**EMPIRICISM**

**Introductory:**

Knowledge comes from only or primarily from sensory experience.

Emphasizes the role of experience and evidence (especially, sensory experience, in the formation of ideas); it is in contrast with innate ideas or traditions; traditions or customs arise due to relations to previous sense experience.

Blank tablet (*tabula rasa*).

Evidence as discovered in experiments.

Fundamental part of the scientific method that all hypotheses and theories must be tested against observations of the natural world – opposed to – rather than depending on a priori reasoning, intuition and revelation.

Knowledge is based on experience. Knowledge is tentative and probabilistic, subject to continued revision and falsification.

**Etymology**

‘*Episteme*’ (Gk); ‘*experiencia*’ (Ltn.) = experience and experiment; used in the ancient Greek world relating to medical practitioners, who rejected the doctrines of dogmatic school; relied on the observation of phenomena.

**Ancient:** Plato and Aristotle: knowledge necessarily involves general or universal ideas – man, table, chair etc.

Aristotle: knowledge of the general comes from our experience of particular men, …

The Problem: how do we arrive at universal ideas (which are unlimited, permanent and immutable) on the basis of limited and fluctuating experience of particular things?

Answer (Aristotle): by *induction*: universal and necessary elements of knowledge – the foundations of all subsequent reasoning – are built up in the mind through induction.

Wider and wider generalization is derived from repeated experiences of particular things until a general/universal concept is established in the mind.

The general/universal ideas become the tools and building blocks of all reasoning (*nihil in intellectu nisi prius fuerit in sensu* – nothing in the intellect without first being in senses).

**Middle ages**:

*Islamic Philosophers*; Al Farabi (Avicenna – developed ‘*tabula rasa*’); Ibn Tufail (thought experiment).

Avicenna: *tabula rasa* is a pure potentiality that is actualized through education; knowledge is attained through ‘empirical familiarity with objects in this world from which one abstracts universal concepts.’ Developed through a syllogistic method of reasoning. (Potentiality –> active intellect).

Ibn Tufail: novel; development of a child solely from senses, devoid of society and education; on a desert island. (Ltn. *Philosophus Autodidactus* 🡨**🡪** *Theologus Autodidactus* (development only in contact with society).

**St. Thomas Aquinas**

*Nihil in intellectu quod prius non fuerit in sensu* (nothing in an intellect which was not first in the senses).

Essences of things/beings are locked inside the particular things of which they are the essences (e.g. individual human beings, animals, things…); the intellect is able to liberate the essence in particular things and thus to ‘see’ ‘the universal idea of their common, essential nature’ (individual humans, animals, things…). The intellectual faculty by which the essential (universal) element of particular things are unlocked and ‘seen’ by (mind) is called *Abstraction*.

**Abstraction**

It is a process of removing/separating something from something else. In epistemology, what is being abstracted is a common nature (universal) and from which it is being abstracted is particulars.

**Process**

We being with the particular things we encounter in the sensible world and from this we derive universal concepts/principles. With our universal concepts and principles, we are enabled to return to the sensible world and speak of it, think about it and know it.

Three stages of knowledge according to Aristotle and Thomas Aquinas:

I. particular things in the sensible world (individuals).

II. universal concepts in the mind (Human Being).

II. knowledge of the world utilizing universal concept (Socrates is a human being).

**Renaissance Italy**

Thinkers questioned medieval and classical understanding of knowledge acquisition in a fundamental way.

Political and historical writings Niccolo Machiavelli 🡪 scornful of writers on politics who judged everything in comparision to mental ideals. People shuld study the ‘effectual truth’ instead. **Leonardo da Vinci** (1452-1519) 🡪 if your experience contradicts the authority, abandon authority and base your reasoning on your own findings. **Vincenzo Galilei** (1520-1591) 🡪 anti-Aristotelian and anti-clerical; *musical theorist* – tuning – string tension and mass…; air instruments – volume of air (Galileo’s father) 🡨🡪 Pythogora’s hammers (numbers and music).

**British empiricism**

John Locke (1632-1704): in response to Early to Mid 17th AD. *An Essay Concerning Human Understanding* (1689) 🡪 the *only* knowledge humans can have is a posteriori (based on experience); *tabula rasa* (in Lock’s words – white paper).

Two sources of our ideas: sensation and reflection.

*Primary qualities* (objective): essential qualities for the object in question to be what it is (e.g. apple is an apple because of the arrangement of its atomic structure (Locke used ‘corpuscles’ instead of ‘atoms’).

*Secondary qualities* (subjective): sensory information we can perceive from its primary qualities (apple can be perceived with various colours, shapes, sizes…). Therefore it is the primary qualities that dictate what the object essentially is, while its secondary qualities define its attributes (compare Aristotle’s substance and accidents).

