

# Knowledge

From Wikipedia, the free encyclopedia

**Knowledge** is a familiarity, awareness or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through experience or education by perceiving, discovering, or learning.

Knowledge can refer to a theoretical or practical understanding of a subject. It can be implicit (as with practical skill or expertise) or explicit (as with the theoretical understanding of a subject); it can be more or less formal or systematic.<sup>[1]</sup> In philosophy, the study of knowledge is called epistemology; the philosopher Plato famously defined knowledge as "justified true belief", though this definition is now agreed by most analytic philosophers to be problematic because of the Gettier problems. However, several definitions of knowledge and theories to explain it exist.

Knowledge acquisition involves complex cognitive processes: perception, communication, and reasoning,<sup>[2]</sup> while knowledge is also said to be related to the capacity of *acknowledgment* in human beings.<sup>[3]</sup>

## Contents

- 1 Theories of knowledge
- 2 Communicating knowledge
- 3 Situated knowledge
- 4 Partial knowledge
- 5 Scientific knowledge
- 6 Religious meaning of knowledge
  - 6.1 As a measure of religiosity (in sociology of religion)
- 7 See also
- 8 References
- 9 External links

## Theories of knowledge

The eventual demarcation of philosophy from science was made possible by the notion that philosophy's core was "theory of knowledge," a theory distinct from the sciences because it was their *foundation*... Without this idea of a "theory of knowledge," it is hard to imagine what "philosophy" could have been in the age of modern science.

— Richard Rorty, *Philosophy and the Mirror of Nature*

The definition of knowledge is a matter of ongoing debate among philosophers in the field of epistemology. The classical definition, described but not ultimately endorsed by Plato,<sup>[4]</sup> specifies that a statement must meet three criteria in order to be considered knowledge: it must be justified, true, and believed. Some claim that these conditions are not sufficient, as Gettier case examples allegedly demonstrate. There are a number of alternatives proposed, including Robert Nozick's arguments for a requirement that knowledge 'tracks the truth' and Simon Blackburn's additional requirement that we do not want to say that those who meet any of these conditions 'through a defect, flaw, or failure' have knowledge. Richard Kirkham suggests that our definition of knowledge requires that the evidence for the belief necessitates its truth.<sup>[5]</sup>

In contrast to this approach, Ludwig Wittgenstein observed, following Moore's paradox, that one can say "He believes it, but it isn't so," but not "He knows it, but it isn't so."<sup>[6]</sup> He goes on to argue that these do not correspond to distinct mental states, but rather to distinct ways of talking about conviction. What is different here is not the mental state of the speaker, but the activity in which they are engaged. For example, on this account, to *know* that the kettle is boiling is not to be in a particular state of mind, but to perform a particular task with the statement that the kettle is boiling. Wittgenstein sought to bypass the difficulty of definition by looking to the way "knowledge" is used in natural languages. He saw knowledge as a case of a family resemblance. Following this idea, "knowledge" has been reconstructed as a cluster concept that points out relevant features but that is not adequately captured by any definition.<sup>[7]</sup>

## Communicating knowledge

Symbolic representations can be used to indicate meaning and can be thought of as a dynamic process. Hence the transfer of the symbolic representation can be viewed as one ascription process whereby knowledge can be transferred. Other forms of communication include observation and imitation, verbal exchange, and audio and video recordings. Philosophers of language and semioticians construct and analyze theories of knowledge transfer or communication.

While many would agree that one of the most universal and significant tools for the transfer of knowledge is writing and reading (of many kinds), argument over the usefulness of the written word exists nonetheless, with some scholars skeptical of its impact on societies. In his collection of essays *Technopoly*, Neil Postman demonstrates the argument against the use of writing through an excerpt from Plato's work *Phaedrus* (Postman, Neil (1992) *Technopoly*, Vintage, New York, pp 73). In this excerpt, the scholar Socrates recounts the story of Thamus, the Egyptian king and Theuth the inventor of the written word. In this story, Theuth presents his new invention "writing" to King Thamus, telling Thamus that his new invention "will improve both the wisdom and memory of the Egyptians" (Postman, Neil (1992) *Technopoly*, Vintage, New York, pp 74). King Thamus is skeptical of this new invention and rejects it as a tool of recollection rather than retained knowledge. He argues that the written word will



Robert Reid, *Knowledge* (1896).  
Thomas Jefferson Building,  
Washington, D.C.

infect the Egyptian people with fake knowledge as they will be able to attain facts and stories from an external source and will no longer be forced to mentally retain large quantities of knowledge themselves (Postman, Neil (1992) *Technopoly*, Vintage, New York, pp 74).

