

KNOWLEDGE VERSUS WISDOM

Knowledge is composed of facts, information, and skills

Wisdom is composed of knowledge, experience, and good judgment

Gives you the ability to identify whether some fact is truth or false

Gives you the ability to discern whether some idea is right or wrong

Acquisition of information and facts

Application of the acquired knowledge

Can be simply acquired through education

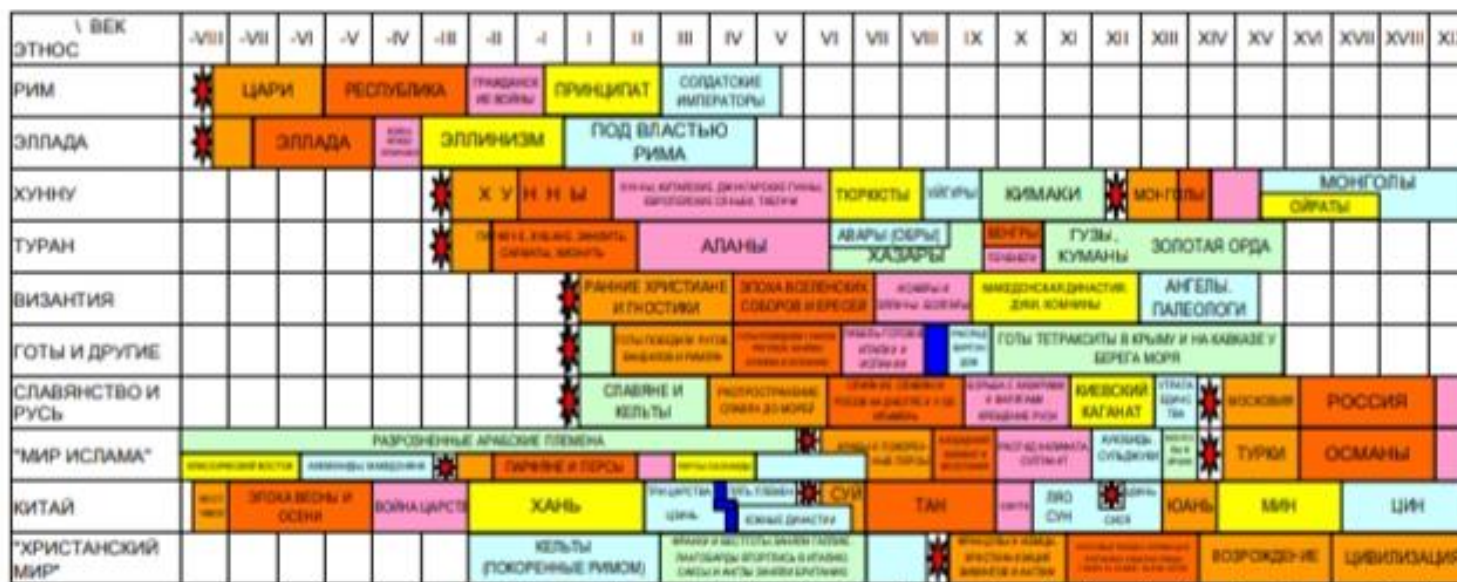
Cannot be simply acquired through learning

The principle of diachrony

107. НЕПОЛНОЦЕННЫХ ЭТНОСОВ НЕТ!

<http://gumilevica.kulichki.net/ARGS/args417.htm>

Рис. 7. ФАЗЫ ЭТНОГЕНЕЗА НА СУПЕРЭТНИЧЕСКОМ УРОВНЕ



Изменение уровня пассионарного напряжения
суперэтнической системы

Фазы ЭТНОГЕНЕЗА



Пассионарность — это способность людей к своего рода перенапряжению, когда пассионарный импульс превышает инстинкт самосохранения.

Фазы этно-генеза	ПОДЪЕМ		АКМАТИ-ЧЕСКАЯ	НАД-ЛОМ	ИНЕРЦИОН-НАЯ	ОБСКУРА-ЦИЯ	МЕМОРИАЛЬ-НАЯ
	скры-тый	яв-ный					

Epistemology

Branch of philosophy that investigates the possibility, origins, nature, and extent of human knowledge.

Plan

1. Epistemology: subject, main questions
2. What is knowledge?
3. How do we get Knowledge?
4. Empirism & Rationalism. Constructivism.
5. What Can People Know?



