

4. Getting to know, 'Knowing'?

4.1 What is knowledge?

4.2 The difference between knowledge and information

4.3 The sources of knowledge

4.4 The process of obtaining knowledge

Preface

You might have heard that anecdote about Albert Einstein. Various towns and villages invited him to talk about 'theory of relativity'. The chauffer who drove him to these places used to attend every lecture. Once when they were invited to a town where no one had seen Einstein in person, the chauffer asked if he could give the lecture posing as Einstein. Einstein agreed. Thus the chauffer explained ideas which by now he had learnt by heart. Einstein sat in the audience and listened. When the question-answer session began, the chauffer very smartly said, "my chauffer is sitting in the audience and even he can answer these queries!" Einstein smilingly answered the audience.

What does the anecdote tell us? The chauffer gave a lecture from memory but he could not answer questions. One can't answer questions on a topic until one has understood it closely, known it in depth. Those who mug up a few answers for exams are discomfited to face different questions in the question paper, aren't they? This happens because just as there is a difference between 'truth' and an 'illusion of a truth', so is there a difference

between knowledge and beliefs/conceptions that appear to be knowledge. Cramming a topic in our heads and presenting it without proper understanding gives us an illusion of knowledge. That is why it is called 'parroting'. A trained parrot can imitate human sounds but he does not understand the meaning behind the utterances. There is no knowledge, only an illusion of knowledge.

4.1 What is knowledge?

If asked to talk about things you know, some of you will talk about themselves, some will present a long list of things they've learnt in Mathematics, History, Sciences, Geography etc. The list might not even end. Some of you may feel they are very knowledgeable. Some might wonder if they really know anything about the things they listed. They might find themselves asking tons of other questions such as 'what is knowledge? How does it occur? How do I know that I know? They will come to see that they do not know what is it 'to know,' what is means 'to understand'. Have you begun to feel the same?

Let's get to know things about 'knowing'. All the questions mentioned above and many more are considered in the branch of philosophy called 'Epistemology'. Let's familiarize ourselves with the discourse on two vital questions - 'What is knowledge?' and 'What are the sources of knowledge?'

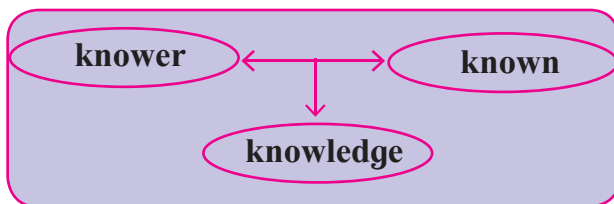
Knowledge is called as Jnana (ज्ञान) in Marathi but the word isn't frequently used in day-to-day conversations. People

use other verbs that are synonymous with the verb 'to know'. English uses the verb 'to know' with several shades of meaning - 'to realize', 'to recognize', 'to understand' etc. We must understand the subtle differences between these. Let's discuss the process of 'knowing' first of all.

Let's write!

Write sentences that accurately represent the meanings of verbs such as 'to understand', 'to realize', 'to recognize', 'to comprehend'. Discuss the differences.

'Knower' is the one who knows and 'known' is that which can be known. Knowledge is born when the two come into contact, when they interact.



Knowledge requires awareness of one's surroundings and of one's self. The more advanced this awareness, the more superior the knowledge! All that falls within the bounds of human awareness can be known.

We come in touch with objects, properties, relations, events, statements, arguments, theories etc. through awareness. Although every kind of contact might not result into knowledge. The majestic beauty and force of a cascading waterfall enraptures us and astonishes at once. We feel proud to be commended for an excellent performance. The sight of raw mangoes makes our mouth water. We are highly impressed to see a robot at work.

We are baffled when something doesn't bear the expected outcome. We are interacting with the world every passing moment, and it leaves various impressions on us. The interaction between the knower and the known is a necessary but insufficient condition for the creation of knowledge. The interactions have to be of a particular kind.