Classical early modern theories of knowledge, especially those advancing the influential empiricism of the philosopher John Locke, were based implicitly or explicitly on a model of the mind which likened ideas to words.<sup>[8]</sup> This analogy between language and thought laid the foundation for a graphic conception of knowledge in which the mind was treated as a table, a container of content, that had to be stocked with facts reduced to letters, numbers or symbols. This created a situation in which the spatial alignment of words on the page carried great cognitive weight, so much so that educators paid very close attention to the visual structure of information on the page and in notebooks.<sup>[9]</sup>

Media theorists like Andrew Robinson emphasise that the visual depiction of knowledge in the modern world was often seen as being 'truer' than oral knowledge. This plays into a longstanding analytic notion in the Western intellectual tradition in which verbal communication is generally thought to lend itself to the spread of falsehoods as much as written communication. It is harder to preserve records of what was said or who originally said it – usually neither the source nor the content can be verified. Gossip and rumors are examples prevalent in both media. As to the value of writing, the extent of human knowledge is now so great, and the people interested in a piece of knowledge so separated in time and space, that writing is considered central to capturing and sharing it.

Major libraries today can have millions of books of knowledge (in addition to works of fiction). It is only recently that audio and video technology for recording knowledge have become available and the use of these still requires replay equipment and electricity. Verbal teaching and handing down of knowledge is limited to those who would have contact with the transmitter or someone who could interpret written work. Writing is still the most available and most universal of all forms of recording and transmitting knowledge. It stands unchallenged as mankind's primary technology of knowledge transfer down through the ages and to all cultures and languages of the world.

## Situated knowledge

Situated knowledge is knowledge specific to a particular situation. It is a term coined by Donna Haraway as an extension of the feminist approaches of "successor science" suggested by Sandra Harding, one which "offers a more adequate, richer, better account of a world, in order to live in it well and in critical, reflexive relation to our own as well as others' practices of domination and the unequal parts of privilege and oppression that makes up all positions."<sup>[10]</sup> This situation partially transforms science into a narrative, which Arturo Escobar explains as, "neither fictions nor supposed facts." This



*Los portadores de la antorcha* (*The Torch-Bearers*) – Sculpture by Anna Hyatt Huntington symbolizing the transmission of knowledge from one generation to the next (Ciudad Universitaria, Madrid, Spain)

narrative of situation is historical textures woven of fact and fiction, and as Escobar explains further, "even the most neutral scientific domains are narratives in this sense," insisting that rather than a purpose dismissing science as a trivial matter of contingency, "it is to treat (this narrative) in the most serious way, without succumbing to its mystification as 'the truth' or to the ironic skepticism common to many critiques."<sup>[11]</sup>

Haraway's argument stems from the limitations of the human perception, as well as the overemphasis of the sense of vision in science. According to Haraway, vision in science has been, "used to signify a leap out of the marked body and into a conquering gaze from nowhere." This is the "gaze that mythically inscribes all the marked bodies, that makes the unmarked category claim the power to see and not be seen, to represent while escaping representation."<sup>[10]</sup> This causes a limitation of views in the position of science itself as a potential player in the creation of knowledge, resulting in a position of "modest witness". This is what Haraway terms a "god trick", or the aforementioned representation while escaping representation.<sup>[12]</sup> In order to avoid this, "Haraway perpetuates a tradition of thought which emphasizes the importance of the subject in terms of both ethical and political accountability".<sup>[13]</sup>

Some methods of generating knowledge, such as trial and error, or learning from experience, tend to create highly situational knowledge. One of the main attributes of the scientific method is that the theories it generates are much less situational than knowledge gained by other methods. Situational knowledge is often embedded in language, culture, or traditions. This integration of situational knowledge is an allusion to the community, and its attempts at collecting subjective perspectives into an embodiment "of views from somewhere."<sup>[10]</sup>

Knowledge generated through experience is called knowledge "a posteriori", meaning afterwards. The pure existence of a term like "a posteriori" means this also has a counterpart. In this case, that is knowledge "a priori", meaning before. The knowledge prior to any experience means that there are certain "assumptions" that one takes for granted. For example, if you are being told about a chair, it is clear to you that the chair is in space, that it is 3D. This knowledge is not knowledge that one can "forget", even someone suffering from amnesia experiences the world in 3D.

