

# Ways of Knowing: Religion Versus Science

By

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How do we know what we know?

That epistemological question is answered very differently in religion and in science. Sometimes we forget that, and when we do, unnecessary confusion and acrimony arise. But, if the truth is what we are really after, we must remember this difference.

The best way to illustrate is by examples.

Think about *Judaism* and *Moses*. Though most scholars believe that Moses existed, some don't; and even those that do have serious doubts about how much of the Bible's story about him is true, how much is myth, and how much attributed to him was actually done by others. [10; 6; 1:1-122]

What no one denies, however, is that the "story" of Moses is the foundation of Judaism. He is credited with creating the "Hebrew people" out of a motley mixture of Semitic slaves and with teaching them about "Yahweh."

If the Hebrews got their knowledge from Moses, where did he get his? The Bible says from *divine revelation*.

Two instances are especially instructive. First is the revelation of Yahweh's existence, and second is the revelation of his commandments.

According to the Bible, Moses was born to Semitic parents, abandoned by his mother, placed in a basket, put in a river, discovered and raised by Pharaoh's daughter. [Ex. 2:1-10] Then, when he was grown, he saw an Egyptian beating a Semitic slave, killed the Egyptian, and had to flee from Pharaoh. [Ex. 2:11-16]

Moses went to the "Land of Midian" where he worked as a shepherd. While tending sheep, he came upon (what scholars believe was) a creosote bush set on fire (by desert lightning). It did not appear to be being consumed. As he watched *in fear*, he supposedly heard the voice of the local deity, whom he had never known about before. It told him that this deity had chosen the Hebrews as his own people; that Moses was to free them; and that this deity's name was "Yahweh." Thus began the "Hebrew religion" that became "Judaism." [Ex. 2:16—3:22; see also Ex. 6:2-3; sources 1:60-66; 8]

Most important for us today is this: *no one but Moses received or witnessed this "divine revelation."*

A second significant element is that *this revelation came to him unasked for and was beyond his control.*

Thirdly, it was an intensely *emotional—fearful—experience.* [Ex. 3:6]

The Bible says Moses returned to Egypt, demanded the Hebrews be freed, Pharaoh refused, and Yahweh brought plagues upon the Egyptians. Eventually Moses led the Hebrews away on their Exodus. [Ex. 5-18]

When they reached "the wilderness of Sinai" they camped at the base of a (volcanic?) mountain. Moses ascended it, alone, received instructions from Yahweh who told him, "I am coming to you in a thick cloud, that the people may hear when I speak with you, and may also believe you for ever." [Ex. 19:9] Yahweh also told Moses to warn the people that they must not climb the mountain, for if they did, they would be supernaturally punished with death. [Ex. 19:12f.]

On the third day, the mountain was surrounded by thick cloud, smoke, thunder and lightning. Yahweh supposedly descended the mountain “in fire” and spoke to Moses “in thunder,” telling him again to warn the people not to climb the mountain lest they be killed. [Ex. 19:18-21] Moses then ascended. When he came down he reported Yahweh’s Ten Commandments and many other revelations. [Ex. 20-23] All these Moses wrote down in a *book*. [Ex. 24:4-7]

Exodus says that Moses, Aaron, Nadab, Abihu and 70 of the elders then went up the mountain and “saw the God of Israel; and there was under his feet as it were a pavement of sapphire stone, like the very heaven for clearness.” [Ex. 24:9-11] Since biblical tradition holds that humans cannot see Yahweh and live [cf. Ex. 33:20], commentaries point out that “the elders did not see God directly; they saw only the lower part of his heavenly throne-room—the sapphire pavement (the firmament) above which the LORD was enthroned (compare Is. 6:1; Ezek. 1:1, 26-28).” [Source 4:98; cf. Dt. 4:12, 15, they “saw no form”; but did hear “the sound of words...a voice,” 12, 33, 36] Exodus supports this when it says, “now the appearance of...the LORD was like a devouring fire...” [Ex. 24:17]

During this meeting, Yahweh told Moses to come back later and he would give him *stone tablets* on which he, Yahweh, had written the commandments. [Ex. 24:12; 31:18; 32:15f.; Dt. 5:22, 9:10] On that return visit, Moses stayed up on the mountain 40 days and 40 nights. [Ex. 24:18] In the meantime, the Hebrews had begun to worship a golden calf. [Ex. 32] When Moses descended and saw it, his “anger burned hot,” and he threw the tablets down and broke them. [Ex. 32:19; Dt. 9:17]

Yahweh then punished the people and had Moses climb the mountain, all alone, bringing with him two stone tablets he, Moses, had cut. Yahweh promised that he, Yahweh, would write the commandments on the tablets. Deuteronomy confirms this. But Exodus says that Yahweh merely dictated the commandments and Moses wrote them down. Whatever happened, it took 40 days and 40 nights. [Dt. 10:4; Ex. 34:1, 4, 6-26, 27-28]

What is most significant is that the Hebrews only saw and heard lightning, thunder, fire and smoke on that (volcanic?) mountain. *Only Moses was directly given the “revelation,” only he understood the alleged “words” in the so-called “voice,” and only he was present when a deity allegedly carved out words on stone tablets.* The mass of Hebrews were kept off the mountain on pain of death, and even their leaders saw nothing but a fiery sky. (Similar characteristics exist, by the way, in the story of Joseph Smith and the founding of Mormonism!)