4.2 The difference between knowledge and information

The interactions that help us understand what an object is give us knowledge. Our intellect, our sense organs are the means to know an object. We shall look into the means later. But we must ponder over what is it to know an object/event. Does knowing mean to be familiar with it, to possess some information about it - or something more? Let's have an example. Do you know what an Indian giant squirrel is?



Shekaru

Some of you might have seen it in photographs, some of you might have actually seen it, some of you might have heard of it. A student might know that an Indian giant squirrel is a large tree squirrel belonging to the species *R. indica*. It is found in the forests of Bhimashankara. It travels from tree to tree with jumps of

up to 6 metres which look like flights. Those who have read/heard about the Indian giant squirrel and seen in it photographs might be able recognize it but those who have actually seen it would know better, don't they? It can be said that a student knows shekaru when he/she knows what class of animals it belongs to, how it feeds itself, how it lives etc. Moreover, those of you who'd wonder how shekaru almost 'flies' from one tree to the other despite having no wings, those of you who'd take the pains to find an answer will have a more comprehensive knowledge of it. One can better understand the phenomenon of a 'leap of the Indian giant squirrel' if one also applies what he/she already knows about birds and animals.

This example illustrates a few interactions that are a part of construction of knowledge – reading about a thing, hearing about it, experiencing/witnessing it, being aware of certain facts, being able to link them with the information we already possess. Loosely speaking all of the interactions above seem to emit knowledge. But it is not so to the scrupulous philosophical eye. Philosophically speaking, all the interactions except the last, provide us information about an object of knowledge.

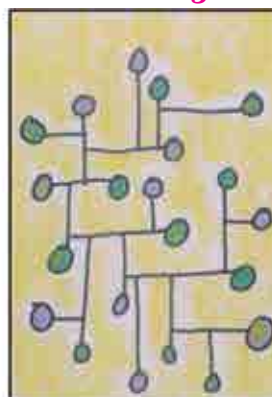
Information is required for knowledge, but knowledge isn't merely information - it is extremely critical to understand this in the age of Information Technology. Information is a collection of facts about something. This can be an assorted collection of different, isolated facts.

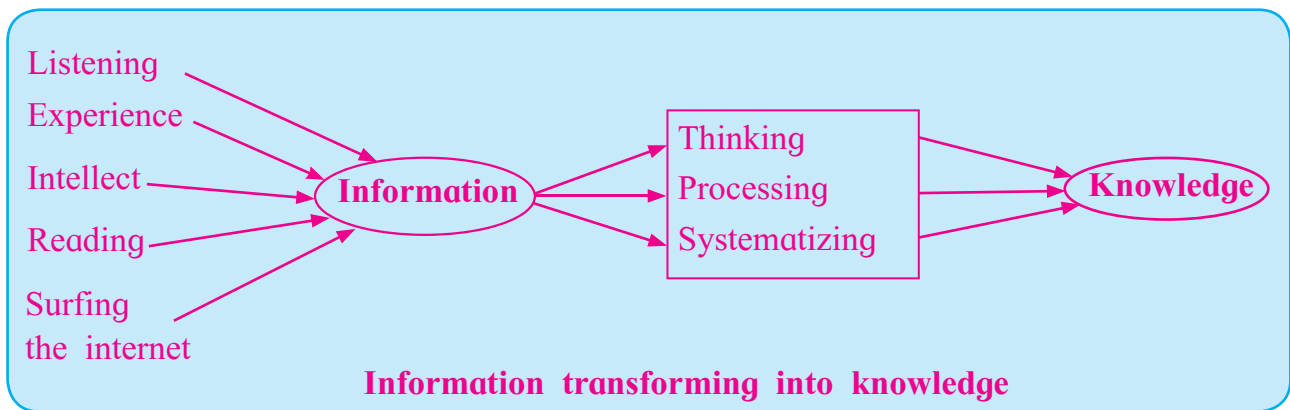
Have you ever collected coins or postage stamps? These things can either be randomly stacked or can be systematically classified according to the country, release year, contents etc. We pile up information in the form of experiences, intellect, reading, listening, surfing the internet. But as long as they are haphazard, they are like randomly collected coins. The process of internalization begins when we think over facts, discover the interrelationships, similarities and differences among them. Then it becomes feasible to classify facts, to put them together. This is when information starts getting transformed into knowledge. Knowledge has to be a coherent system of information. To build a project, we, at first carefully assemble the required materials and then systematically organize them. Information means for knowledge that which materials mean to a project.