Epistemology asks questions like:

"What is knowledge?"

"How is knowledge acquired?"

"What do people know?"

"What are the **necessary** and **sufficient conditions** of knowledge?"

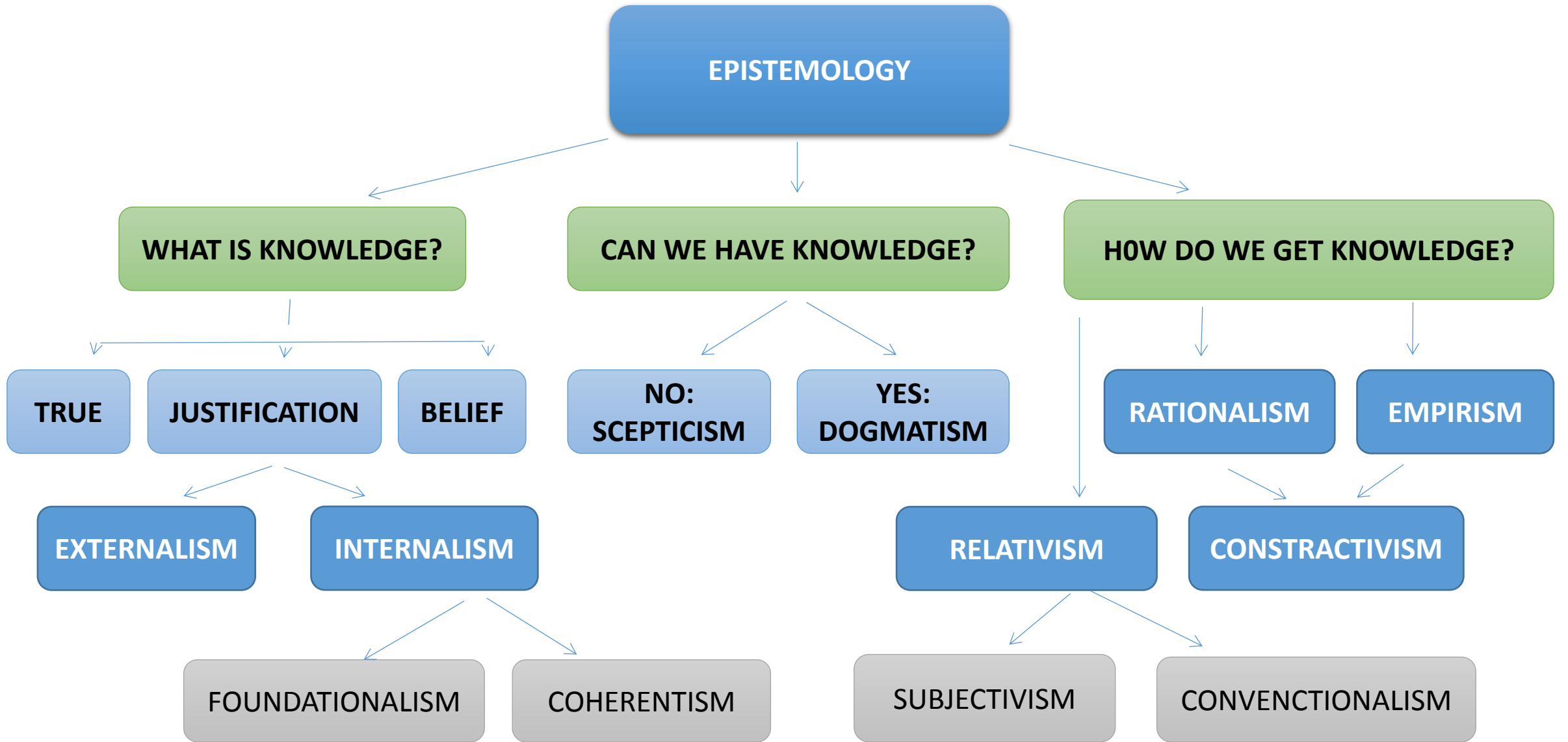
"What is its **structure**, and what are its **limits**?"

"What makes **justified beliefs** justified?"

"How we are to understand the **concept of justification**?"

"Is justification **internal** or **external**
to one's own mind?"

