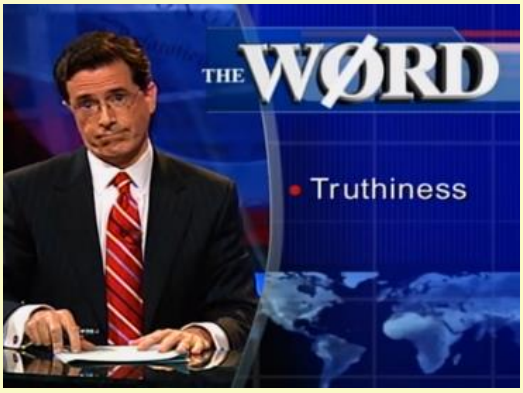
The final condition for justified true belief is that the proposition is actually true. This is necessary because of false belief. Many years ago, we may have believed that the earth was flat, and we could cite reasons to justify this belief. However, we did not "know" that the earth was flat, because it was actually spherical. We only thought we knew.

Faith is belief in something that cannot be scientifically demonstrated. It is perhaps more concerned with trust and allegiance than belief. Thus we have expressions like "keep the faith."

Truthiness

a word invented by Stephen Colbert in 2005 to describe

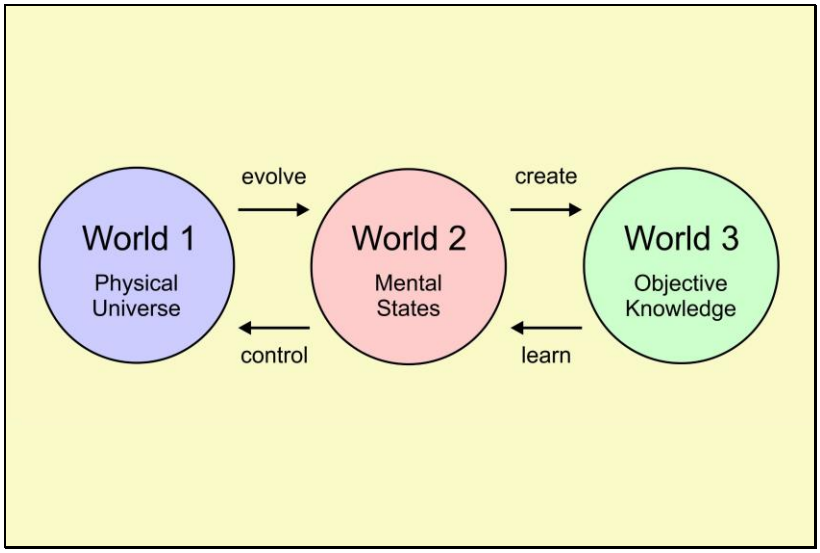
the belief in what you feel to be true rather than what the facts will support



"You don't look up truthiness in a book, you look it up in your gut."

The problem of knowledge is that beliefs are easily affected by emotions. And our emotions are highly involved in what we already believe. Something that goes against all that we believe in is much more difficult to accept as true than something that fits easily within our world view. Something that does not fit leads to cognitive dissonance – the anxiety we feel we have when we entertain contradictory ideas.

Some comments by Hannah Arendt (*Truth and Politics*, 1967) on truth and opinion:
Facts inform opinions, and opinions, inspired by different interests and passions, can differ widely and still be legitimate as long as they respect factual truth. Freedom of opinion is a farce unless factual opinion is guaranteed and the facts themselves are not in dispute. In other words factual truth informs political thought just as rational truth informs philosophical speculation.



Popper described science as a critical and creative art. Theories cannot be fully proven by finding corroborative evidence. However they can be disproven by finding evidence that refutes them. The scientist evaluates our present theories through observation and experiment. When a theory fails to account for experience, a new hypothesis is then proposed that it able to account for a greater range of experience. This is then tested experimentally.

The crucial part of science resides in creating hypotheses that can stand the test of experiment.

Karl Popper and John Eccles proposed three "worlds" in their 1977 book *The Self and Its Brain*.
World 1 is the real world. It includes the brain.
World 2 is consciousness. It evolves from the real world as an emergent property of the brain. They propose that this is mainly due to the development of language and logic in the left hemisphere of the cerebral cortex.
World 3 is the accumulated cultural knowledge. This is what we contribute to when we propose theories and create works of art. This is what we learn from when we go to school.

Portrait by Piotr Sokolov, 1836

Alexander Pushkin (1799-1837)

Pushkin came from a noble Russian family. His great grandfather was an African, who was raised in the court of Peter the Great and who became a general. Pushkin became a prolific poet and playwright. His most famous work is *Eugene Onegin* (1833), a novel in verse.

Pushkin died in a duel with Georges d'Anthès, who had been carrying on an affair with Pushkin's wife.

Science is every bit as creative an endeavor as art.

In order to consider the concepts of knowledge, truth and belief, more fully I shall look at how we handle fictitious statements. As an example I shall look at the life of Alexander Pushkin and at the story told in his poem *Eugene Onegin*.

This 1869 painting by Adrian Volkov depicts the duel between Pushkin and d'Anthès. Pushkin had challenged d'Anthès.
The duel was carried out according to conventional rules. The antagonists were separated by 20 paces. They could advance toward each other until they reached markers separated by ten paces. They could shoot at any time. Each person was allowed one shot.

d'Anthès took the first shot and severely wounded Pushkin in the abdomen. Pushkin then insisted on taking his shot. Pushkin died two days later of peritonitis. His shot had hit d'Anthès in the forearm, but the wound was only superficial.

