

Epistemology is the branch of philosophy concerned with knowledge: what knowledge is, and how we acquire it. One of the major areas of debate is how much we can have knowledge of things from our experience of the world, and how much we can know through reasoning – and also, if there are limits to what we can ever know.

The **NEED** to **KNOW**

How do you **KNOW** that?

Where did you get that **IDEA**?

Don't trust your **SENSES**

Knowledge comes from **REASONING**

We learn from **EXPERIENCE**

Take **NOTHING** for granted

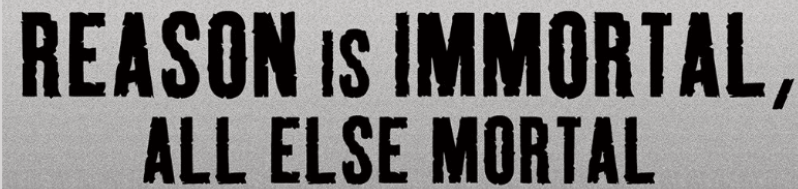
BELIEVING is not the same as **KNOWING**

You can **NEVER** know it **ALL**

Do we ever really know the **TRUTH**?

The **NEED** to **KNOW**

IT IS HUMAN NATURE TO BE INQUISITIVE. WE HAVE A NEED TO UNDERSTAND THE WORLD AROUND US AND OUR PLACE IN IT, AS WELL AS THE WAY WE THINK AND BEHAVE. OUR SEARCH FOR KNOWLEDGE DEMANDS EXPLANATIONS – INCLUDING EXPLANATIONS OF HOW WE COME TO KNOW THINGS AND IF WE CAN BE SURE OF WHAT WE KNOW.



**REASON is IMMORTAL,
ALL ELSE MORTAL**

PYTHAGORAS

Traditional beliefs

From the very earliest times, people have wondered about and tried to understand the world they live in. They looked for explanations, especially of the natural phenomena that affected their lives – for example, the changing seasons and when plants grow and die, the rising and setting of the sun and moon, and the movements of the stars. For prehistoric people, these were like a kind of magic, and were often explained as the work of supernatural forces. Religions and myths evolved that gave explanations, not only of the physical world, but also for the way we behave, according to laws given to us by the gods. And as civilizations became established, these traditional beliefs formed the basis of cultures, a framework for society, and were passed on from generation to

generation almost unquestioningly. But as societies grew more sophisticated, some people found that tradition no longer satisfied their curiosity – rather than accepting conventional beliefs, they wanted to find their own answers.

Rational explanations

It was from this desire to know about the world, and not just believe what religion or tradition told them, that the first philosophers emerged in Ancient Greece. They challenged accepted ideas and sought alternative answers to their questions by examining the world and using their ability to think, or reason. In doing so, they felt that their rational explanations would provide them with knowledge, rather than just belief. These early philosophers tried to find explanations of the make-up and structure of the world, a search which evolved into the various branches of science. Later philosophers, on the other hand, attempted to provide rational explanations of how we should live our lives, and the nature of reality and our existence, as alternatives to traditional belief. This way of examining and attempting to understand the world by reasoning, and especially by encouraging discussion and debate, is what philosophy is all

about, and even today it often questions the conventions of the society we live in.



The missing key?

The earliest philosophers challenged traditional explanations of the world and how we live in it. They sought alternative explanations, and used reasoning to examine the world in a new way.

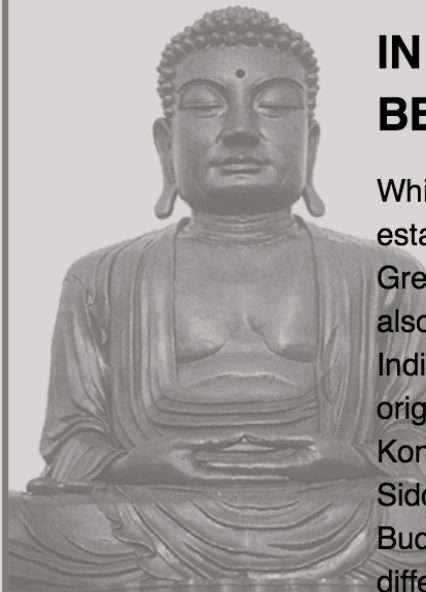
The problem of knowledge

But while philosophy emerged from our human desire for knowledge, philosophers also turned their

attention to knowledge itself. They began to feel that it was no longer enough simply to say that's the way things are, or even to explain why they think that – we must also examine how we know that. By the time Greek civilization had peaked with the establishment of the city-state of Athens, philosophers had started to question what we mean when we say we know something, and what knowledge actually is. This was the birth of the branch of philosophy called epistemology, which is concerned with all aspects of knowledge: how we acquire knowledge, how we can be sure of what we know, and if there are some things that we can never know.

**MANY THINGS PREVENT
KNOWLEDGE, INCLUDING THE
OBSCURITY OF THE SUBJECT AND
THE BREVITY OF HUMAN LIFE**

PROTAGORAS



IN THE BEGINNING

While city-states were being established in Ancient Greece, civil societies were also developing in China and India. These too produced original thinkers, including Kong Fuzi (Confucius) and Siddhartha Gautama (the Buddha), but they took a very different approach. In

Eastern philosophy, the focus is mainly on questions of how we can live a good life and how to organize society, and the boundaries between philosophy and religion are less clear-cut than in Western philosophy.



The word “philosophy” comes from a Greek word that means “love of wisdom”.

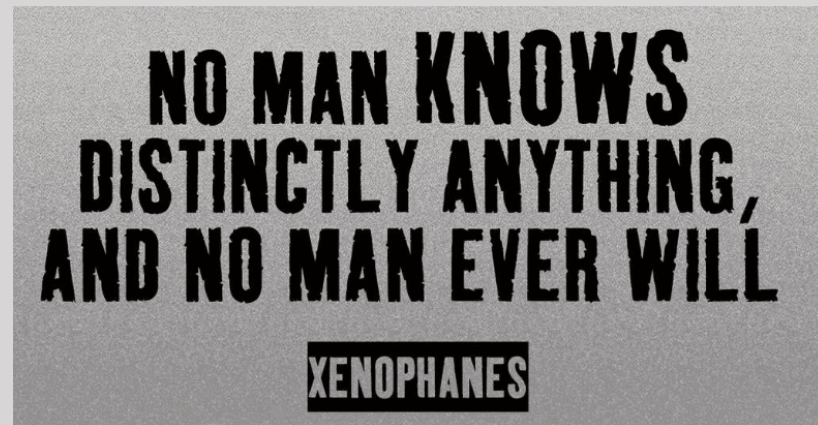
See also: How do you **KNOW** that? | Where did you get that **IDEA**?

How do you **KNOW** that?

WE OFTEN SAY THAT WE KNOW SOMETHING, WHEN IN FACT WE ARE SIMPLY ACCEPTING SOMEBODY ELSE'S OPINION OR A CONVENTIONAL EXPLANATION. FOR PHILOSOPHERS, IT IS NOT ENOUGH JUST TO ACCEPT THAT SOMETHING IS TRUE. THEY NEED TO HAVE GOOD REASON FOR BELIEVING IT, BACKED UP BY A CONVINCING ARGUMENT.

Finding truths through reason

Not satisfied with conventional or religious explanations, early philosophers in Ancient Greece used reasoning to try to understand the world. They formed new ideas about the make-up and structure of the world, and came up with reasoned arguments to back up their theories. From this emerged the notion that to know something, rather than simply believe it to be true, requires the use of reason, and that, on this basis, reason is the source of all of our real knowledge. But not all Ancient Greek philosophers supposed that they could answer all of the big questions just by thinking. Xenophanes, for example, agreed that rational thinking is important, but argued that this needs to be backed up with evidence from the outside world to prevent it from being just speculation.



We know nothing

Gradually, the emphasis of philosophical discussion shifted from questions about the nature of the universe to the question of how we know things: not only how we can be sure of what we know, but also how we come to know things – where our knowledge comes from. At about the same time as Athens became the cultural centre of Ancient Greece in the 5th century BCE, philosophers became more interested in human concerns, such as morality and politics, and the problem of knowledge. Foremost among them was Socrates, who questioned conventional ideas and beliefs, using his ability to reason to establish what we do and don't really know. His method was to engage other people in discussion about the things they

believed they knew, but in order to remove all preconceived ideas, he adopted the standpoint that he himself knew nothing. He then challenged all the ideas and assumptions of the person he was talking with, pointing out the contradictions and shortcomings of their arguments, and showing the limitations of their knowledge. What Socrates demonstrated most effectively, though, was the power of reason to expose the weakness of assumed knowledge, and how rational thought can provide an insight into a deeper knowledge of things.