Knowledge of things is a perception of ideas that are in accordance or discordance with each other – different from the quest for certainty of Descartes.

Powers of Mind:

(i) *Passive power*: perception of ideas through the senses and retention of ideas in memory beyond our voluntary control; dependent on the material conditions of the human body.

(ii) *Active power*: distinguishing, comparing, compounding and abstractions.

**Types of Complex Ideas**

We manufacture new, complex ideas from the simple elements provided by experience. The resulting complex ideas are of three types:

1. Modes are complex ideas that combine simpler elements to form a new whole that is assumed to be incapable of existing except as a part of something else; e.g. the idea of numbers – derived from simple idea of ‘unity’.
2. Substances are the complex ideas of real particular things that are supposed to exist on their own (substance is a ‘thing I know not what’). They account for the unity and persistence of the features they exhibit; e.g. ‘my only son,’ ‘the largest…’ ‘tulips’ (compounded from simpler ideas of sensation and reflection; each is the idea of a thing that could exist on its own).
3. Relations are complex ideas of the ways in which other ideas may be connected with each other (in fact/in thought) – refers to the comparison of two/more things – younger, stronger, cause and effect.

John Locke’s theory is called ‘Representative Realism.’ – there is an actual world out there; the mind does not give us direct access to reality; rather, ‘represents’ reality in me the same way that a photograph does.

**George Berkley**

Opposed Locke – it is impossible to know something that is not an idea.

Sense data: it is contradictory when we claim that the idea in our mind is caused by things in the physical world.

Primary and Secondary qualities are actually the same thing (our idea of primary qualities are nothing but interpretations of secondary qualities).

Objects of Human Knowledge: 1. Ideas imprinted on the senses or 2. Perceived by the mind (passions and operations) or 3. Ideas formed by the help of memory and imagination. Passions arise depending on the things whether pleasing or displeasing. Accompanied by several sense data we conclude ‘a thing.’ Babies come into the world and they are given ‘sense data.’ (essentially secondary qualities) – baby is overwhelmed! Slowly the child learns to ‘read’ the sense data by recognizing patterns in the appearance of the data 🡨🡪 rationalists – without knowing the principles of identity (sameness) how can a child recognize the patterns?

*Radical*: any ‘physical object’ in the world is merely the totality of its sense data and sense data exist only in the mind (*esse est percipi* existence is perception); there is no substance (out there)! [Idealism – apart from the consciousness (mind) there is no physical world].

Because of each individual experience the ideas in our minds, each has a different perspective of the sense data (alone in the island of our mind). If so how can society function? Universal knowledge? The answer lies in the use of ‘language’; language is the bridge that allows us to share knowledge; e.g. use of the word ‘red’ 🡪 we are taught to associate the particular word ‘red’ with the particular experience.

What about ‘God’? It is not an idea but a ‘Notion.’

**David Hume**

Most radical of the primary empiricists. Felt that Locke and Berkley had not consistently applied Ockham’s Razor. More rigorous application of the Razor would bring empiricism to its logical conclusion.

There are only two possible kinds of meaning: Analytic and Synthetic.

Analytic Statements (relations of ideas): the characteristics are: their negation leads to a self-contradiction; they are a priori statements; they are true by definition; they are necessarily true.

So, even though there is a priori knowledge, it never proves anything other than itself; it cannot tell anything about reality, but only provides us with definitions, mathematics and logic. They are true, but they only show that we can relate ides to one another, not that all knowledge may be based on them.

Synthetic Statements (matters of facts): they must be derived from sense data; they are not necessarily true, e.g. Joseph has 12 chicken patties on his plate….

Sentences neither analytic nor synthetic; nonsense!

Hume’s Discussion of God: the statement ‘God exists’ – (a) no self-contradiction when negated; so not analytic statement; (b) idea of God is not traced back to sense data; therefore not synthetic statement; therefore it is nonsense!

If no God, what keeps the world together in some sort of order? ‘Causality’ holds things together.

Problem: there is no sense data to support the idea of a cause either; there is no way to tell that one thing caused another, or if one thing simply occurred after another thing; e.g. superstitions. Superstition is the result of misunderstanding seriality vs. causality. It wrongly assumes that because one thing occurs after another, the first event ‘caused’ the second event. Hume is forced to concede that there is no sense data to confirm cause-and-effect.

The Self; particular perception or other of ‘myself’: heat/cold, love/hatred, pain/pleasure; without a perception there is no self. It is an empty idea; we cannot experience self at all; only sensory experience. Therefore, we are bundle of experiences and the concept of self is an *illusion*!

This discovery (that there is no self – no continuity after death) is so frightening that we ‘feign its continued existence… and run into the notion of a soul, and self, and substance, to disguise the variation.’