Now, consider *Christianity* and *Jesus*. Most scholars believe that Jesus existed and was the founder of Christianity. As an adult, Jesus’ teachings and actions indicated that he believed he had some kind of special relation to Yahweh, though what that was remains debatable. In any case, he repeatedly declared that the source of his wisdom was not himself, but his heavenly father to whom he constantly prayed and from whom he supposedly received constant revelations.

The most pertinent examples are those which set him on the path to becoming Christianity’s founder: his baptism and wilderness experience.

Nothing in Jesus’ teachings indicates that he either knew or believed the mythical stories of his alleged virginal conception as the biological son of Yahweh. [9] Nor does his childhood visit to the Temple prove that he was anything but a precocious *Jewish* boy. [Lk. 2:41-52]

The first instance that Jesus might have perceived a *Christian* calling for himself comes with his baptism by John the Baptist. The evangelists unhistorically modified the truth about the Baptist so as to soften the scandal of a supposedly “sinless Christ” being “forgiven” by his inferior in a needless baptism designed for sinners facing judgment at the End of the world. The Baptist did not, in fact, accept Jesus as the messiah. Nevertheless, the gospels transformed him into Jesus’ forerunner, and the least historically reliable Fourth Gospel (John) made the Baptist into a witness for a miracle that supposedly occurred after the baptism. [Source 7; Jn. 1:29-34] The other three gospels do not claim that the Baptist saw or heard anything miraculous. “Matthew” and “Luke” add imaginative details to “Mark’s” earlier account which says only:

“In those days Jesus came from Nazareth of Galilee and was baptized by John in the Jordan. And when he came up out of the water, immediately he saw the heavens opened and the Spirit descending upon him like a dove; and a voice came from heaven, ‘Thou art my beloved Son, with thee I am well pleased.’” [Mk. 1:9-11; cf. Mt. 3; cf. Lk. 3:21f]

Then “Mark” says: “The Spirit immediately drove him out into the wilderness. And he was in the wilderness 40 days, tempted by Satan; and he was with the wild beasts; and the angels ministered to him.” [Mk. 1:12-13; cf. Mt. 4:1-11; Lk. 4:1-13]

When Jesus returned from the wilderness, the Baptist was dead. Jesus then began preaching the Baptist’s message and gathering his own disciples. [Mk. 1:14f.; Mt. 3:2, 4:12-17]

Whatever placed Jesus on the path to becoming the “Christ” seems to have occurred either at his baptism and/or during his wilderness experience. Most significant about those events is that *the revelations which became the basis of his new religion were given only to him.*

*Paul’s story* is equally illuminating. He began as Saul, a Jewish persecutor of Christians. [Gal. 1:13; 1 Cor. 15:9] Then, while travelling with others on the road to Damascus, he supposedly received a “revelation” which he had not sought nor wanted. [I Cor. 15:8; Gal.1:11-17] Paul himself called it a “revelation of Jesus Christ” in which the resurrected messiah “appeared” to him. [Gal. 1:12; I Cor. 15:8] The less historically reliable book of “Acts” claims that a “light from heaven” and a “voice” were involved, but contradicts itself as to who saw and heard them: Acts 9 and 26 say that only Paul saw the light, while Acts 22 says that everyone saw it. Acts 9 says that everyone heard the voice; but Acts 22 and 26 say that only Paul heard it. Acts further claims that Paul “fell to the ground,” had a conversation with the voice, and was blinded for three days, neither eating nor drinking. [Acts 9, 22, 26] Thus was Saul the Jew converted into Paul the Christian.

Paul’s experience sounds suspiciously like being *struck by lightning* (which is what converted Martin Luther from becoming a lawyer into becoming a monk). [Dillenberger, xiv] What is most significant, however, is that, whatever Paul’s companions observed, *only he received the revelation.*

*Similar examples could be offered from every religion.* But the point should be clear: *the knowledge which religions claim is always ultimately based upon revelations which come privately to individuals who are not in control of them.*

The situation is very different in *science*. Following the “*scientific method*,” researchers identify a problem, collect information about it, formulate an explanatory hypothesis, test the hypothesis, and, if it fails, formulate a new hypothesis; or, if it succeeds, test it again and again on that problem and to predict consequences in other problems, until, if it continues passing tests, they accept it as a confirmed theory explaining the phenomena in question. [2:472-481]

One example should suffice. For thousands of years, people believed that life could “spontaneously generate” from nonliving matter. Decaying meat was cited as proof. Then, in the 1600s, *Francesco Redi* showed that maggots could not develop in decaying meat...unless flies first laid eggs on it. [5:1048] In 1861, *Louis Pasteur* showed that bacteria would not grow on sterilized meat broth unless it was exposed to the air and the bacteria in it. [5:1175; 2:413] After these experiments were performed repeatedly by other researchers the myth of “spontaneous generation” was replaced by scientific knowledge of how decay occurs.