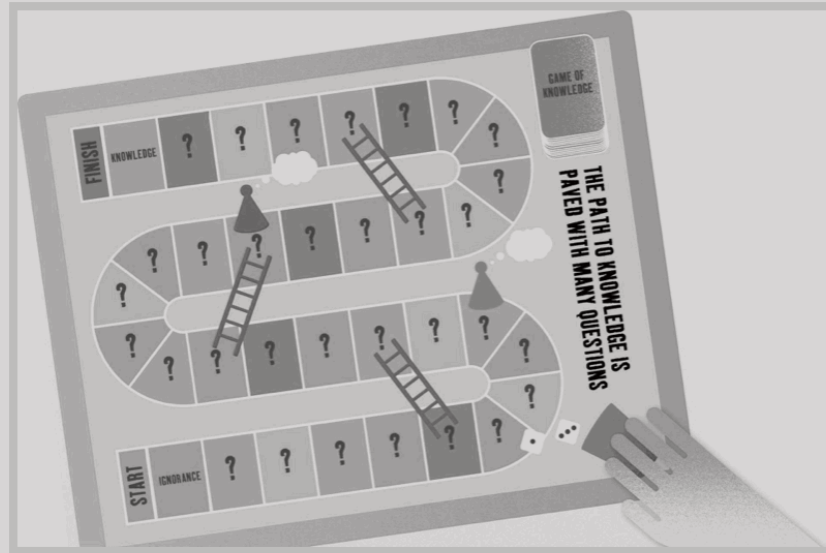
**AS FOR ME, ALL I KNOW IS
THAT I KNOW NOTHING**

SOCRATES

Challenging knowledge

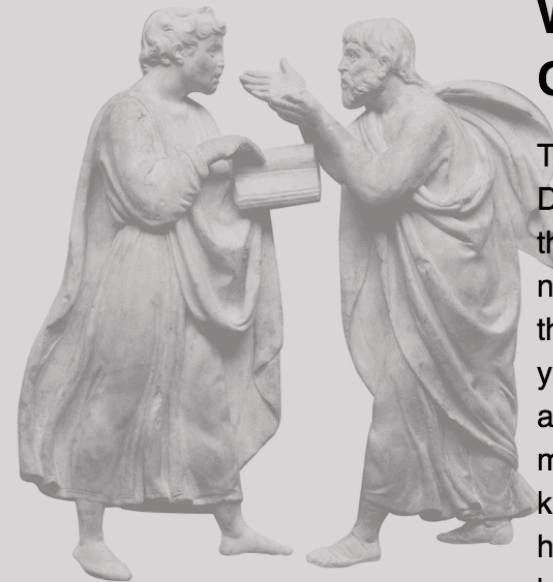
Socrates set out not just to challenge the accepted beliefs of the time, but in doing that, to try to find truths that we can have knowledge of. He was particularly interested in issues of morality and

politics, and asked questions such as “What is justice?” or “What is courage?” Although most people believed they knew the answers to these questions, he showed that they did not. Many of the people he debated with could provide examples of just or courageous actions as evidence to back up their beliefs, but could not identify what all of these things had in common. What Socrates was looking for in this kind of discussion was not a simple definition of what we understand by “justice” or “courage”, but the essence of what justice and courage really are. And he supposed that this essence was something we can only know through reasoning.



⬆️ Question everything

Socrates believed that we are born knowing nothing, but that we acquire knowledge as we go through life by questioning the beliefs and conventions we encounter at every stage.



THE WISEST OF ALL

The oracle at Delphi said that there was no one wiser than Socrates, yet Socrates always maintained he knew nothing – how could he be the wisest man? But

when he discussed philosophy with the greatest men of Athens, he realized they only thought they knew a lot. He was wiser than all of them because he was aware of the limitations of his knowledge.

👉 **Socrates was both wise and honest – before he was sentenced to death, he paid off his last debt with a chicken.**

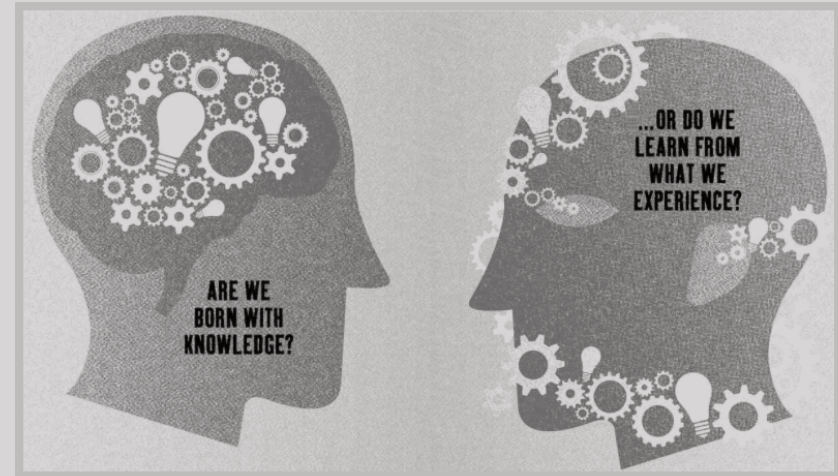
See also: The **NEED** to **KNOW** | Knowledge comes from **REASONING**

Where did you get that **IDEA**?

ONE OF THE FUNDAMENTAL QUESTIONS OF EPISTEMOLOGY, THE BRANCH OF PHILOSOPHY CONCERNED WITH KNOWLEDGE, IS WHERE OUR KNOWLEDGE COMES FROM. EVER SINCE ANCIENT GREEK TIMES, PHILOSOPHERS HAVE ARGUED ABOUT WHETHER WE ARE BORN WITH KNOWLEDGE OF AT LEAST SOME THINGS, OR IF THAT KNOWLEDGE COMES FROM EXPERIENCE.

Two schools of thought

Theories of how we come to have knowledge of things have divided philosophers' opinions roughly into two different camps throughout much of the history of philosophy. Those in the first camp have argued that we are born with an ability to reason, and it is that innate ability that allows us to acquire knowledge. Rationalism, the view that reason is the main source of our knowledge, regards reality as consisting of truths, which we can discover by reasoning. Those in the second camp, on the other hand, have argued that we have no innate abilities or knowledge, and that our knowledge is learned from our experience of the world outside us. This view, known as empiricism, considers the information we gather through our senses to be the primary source of knowledge.



Any idea?

Plato and the rationalists believed that we are born with knowledge, which we can retrieve through reasoning. But Aristotle and the empiricists argued that we acquire all of our knowledge of the outside world through our senses.

Discovering innate knowledge

Among early philosophers in Ancient Greece, the emphasis was on the power of reasoning. They believed that knowledge could be acquired through reason alone. Plato demonstrated this by telling the story of Socrates discussing a problem in geometry with a slave boy who had never learned geometry. By watching Socrates drawing diagrams in the sand, the boy understood how the problem could be

solved by reasoning. Socrates had not told him the answer, but the boy knew he had discovered the solution. Plato argued that the boy had no experience of the problem or its solution, and concluded that it was knowledge he already had – innate knowledge – which he accessed by reasoning. We are born with knowledge of certain truths, he proposed, which exist in a “world of ideas”, separate from the world of the senses. These truths are the source of all our knowledge, rather than what we experience with our senses.

**WHAT WE CALL LEARNING
IS ONLY A PROCESS
OF RECOLLECTION**

PLATO

A link to reality

While Plato's ideas of knowledge were accepted by many philosophers for several centuries, one of his pupils offered a very different view. Aristotle did not

accept that we have innate knowledge. Instead, he believed that we are born knowing nothing, and that our knowledge is built on what we learn from our experience of the world. This empirical argument resurfaced after the medieval period, with the rise of scientific discoveries based on observation (or experience), rather than theorizing (reasoning about what we know). René Descartes returned to Plato's ideas in the 17th century, prompting a reaction from John Locke, who, like Aristotle, rejected the rationalist notion of innate knowledge. One of the foremost empiricist philosophers, Locke believed that knowledge of the world outside us comes from our experience of it, and the only direct interface between our minds and the outside world is our senses. We can use reason to rationalize the information from our senses and formulate ideas, but anything that does not originate from sensory experience has no link with external reality, and can give us no knowledge of it.

**ALL MEN BY NATURE
DESIRE KNOWLEDGE**

ARISTOTLE

NEW IDEAS

Both Plato and Aristotle founded schools of philosophy, the Academy and the Lyceum, not to teach their particular point of view, but to inspire philosophical discussion. Although philosophers disagree about the original source of

knowledge, it is almost universally accepted that it is from reasoning, and especially philosophical argument and debate, that new ideas emerge.



The word “epistemology” comes from two Greek words, meaning “study of

knowledge”.

See also: Don't trust your **SENSES** | Knowledge comes from **REASONING** | We learn from **EXPERIENCE**

Don't trust your **SENSES**

WE TEND TO ACCEPT THAT OUR SENSES GIVE US A FAIRLY ACCURATE IDEA OF THE WORLD AROUND US – “SEEING IS BELIEVING”. BUT WE ALSO KNOW THAT THEY CAN BE FOOLED – FOR EXAMPLE, BY OPTICAL ILLUSIONS. DOES THIS MAKE THEM AN UNRELIABLE SOURCE OF KNOWLEDGE? IF THEY CAN BE DECEIVED, MAYBE WE CAN'T TRUST ANYTHING WE LEARN FROM THEM.