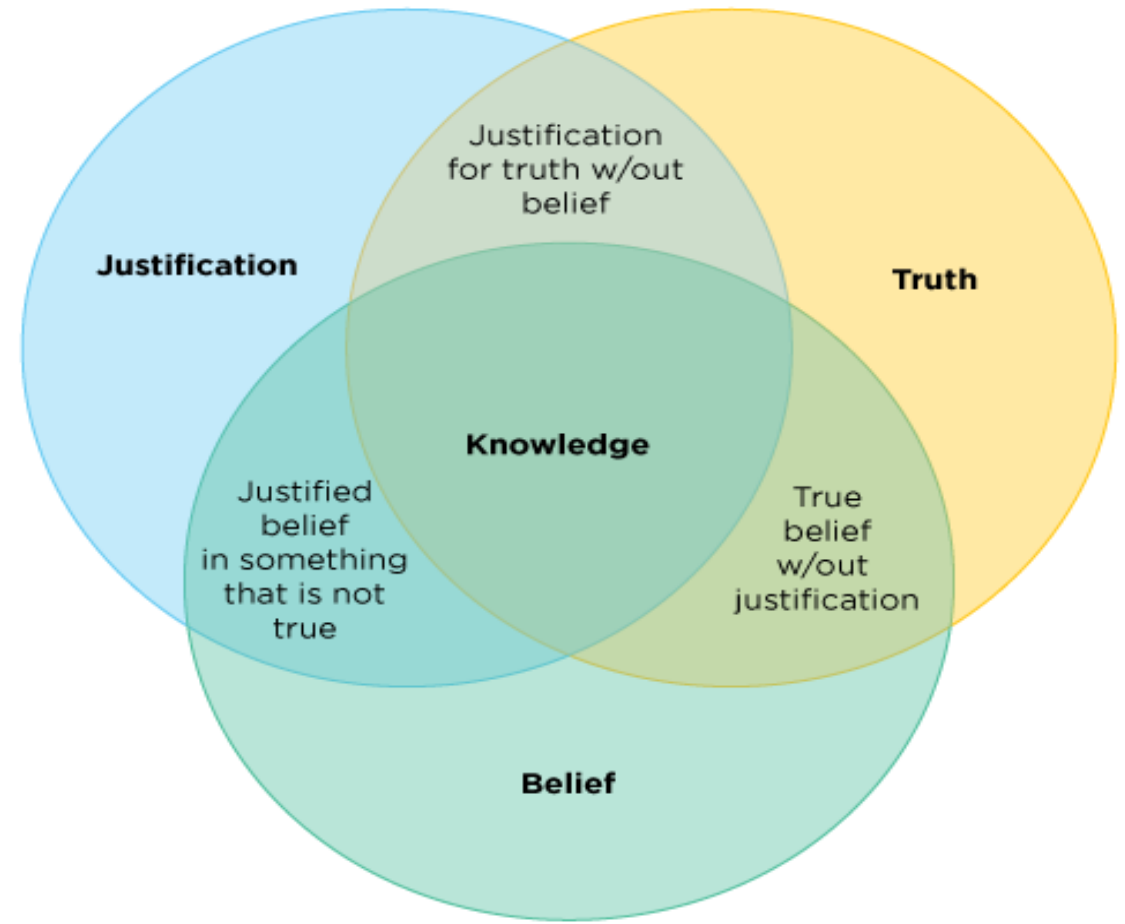




Epistemology or Theory of knowledge

- is the study of the **nature** and **scope** of knowledge and **justified belief**.

- It analyzes the nature of knowledge and how it relates to similar notions such as **truth**, **belief** and **justification**.