Information



Knowledge





Therefore, the person who merely accumulates unprocessed information cannot be called 'knowledgeable'. Otherwise books, encyclopaedias or Google would have been called the most knowledgeable! There is awareness at the root of knowledge. Knowledge has to be absorbed and processed using this awareness. Only then there is understanding.

Such knowledge becomes an integral part of our thoughts, feelings, behaviour and life. In order to prepare a dish, we gather all the ingredients and process them/cook them and consume them. Knowledge has to be consumed; it has to be ingested. But sometimes the ingredients are adulterated, sometimes the preparation goes wrong, and the dish is a failure! The same can happen with knowing. The accumulated information may be fallacious, untrue or insufficient. Sometimes it is organized in an imprecise manner. The knowledge that comes from such information cannot be called knowledge. Information is the raw material to knowledge. The quality of knowledge depends to a great extent on the status of information. One has to scrupulously examine the sources of information and if it is genuine or invalid. The social media posts and forwards that claim authenticity are more often fraudulent/

rumorous than true. We are at a great risk of being deceived online unless we cautiously find trustworthy websites. By trusting any information blindly, we mistake untruth for truth and knowledge can never be untrue.

Let's talk!

Think-Pair-Share

Share a rumor with your classmate. Discuss its credibility. How did you deduce that it was a rumor?

'Falsehood is not strictly entitled to the term 'knowledge'. Even in day-to-day conversation we use phrases like 'I believe that...', 'I think...' or 'In my opinion...' if we are not certain about the authenticity of our statements. These phrases have a dubiousness which phrases like 'I know...' or 'I am sure that...' do not have.



Chinese whispers

When we say ‘I know...’ we have, at least for ourselves, confirmed the verity of our opinions. We believe what we’re saying is true. And we want others to believe the same. We also give explanations if required. We give proofs and justifications.

Suppose you come across the statement - ‘German poet Goethe put the Sanskrit epic ‘Shakuntal’ on his head and danced merrily.’ We do not know who wrote it so you go about asking friends. One of them says ‘I think xyz wrote it.’ Someone else says ‘I know, Kavi Kulguru Kalidasa

Knowledge and opinion

These are the times of IT and media overflow. Internet is overfull with information. We are being bombarded as it were with various ideas, opinions and information through various media. It would be a grave mistake to call it knowledge. We tried to grasp the difference between knowledge and information. Let’s take a look at knowledge and opinion. In the course of a conversation we often say, ‘I agree with you’ or ‘I beg to disagree’. This clearly suggests that people have divergent opinions on a subject matter. And it is considered quite normal for opinions to change with time or circumstances. But we don’t confer on changing opinions a status of knowledge because knowledge doesn’t differ from person to person. It is supposed to be universal across time. So, even on the level of common-sense we must make the distinction between knowledge and information. Ancient Greek philosophers from the western tradition also marked this distinction. Plato, the disciple of Socrates has discussed this in detail although he uses the word ‘opinion/ belief’ in a much different sense. Our sense organs inform us on the nature of the world. But the structure and properties of things keep changing.