An imperfect world

One of the first philosophers to tackle the problem of how untrustworthy our senses are as a source of knowledge was Plato. Like his mentor, Socrates, he set out to show that many of the things that people take for granted – the things they think they know – are based on unreliable sources. He argued that not only do our senses often let us down, but also that the world we live in and experience with our senses is imperfect, too. For example, when we see a circle drawn on a piece of paper, we recognize it as a circle. But it is not a perfect circle – no matter how carefully drawn or printed, a perfect circle cannot exist in the world we live in. Nothing, Plato said, exists in its perfect, ideal form in our world. It is an illusory world, made up of imperfect versions of things, and what we learn about it through our senses must also be imperfect knowledge.

**EVERYTHING THAT DECEIVES
MAY BE SAID TO ENCHANT**

PLATO

Our senses can be tricked

The idea that our senses may be deceiving us was later taken up by the French philosopher and mathematician René Descartes. He realized that sometimes our senses give us a false impression – a straight stick in a glass of water appears to be bent, for example. And if we know that they can be unreliable, it would be wrong to trust them completely – everything that we experience with our senses might be false. It might even be that we are asleep, and the world we are experiencing is no more than a dream, or that God or some mischievous power is making us believe things that are not really true. If that is the case, though, we can never know anything for sure. But Descartes then showed that there is one thing he could be sure of. In order to be deceived, he must exist, and exist as a thing that thinks. So, although his senses cannot be trusted, he can be sure he exists as something that is capable of thinking and reasoning.

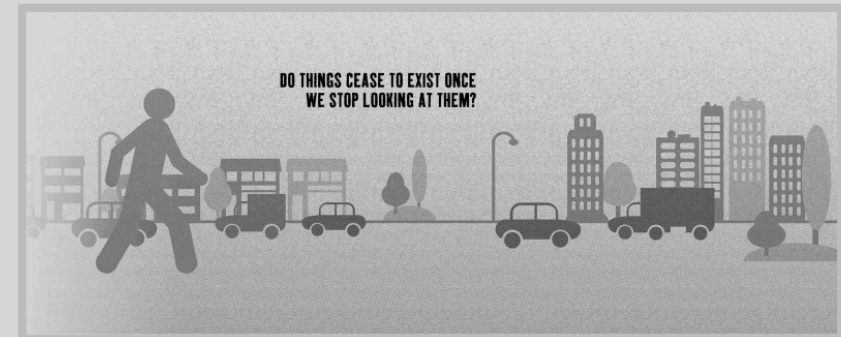
**THE SENSES DECEIVE FROM TIME TO TIME,
AND IT IS PRUDENT NEVER TO TRUST WHOLLY
THOSE WHO HAVE DECEIVED US EVEN ONCE**

RENÉ DESCARTES

Only the things we experience exist

Although many 17th-century philosophers accepted Descartes' argument, not everybody agreed. Some, especially in Britain, accepted that our senses can be unreliable, but believed that they are the only source of our knowledge. We have a power of reasoning, but this does not provide us with knowledge – it is what we use to make sense of the information coming to us from our senses. We can only know about things that we experience, and we can only experience these things through our senses. This view, empiricism, was taken to an extreme by Bishop George Berkeley. We get our knowledge from our experience of things, but, he suggested, all we can ever experience is the ideas of those things in our minds. We don't have any real grounds for believing that anything exists other than those ideas. The only things we can be sure exist

are ideas, and the minds that perceive them – according to Berkeley, nothing material exists.



Vanishing world

Some philosophers believed that we can only gain knowledge through our senses. George Berkeley went so far as to doubt the existence of anything material – if we can't sense things behind us, how can we know they even exist?



THE

DECEIVING DEMON

René Descartes wanted to imagine a situation in which it would be absolutely impossible to trust anything his senses were telling him. To do this, he devised a thought experiment – an imaginary situation – in which an evil demon has the power to deceive him and make him believe something, even though it is not true.

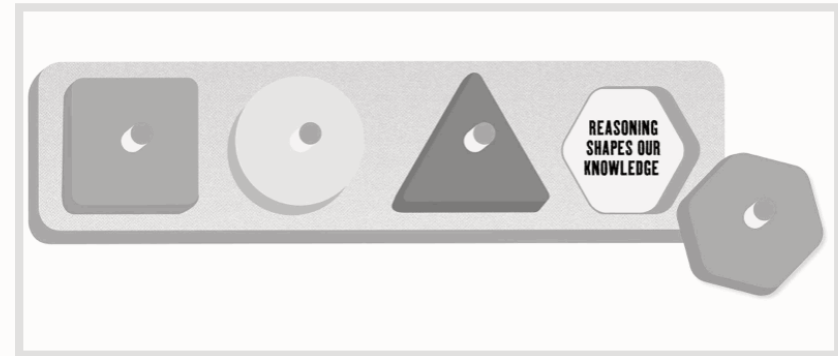
See also: How do you **KNOW** that? | Where did you get that **IDEA**? | Knowledge comes from **REASONING** | We learn from **EXPERIENCE** | What is **REAL**?



George Berkeley peaked early – he wrote all of his best-known works while he was still in his twenties.

Knowledge comes from **REASONING**

ALTHOUGH IT SEEMS AS THOUGH WE FIND OUT ABOUT THE WORLD FROM WHAT WE SEE, HEAR, TOUCH, TASTE, AND SMELL, OUR SENSES ARE NOT PERFECT, AND THEY GIVE US AN IMPERFECT IDEA OF REALITY. BUT WE HAVE ANOTHER FACULTY, OUR ABILITY TO USE RATIONAL THOUGHT, WHICH MANY PHILOSOPHERS SEE AS A MORE RELIABLE SOURCE OF KNOWLEDGE.



Perfect shadows

Plato believed that although we can identify circles and squares, for example, these are imperfect reflections of perfect forms. Perfect circles and squares do not exist in the world we live in.

All objects have an ideal form

The idea that what we experience of the world is deceptive is central to the philosophy of Plato. He argued that our senses merely give us an impression of reality, and that it is only by reasoning, or thinking logically, that we can gain knowledge of the true nature of things. His mentor, Socrates, had asked questions such as “What is justice?” and “What is virtue?” to try to find their nature or essence. Rather than simply point out instances that exemplified justice or virtue, Socrates

thought that an ideal form of these things must exist. Plato took this idea further. He believed that there are not only ideal forms of abstract things such as justice and virtue, but that there are ideal forms of objects, too, and what we experience with our senses are just imperfect reflections of those forms. For example, when we see a chair, we recognize it as a chair even though there are all sorts of different chairs in the world. This is because, he argued, we have an idea in our minds of an ideal chair, and the chair we see is an example – an imperfect “copy” – of that ideal form.



The world of Ideas

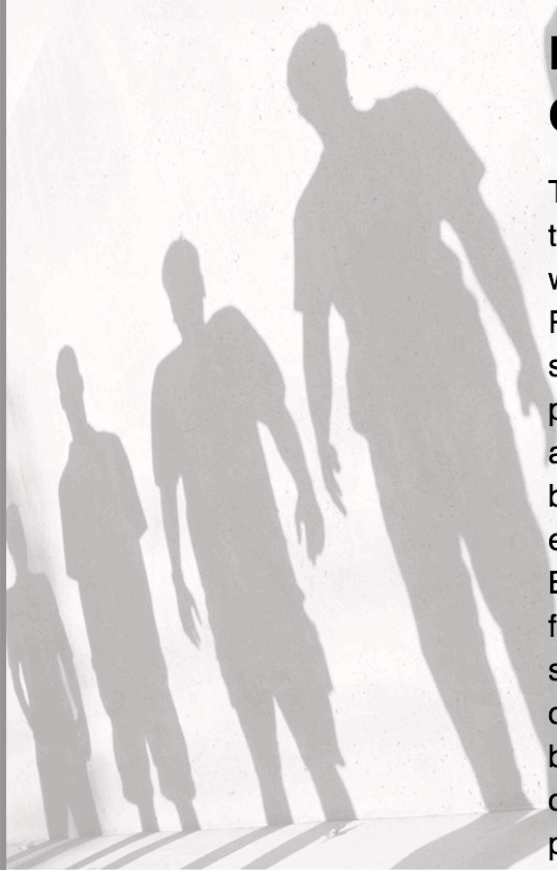
Plato explained that these perfect forms of things actually exist, but in a world separate from the world we live in. Our world contains only imperfect shadows of the ideal forms. But although this world

of Ideas, or Forms, as he called it, is outside of space and time, we can have access to it because we are born with a knowledge of those perfect ideas. We can, for instance, recognize a triangle, even though its sides may not be perfectly straight, because we have an innate idea in our minds of what a perfect triangle looks like. What's more, by reasoning, we can work out that the three angles of that triangle add up to 180° , a straight line, and know that it is true. Plato considered our everyday world to be illusory (not real), and thought that true reality exists only in the world of Ideas. And while our senses give us an imperfect picture of a world of shadows, true knowledge of reality can only be acquired through reasoning.