The kind of knowledge

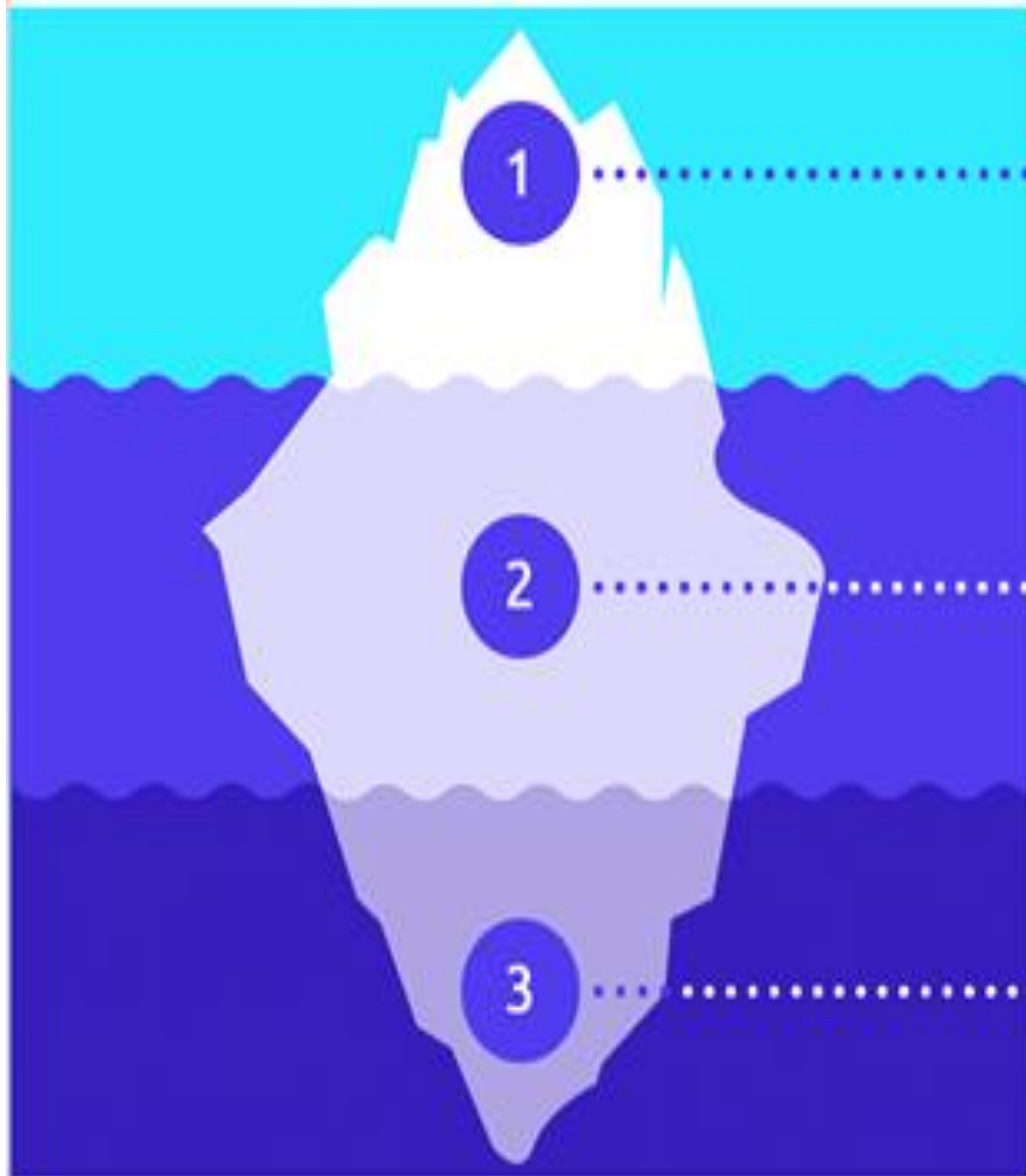
propositional
knowledge
"knowledge-that"

explicit

opposed to
practical knowledge
"knowledge-how"

implicit
tacit





Explicit Knowledge – Knowing What

Sources

- ✓ Documents
- ✓ Historical Records
- ✓ Manuals
- ✓ Memos
- ✓ Videos
- ✓ Notes
- ✓ Databases
- ✓ How-to-Guides

Implicit Knowledge – Knowing How

Sources

- ✓ Practice
- ✓ Lesson Learned
- ✓ Shadowing
- ✓ Generalized Rules
- ✓ Logic
- ✓ Theorems
- ✓ Representations
- ✓ Beliefs

Tacit Knowledge – Knowing in Action

Sources

- ✓ Experts
- ✓ Intuition
- ✓ Experience
- ✓ Observation
- ✓ Education
- ✓ Cultural Legacy
- ✓ Insights
- ✓ Organizational Values

Человек, как айсберг

**Сознание
Видимое
10%**

- Рациональное
- Измеримое
- Логика
- Очевидное

**Подсознание
Скрытое
90%**

- Иррациональное
- Эмоции
- Чувства
- Интуиция, чутье
- Инстинкт
- Мотивы
- Внутренняя сила
- Голос совести
- Зов сердца

*Характер
Убеждения
Страхи
Сомнения
Прошлый опыт
Ощущения*

What is knowledge?