Even though Haraway's arguments are largely based on feminist studies,<sup>[10]</sup> this idea of different worlds, as well as the skeptic stance of situated knowledge is present in the main arguments of post-structuralism. Fundamentally, both argue the contingency of knowledge on the presence of history; power, and geography, as well as the rejection of universal rules or laws or elementary structures; and the idea of power as an inherited trait of objectification.<sup>[14]</sup>

## Partial knowledge

One discipline of epistemology focuses on partial knowledge. In most cases, it is not possible to understand an information domain exhaustively; our knowledge is always *incomplete* or partial. Most real problems have to be solved by taking advantage of a partial understanding of the problem context and problem data, unlike the typical math problems one might solve at school, where all data is given and one is given a complete understanding of formulas necessary to solve them.

This idea is also present in the concept of bounded rationality which assumes that in real life situations

people often have a limited amount of information and make decisions accordingly.

Intuition is the ability to acquire partial knowledge without inference or the use of reason.<sup>[15]</sup> An individual may "know" about a situation and be unable to explain the process that led to their knowledge.

## Scientific knowledge



Sir Francis Bacon,  
"Knowledge is Power"

The development of the scientific method has made a significant contribution to how knowledge of the physical world and its phenomena is acquired.<sup>[16]</sup> To be termed scientific, a method of inquiry must be based on gathering observable and measurable evidence subject to specific principles of reasoning and experimentation.<sup>[17]</sup> The scientific method consists of the collection of data through observation and experimentation, and the formulation and testing of hypotheses.<sup>[18]</sup> Science, and the nature of scientific knowledge have also become the subject of Philosophy. As science itself has developed, scientific knowledge now includes a broader usage<sup>[19]</sup> in the soft sciences such as biology and the social sciences — discussed elsewhere as meta-epistemology, or genetic epistemology, and to some extent related to "theory of cognitive development". Note that "epistemology" is the study of knowledge and how it is acquired. Science is "the process used everyday to logically complete thoughts through inference of facts determined by calculated experiments." Sir Francis Bacon was critical in the historical development of the scientific method; his works established and popularized an inductive methodology for scientific

inquiry. His famous aphorism, "knowledge is power", is found in the *Meditations Sacrae* (1597).<sup>[20]</sup>

Until recent times, at least in the Western tradition, it was simply taken for granted that knowledge was something possessed only by humans — and probably *adult* humans at that. Sometimes the notion might stretch to (ii) *Society-as-such*, as in (e.g.) "the knowledge possessed by the Coptic culture" (as opposed to its individual members), but that was not assured either. Nor was it usual to consider *unconscious* knowledge in any systematic way until this approach was popularized by Freud.<sup>[21]</sup>

Other biological domains where "knowledge" might be said to reside, include: (iii) the *immune system*, and (iv) in the *DNA of the genetic code*. See the list of four "epistemological domains": Popper, (1975);<sup>[22]</sup> and Traill (2008:<sup>[23]</sup> Table S, page 31)—also references by both to Niels Jerne.

Such considerations seem to call for a separate definition of "knowledge" to cover the biological systems. For biologists, knowledge must be usefully *available* to the system, though that system need not be conscious. Thus the criteria seem to be:

- The system should apparently be dynamic and self-organizing (unlike a mere book *on its own*).
- The knowledge must constitute some sort of representation of "the outside world",<sup>[24]</sup> or ways of dealing with it (directly or indirectly).

- Some way must exist for the system to access this information quickly enough for it to be useful.

Scientific knowledge may not involve a claim to certainty, maintaining skepticism means that a scientist will never be absolutely certain when they are correct and when they are not. It is thus an irony of proper scientific method that one must doubt even when correct, in the hopes that this practice will lead to greater convergence on the truth in general.<sup>[25]</sup>

## Religious meaning of knowledge

In many expressions of Christianity, such as Catholicism and Anglicanism, knowledge is one of the seven gifts of the Holy Spirit.<sup>[26]</sup>

The Old Testament's tree of the knowledge of good and evil contained the knowledge that separated Man from God: "And the LORD God said, Behold, the man is become as one of us, to know good and evil..." (Genesis 3:22 (<http://tools.wmflabs.org/bibleversefinder2/?book=Genesis&verse=3:22&src=KJV>))

In Gnosticism, divine knowledge or gnosis is hoped to be attained.