Two plus two always equals four

Plato's notion that rational thought is the chief source of our knowledge was also at the heart of the philosophical approach started by René Descartes in the 17th century. Descartes took the view that because our senses can be deceived, the only things we can truly know are those we have learned from reasoning. As an accomplished mathematician, he recognized that mathematical truths, especially in geometry, can be discovered

purely using rational thought – by working in logical steps from one truth to another to reach a conclusion. He also believed that everything in the universe has a logical structure, which can be discovered in the same way. Rationalism, as this view came to be known, appealed especially to mathematicians, including Benedictus Spinoza and Gottfried Leibniz who followed in Descartes' footsteps. In the 17th and 18th centuries, a period of great advances in mathematics, rationalism became the dominant approach to philosophy in Europe.

An illustration of Plato's Cave. It shows three silhouetted figures standing in a line, facing away from the viewer towards a bright light source. Their long shadows are cast onto a flat, light-colored wall in front of them. The scene is dimly lit, with the primary light coming from the source behind the figures, creating a strong contrast between the dark silhouettes and the bright wall and light source.

PLATO'S CAVE

To explain his theory of the world of Ideas, Plato told the story of prisoners held in a cave with their backs to the entrance. Behind them is a fire, which casts shadows of objects onto the back wall of the cave. For the prisoners, these shadows are the only reality they understand, unless they can free themselves to turn around and realize they are only the shadows of real objects.



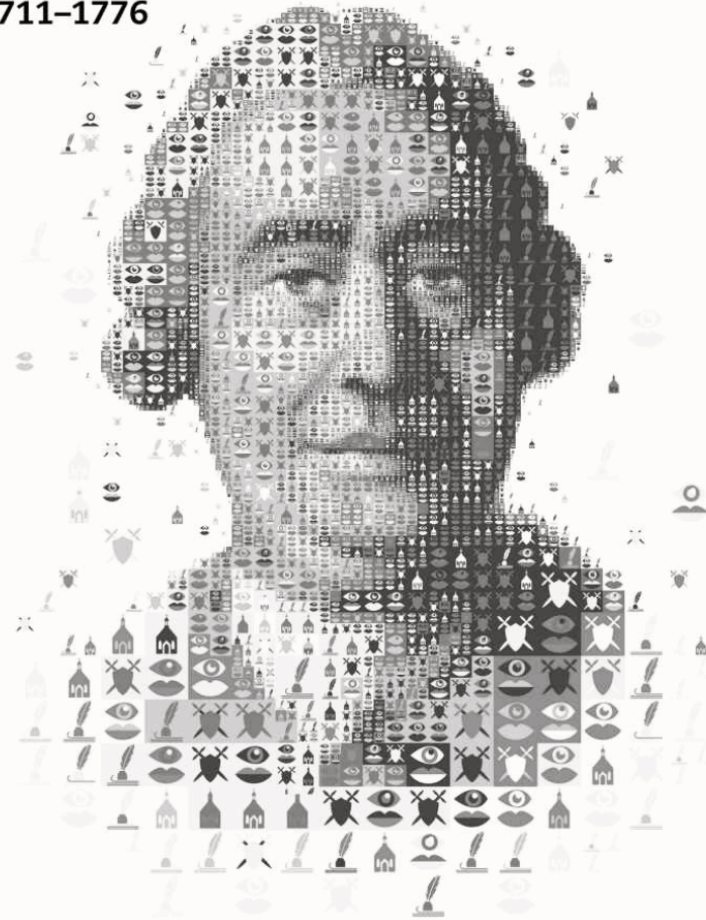
Plato argued that men and women have the same intellectual powers and should

receive the same education.

See also: How do you **KNOW** that? | Don't trust your **SENSES**

DAVID HUME

1711–1776



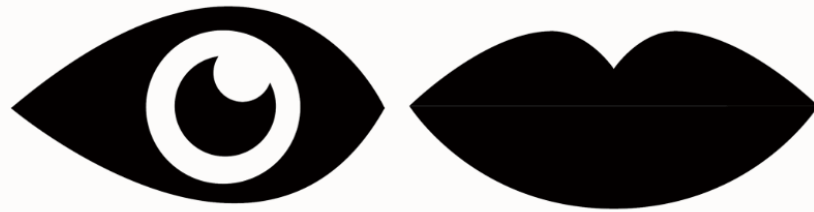
Scottish philosopher David Hume was only 12 when he enrolled at Edinburgh University. He read law, but preferred philosophy. After working as a clerk in Bristol and studying at La Flèche, the French college that René Descartes had attended a century earlier, Hume refined and communicated his philosophy with modest success. Only after his death did his true worth become clear.



YOUNG AUTHOR

Living a frugal life, Hume completed *A Treatise of Human Nature* whilst in his twenties. It was

published in 1739–1740 to a handful of lukewarm reviews, even though it was to become a hugely important work. Undeterred, Hume published volumes of essays and simplified his earlier work to create well-received publications such as *An Enquiry Concerning Human Understanding* (1748).



EMPIRICISM AND UTILITY

Hume was an empiricist who believed that significant knowledge of reality could be obtained only through the senses. These perceptions, though, were individual and not universal. He also proposed that human passions, not reason, governed behaviour, and that moral principles were not based on God's will but on their utility or usefulness to people.



THE BEST-SELLING **HISTORIAN**

Hume failed to obtain posts at universities in Glasgow and Edinburgh, so he worked as a librarian at the Edinburgh Faculty of Advocates from

1752. With access to the library's 30,000 books, Hume researched and wrote the monumental six-volume *History of England* (1754). Containing more than a million words, it proved an unlikely bestseller, reprinting at least 100 times.

After he wasn't allowed to order certain books for the library where he worked, Hume gave his salary in protest to blind poet Thomas Blacklock.



RELIGION

As a child, Hume attended church, but as an adult, he angered many by arguing that knowledge is not received from God but results from experiences. He criticized the foundations on which some religions were based, and in *A Treatise of Human Nature* wrote: “Generally speaking, the errors in religion are dangerous; those in philosophy only ridiculous.”

“**Reason** is... the **slave of the passions**, and can never pretend to any other office than to **serve** and **obey** them”

We learn from **EXPERIENCE**

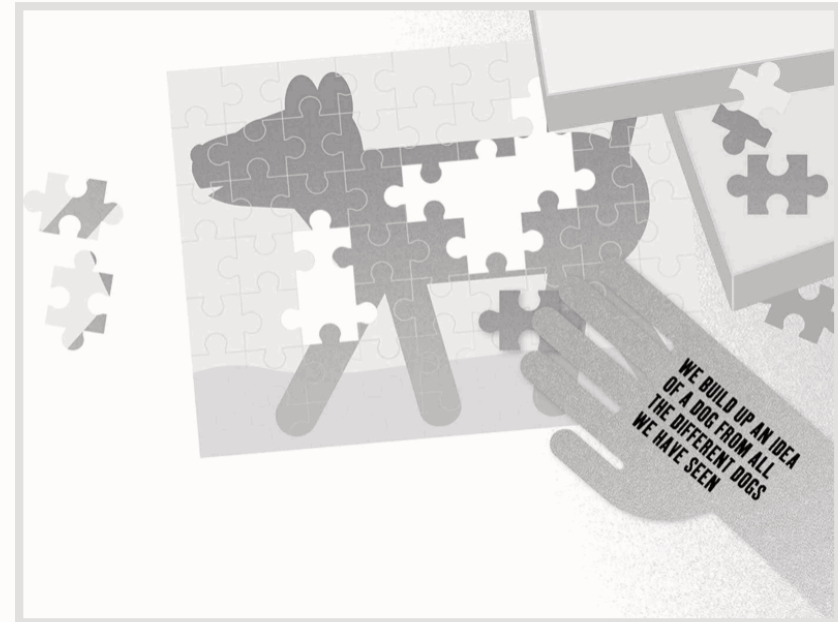
WHILE MANY PHILOSOPHERS THROUGHOUT HISTORY HAVE THOUGHT THAT REASONING IS THE MAIN SOURCE OF OUR KNOWLEDGE, OTHERS HAVE ARGUED THAT WHAT WE KNOW ABOUT THE WORLD COMES CHIEFLY FROM EXPERIENCE. WE ARE BORN KNOWING NOTHING, AND ACQUIRE KNOWLEDGE THROUGH THE USE OF OUR SENSES.

TRUTH RESIDES IN THE WORLD AROUND US

ARISTOTLE

A blank slate

From its beginnings in Ancient Greece, philosophy relied upon rational thought to provide answers and explanations. Reasoning was considered so important – more important than experience through our imperfect senses – that Plato thought that all our knowledge comes from reason. Other philosophers, however, disagreed, and felt that our experience of the world is also important in establishing truth and acquiring knowledge. And Aristotle took almost totally the opposite view to Plato. When we are born, he said, our minds are like a slate with nothing written on it, and we build up our knowledge of the world we live in from our experience of it – what we see, hear, touch, taste, and smell.



Piecing it together

From our experience of many dogs, we can recognize the characteristics that give them their “dogginess”, such as fur or a tail. This “form” is common to all dogs, and helps us to identify a dog even when it is only partly visible.

