Moses and the magicians in Bonaventure, Peter Abelard, and al-Ghazâlî

Moisés y los magos según Buenaventura, Pedro Abelardo y Algazel

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Abstract: In the Bible the magicians could duplicate Aaron's feat of turning a rod into a serpent. Bonaventure claims that the serpents are not the effect of direct divine intervention. Peter Abelard claims that this story shows we do not really know how to distinguish miracles from magic happenings. On the other hand, in the Qur'ân the magicians do not really manage to duplicate Moses' feat: they only produce fake serpents. Yet, al-Ghazâlî too does not wish to put much weight on this miracle, precisely because of the general difficulty of distinguishing miracles from magic.

Keywords: Bonaventure, Peter Abelard, al-Ghazâlî, Moses, miracles, magic, prophecy, certainty.

Resumen: En la Biblia los magos pudieron replicar la hazaña de Aarón al transformar su cayado en una serpiente. Buenaventura sostiene que las serpientes no fueron producidas como el efecto de una intervención divina directa. Pedro Abelardo afirma que esta historia muestra que no sabemos a ciencia cierta cómo distinguir los milagros de los acontecimientos mágicos. Por otro lado, en el Corán los magos no consiguen realmente replicar la hazaña de Moisés: solamente producen serpientes falsas. Por ello, Algazel prefiere no dar mucho peso a este milagro, precisamente por la dificultad general que hay en distinguir los milagros de la magia.

Palabras clave: Buenaventura, Pedro Abelardo, Ghazâlî, Moisés, milagros, magia, profecía, certeza.

n the Latin West the theme of "Moses and the magicians" is well known. Exodus 7: 8-13 tells us the following:

The Lord told Moses and Aaron, "If Pharaoh demands that you work a sign or wonder, you shall say to Aaron: Take your staff and throw it down before Pharaoh, and it will be changed into a snake." Then Moses and Aaron went to Pharaoh and did as the Lord had commanded. Aaron threw his staff down before Pharaoh and his servants, and it was changed into a snake. Pharaoh, in turn, summoned wise men and sorcerers, and they also, the magicians of Egypt, did likewise by their magic arts. Each one threw down his staff, and it was changed into a snake. But Aaron's staff swallowed their staffs (Saint Joseph Edition of the New American Bible).

The biblical account makes clear that the changing of a staff into a snake, which originally looked like a miracle intended to validate Moses' claim to be sent by God, was easily duplicated by each magician. Therefore, it was not really a very telling prophetic miracle. In the end what validates Moses' claim is that the snake produced by his brother and spokesperson Aaron swallowed the magicians' snakes. This story points to the need for determining what differentiates miracles from magic.

The Qur'ân also tells the story of Moses and the magicians and al-Ghazâlî, the greatest Sunni Muslim intellectual, who died in 1111, refers to it several times and, therefore, he too ponders about miracles and magic. But before moving to al-Ghazâlî I shall briefly explain how two Latin philosophers, Bonaventure and Peter Abelard, deal with the story of "Moses and the magicians" in order to better understand that thinkers both in the Latin Christian world or in Islamic lands faced the same issues, i.e., such as explaining 1. how miracles or magic are possible; 2. how one can distinguish miracles from magic; and 3. whether "miracles" such as the changing of a

staff into a snake constitute a solid ground to accept as veracious a prophetic claim and so be moved to faith.¹

Let us begin with an explanation of how the changing of the staff into a snake can happen and whether it really comes about by a direct intervention of God. In the twelfth century Peter Lombard's Book of Sentences became the Theology Textbook for centuries. Therein, at II, d. 17, c.3, Lombard speaks of Moses changing his staff into a snake and of the creation of Adam as an adult. He concludes that Adam was not made by inferior causes but rather by the will and power of God, as they were no seminal reasons preceding his creation. Lombard's next distinction treats of woman's creation from Adam's rib.² In his Commentary on this latter article of the Book of Sentences, II, d. 18, art. 1, q. 2, Bonaventure examines whether woman was created from Adam's rib by a causal reason, i.e., directly by divine intervention, or according to natural or seminal reason, and so without direct divine intervention. Bonaventure carefully makes a triple distinction between ways things are produced, at least when terms are used stricto sensu. First, causal reason indicates direct divine intervention and so a miracle, when the event is unusual. Second, seminal reason does not require direct divine intervention and the product is not similar to the producer. Third, natural reason does not require direct divine intervention and the product is similar to the producer, as for example dogs producing puppies and cats kittens.