Knowledge

is the **awareness and understanding** of particular aspects of reality.

It is the **clear, lucid** information gained through the process of **reason applied to reality**.

The **traditional** approach

is that knowledge requires

three

necessary and sufficient conditions,

knowledge

can then be defined as

"justified true belief"

Whether justification is **external** or **internal**?

Externalism

factors deemed "external"
(meaning outside of the
psychological states of those
who are gaining the knowledge)
can be conditions of knowledge,
so that if the relevant facts
justifying a proposition are
external
then they are acceptable

Internalism

claims that
all knowledge-yielding
conditions are within
the psychological states
of those who gain knowledge

How Is Knowledge Acquired?

a priori (or non-empirical)

where knowledge
is possible independently of,
or **prior to**,
any **experience**,
and requires **only** the use of
reason

(e.g. knowledge of **logical truths** and
of **abstract claims**)

a posteriori

where knowledge is possible
only subsequent,
or **posterior**, to **certain**
sensory experiences, in
addition to the use of reason

(e.g. knowledge of the color or shape
of a physical object, or knowledge of
geographical locations)

Plato

(c. 428 - 348 B.C.)



the best known, most widely studied
and most influential philosopher
of all time

A.N. Whitehead

once characterized **Western philosophy** as
“a series of footnotes to Plato”

Plato established the framework for a host of
philosophical disciplines—
from logic and mathematics
to ethics and religion—
and his thought continues to shape
philosophical discussion today.

Socrates characterizes his mode of instruction (the **Socratic Method**) as a kind of **midwifery**.

“ Theaetetus tells Socrates that the question, “What is knowledge?” is difficult and makes him feel anxious.

Socrates replies: “These are the pangs of labor, my dear Theaetetus;
you have something within you which you are bringing to birth.”

Socrates serves here **as midwife** to Theaetetus as he gives **birth to philosophical insight**.

Like the **midwife**, Socrates is skilled in the “**art**” of **facilitating** this kind of birth; however, his **task** is more “**important**” than the **midwife**, for he deals not with the birth of children but with the **birth of truth**. Socrates thus guides Theaetetus through the **pain of thinking** through the question regarding the **nature of knowledge**.

As the dialogue continues,

Theaetetus proposes three answers to the question regarding knowledge.

As before, Socrates complicates each answer by demonstrating their falsity.

Theaetetus **first equates knowledge with sense perception** in saying that “**to know**” is simply “**to perceive.**”

Through a lengthy exchange, Socrates brings Theaetetus to the realization that sense perception cannot yield instances of knowledge beyond what we perceive about the world at any given moment.

For one individual, a blowing wind may feel cold, while to another the same wind feels warm;

to a healthy Socrates, a particular wine will taste sweet, whereas to a Socrates in ill health, the same wine tastes sour.

Sense perception clearly leads to contradicting claims regarding reality and thus cannot serve as the basis for knowledge.

knowledge is true judgment, or true belief

Theaetetus thus proposes that **knowledge** is not just perception but **true judgment**, or true belief.

To this Socrates considers the case of a jury who has been convinced by a lawyer of a true position.

He maintains that even if the lawyer has successfully persuaded them to assent to a true position, they do not have knowledge, as they've simply relied on the lawyer's testimony.

Who's to say that the lawyer isn't simply gifted in the arts of persuasion and has convinced the jury of a falsehood?

The jury would never be in a position to distinguish true from false beliefs in this case.

Theaetetus replies by proposing that **knowledge is true judgment and an explanation** to why one holds to such judgment. Through an **analysis** of what it might mean to provide an **explanation for one's beliefs**, Socrates holds that **even here knowledge** cannot be found.

Explanations

generally seek to understand an object **in terms of its parts**, such that an understanding of these parts is held to constitute an explanation of the object **as a whole**.

Socrates maintains that
this notion of explanation fails
to get at the essence of an object.

Perhaps then **explanations require** that we understand
how a thing is different from other things.

This position, however, requires that we understand
what the thing in question is in the first place,
so neither will this account of explanation work.

Considered together,
these examples show that
an account of **judgment as knowledge**
cannot simply appeal to the additional presence of
an explanation—there's more to say.

Socrates and Theaetetus
thus conclude that
each of these proposals are insufficient.

1. Knowledge of empirical facts about the physical world will necessarily involve **perception**, in other words, the use of the **senses**.