The essence of things

Aristotle argued that the things we experience in the world we live in are not, as Plato thought, imperfect versions of ideal forms existing in a separate world. Rather than having an innate idea of the perfect

form of something, and then recognizing imperfect examples of it, we build up an idea of what makes it what it is from our experience of various instances of that thing. For example, from seeing many dogs, we learn various things all dogs have in common. These things make up what Aristotle calls the “form” of a dog, its essence, which does not exist in a separate world, but is present in each instance of a dog. It is our experience of particular instances of things that gives us knowledge of their essential nature – not just objects in the natural world, but also concepts such as justice and virtue. At birth, we have no innate ideas of right and wrong, for example, but we learn to recognize the qualities that instances of them have in common and build an understanding of what they essentially are.

With experience, comes knowledge

Aristotle’s notion that experience is the main source of our knowledge influenced the growth of science, especially at the end of the Middle Ages when major scientific discoveries were made through observation and experiment. While rationalist philosophers such as René Descartes were inspired by the abstract reasoning of mathematics, others attributed the growth of knowledge in the

natural sciences to experience. This view, known as empiricism, was popular among British philosophers such as John Locke. Like Aristotle, he believed that we are born with no knowledge, and that everything we know comes from the information gathered by our senses. We gradually organize that information to form a general view of the world, by associating things to form complex ideas, and developing our ability to apply reason to what we experience.

**LET US SUPPOSE THE MIND TO BE WHITE PAPER,
VOID OF ALL CHARACTERS, WITHOUT ANY IDEAS;
HOW COMES IT TO BE FURNISHED?**

JOHN LOCKE



NATURE LOVER

Aristotle was a keen naturalist who made a detailed study of wildlife, classifying things into different groups of plants and animals. He organized these categories by identifying

certain characteristics, such as whether an animal can fly or swim, and whether it has feathers, scales, or fur. He then grouped things together in “families”, recognizable by their common characteristics.

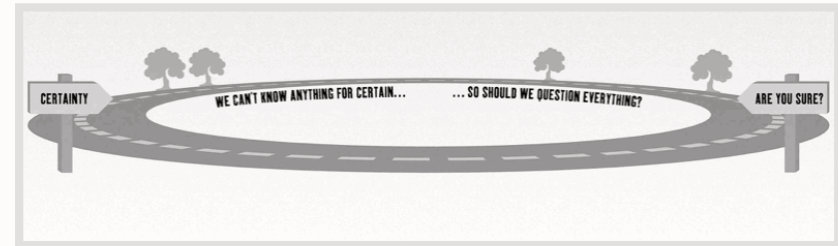
See also: Don't trust your SENSES | Knowledge comes from REASONING



Aristotle liked to walk and talk – in order to learn, his students had to follow him.

Take **NOTHING** for granted

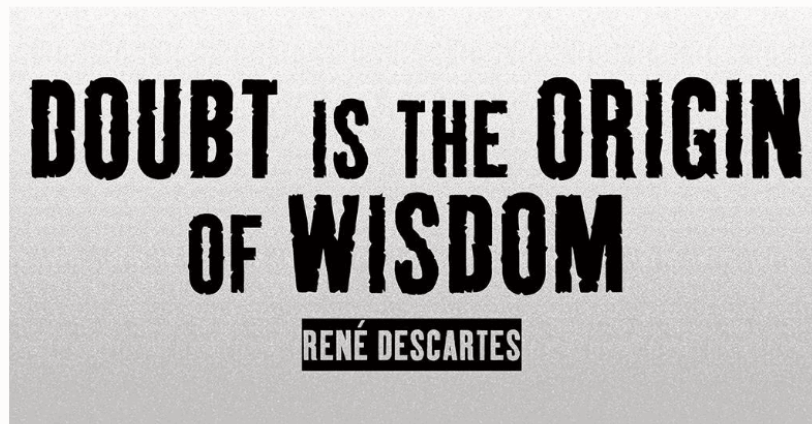
PHILOSOPHERS DO NOT SIMPLY ACCEPT STATEMENTS AS TRUE, BUT CHALLENGE WHETHER OR NOT THERE ARE GROUNDS FOR BELIEVING THAT THEY ARE TRUE. DOUBT IS A USEFUL TOOL IN PHILOSOPHY, HELPING TO ESTABLISH WHAT IS CERTAIN, AND WHAT IS NOT. BUT IS THERE ANYTHING ABOUT WHICH WE CAN BE CERTAIN?



What can we be certain of?

Philosophers since the time of Socrates have debated whether we can be certain of what we know, or even if we can know anything at all. Socrates himself took the view that it was possible to have knowledge, but in order to reach this conclusion, he had to start from the standpoint that he knew nothing. He then tried to gain knowledge by discussing issues with people. By questioning everything that they thought they knew, he was able to point out the inconsistencies and contradictions in their beliefs. A later group of Greek philosophers, the sceptics, supposed that we cannot be certain of, or know about, anything. But not all philosophers have taken such an extreme view. Some have taken a sceptical stance to help them establish what we can know for sure. They use doubt as a tool – applying it to all beliefs to discover which are certain. Although some sceptics still maintain that

absolute knowledge of anything is impossible, others believe that it is possible to know some things, but not others. And a degree of scepticism is necessary for any philosophical enquiry, until you have a convincing argument or evidence that something is true beyond reasonable doubt.



I don't doubt that I exist

René Descartes took the approach of a sceptic in order to see if he could find a solid base for his philosophy – something that could not be doubted. He came up with an imaginary situation, a sceptical hypothesis, in which an evil demon was deceiving him to the extent that he doubted everything his senses told him. In doing so, he effectively took the standpoint of an out-and-out sceptic, doubting the

truth of absolutely everything. But he realized that because he was able to doubt everything, he must exist in order to do the doubting. The fact of his existence was the first thing Descartes found that he could not doubt – it was an undoubtable truth, which he could use to build his arguments upon.

Use your common sense

A century later, Scottish philosopher David Hume also adopted a sceptical approach. As an empiricist, he thought that we acquire our knowledge through experience via our senses, but he also realized that these are not perfect, and may give us false information. In the same way, he recognized that logical reasoning was equally unreliable, and concluded that we can't know anything with absolute certainty. For example, he thought it was impossible to justify our belief that the sun will rise tomorrow, on the basis that it has always risen in the past. But he accepted that we cannot help but believe the sun will rise. Hume also reasoned that we should "proportion our beliefs to the evidence", believing when there is good evidence to support what we believe, and doubting when there is not. The evidence for miracles, for instance, is poor, and any claim that a miracle

occurred, contrary to the laws of nature, is unlikely to be true. The more likely explanation is that our senses are deceiving us, or the person telling us about the miracle is doing so.

**IN OUR REASONINGS CONCERNING FACT,
THERE ARE ALL IMAGINABLE DEGREES
OF ASSURANCE. A WISE MAN THEREFORE
PROPORTIONS HIS BELIEF TO THE EVIDENCE**

DAVID HUME

INFINITE



REGRESS

If we question whether a statement is true or not, we are asking if there is a good argument for it. The trouble is, any argument supporting it will involve other statements – which a sceptic will say can also be doubted. And to back these up, we offer yet more statements, which can be doubted, too. This never-ending process is known as infinite regress.



Socrates' wife, Xanthippe, is said to have been the only person who ever defeated him in an argument.

See also: How do you **KNOW** that? | Don't trust your **SENSES**

BELIEVING is not the same as **KNOWING**

WE THINK WE KNOW A GREAT MANY THINGS. BUT MAYBE IT ISN'T THAT SIMPLE – WE COULD MISTAKENLY BELIEVE SOMETHING THAT TURNS OUT NOT TO BE TRUE, OR ACCEPT AS FACT SOMETHING SOMEBODY HAS TOLD US, WITHOUT CHECKING WHETHER THERE'S ANY REASON TO BELIEVE IT. THE QUESTION IS, WHEN DO WE REALLY KNOW SOMETHING?

Belief or knowledge?

We often use the word “belief” when talking about religious faith: members of a religion believe in a god or gods, and believe what is written in their holy scriptures. In philosophy, we investigate whether or not what we believe is really true. Philosophers acknowledge that we accept many things as true – and many of our beliefs may, in fact, be true. But that doesn’t mean we know, however. People often claim that they “just know” something, and while they may be right, we instinctively feel that they don’t actually know it because they cannot give a good reason for believing it. Other people do give reasons for believing what they do, but their reasons are not very good. Again, it seems right to say that they don’t really know.



Deceptive appearance

Driving down this road, you might be justified in believing that these houses are real because, from the front, they look real. But the houses are, in fact, fake, so this is not a true belief.

Justified true belief

One of the first philosophers to try to examine exactly what distinguished knowing from believing was Plato, who defined knowledge as “justified true belief”. To know something, we must believe it to be true, and we must have good reason for believing it is true, but it must also actually be true. For example, I might truly believe that Santa Claus exists, and I’m justified in believing it because I’ve seen the presents he leaves, but we can’t say that I know he exists because, in reality, he doesn’t – it isn’t a true belief. Alternatively, I might genuinely believe that I’ll win the lottery one day, which might, in fact, turn out to be true, but I have no justification for believing that, so again, I can’t say that I know it. To be real knowledge, my belief must be both true and justified.