All these examples *implicitly* illustrate how religion and science differ epistemologically. *I will now make 14 of these distinctions explicit.*

[Item 1]: First-hand religious knowledge is always “*private*,” known only to the individual who “receives” a revelation.” Others get it second-hand as hearsay.

In contrast, scientific knowledge is always “*public*” information. It is available first-hand to anyone able to repeat the research.

[Item 2] Religious knowledge is *never under the control of its recipient*. It is based upon revelation which comes as a “gift” from a deity.

Scientists discover things by accident and intention. But their findings are not accepted as knowledge until other *scientists can control research* which can reproduce the same results.

[Item 3] Religious knowledge is always “*subjective.*” No one who has a “religious experience” ever wants anyone else to interpret it.

Scientific knowledge, however, strives to be “*objective.*” It becomes authoritative only when all relevant researchers agree.

[Item 4] Religious knowledge is “*emotional.*” It arises out of and/or with primal feelings (such as fear or love) which are so strong that they overwhelm or exclude the use of reason. Commitment to such religious knowledge is itself an emotion called “*faith.*” [11]

Scientific knowledge is “*rational.*” Reason structures scientific research and interprets its results. Commitment to this knowledge is based on “*facts*”—which are those ideas publicly and commonly accepted by a majority of relevant scientists.

[Item 5] The ideas within religious knowledge are called “*beliefs*” because they never achieve sufficient public acceptance to fall into the realm of “common knowledge.”

The ideas within scientific knowledge are called “*facts*” because they are a summary of what is commonly and currently accepted by the majority of trained observers in a field at any moment in history.

[Item 6] Religious knowledge is about *transcendent “supernatural” things* (gods and goddesses, angels and demons, heavens and hells, and life after death)—things which are not part of this universe nor subject to its laws.

Scientific knowledge is always and only about *immanent “natural” things* which exist within and according to the laws of this universe.

[Item 7] Religious knowledge is “*mythical.*” (That does *not* mean it is not true!) It means that it speaks a nonliteral language composed of symbols and metaphors and that it tells stories which refer to “things of ‘this’ world” and to “things of the ‘other’ world” as if they all had the same type of reality—which they don’t, even if both exist.

Scientific knowledge is “*empirical.*” It speaks literally and deals only with the things of “this world,” things which can be examined by our five senses or machines which extend them.

[Item 8] Religions typically claim that their knowledge is “*the truth, the whole truth, and nothing but the truth, so help them God!*”

Science, however, claims to possess only some of the truth, with other truths yet to be discovered.

[Item 9] Because its adherents believe they already possess all the truth, religious knowledge tends to reside in *closed-minds.*

Scientific knowledge, however, resides in people whose *method requires them to leave their minds open* to new evidence and new ideas.

[Item 10] Religious knowledge *condemns doubt* because doubt challenges its claim to possessing all the truth and because doubt reveals a lack of trust in and love for its deity.

Scientific knowledge *arises out of and encourages doubt.*

[Item 11] Religious knowledge is “*untestable.*” Indeed, testing is a forbidden sin because it reveals doubt in and lack of love for the deity. [Cf. Deuteronomy 6:16]

Scientific knowledge *exists only because of testing.* Hypotheses which are not repeatedly confirmed by testing are rejected.

[Item 12] Religious knowledge *denies that counter-evidence against its claims can even exist.* No matter how horrible the disaster, how shocking the atrocity, or how self-contradictory the claim—whether it is thousands killed by an earthquake, someone beheaded or blown-up, or a doctrine like the “Trinity,” religion turns such evidence around and calls it “the will of God,” or a “divine mystery.”

Science requires that any claim it accepts as knowledge must, in principle, be falsifiable. If such testable potential counter-evidence cannot be specified, a claim is rejected as *meaningless.*

[Item 13] Those possessing religious knowledge *fight against change*, sometimes violently to the death of themselves and their opponents. Why? Because their knowledge is “true,” and truth never changes and because their knowledge came from a god and (monotheistic but not polytheistic!) deities don’t change and don’t lie. [Cf. Mal. 3:6; Heb. 6:18]

Scientific knowledge *changes all the time*. Why? Because new evidence and new ideas show that old evidence was incomplete and old ideas were wrong.

[Item 14] Those who claim religious knowledge tend to be *authoritarian*. Either they alone received the revelation and claim sole authority to interpret it or they got it through some authoritative chain of command (such as “apostolic succession”) and claim that gives them unique interpretive authority or they rely upon some “sacred scripture” whose trustworthiness they claim is unquestionable since it was written by a deity.

Scientific knowledge is *democratic* knowledge: it comprises the majority opinion of those who are competent to reproduce the research.

From these characteristics, the following *conclusions* obtain:

*First, religion and science are totally different ways of knowing. They speak different languages, investigate different things, use different tools; and have different content.*

*Second, militant opposition to either religion or science is indefensible because neither religion nor science can prove or disprove the claims of the other.*

*That is the truth, and only it will set us free to be ourselves and to respect the dignity and worth of other people--which surely ought to be one of our goals as Humanists.*

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