Leaves become yellow before fall. A shady tree becomes leafless in summer. Thus statements like ‘Leaves are green’ or ‘Trees are shady’ which hold true at one time do not hold true at another time. Experience of things also changes according to our varying sensory abilities. Contrarily, statements like ‘A is greater than B, B is greater than C, therefore A is greater than C’, are always true and are not susceptible to difference of opinion. Only the statements which do not change with space, time or person can have the status of ‘knowledge’ according to Plato. He calls it ‘episteme’. If the verity of the statements changes with space, time or person he calls it ‘belief’. Beliefs / opinions can be true or false. Knowledge can’t be false. Falsehood can’t be called knowledge. Acquisition of knowledge takes an exhaustive study of a subject matter. Opinions are often formed of erroneous information or deficient understanding. One has to justify an opinion, to submit proofs that vouch for its truthfulness if one wishes to call it knowledge.

Will you mind the difference between knowledge and opinion while making knowledge-claims or accepting them?

wrote it.' You'd obviously ask 'How do you know?' 'I have opted for Sanskrit in college' he adds, 'and we have passages from the epic in our syllabus.' Now you'd believe him. In other words, when a person makes a knowledge-claim he/she tries to assert that what he knows is correct, that the knowledge has been satisfactorily internalized. But such claims can't be accepted without verification. Various sources must be employed to carry out this examination.

Apart from 'What is knowledge?' epistemology also asks 'What are the means/sources of knowledge?' Indian and Western traditions have mentioned many sources of knowledge. Various schools have approved of various sources. Let's get to know a couple of them:

4.3 The sources of knowledge

As a child you must have ran off at the sound of a flying aeroplane in order to catch a glimpse of it. We hear the sound with ears. We remember that to be the whizzing of a plane because we've seen a plane pass by making that noise on multiple occasions in the past. So we infer that this sound must be that of an aeroplane. Our science textbooks tell us what a plane is and how it flies. We believe what's written in a textbook is true.



This simple example demonstrates how we used multiple sources of knowledge to conclude that the specific sound is that of a flying aeroplane. Let's discuss them one by one.

Our sense organs - eyes, nose, ears, tongue and skin are our premier means to know the world around us. With eyes we perceive shapes and colours of things. With nose we smell them. With ears we receive sounds and with tongue we discover tastes. The skin informs us on the texture of things.

Sense organs need to come into direct contact with an object in order to grasp the properties of color, form, smell, taste, sound etc. This contact produces sensations through which we know. That is why this source is called 'sense-perception' or 'pratyaksha pramana'. Although sense organs give us knowledge of the attributes of objects through sensation, in what is termed 'sense experience' all these different sensations are interconnected. That is why through sense experience, we come to know not just the characteristics of the object isolatedly, but also the existence of the object and its relations with other objects. In brief, whatever basic knowledge that we get about the material world is through sense experience only. This knowledge cannot be attained through any other source of knowledge independently. Rather, whatever knowledge of the material world that we get through all other means of knowledge, is inevitably based on sense experience. That is why, sense perception has a unique place in the sources of knowledge.



Moreover, various sensations also let us know what's going on inside our body and mind. We go to a doctor when we experience hurt/ache but we don't need a doctor to tell us that something hurts. We sense the pain first-hand. We know when we feel elated or low. The inner and external sensations play an undoubtedly significant role in our knowledge of the world.

Sources of knowledge

<i>Western tradition</i>	<i>Indian Tradition</i>
Sense perception	Pratyaksha (perception)
Reason	Anumana (Inference)
Memory	Upamana (Comparison)
Intuition	Shabda (Testimony)
Authority	Arthapatti (Postulation)
	Anupalabdhi (Non Apprehension)

Let's do!

Make posters on 'intellectual skills' in groups. Organize a poster exhibition in class.

"But we saw 'the appearances are deceptive' in the last chapter itself ", you might say - quite right. We've learnt that

what we experience might not exist and even if it does, it might not exist the way we experience it.

Colours appear strikingly different in darkness. The olfactory sense is enfeebled when we have common cold. Many more examples can be presented. That is why sense perception cannot be considered an absolutely reliable source of knowledge. However senses are indispensable to know the material world around us. But they must be used with caution. The information that reaches us through senses cannot be regarded indubitably true. It must be verified through other sources and sensations. A stick looks bent / crooked when half-drowned in water. Then we remember that it isn't actually crooked. Our intellect has realized why it looks that way through Science education.