2. But all knowledge requires some amount of **reasoning**, the **analysis of data** and the drawing of **inferences**.

3. **Intuition** is often believed to be a sort of direct access to knowledge of the a priori.

4. **Memory** allows us to know something that we knew in the past, even, perhaps, if we no longer remember the original justification.

5. Knowledge can also be **transmitted** from one individual to another via **testimony**

There are a few main theories of knowledge acquisition:

- **Empiricism**-the origin of all knowledge is **sense experience**
- **Rationalism** -holds that knowledge is not derived from experience, but rather is acquired by a priori processes or is innate (in the form of concepts) or intuitive.
- **Representationalism** -(or Indirect Realism or Epistemological Dualism) holds that the world we see in conscious experience is not the real world itself, but merely a miniature virtual-reality replica of that world in an internal representation.
- **Constructivism** - presupposes that all knowledge is "constructed", in that it is contingent on convention, human perception and social experience.

Empiricism

emphasizes the role of **experience**,
especially experience based on **perceptual observations** by the **five senses**

in the formation of ideas,
while discounting the notion of **innate ideas**.

Refinements of this basic principle led to
**Phenomenalism, Positivism, Scientism and
Logical Positivism.**

Empiricism

is the theory that the **origin** of all knowledge is **sense experience**.

It emphasizes the role of **experience** and **evidence**, especially **sensory perception**, in the formation of ideas, and argues that the only knowledge humans can have is a **posteriori**.

Most empiricists also discount the **notion of innate ideas**
or innatism

(the idea that the mind is born with ideas or knowledge and is not a "**blank slate**" at birth).

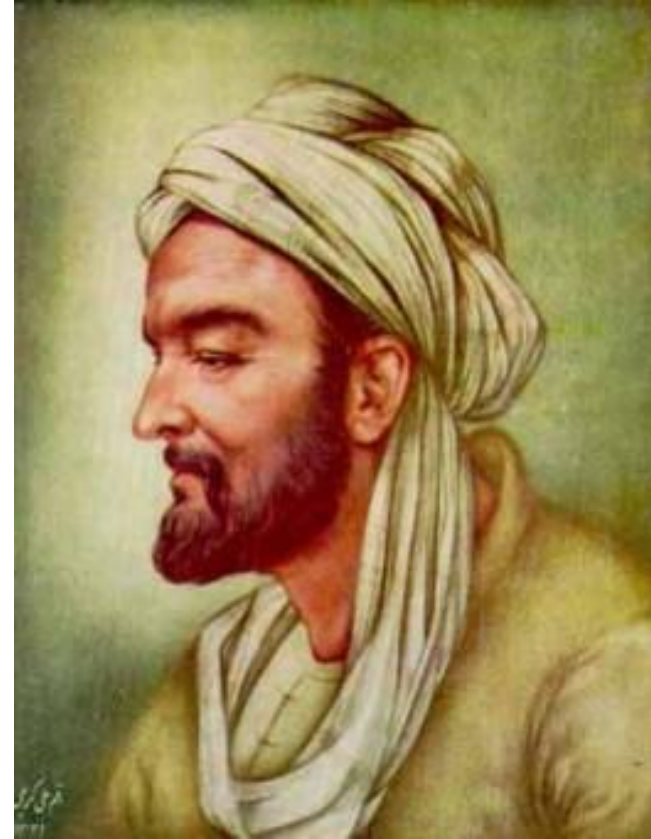
The term "**empirical**" also refers to the method of **observation** and **experiment** used in the natural and social sciences.

It is a fundamental requirement of the **scientific method** that all **hypotheses** and **theories** must be tested against **observations** of the natural world, rather than resting solely on **a priori** reasoning, **intuition** or **revelation**.

Hence, science is considered to be **methodologically** empirical in nature.

Abu Ali al-Hussain Ibn Abdallah Ibn Sina (980 - 1037)

The concept of a **"tabula rasa"** (or **"clean slate"**) had been developed as early as the 11th Century by the Persian philosopher **Avicenna**, who further argued that knowledge is attained through **empirical familiarity** with **objects** in this world, from which one **abstracts universal concepts**, which can then be further developed through a **sylogistic method of reasoning**.



Sir Francis Bacon (1561 -1626)

has been called
the **father of Empiricism**,
through his popularization of
an inductive methodology
for scientific inquiry,
which has since become known
as the **scientific method**.