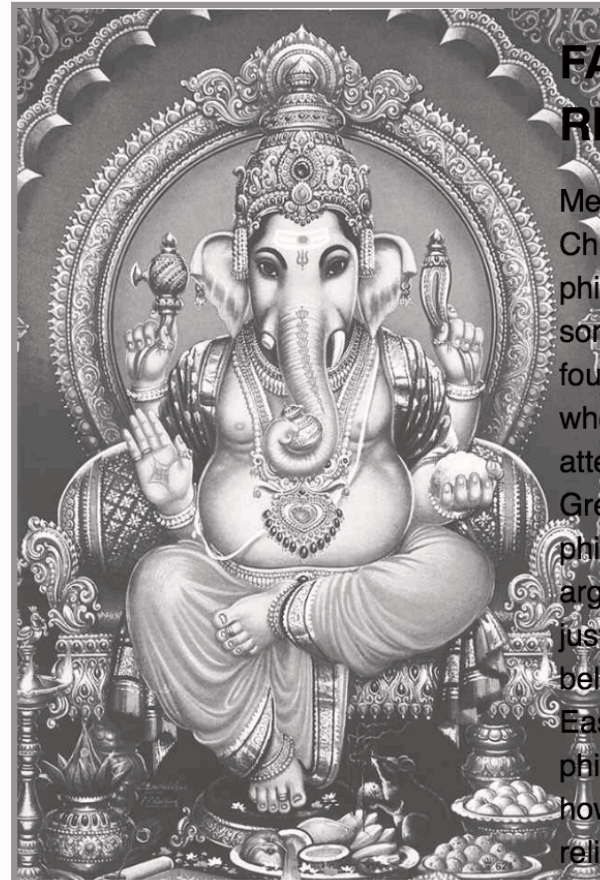
KNOWLEDGE IS JUSTIFIED TRUE BELIEF

PLATO

The Gettier problem

Most philosophers accepted Plato's definition of knowledge as justified true belief until the 1960s, when Edmund Gettier showed that it didn't always provide a satisfactory explanation. He came up with several instances where we instinctively realize that someone doesn't really know something, even though that person's belief is both true and justified. For example, I have arranged to meet my friend Sue at her house, and when I arrive, I see her through the window sitting in the kitchen. In fact, it is not Sue that I see, but her identical twin sister – Sue is actually in another room. My belief that Sue is at home is true, and I have good reason to believe it because I am sure I have seen her, but it is wrong to say that I knew she was at home – I didn't know. Examples such as this became known as “Gettier problems”, and have prompted

philosophers to ask if, in addition to belief, truth, and justification, there is a fourth criterion for knowledge. Gettier had cast doubt not only on Plato's definition, but also on whether or not it is possible to define completely what knowledge is.




FAITH OR REASON?

Medieval Christian philosophers sometimes found a conflict when they attempted to use Greek philosophical arguments to justify their beliefs. In Eastern philosophy, however, religious beliefs, such as the

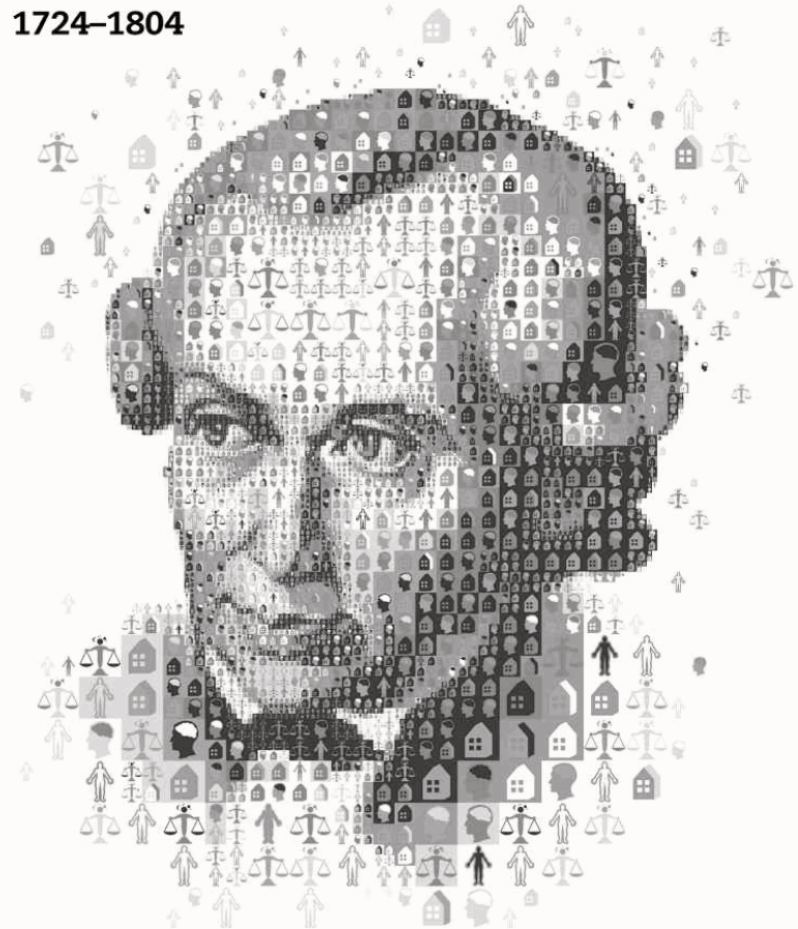
cycle of birth and rebirth, were simply accepted as a

matter of faith rather than philosophical debate.

 Many philosophers have tried – and failed – to come up with a solution to Gettier problems.

IMMANUEL KANT

1724–1804



Immanuel Kant lived all his life in the Baltic Sea port of Königsberg (now Kaliningrad, Russia). He was a predictable sort, and townsfolk set their clocks by the regularity of his daily walk. After almost a decade as a private tutor, he became an unsalaried lecturer at the University of Königsberg, paid only by the students who attended. He was later made a professor there.



THE IMPORTANCE OF THE MIND

In his *Critique of Pure Reason* (1781), Kant

proposed that to find answers to philosophical problems, people had to examine their own minds, looking inwards rather than examining the world around them. Philosophy, according to Kant, involves the use of reason alone, independent of experience.



OUR **EXPERIENCE** OF THE WORLD IS SPLIT INTO
TWO FORMS

Kant thought that experiences come from intuitions

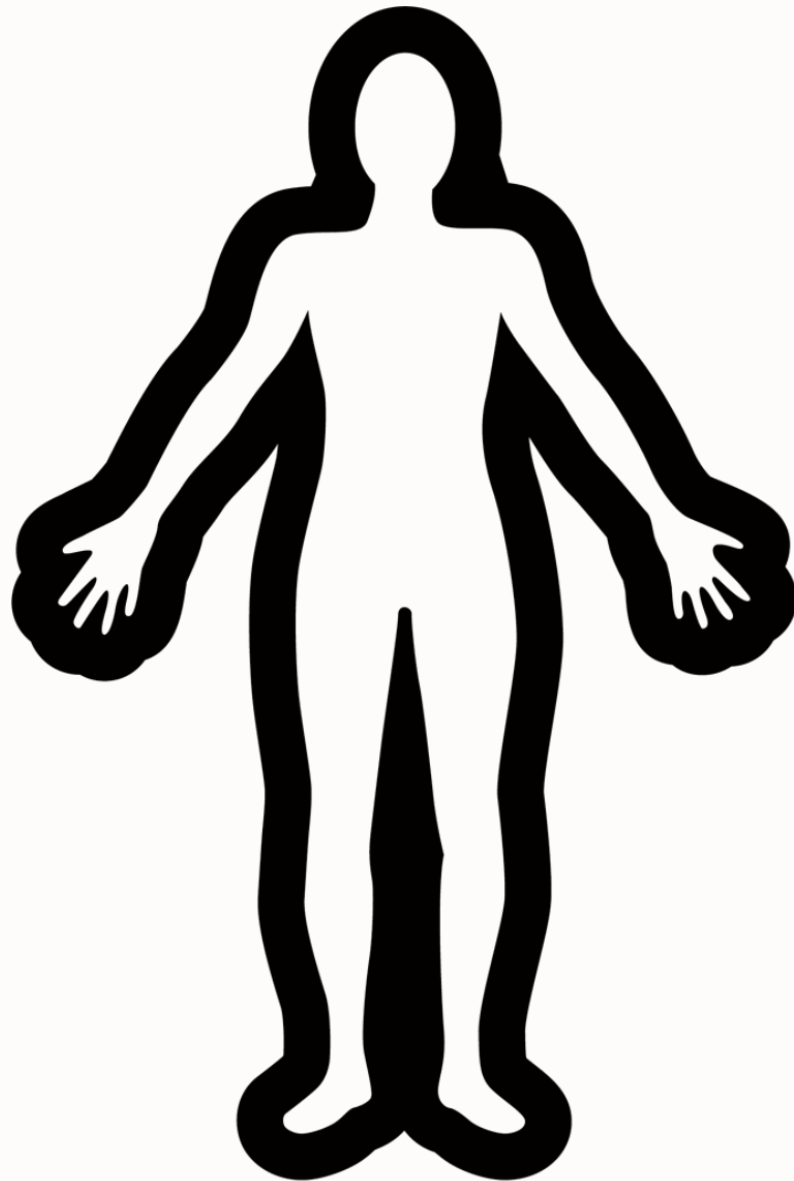
(the results of direct sensing) and understanding (the ability to have and use concepts about things we sense). We wouldn't know what our intuitions meant without concepts. For example, we may see (sense) two walls of a building, but our mind uses concepts to construct mentally the complete building they form.