Bonaventure argues that woman was created by causal reason, i.e., by direct intervention from God and not by seminal reasons. Why? If something is produced by seminal reasons or nature, anyone who has the appropriate knowledge theoretically can repeat or duplicate the process or event as from the very beginning, by means of a seminal reason, the being to be produced was already present in

A very generous and scholarly referee, whom I cannot thank enough, makes the important point that Jewish philosophers, such as Gersonides in the Wars of the Lords, VI, 12 & 10, and Maimonides in his Mishneh Torah. Hilkhot Yesode ha-Torah VIII, 1-3, and the Guide of the Perplexed, III, 24, raise the sane issues.

P. LOMBARDI, Sententiae in IV libris distinctae, 3rd ed., Tomi. I, Pars II. (Editiones Collegii S. Bonaventurae Ad Claras Aquas, Grottaferrata, 1971) 412-13, 416-21.

inchoate state in nature and so no direct causal divine intervention is required. Except for God, no one is able to produce a woman out of a male rib and so this was the result of direct divine intervention and a miracle. On the other hand, not only were Moses and Aaron both able to change their staff into a snake but so were the magicians. So turning a staff into a snake is a repeatable process and not the effect of a direct divine intervention, though it constitutes an unusual event that happened according to seminal reasons as the product, snakes, was not similar to the producers, magicians.³ In contrast when snakes beget snakes, as they usually do, then the effect is by natural reason. It follows that there are two non-miraculous ways of producing snakes.

In the same discussion Bonaventure makes another point about miracles by distinguishing the natural slow process of the eating of bread and its long term effect in the production of a human being according to seminal reason from the immediate and instantaneous turning of bread into the body of a man that is according to causal reason and, therefore, miraculous.

If mediate, the effect can be said to be according to a seminal reason, as is the case if the bread is eaten and digested and converted into a humor, and afterwards in the loins is turned into semen and then into a man. If, on the other hand, it immediately goes on to produce its effect, as is the case where bread is immediately formed into the body of man, it is said to do this not according to seminal reason but according to causal reasons.⁴

^{3.} S. Bonaventurae Opera Omnia, Tom. II (Quaracchi, 1885) 436: "Unde appropriate loquendo, cum magi ex virgis fecerunt serpentes, hoc fuit secondum rationes seminales; cum vero serpentes, sicut assolent, serpentes generant, hoc fit secundum rationes naturales."

A. B. WOLTER (trans.) in J. F. WIPPEL, A. B. WOLTER (eds.), Medieval Philosophy: From St. Augustine to Nicholas of Cusa (The Free Press, New York, 1969) 322; Latin (Quaracchi ed., 1885) 437.

In other words when an ordinary process that occurs according to seminal reasons and normally takes a fair amount of time suddenly occurs instantaneously, then there was a direct divine intervention and a miracle occurred. The miracle consists in the speeding up of the process and no one other than God can do so.

Bonaventure has given us two criteria in order to distinguish true miracles: 1. they cannot be duplicated by ordinary human beings; 2. they must be instantaneous, whereas, if there is some ordinary parallel process, this process would be long drawn.

Bonaventure's triple distinction of causal, seminal, and natural reasons allowed him to explain miracles and distinguish them from ordinary or magical processes. Let us now turn to Peter Abelard to determine whether what appears as a miracle, the changing of a staff into a snake, should be the basis for the act of faith.

In the second part of Abelard's Collationes or Dialogue between a Philosopher, a Jew, and a Christian, the Philosopher addresses the Christian and quotes the gospels "For the Jews ask for signs and the Greeks are looking for wisdom" in order to denigrate the value of miracles and berate the Jews. He then claims in forceful and rude language:

In fact, only the Jews, because they are animal and sensual and aren't educated in any philosophy whereby they can discuss reasons, are moved to faith by miracles in outward deeds alone. As if God alone can do these things, and no demonic illusion can occur with them! The magicians in Egypt taught them, and Christ especially instructed you, how stupid it is to admit that.⁻⁵

For Abelard's Philosopher as for Bonaventure the problem with this type of "miracle" is that ordinary human beings can duplicate them and so how do we distinguish a true miracle from magic or demonic illusion? So for Abelard's Philosopher such a "miracle" or "sign" is

P. V. Spade (trans.), in Peter Abelard, Ethical Writings (Hackett, Indianapolis, 1995) 94, n. (154); Latin, Peter Abelard, Collationes, in J. Marenbon, G. Or-Landi (eds. and trans.) n. 69 (Clarendon Press, Oxford, 2001) 86.

unsafe for moving to faith and he can only rely on the wisdom of the Greeks. As for what Abelard himself thinks on this topic I shall not hazard a guess.