John Locke

(1632 - 1704)



British philosopher who was the first to **explicitly** formulate the **Doctrine of Empiricism**.

Locke argued in his "An Essay Concerning Human Understanding" of 1690

that the mind is a **tabula rasa**
on which experiences leave their marks,
and therefore denied that humans have **innate ideas**
or that anything is **knowable without reference to experience**.

However, he also held that some knowledge
(e.g. knowledge of God's existence)
could be arrived at through **intuition** and **reasoning** alone.

David Hume

(1711 - 1776)



The Scottish philosopher he argued that all of human knowledge can be divided into two categories:

relations of ideas

(e.g. mathematical and logical propositions) and

matters of fact

(e.g. propositions involving some contingent observation of the world, such as "the sun rises in the East"),

and that ideas are **derived** from our "**impressions**" or **sensations**.

He argued that even the most **basic beliefs** about the natural world, or even in the existence of the self, cannot be conclusively established by **reason**, but we accept them anyway because of their basis in **instinct** and **custom**.

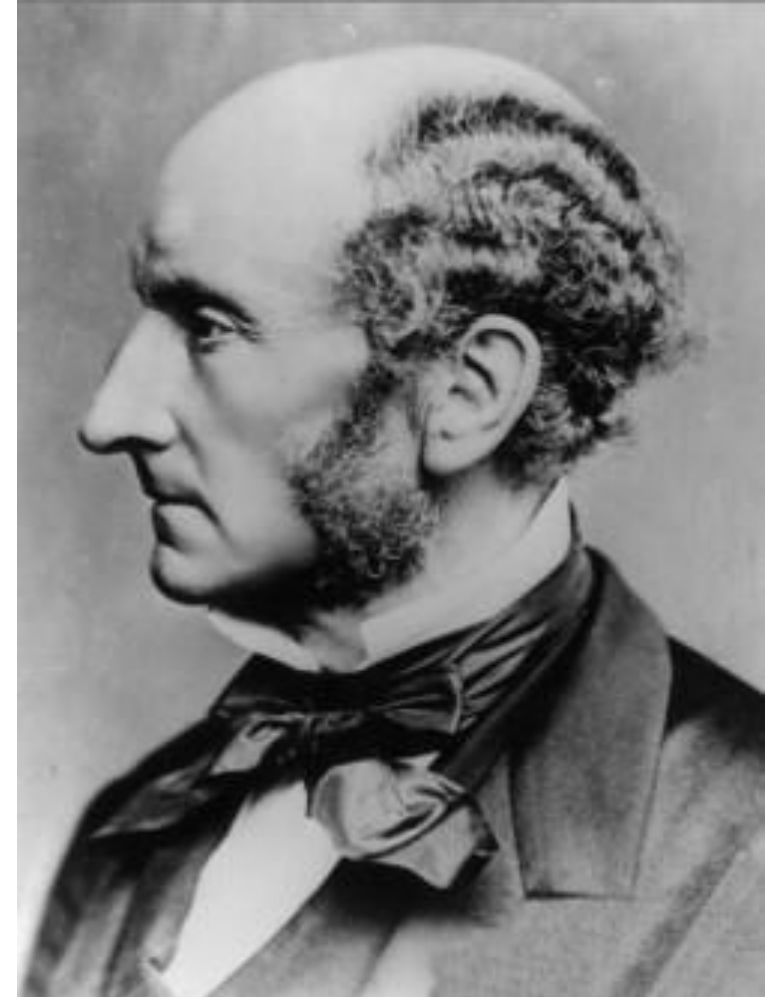
Hume's Empiricism therefore verges on **Skepticism**.

Throughout his life, J.S. Mill tried to persuade the British public of the necessity of a **scientific approach** to understanding social, political and economic change while not neglecting the **insights** of poets and other imaginative writers.

Philosophically, he was a radical empiricist who held that all human knowledge, including even mathematics and Logic, is **derived** by **generalization** from **sensory experience**.

He believed firmly that there is no such thing as **innate ideas**, no such thing as **moral precepts**.

His "System of Logic" of 1843 was an ambitious attempt to give an account not only of Logic, as the title suggests, but of the **methods of science** and their applicability to social as well as purely natural phenomena.



John Stuart Mill
(1806 - 1873)

Rationalism

is any view appealing to **intellectual** and **deductive reason**,
the mind may apprehend some truths directly,
which became established in Continental Europe
at around the same time, with the work of
Descartes, Leibniz and **Spinoza**.