THE CATEGORICAL IMPERATIVE

Within a decade, Kant had published his second and third critiques: *Critique of Practical Reason* (1788) and *Critique of Judgement* (1790). He believed it was possible to develop a consistent moral system using reason. People would act in ways that could become universal law, without aiming to achieve personal desires or motives.

Kant helped develop the nebular hypothesis in astronomy that the Solar System formed from large clouds of gas (a nebula).



NOUMENA AND PHENOMENA

Kant argued that the human mind is limited – it can experience and imagine only within certain limits. He described two worlds: that of phenomena (things we can sense and experience) and that of noumena (things-in-themselves, which exist outside our mind). No matter how hard we think or experience, there is no access to the noumenal world, which remains unknowable.

“**Morality** is not...
the doctrine of how we
may make ourselves
happy, but how we
may make ourselves
worthy of happiness”

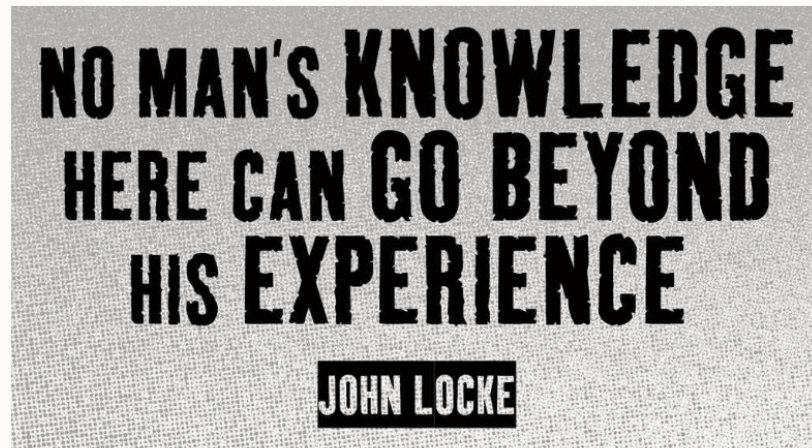
You can **NEVER** know it **ALL**

WE ARE CONTINUALLY FINDING OUT MORE ABOUT THE UNIVERSE, BUT IT SEEMS THAT THERE IS ALWAYS MORE TO DISCOVER. IT MAY BE THAT THERE REALLY ARE NO LIMITS TO WHAT THERE IS TO KNOW. SOME PHILOSOPHERS HAVE ASKED IF WE ARE CAPABLE OF KNOWING EVERYTHING THERE IS TO KNOW, OR IF THERE ARE SOME THINGS WE CAN NEVER KNOW.

The limits of experience

With the major advances in scientific discovery after medieval times, it seemed that we could go on finding out about the universe until we knew everything there is to know – that the only limits to our knowledge were the limits of what exists in reality. But in his *Essay concerning Human Understanding*, John Locke challenged this assumption, and showed that we are not capable of knowing some things. As an empiricist, he believed that at birth our minds are a “blank slate”: we know nothing, and acquire all our knowledge from experience through our five senses. And because our only way of getting information about the world outside us is through our senses, there may be parts of reality that are forever hidden from us. For example, a blind person can smell flowers, feel the warmth of the sun, and hear the rain, but can’t see the moon or stars, and so can’t have any direct first-hand knowledge of their existence. Our knowledge of reality is limited to what we can directly perceive, or to what we can infer based on what we can directly perceive (such as unobserved galaxies or electrons). But there may be much more to reality

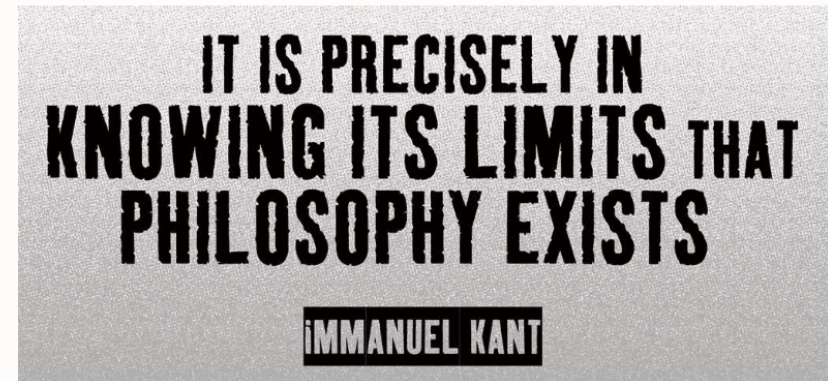
than we are capable of knowing in this way.



Limited faculties

Another philosopher who explored the idea that there are limits to what we can know was Immanuel Kant, in the 18th century. Like Locke, he recognized that our faculties – our senses and our ability to reason – are not comprehensive and limit what we can know. But Kant also showed that what we experience with our senses is not necessarily the same as what actually exists. Our minds give us a representation of a thing, similarly to the way a video camera gives us an audio-visual representation of a scene – it is like reality, but it is not reality, and does not capture everything there is

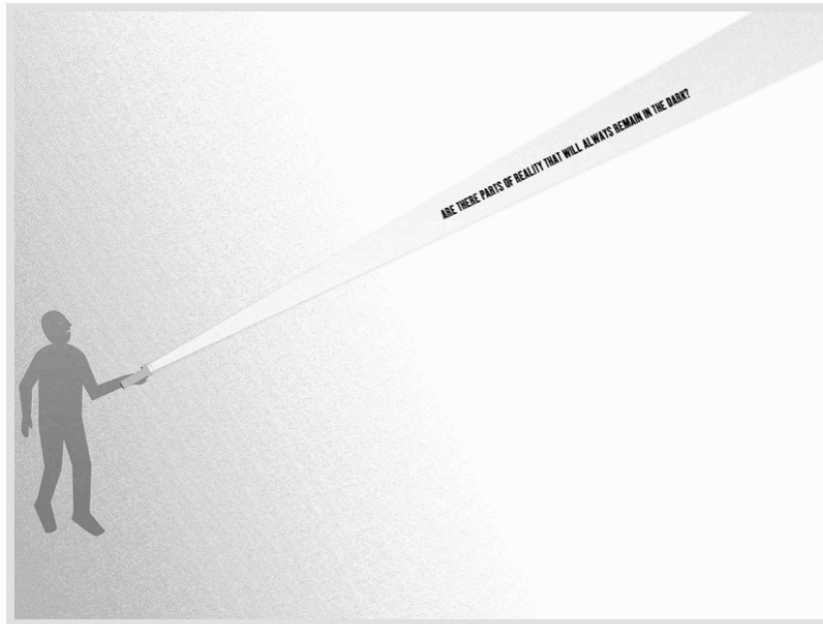
in that reality. And, of course, our experience may add things that are not really there (as in illusions).



Two different realities

Kant explained that there is a difference between things as they appear to us and what they actually are – what he called the “thing-in-itself”. It is as if these two things exist in two different worlds. There is the world as we experience it with our limited faculties, which he called the phenomenal world, but there is also a world of “things-in-themselves”, the noumenal world, which we are not capable of experiencing. The total of what we can apprehend, know, and understand, is limited by our faculties, but that doesn’t mean that other things don’t exist – just that we have no way of perceiving them. Our knowledge is limited to the phenomenal world, the

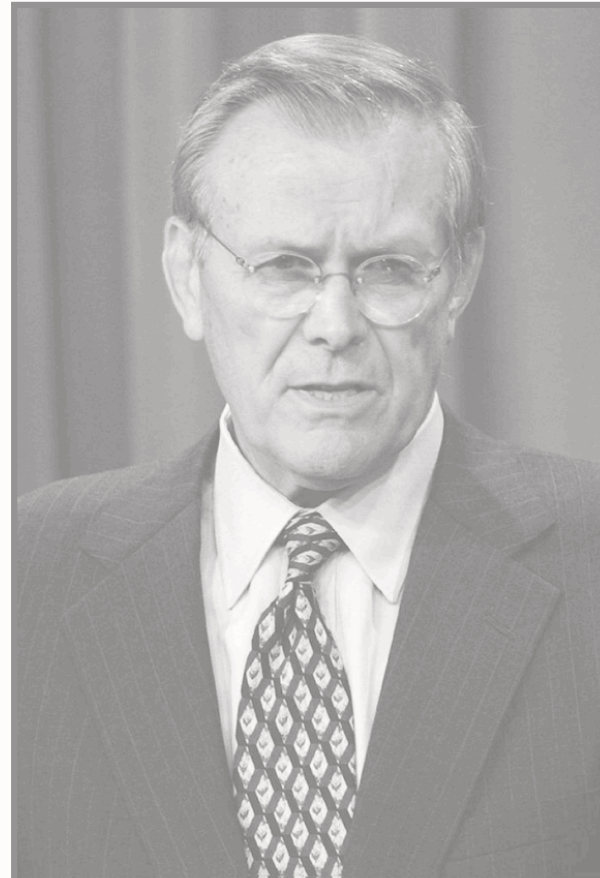
world of space and time that we can experience, and the noumenal world of things as they really are will always be unknowable to us. What we are able to experience is never reality as it is in itself. There are things that we can never know, and we can't even have an idea of what it is that we don't know, as these things are literally beyond our understanding.