विद्या दान (Vidya Daan) i.e. knowledge sharing is a major part of Daan, a tenet of all Dharmic Religions.<sup>[27]</sup> Hindu Scriptures present two kinds of knowledge, *Paroksh Gyan* and *Prataksh Gyan*. *Paroksh Gyan* (also spelled *Paroksha-Jnana*) is secondhand knowledge: knowledge obtained from books, hearsay, etc. *Prataksh Gyan* (also spelled *Prataksha-Jnana*) is the knowledge borne of direct experience, i.e., knowledge that one discovers for oneself.<sup>[28]</sup> Jnana yoga ("path of knowledge") is one of three main types of yoga expounded by Krishna in the Bhagavad Gita. (It is compared and contrasted with Bhakti Yoga and Karma yoga.)

In Islam, knowledge (Arabic: علم, *ilm*) is given great significance. "The Knowing" (*al- 'Alīm*) is one of the 99 names reflecting distinct attributes of God. The Qur'an asserts that knowledge comes from God (2:239 (<http://www.usc.edu/org/cmje/religious-texts/quran/verses/002-qmt.php#002.239>)) and various *hadith* encourage the acquisition of knowledge. Muhammad is reported to have said "Seek knowledge from the cradle to the grave" and "Verily the men of knowledge are the inheritors of the prophets". Islamic scholars, theologians and jurists are often given the title *alim*, meaning "knowledgeable".

In Jewish tradition, knowledge (Hebrew: דעת *da'ath*) is considered one of the most valuable traits a person can acquire. Observant Jews recite three times a day in the Amidah "Favor us with knowledge, understanding and discretion that come from you. Exalted are you, Existent-One, the gracious giver of knowledge." The Tanakh states, "A wise man gains power, and a man of knowledge maintains power", and "knowledge is chosen above gold".

### As a measure of religiosity (in sociology of religion)

According to the sociologist Mervin Verbit, knowledge may be understood as one of the key components of religiosity. Religious knowledge itself may be broken down into four dimensions:

- content

- frequency
- intensity
- centrality

The content of one's religious knowledge may vary from person to person, as will the degree to which it may occupy the person's mind (frequency), the intensity of the knowledge, and the centrality of the information (in that religious tradition, or to that individual).<sup>[29][30][31]</sup>

## See also

- Outline of knowledge – guide to the subject of knowledge presented as a tree structured list of its subtopics.
- Analytic-synthetic distinction
- Epistemic modal logic
- Inductive inference
- Inductive probability
- Intelligence
- Metaknowledge
- Philosophical skepticism
- Society for the Diffusion of Useful Knowledge

## References

1. "knowledge: definition of knowledge in Oxford dictionary (American English) (US)". *oxforddictionaries.com*.
2. Dekel, Gil. "Methodology". Retrieved 3 July 2006.
3. Stanley Cavell, "Knowing and Acknowledging", *Must We Mean What We Say?* (Cambridge University Press, 2002), 238–266.
4. In Plato's *Theaetetus*, Socrates and Theaetetus discuss three definitions of *knowledge*: knowledge as nothing but perception, knowledge as true judgment, and, finally, knowledge as a true judgment with an account. Each of these definitions is shown to be unsatisfactory.
5. Kirkham, Richard L. (October 1984). "Does the Gettier Problem Rest on a Mistake?". *Mind, New Series*. Oxford University Press on behalf of the Mind Association. pp. 501–513. JSTOR 2254258. jstor (subscription required)
6. Ludwig Wittgenstein, *On Certainty*, remark 42
7. Gottschalk-Mazouz, N. (2008): "Internet and the flow of knowledge," in: Hrachovec, H.; Pichler, A. (Hg.): *Philosophy of the Information Society. Proceedings of the 30. International Ludwig Wittgenstein Symposium Kirchberg am Wechsel, Austria 2007. Volume 2*, Frankfurt, Paris, Lancaster, New Brunswick: Ontos, S. 215–232. <http://sammelpunkt.philo.at:8080/2022/1/Gottschalk-Mazouz.pdf>
8. Hacking, Ian (1975). *Why Does Language Matter to Philosophy?*. Cambridge: Cambridge University Press.
9. Eddy, Matthew Daniel (2013). "The Shape of Knowledge: Children and the Visual Culture of Literacy and Numeracy". *Science in Context*. **26**: 215–245. doi:10.1017/s0269889713000045.
10. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective". Haraway, Donna. *Feminist Studies* Vol. 14, No. 3. pp. 575–599. 1988.
11. "Introduction: Development and the Anthropology of Modernity". Escobar, Arturo. *Encountering Development: The Making and Unmaking of the Third World*.
12. Chapter 1. Haraway, Donna. *Modest\_Witness@Second\_Millennium. FemaleMan© Meets\_OncoMouse2. Feminism and Technoscience*. 1997.

