

What is knowledge?

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Knowledge

The first thing to keep in mind is that what we discover about knowledge is similar to what scientists have discovered about matter: it's not fundamentally solid, hard, and definite. As for matter, matter is fundamentally energy in various configurations, and under certain configurations, matter can seem hard even though it's mostly space. Similarly, as we'll see, knowledge is fundamentally not as definite as we intuitively think that it should be. However, once we do understand the nature of knowledge, we'll see that it makes intuitive sense even though we hadn't thought about knowledge this way before.

The second thing to keep in mind is that although knowledge is nominally about many topics, including the past, mathematics, and God, all of knowledge, strictly speaking, consists of predicting future observations. To illustrate, a claim about the past, such as that there was a president named Abraham Lincoln, is, strictly speaking, a prediction that future observations will confirm the claim. We can't return to the 1860s and establish that Lincoln was president then. We are limited to what we can do in the future to establish the claim. The claim will be confirmed by artifacts, historical records, and scholarly works on the topic — which will be available for observation in the future. Likewise, a claim about mathematics, such as that $2+2=4$, is, strictly speaking, a prediction that future observations will confirm the claim. The claim will be confirmed by examples, by mathematical theory that we work out for ourselves, and by expressions by other people — which will be available for observation in the future. And a claim about God is, strictly speaking, a prediction about future observations. In western religion — Zoroastrianism, Judaism, Christianity, and Islam — the most significant claim, aside from the claim of the existence of God, is the claim that there is an afterlife of heaven vs. hell, and the primary difference among the religions is their differing claims of God's criteria for putting someone in heaven vs. hell. Thus, the relevant prediction pertains to what will happen to a person after they die.

The third thing to keep in mind is that predictions about the future are necessarily probabilistic because (as I prove in my book) reality is indeterministic. Thus, nothing that we can say about the future is certain except what is logically necessary. Based on our knowledge of mathematics, we understand that it is logically necessary that $2+2=4$ in mathematical theory and in proper application to events. Though it is not logically necessary that everyone will know this to be true and will live accordingly, we predict that everyone of sound mind and adequate intellectual maturity will know it to be true and will live accordingly.

Given the foregoing, it turns out to be straightforward to explain what *knowledge* is, and I'd like to begin by explaining what *skill* is. Suppose that there is a competition among individuals, such as a gymnastic competition in which each person performs the same designated routine. What are the two general criteria by which a person will be rated? I invite you to answer, keeping in mind that the criteria apply to the achievement of all goals, not just gymnastic performance.

The criteria are *accuracy* in achieving the goal and, for performances of equal accuracy, *efficiency* in achieving the goal, minimizing the use of resources, such as time, energy, and money. Efficiency may be generalized as *simplicity*: the simplest means for achieving the goal will entail use of the fewest resources. This yields the following definition of skill.

Skill. Skill is given by the simplest, most accurate means for achieving a goal of interest.

Keep in mind that accuracy is the primary criterion, with simplicity secondary, subject to accuracy.

It turns out that knowledge is skill in predicting observations, so let's define the concept of observation and restate the definition of skill in these terms.

Observation. An observation is an arbitrary portion of our experience that we are interested in, where experience encompasses all human experience, including perception, thoughts, imagination, and emotion.

Strictly speaking, a goal consists in observations that we wish to obtain in the future, so we can restate the definition of skill accordingly.

Skill. Skill is given by the simplest, most accurate means for achieving observations of interest.

We can now define knowledge.

Knowledge. Knowledge is given by the simplest, most accurate model for predicting observations.

A model is a deductive model, as in mathematics and science, where a set of axioms defines the model, and implications are worked out. Our knowledge is embodied in the model.

At the outset I said that knowledge is fundamentally not as definite as we intuitively think that it should be, and the reason is that our knowledge is based on our observations, and an observation is an arbitrary portion of our experience that we happen to be interested in.

For completeness, I'd like to define wisdom. Wisdom is the knowledge part of skill.

Wisdom. Wisdom is given by the simplest, most accurate model for achieving a goal of interest.

Wisdom. Wisdom is given by the simplest, most accurate model for achieving observations of interest.