As in the biblical account the magicians too could turn their staffs into snakes, such a miracle raises the questions of how to explain this phenomenon, how to distinguish a miracle from magic or demonic illusion, and whether to rely on such a miracle to be moved to faith.

Let us now move to al-Ghazâlî and begin with the Qur'ânic account that may surprise you. In fact, the Qur'ân four times refers to "Moses and the magicians." I have selected the account in Surah 20, 65-70, as it is the clearest for my purpose. The magicians have been summoned by Pharaoh in order to duplicate Moses' turning of a staff into a serpent and here is the scene:

65. They [the magicians] said: "O Moses! Whether wilt thou That thou throw (first) Or that we be the first To throw? 66. He [Moses] said, "Nay, throw ye First!" Then behold Their ropes and their rods So it seemed to him On account of their magic—Began to be in lively motion! 67. So Moses conceived In his mind a (sort of) fear. 68. We [God] said: "Fear not! For thou hast indeed The upper hand: 69. "Throw that which is In thy right hand: Quickly will it swallow up That which they have faked What they have faked Is but a magician's trick: And the magician thrives not, (No matter) where he goes. 70. So the magicians were Thrown down to prostration: They said, "We believe In the Lord of Aaron and Moses".

The striking difference between the biblical and Qur'ânic accounts concerns the serpents. In the Bible both Aaron and the Magicians produce real snakes, whereas in the Qur'ânic account the magicians fail to produce real snakes and only manage to produce something that seems to be in a lively motion but in fact is not. What they

A. Yusuf Ali (trans. and comm.), The Holy Qur'an (American Trust, Indianapolis, 1977) 802-03.

produce in 7:117 is described as "lies or fabrications" (mâ iâfikûna), whereas Surah 26:32 makes it clear that Moses's staff turned into a real serpent (hiyâ thu'bânun mubînun). The Arabic clearly indicates that the magicians did not succeed in producing real serpents. So strictly speaking in the Qur'ân the turning of a staff into a serpent is not repeatable. Here we have a "true" miracle that the magicians could not duplicate. So how does al-Ghazâlî handle "Moses and the magicians?" First, does he try to explain how the miracle and the magicians' trick are possible? Second, does he give criteria to distinguish miracles from magic or deception? Third, does he claim that such a miracle should move to faith?

In his famous autobiography, *al-Munqidh*, often known in English as *Deliverance from Error*, al-Ghazâlî insists early on that his continuous drive for the intellectual life comes from his love of understanding and his search for certitude:

The thirst for grasping the real meaning of things was indeed my habit and wont from my early years and in the prime of my life. It was an instinctive, natural disposition (fitra) placed in my make up by God Most High, not something due to my own choosing and contriving. As a result the fetters of "taqlîd"—blind conformism—, fell away from me, and inherited beliefs lost their hold on me.⁷

Comparing this passage to the first terse line of Aristotle's *Metaphysics* yields interesting results, particularly as al-Ghazâlî most probably had no access to those lines . In Aristotle the line goes "all human beings by nature desire to understand" and, as we just saw, al-Ghazâlî too speaks of his drive for understanding. Yet, there are significant differences: 1. Aristotle speaks of a desire common to all human beings, whereas al-Ghazâlî speaks in his own name, even if we will soon dis-

R. J. MCCARTHY (trans.) (with a modification), Freedom and Fulfillment: An Annotated Translation of Al-Ghazâlî's al-Munqidh min al-Dalâl and Other Relevant Works (Twayne, Boston, 1980) 63, n. (6); Arabic, AL-GHAZÂLÎ, in F. JABRE (ed.), Al-Munqid min adalâl (Erreur et Délivrance) (Commission Libanaise pour la Traduction des Chefs-d'Oeuvre, Beirut, 1969) 10.

cover that he too thinks this drive is common; 2. Aristotle claims that the desire to understand is by nature, without explaining its origin. If, despite "fitra"'s Qur'ânic aura, we may in some way equate Aristotle's nature and al-Ghazâlî's "instinctive, natural disposition," we notice that al-Ghazâlî does not hesitate to claim that God put such "fitra" in his makeup. Al-Ghazâlî even specifies that this drive is not of his own choosing and so attributes it fully to God's action; 3. Though in the lines that follow his claim that "All human beings by nature desire to understand" Aristotle illustrates how this desire for understanding is at work in every human being from infancy, he does not at all imply a need for rejecting some distortion that has spoiled this natural desire. Al-Ghazâlî, on the other hand, indicates that the original "fitra" was spoiled by "taglîd"8, blind formal acceptance and conformism, which affects not only most people, but even affected him; and 4. Aristotle simply speaks of a desire to understand, but al-Ghazâlî will add that his thirst for understanding must lead not only to abandoning "taqlîd" but also to striving for certitude.