It holds that some propositions are knowable by us
by **intuition alone**, while others are knowable by being **deduced**
through valid arguments from intuited propositions.

Rationalism

relies on the idea that reality has a **rational structure** in that all aspects of it can be grasped through **mathematical and logical principles**, and not simply through **sensory experience**.

Rather than being a "**tabula rasa**" to be imprinted with sense data, the **mind** is structured by, and responds to, **mathematical methods of reasoning**.

René Descartes (1596 - 1650)



French philosopher, mathematician, scientist and writer
of the **Age of Reason**.

He has been called the

"Father of Modern Philosophy",

and much of subsequent Western philosophy can be seen as a
response to his writings.

His contribution to **mathematics** was also of the first order, as the
inventor of the **Cartesian coordinate system** and

the **founder of analytic geometry**,

crucial to the invention of **calculus** and **mathematical analysis**.

He was also one of the key figures

in the **scientific revolution**

of the 16th and 17th Centuries.

Methodological skepticism or Cartesian doubt

Descartes outlined **four main rules** for himself in his thinking:

1. Never accept anything except **clear and distinct ideas**.
2. **Divide each problem** into as many parts as are **needed** to solve it.
3. **Order your thoughts** from the simple to the complex.
4. Always **check thoroughly** for oversights.

Using this process, which he detailed in his epochal

"Discourse on the Method" of 1637 and

expanded in the **"Meditations on First Philosophy"** of 1641

Gottfried Wilhelm Leibniz (1646 - 1716)



German philosopher, mathematician, scientist and **polymath** of the Age of Reason.

He devised his rather eccentric **metaphysical theory of monads** operating in a pre-established **divine harmony**.

He is equally important in the history of mathematics,

as the inventor of **calculus**

(independently of Sir Isaac Newton),

and as the discoverer of the **binary system**

(the foundation of virtually all modern computer architectures).

He also made major contributions to **physics**, and anticipated notions that surfaced much later in other sciences **biology, medicine, geology, probability theory, psychology, linguistics and information science**, as well as writing on **politics, law, ethics, theology, history and philology**.

What is the best possible world hypothesis?

The claim that the actual world is the best of all possible worlds is the central argument in Leibniz's theodicy, or his attempt to solve the problem of evil.



Gottfried Leibniz, the philosopher who coined the term "best of all possible worlds" in his 1710 work *Théodicée*.

What are the 5 arguments in philosophy?

- The Five Ways
- First way: The Argument of the Unmoved Mover.
- Second way: The Argument of the First Cause.
- Third way: The Argument from Time and Contingency.
- Fourth way: The Argument from Degree.
- Fifth way: Argument from Final Cause or Ends.

Baruch Spinoza (AKA Benedict Spinoza) (1632 - 1677)

Dutch philosopher of Portuguese Jewish origin
who lived and worked during the **Age of Reason**.

An enormously controversial figure
(both in his own day and after)
for the highly original and provocative positions.

His metaphysical views
were essentially **monistic** and **pantheistic**,
holding that **God and Nature**
were just two names
for the same **single underlying reality**.

He made significant contributions
in virtually **every area of philosophy**.



Baruch Spinoza

his **major work** was the monumental

"Ethica Ordine Geometrico Demonstrata" ("Ethics"),

an abstract and difficult work, finished in 1676 but only published posthumously in 1677.

Each of its five constituent books comprises a long sequence of numbered **propositions**, each of which is deduced through a method consciously modeled on the **deductive** logic used by the Greek mathematician Euclid in his seminal work on **geometry**.

Like Euclid, Spinoza started with a small **set of self-evident definitions and axioms**,

meticulously built up his deductive argument,

and concluded each section with a triumphant **"QED"**

("quod erat demonstrandum", or "that which was to be demonstrated").

Epistemology has dominated Western philosophy ...

Although the effort to develop
an adequate theory of knowledge
is at least as old as Plato's *Theaetetus*,
epistemology has dominated Western philosophy
only since the era of Descartes and Locke,
as an extended dispute between rationalism and empiricism
over the respective importance of a priori and a posteriori origins.

Contemporary postmodern thinkers
have proposed the contextualization of knowledge
as part of an intersubjective process.

- <https://kaiserscience.files.wordpress.com/2015/08/justified-true-beliefs-equal-knowledge.png?w=960>