The great unknown

Immanuel Kant argued that, however hard we look, there will always be some things that are beyond our

comprehension – things that are simply unknowable.



UNKNOWN UNKNOWNNS

The US politician Donald Rumsfeld referred to the limits of our knowledge when he said: “There are known knowns; there are things we know that we know. There are known unknowns; that is to say, there

are things that we now know we don't know. But there are also unknown unknowns – there are things we do not know we don't know.”



Immanuel Kant didn't look too far for the unknown – in his whole life, he never left the province in which he was born.

See also: We learn from **EXPERIENCE**

Do we ever really know the **TRUTH**?

PHILOSOPHICAL ENQUIRY CAN BE SEEN AS A SEARCH FOR TRUTH – BUT PHILOSOPHERS HAVE ALSO DEBATED HOW MUCH OUR IDEAS OF WHAT IS TRUE CORRESPOND TO WHAT ACTUALLY IS THE CASE. SOME THOUGHT THAT WE MAY NEVER KNOW FOR SURE, BUT THAT THERE ARE CERTAIN THINGS WE CAN ACCEPT AS TRUE.

Valid explanations

Our thirst for knowledge is what drives philosophical enquiry, and it isn't satisfied until we have found something we believe is true. Philosophers have argued about whether we can ever know if something is really true or not. But in the late 19th century, US philosopher Charles Sanders Peirce questioned the importance of this kind of truth. He thought that a lot of philosophical debate could never come to a satisfactory conclusion about what is and isn't true, and that this is, in fact, irrelevant – most of the time, what we need is simply a satisfactory explanation. If we believe something, and it works for us, it doesn't matter if it is an accurate picture of reality. What matters is the consequences of believing it is true. Knowledge, he suggested, consists of a collection of these valid explanations, rather than things that we know for certain to be facts. Peirce's ideas about truth formed the basis for a school of philosophy known as pragmatism. Pragmatists believe that the purpose of philosophy is not to try to provide a true picture of the universe, but to help us practically to live in it.

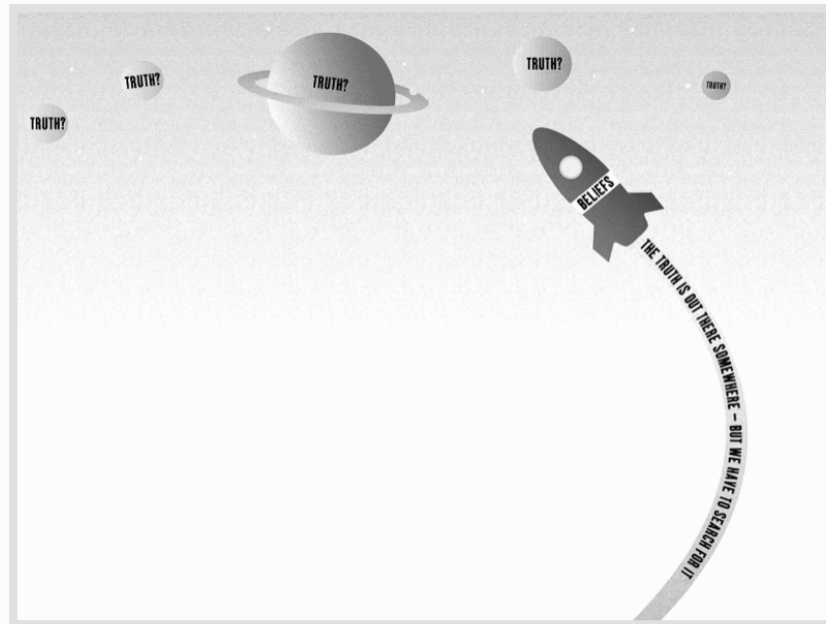
**TRUTH HAPPENS TO AN IDEA.
IT BECOMES TRUE, IS MADE
TRUE BY EVENTS**

WILLIAM JAMES

True – or useful?

Peirce's view that what we consider to be true is a collection of valid explanations was very different from the traditional idea that truth consists of facts that never change. For Peirce, the explanations we accept as true can be replaced if a better explanation is found. This notion was taken up by another US philosopher, William James. James believed that something is true so long as it is useful to us. As soon as it loses its usefulness, it is no longer true. For example, for a long time, people believed that Earth was at the heart of the universe, but as astronomers observed the orbits of the planets, this view of the universe became unsatisfactory. A new explanation, with the Sun as the centre of the universe, became the accepted "truth". The universe hadn't changed, but only the

truths we know about it: these truths are different from facts, and we don't need to know if the truth we use corresponds to the facts. We only need to know if it works for us. It is the usefulness of our beliefs, and how we use them, James said, that makes them true.

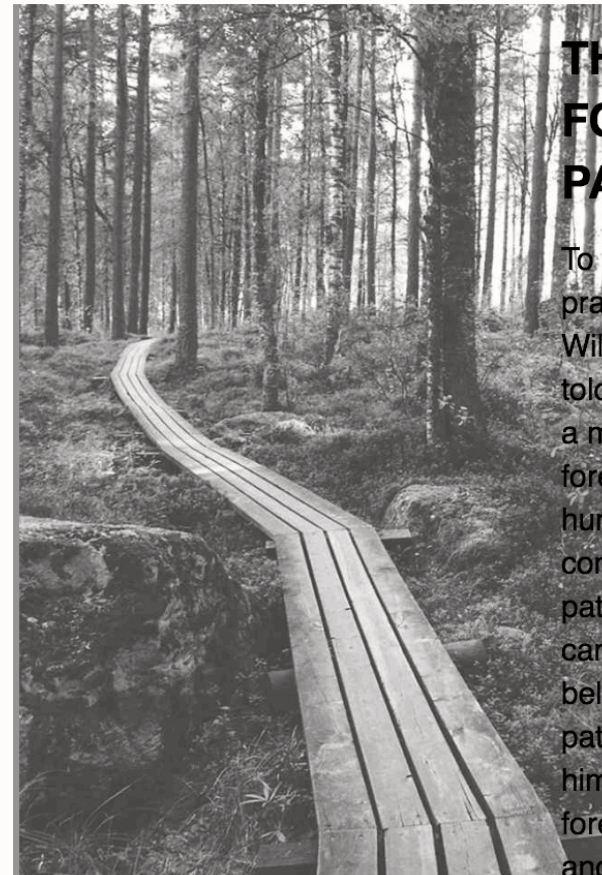
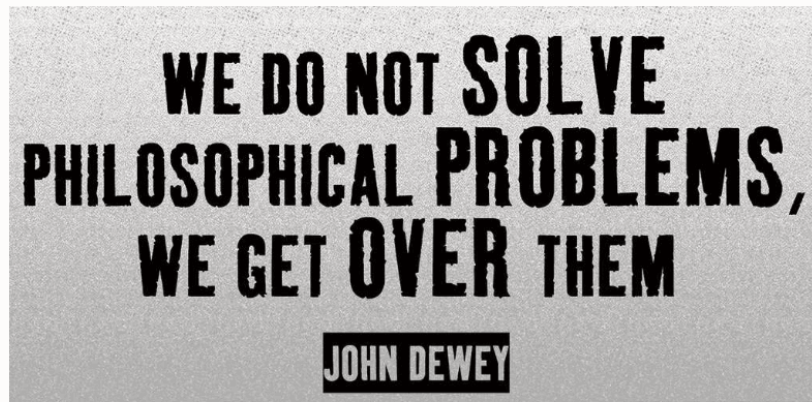


Believe in the truth

The universe doesn't change, but what we believe to be true about it changes all the time. Pragmatists think that if a belief is useful and helps us to live in the universe, it doesn't matter if it is true or not.

Practical philosophy

The idea that truth and usefulness are interrelated is central to pragmatism. Peirce emphasized that we gain knowledge not from simply observing and thinking, but by doing things – actively testing the usefulness of our knowledge and considering the implications of accepting something as true. Later philosophers, notably John Dewey, applied this aspect of pragmatism to the practical problems of everyday life, and especially to politics and education. Dewey advocated hands-on learning, rather than learning by rote, or repetition, as this encourages us to discover useful explanations of things and not simply accept second-hand knowledge. Pragmatism became an important movement in 20th-century philosophy, particularly in the USA. There, philosophers moved away from the abstract problems of European philosophy towards a more practical approach, taking Dewey's test of a successful philosophical theory as “does it help us to understand our experience, or make it more puzzling?”



THE FOREST PATH

To explain pragmatism, William James told the story of a man lost in a forest. Tired and hungry, he comes across a path. The man can choose to believe that the path will lead him out of the forest to food and shelter, and

follow it. Alternatively, he can believe that it doesn't, and stay where he is and starve. Whichever choice he makes, it will be proved to be true.



Some philosophers scorned pragmatists, accusing them of giving up on the search for