But what led al-Ghazâlî to begin an intellectual journey that requires rejection of "taqlîd" and not a focus simply on understanding but rather a quest for certainty? Very young al-Ghazâlî was struck by religious diversity and the fact that kids of Muslims became Muslims, kids of Jews Jews, kids of Christians Christians, and kids of Magians Magians. Religious diversity, of course, led him to wonder which religion was the true one as their diverse truth claims were incompatible, and his observation that parents determined their children's religion also led him to consider that religious persuasion was just a matter of "taqlîd" or blind conformism. Yet, he never doubted that there is a sound "natural disposition" (fitra) common to all human beings, and not simply his own private gift, even if somehow it may get distorted by "taqlîd" to parents' religious option. In order to justify his trust in a sound common "fitra", he quotes the hadith "every infant is born endowed with the "fitra"; then his parents make him

^{8.} R. M. Frank, Al-Ghazâlî on *Taqlîd. Scholars, Theologians, and Philosophers*, "Zeitschrift für die Geschichte der arabish-islamischen Wissenschaften" 7 (1991-92) 207-52.

Jew or Christian or Magian." The hadith seems to exclude Muslim children from distortion of the "fitra", even if al-Ghazâlî himself claims that he was affected by "taqlîd" as were most Muslim intellectuals. Yet, this "fitra" given to every infant by God himself grounds the possibility of certitude. Therefore, the "taqlîd" that distorts it must need be abandoned in order to begin the quest for certainty.

But what is certainty? Al-Ghazâlî himself defines it:

Then it became clear to me that sure and certain knowledge is that in which the thing known is made so manifest that no doubt clings to it, nor is it accompanied by the possibility of error and deception, nor can the mind even suppose such a possibility.⁹

Immediately al-Ghazâlî adds that something known with certainty is such that even a miraculous counterclaim cannot shake it:

Furthermore, safety from error must accompany the certainty to such a degree that, if someone proposed to show it to be false—for example a man who would turn a stone into gold and a stick into a snake—his feat would not induce any doubt or denial. For if I know that ten is more than three, and then someone were to say: "No, on the contrary, three is more than ten, as is proved by my turning this stick into a snake"—and if he were to do just that and I were to see him do it, I would not doubt my knowledge because of his feat. The only effect it would have on me would be to make me wonder how he could do such a thing. But there would be no doubt at all about what I knew!¹⁰

Notice that, as no rational argument could make anyone doubt that ten is more than three, an elementary truth in the sure and certain knowledge of arithmetic, al-Ghazâlî imagines a feat that looks like a miracle, even Moses' famous miracle, though curiously such feat

^{9.} R. J. McCarthy, op. cit., 63, n. (7); Arabic, 11.

^{10.} R. J. McCarthy, op. cit., 63-64, n. (7); Arabic, 11.

would not be performed to back up a claim for prophecy. He first speaks of the alchemist's dream of turning a stone into gold but then moves to Moses turning his staff into a serpent, using the Qur'ânic word for the staff (al-'asan), which appears in various accounts, as well as the word used in surah 26, *The Poets*, verse 32, to refer to Moses' serpent (thu'bân). No one could miss the Qur'ânic allusion. The way al-Ghazâlî refers to this turning of a stick into a snake is quite fascinating. He indicates that his knowledge that ten is more than three would not be shaken in any way, even if the challenger, more accomplished than the magicians, were able to duplicate what Moses did and so to produce a real serpent. Al-Ghazâlî here is not comparing the feat of the challenger to the tricks, fabrications, or lies of the magicians but to Moses' production of a real serpent. He would wonder how the challenger could do such a thing but his certainty would not be shaken at all.