Let's do!

Draw a mind-map of the instances of knowledge which is obtained through following sources: sense perception, mind, intellect, memory, testimony.

4.4 The process of obtaining knowledge

Although we perceive the things and their characteristics through sense experience, their cognizance is made possible by memory. We recognize the whizzing of a flying plane because we remember that it sounded that way when we previously saw it. We associate the sound with a mental image of a plane and anticipate the sight of an actual plane. We memorize mathematical tables and utilize this memory to quickly solve multiplication/division sums.

Remembering a new lesson is as important as understanding it. We compare a new experience with our past experiences as a way of making sense of it.

We are bewildered if there's nothing in our memory storage that matches with the new experience. In short, memory is an important instrument in the process of knowledge-acquisition. But memory also isn't absolutely faithful to us. It often fails us. Sometimes we completely forget what happened. Sometimes we remember things in a distorted, foggy manner. Several psychosomatic factors have an impact on our process of remembrance. We tend to forget unpleasant events. We 'remember' things that didn't take place when imagination mingles with memory. So, memory isn't entirely dependable.

You have learnt about light refraction from your teachers, from books or the internet. Light changes its direction while passing from one medium to another. You know that the stick which appears to be partially bent in water isn't actually bent. In reality we do not possess much theoretical knowledge about light refraction. We do not perform advanced scientific experiments related to it. But we trust the word of scientists and our teachers. We accept their authority in the subject matter. Testimony is the source of knowledge we happen to use while consulting an expert on a subject matter.

A considerable portion of our knowledge consists of verbal testimony. Mankind has created a mammoth repository of knowledge till today. It is impossible for a single human being to cover it in study. All of us have to believe

the word of experts, knowledgeable persons and well-reputed texts. But we must be highly watchful as to whom to trust, what to trust, and to what extent. We are at a great risk of being misled if we trust ignorant persons or erroneous sources of information. One must not forget to scrutinize a source of knowledge using one's intellect and reason. Critical thinking is the core of philosophy. It teaches us not to accept a belief or opinion without adequate investigation. All of us possess intellectual faculties and hence it is our duty to put them to work while accumulating knowledge and searching for truth.

Let's write!

Describe the drawbacks of memory and testimony as sources of knowledge.

Intellect/Reason is a crucial source of knowledge. Miscellaneous information cannot be called knowledge as we saw before. Heaps of soil, stones, bricks, iron rods, cement isn't a building, is it? A building has to be constructed by systematic placement of these materials. Senses, memory, testimony provide us with elements required for creation of knowledge. Intellect puts all the elements together. It is an important function of intellect to interpret the nature and interconnections between facts that come to us through several sources. The sky gets cloudy. It starts pouring in. Streets get drenched. The cool breeze flows. Our intellect points out the interrelations between all these phenomena. The soil gets moist and a bacterial reaction releases the distinctive, lovely smell called 'petrichor'. It is not our senses but our

intellect that grasps the causal relationship between the phenomena. Intellect can make conjectures or guesses on the basis of this very understanding. These intellectual skills are as advantageous in the field of thought and knowledge as they are in practical life. They are also incomparably important in science and technology.

The scope of intellect isn't restricted to the things and events that occupy space and time. It also includes abstract principles, values and laws. Senses give us the knowledge of things but our intellect grasps their essences. The concept of 'friendship' unfolds more and more to the intellect as we go on making friends. As we grow up we realize that seasons occur in a sequential pattern. We realize the 'value' of wellness when we fall sick. We realize that keeping our word is an important 'value'.

Intellectual functions like drawing conclusions, inference, argumentation, justification, critical examination are central to philosophization. We call this 'reason'. It is the task of rational faculty to arrange the facts and information it meets in a logically sound manner and what comes out of it.