Simplicity. To see the significance of the simplicity criterion, notice that without it I could assert that the earth is flat and is resting on the back of a turtle. You will no doubt reply that such an assertion can't be true and is, in fact, so absurd that if I really believed it I would be crazy. But without the simplicity criterion, I could make the assertion without being crazy, just as a multitude of assertions are made by sane, sincere people about religious matters that no one considers credible except for the people who believe them.

Without the simplicity criterion, why could I assert that the earth is flat and is resting on the back of a turtle without being crazy? Because all that I need to say is that although the earth is flat and is resting on the back of a turtle, we are experiencing a systematic delusion that yields the results observed by modern science. In fact, this is a ploy of some anti-evolutionists regarding the fossil record: they say that God intended to mislead gullible people through the fossil record.

Notice that my flat-earth model would be as accurate as the modern scientific model because I create my model by taking the modern scientific model and augmenting it with the claim that the earth is flat and is resting on the back of a turtle but that we are experiencing a systematic delusion that yields the results observed by the scientific model. The augmentation about the flat earth and turtle is not used to increase predictive accuracy and, hence, adds unnecessary complexity.

As you can see, though the simplicity criterion is secondary to the accuracy criterion, it is essential to knowledge, and it can save us from idiocy.

Subjectivity and objectivity. Now let's see how subjectivity and objectivity are accommodated by the foregoing definition of knowledge.

Regarding *subjectivity*, Einstein's theory of relativity establishes that a person's observations of external activity are dependent on their relationship with the activity, and, in fact, this is such an important facet of the theory that the theory is named accordingly: the theory of relativity. The theory precisely characterizes the relative nature of observations that are relevant to the theory. The foregoing definition of knowledge

accommodates the relative nature of observations by recognizing that a person's knowledge is based on their observations — arbitrary portions of their experience that the person is interested in. This feature of the definition of knowledge generalizes to every form of subjectivity.

What about *objectivity*? Objectivity is imposed by the struggle for survival: if a person's model of the world is sufficiently inaccurate, they will suffer and die. Aside from this extreme result, if a person's model of the world and how we should live is sufficiently inconsistent with the models of the people in their society, the person will suffer from poor relations and, in the extreme, will be ostracized or put in a prison or an insane asylum.

How does the foregoing understanding of knowledge apply to the mind-body problem? Here's how.

Mind-body problem

Knowledge of the mind-body problem is given by the simplest, most accurate model for predicting observations relevant to the mind-body problem.

If we assume that the mind is immaterial, we add complexity to the model, and we create an unsolvable problem, namely, the need to explain how an immaterial mind interacts with a material body. Nobody has solved the problem, and, I submit, nobody ever will.

A simpler model is to assume that the mind is material, but under this model we must explain why we have the intuition that the mind is immaterial. The reason for the latter is obvious once we see it: we can't observe a mind using any of our five senses. I can't observe your mind with any of my five senses, nor can I observe my own mind with any of my five senses. I can observe my mind only internally. Thus, we have two kinds of phenomena: public phenomena and private phenomena, and the private phenomena constitute mental activity.

Now an astute skeptic may reply that I've replaced one dualism with another: I've replaced the mind-body dualism with the public-private dualism, so I haven't really simplified the model. The answer is that I have simplified the model because it turns out that mental activity is necessarily private. We can see that mental activity is necessarily private if we try to imagine what it would be like to experience another person's mental activity. Say, for example, we try to imagine what it would be like to experience another person's pain. We can see that we'd have to be that person in order to experience their pain; otherwise we'd be limited to experiencing our own pain that we may have reason to believe is similar to their pain. But it would be our pain — our experience — not their pain — not their experience.

Since the public-private distinction is necessary, I haven't added it to the model in order to explain our intuition that mind is immaterial. Rather, it's already part of the model, and I've merely used it to explain our intuition that mind is immaterial. As a result, I haven't replaced one dualism with another; instead, I've avoided adding an unnecessary dualism, namely, the mind-body dualism, thereby obtaining a simpler model of mental activity than the model that assumes that mind is immaterial.