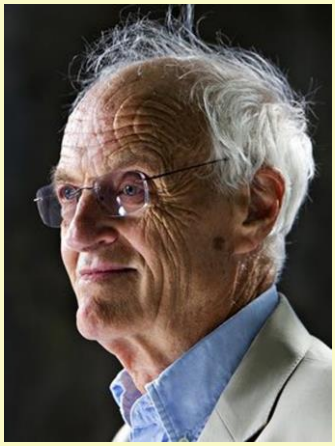
Pushkin's real duel with d'Anthès was presaged by the fictional duel that occurred in his poem *Eugene Onegin*. In this poem Onegin (played by Ralph Fiennes) offended his friend Vladimir Lensky (played by Toby Stephens) by flirting with his fiancée. The clip is from the 1999 movie.

So we can consider some questions:
Is it true that Onegin shot Lensky?

Is it true that Onegin shot first?

Is it True about Lensky?

If fictitious statements *do* express propositions, though, and these propositions are by definition not true, then it seems to leave no alternative in logic but to classify them as false. But if the proposition expressed by the statement 'Onegin shot Lensky' is false, even though, in Pushkin's poem Onegin *did* shoot Lensky, then it can't be distinguished from 'Lensky shot Onegin,' even though. in the poem, he *didn't*. (*The Human Touch*, 2006)



Michael Frayn (1933 -)

Michael Frayn is an English playwright (*Noises Off,* 1982; *Copenhagen, 1998*) and novelist (*Headlong,* 1999). However he did study moral philosophy at Cambridge and has written a book of philosophical essays (*The Human Touch*). One of these essays deals with how we consider fictitious statements.

Is the proposition "Onegin shot Lensky" true or false?
Samuel Taylor Coleridge coined the term "suspension of disbelief" in 1817 for how we understand works of fiction. Thus we can consider the proposition true in the context of the poem. Indeed we can also state that a work of fiction is "true to life."

"Lensky shot first" is true in the context of the movie. However it is not true in the context of the original poem.

Religious scripture was created by human beings. We can consider statements in scripture as true in the context of the rest of scripture, even though such events may not have actually happened.

The code of honor that led to duels is one of the abstractions that have governed human (particularly male human) behavior. Its rules of behavior were set out by reason rather than religion. One might even say that dueling was a science. The religious commandment not to kill would invalidate the rules of this code of honor. Perhaps revelation is a better guide to what to do than reason?

It is worth considering the code of honor briefly form the point of view of Shakespeare's Falstaff. The clip is from Orson Welles' 1965 film *The Chimes at Midnight*.

Henry IV Part I Act V Scene 1
FALSTAFF Would 'twere bed-time, Hal, and all well.
PRINCE HENRY Why, thou owest God a death.
FALSTAFF 'Tis not due yet; I would be loath to pay him before
his day. What need I be so forward with him that
calls not on me? Well, 'tis no matter; honour pricks
me on. Yea, but how if honour prick me off when I
come on? how then? Can honour set to a leg? no: or
an arm? no: or take away the grief of a wound? no.
Honour hath no skill in surgery, then? no. What is
honour? a word. What is in that word honour? what
is that honour? air. A trim reckoning! Who hath it?
he that died o' Wednesday. Doth he feel it? no.
Doth he hear it? no. 'Tis insensible, then. Yea,
to the dead. But will it not live with the living?
no. Why? detraction will not suffer it. Therefore
I'll none of it. Honour is a mere scutcheon: and so
ends my catechism.
(Orson Welles as Falstaff and Keith Baxter as Hal)

Transcendental Knowledge

Classical Greek philosophy, particularly that of Plato, described various higher aspects of being, such as truth and beauty, as the perfect forms.

These ideas may have originated in Eastern religions. The *Bhagavad Gita* (17:15) urges speech that is "truthful, agreeable and beneficial."

In a 1496 commentary on Plato, Marsilio Ficino identified three transcendentals: **truth, goodness** and **beauty.**

Krishna instructs Arjuna in the *Bhagavad Gita* (Statue in Bali)

The code of honor is one of the ways in which human beings strive to do the right thing. Such codes should perhaps be in the domain of religion rather than science. One can consider knowledge to be of two kinds – that related to the natural world and that related to transcendental ideas such as truth, goodness and beauty.

The *Bhagavad Gita* ("Song of the Lord") probably dates back to the 5th century BCE although it may not have reached its final written form until later. It is part of the larger epic *Mahabharata.* Before the great battle of Kurukshetra, the hero Arjuna is visited by Krishna who teaches him what he should do and why.

Christian thought considers God to be the ultimate union of truth, goodness and beauty.

But perhaps these abstract ideas are not necessarily religious. Perhaps they are the goals of science, ethics and aesthetics. fields that can be explored by reason instead of revelation.

The Garden of Eden

Of every tree of the garden thou mayest freely eat:

But of the tree of the knowledge of good and evil, thou shalt not eat of it: for in the day that thou eatest thereof thou shalt surely die. (*Genesis* 2:16-17)

Raphael, *Adam and Eve*,
Stanza della Segnatura, 1511

We end this session with the great paradox in the story of the Garden of Eden. The original sin of Adam and Eve was to disobey God's command not to eat of the Tree of Knowledge. Yet the pursuit of knowledge, particularly the knowledge of good and evil, is what the rest of Judeo-Christian scripture advocates.

In the *Genesis* version the Serpent was the Seducer. In the Gnostic (*gnosis*, knowledge) scriptures, the serpent was the instructor.

Raphael's painting was on the cover of Stephen Jay Gould's *Rocks of Ages*, 1999

Raphael's *Adam and Eve wa*s painted on the ceiling of the Stanza della Segnatura in the Vatican. On the wall is the famous fresco *The School of Athens* (1511), of which this slide shows the central part. Plato holds his book *Timaeus* and points to heaven. Aristotle holds his *Ethics* and holds his hand out over the world. The transcendental and the natural. On the steps is Diogenes the Cynic, he who believed in nothing.