Logic is an important branch of Philosophy and is intimately connected with epistemology. Inconsistencies cannot be afforded while converting information into knowledge. An opinion has to be backed or countered with appropriate arguments. Logic shows the way to right argument; it throws light on possible fallacies of thought and argument. Logic plays an important role in every stream

of knowledge. Abstract laws and concepts in Geometry, Mathematics, Logic cannot be comprehended without intellect.

One must note here, that intellect does not mean 'intuition'. When we sense something without visible evidence or conscious reasoning we say 'I simply felt that it was going to happen'. We bump into a friend and sometimes we feel we know we were going to meet her today. But we don't have convincing answer if she asks 'How did you know that?' Sometimes we get a premonition and cancel a journey only to come to know that the vehicle met with an accident. We think we possess the 'intuitive power'. To believe such a thing and rely on it is quite dangerous. Sometimes these guesses can go disastrously wrong. There is no way to affirm their accuracy.

Secondly, intuition changes from person to person and as a result what it tells us is subjective. Objectivity is a necessary characteristic of knowledge. Beliefs, impressions, opinions can be subjective but knowledge has to be objective. It has to be intellectually justifiable. The reality of intuition does not pass this test. That is why intuition cannot be regarded as an authentic source of knowledge.

Apart from acquiring knowledge, the job of the intellect is also to determine how to use the knowledge in daily life. We do pursue knowledge for knowledge's sake but for the most part we strive after it to improve our lives by all means. Actions based on scant knowledge of the world and the self do not come to fruition.

‘Knowing how’ and ‘knowing that’

A good life requires knowledge and skills. The skills can be physical, mental and emotional and can range from being able to cook, to operate a computer. We adopt these skills through formal and informal means and employ them to carry out many things in our day-to-day lives. But skillfulness isn't knowledge. When we learn to swim we obtain the skill to float and move on the water-surface but we aren't aware of the physics or physiology of the act. Our mechanic repairs our two-wheelers dexterously often without any theoretical

knowledge of mechanics. To know how something is done is different from the kind of 'knowledge' we are discussing in this chapter. The knowledge of a skill is called 'knowing how' in English. For example, 'I know how to use Google.' This kind of knowledge is functional. The knowledge that is studied in epistemology is called 'knowing that'. For example, 'I know that all metals expand when heated'. This kind of knowledge is propositional knowledge.

Let's talk!

Describe various examples of 'knowing how' and 'knowing that' and discuss the differences.

Intellect has to decide what a good

life is. Is good life a 'successful life'? Is it a 'happy life'? Good for self or good for all? What is the right path to good life?...Good lord, more questions!

Let's think them over in the next chapter.

- Shakuntala - शाकुंतल
- Kavi kulaguru - कवि कुलगुरु
- Kalidasa - कालिदास
- Pratyaksha - प्रत्यक्ष
- Anumana - अनुमान

- Upaman - उपमान
- Shabda - शब्द
- Arthapatti - अर्थापत्ती
- Anupalabdhi - अनुपलब्धि

EXERCISE

Q.1 State with reason whether the following statements are true or false.

- Known is the person who knows.
- All knowledge gained through the senses is true.
- Credibility is not important in testimony.

- Knowledge and skill isn't important for good life.

Q.2 Distinguish between

- Direct knowledge and indirect knowledge
- Knowledge and information
- Knowledge and opinion

(d) Knowledge and wisdom

carefully as a source of knowledge.

Q.3 Write the answers in 20-25 words.

- (a) What are the elements of process of knowledge?
- (b) What is testimony?
- (c) Illustrate the instances of uses of memory in the process of knowledge.
- (d) What are sense organs?
- (e) What is inner sensation?

Q.4 Explain the following statements with examples.

- (a) Knowledge is not merely information.
- (b) Sense experience has to be used

Q.5 Discuss the sources of knowledge in detail.

Q.6 Write a Dialogue.

The need of knowledge and skill for leading a good life.

Activity

Observe how children between three to six years of age acquire knowledge and note down the methods that they use for it.