13. "Posthuman, All Too Human: Towards a New Process Ontology". Braidotti, Rosi. *Theory Culture* Vol. 23. pp. 197–208. 2006.
14. "The Subject and Power". Foucault, Michel. *Critical Inquiry* Volume 9, No. 4. pp. 777–795. 1982
15. Oxford English Dictionary
16. "Science – Definition of science by Merriam-Webster". *merriam-webster.com*.
17. "[4] Rules for the study of natural philosophy", Newton 1999, pp. 794–6, from the General Scholium, which follows Book 3, *The System of the World*.
18. scientific method (<http://www.m-w.com/dictionary/scientific%20method>), *Merriam-Webster Dictionary*.
19. <http://articles.latimes.com/2012/jul/12/opinion/la-oe-wilson-social-sciences-20120712>
20. "Sir Francis Bacon – Quotationspage.com". Retrieved 2009-07-08.
21. There is quite a good case for this exclusive specialization used by philosophers, in that it allows for in-depth study of logic-procedures and other abstractions which are not found elsewhere. However this may lead to problems whenever the topic spills over into those excluded domains—e.g. when Kant (following Newton) dismissed *Space and Time* as axiomatically "transcendental" and "a priori" — a claim later disproved by Piaget's clinical studies. It also seems likely that the vexed problem of "*infinite regress*" can be largely (but not completely) solved by proper attention to how unconscious concepts are *actually* developed, both during infantile learning *and* as inherited "pseudo-transcendentals" inherited from the trial-and-error of previous generations. See also "Tacit knowledge".
  - Piaget, J., and B.Inhelder (1927 / 1969). *The child's conception of time*. Routledge & Kegan Paul: London.
  - Piaget, J., and B.Inhelder (1948 / 1956). *The child's conception of space*. Routledge & Kegan Paul: London.
22. Popper, K.R. (1975). "The rationality of scientific revolutions"; in Rom Harré (ed.), *Problems of Scientific Revolution: Scientific Progress and Obstacles to Progress in the Sciences*. Clarendon Press: Oxford.
23. <http://www.ondwelle.com/OSM02.pdf>
24. This "outside world" could include other subsystems within the same organism—e.g. different "mental levels" corresponding to different Piagetian stages. See Theory of cognitive development.
25. "philosophy bites". *philosophybites.com*.
26. "Part Three, No. 1831". *Catechism of the Catholic Church*. Retrieved 2007-04-20.
27. "विद्या दान ही सबसे बड़ा दान : विहिप - Vishva Hindu Parishad – Official Website". *vhp.org*.
28. Swami Krishnananda. "Chapter 7". *The Philosophy of the Panchadasi*. The Divine Life Society. Retrieved 2008-07-05.
29. Verbit, M. F. (1970). The components and dimensions of religious behavior: Toward a reconceptualization of religiosity. *American mosaic*, 24, 39.
30. Kūçükcan, T. (2010). Multidimensional Approach to Religion: a way of looking at religious phenomena. *Journal for the Study of Religions and Ideologies*, 4(10), 60–70.
31. [http://www.eskieserler.com/dosyalar/mpdf%20\(1135\).pdf](http://www.eskieserler.com/dosyalar/mpdf%20(1135).pdf)

## External links

- Knowledge (<http://philpapers.org/browse/knowledge>) at PhilPapers
- "Knowledge". *Internet Encyclopedia of Philosophy*.
- "The Value of Knowledge". *Stanford Encyclopedia of Philosophy*.
- "The Analysis of Knowledge". *Stanford Encyclopedia of Philosophy*.
- "Knowledge by Acquaintance vs. Description". *Stanford Encyclopedia of Philosophy*.
- Knowledge (<https://inpho.cogs.indiana.edu/taxonomy/2390>) at the Indiana Philosophy Ontology Project

Retrieved from "<https://en.wikipedia.org/w/index.php?title=Knowledge&oldid=755327930>"

Categories: Knowledge



- 
- This page was last modified on 17 December 2016, at 10:28.
  - Text is available under the Creative Commons Attribution-ShareAlike License; additional terms may apply. By using this site, you agree to the Terms of Use and Privacy Policy. Wikipedia® is a registered trademark of the Wikimedia Foundation, Inc., a non-profit organization.