One may think that al-Ghazâlî interprets allegorically Moses' miracle and thereby bypasses the issue of explaining its literal meaning, but this turns up to be a dead end. In Fadâ'ih al-Bâtiniyya wa Fadâ'il al-Mustazhiriyya or The Infamies of the Bâtinites and the Virtues of the Mustazhirites, ch. 5, he roundly condemns the Bâtinites' allegorical interpretations of what he considers clear passages in the Qur'ân and among them lists Moses turning his staff into a serpent. The Bâtinites read the Qur'ânic passage in the following manner:

The staff of Moses is his proof which swallowed their lying sophisms, not the wood.¹¹

As al-Ghazâlî clearly rejects an allegorical interpretation of Moses' turning of a staff into a serpent, we need to look at his ways of explaining miracles and for that we turn to the seventeenth discussion in *The Incoherence of the Philosophers*. This discussion begins with arguing that there is no way to prove that there is a necessary connection between what is usually believed to be a cause and what is

^{11.} R. J. McCarthy (trans.), Freedom and Fulfillment, 209, n. (110); Arabic, A. Badawi (ed.), (Dâr al-qawmiyya, Cairo, 1964) 57.

usually believed to be its effect. That something always happens along with something else, such as fire in contact with and the burning of a piece of cotton, does not prove contact with fire to be the cause of the burning but simply that the two events are concomitant. From there al-Ghazâlî goes on to deal with "causal" explanations by means of two different theories, which both leave space for the possibility of miracles. The first is based on strict occasionalism and the other on secondary causes and the existence of natures. The main miracle al-Ghazâlî uses for these two theories is the case of Abraham in the fiery furnace. The Qur'ân tells us that in his zeal for monotheism Abraham destroyed idols and the people got angry about this destruction and cast him into the fire, but God delivered him and so he did not burn (21:68-71; 29:24-26 & 37: 97-99).

Let us begin with the first of these theories, occasionalism. This was the Ash'arite traditional position. God at every moment directly recreates everything and so there are no secondary causes. So to go back to the piece of cotton, it is not fire that burns the piece of cotton but God who directly creates the fire, the piece of cotton, the burning, and the ashes, as fire does nothing. Besides, as everything is recreated at every moment and God is fully free, there are no natures and theoretically anything could be changed into something totally different at any moment. Yet, to ensure regular patterns in successive events and the possibility of science and true predictions of what we call "natural" events, i.e., what we now call laws of nature, the Ash'arites claim that God creates according to a habit or custom and that he creates in human beings knowledge of this habit or custom. Were God to break his custom or habit, He would create in us the knowledge that he will do so, for instance, in order to validate a prophetic claim. Explaining how Abraham did not burn in the fiery furnace is easy. For a short time God simply broke his habit to connect contact with fire and the burning of flesh and so did not cause the fire to burn Abraham.

If God interrupts the habitual occurrence producing [this unusual event], then at the time when the habitual occurrence is interrupted, He removes the knowledge [of the habitual occur-

rence] from [their] hearts and He does not create it. Nothing prevents us from affirming that, while something is possible for God's power, He knows through His eternal knowledge that He will not do it, even though it is possible at a certain time, and that He will create for us the knowledge that He will not do it at that time.¹²

God for a short time simply broke his habit of connecting contact with fire and the burning of flesh in order that Abraham climb out of the fiery furnace without the faintest burn and his claim to prophecy be validated.

Examination of the second theory turns out to be more interesting for our purpose. Al-Ghazâlî explains this second theory in the following manner:

We admit that fire is created [by God] in such a manner that it will burn two similar pieces of cotton brought into contact with it, and [fire] does not differentiate between them if they are similar in every respect. Yet in spite of this, we consider it possible that a prophet is thrown into fire, yet is not burned....Heat remains with the fire and fire retains its form and true nature, yet its heat and effect do not pass over [to something else].¹³

The second theory claims that there are secondary causes and natures, as al-Ghazâlî tells us that God created fire in such a way that it will burn a piece of cotton and that, while Abraham was in the fiery furnace, the fire retains its form and true nature. Al-Ghazâlî offers a couple of suggestions of how it is possible that though both the fire and human flesh kept their own nature, yet Abraham did not burn. One of them is particularly interesting:

AL-GHAZÂLÎ, Incoherence of the Philosophers, in A. HYMAN (trans.), Philosophy in the Middle Ages: The Christian, Islamic and Jewish Traditions, A. HYMAN, J. J. WALSH, T. WILLIAMS (eds.) (Hackett, Indianapolis, 2010) 281; Arabic, Tahâfot al-Falâsifat, M. BOUYGES (ed.) (Imprimerie Catholique, Beirut, 1927) 286.

^{13.} HYMAN (trans.), op. cit., 281; Arabic, 286-87.

There comes to be in the body of the person [the prophet], a property which, while not keeping the body from being flesh and bone, keeps it from the effect of fire. [For example,] we see that someone covers himself with talc, sits down in a flaming oven, yet is not affected by it. Whoever has not observed this will deny it. The denial of the opponent that it is in [God's] power to confer a certain property upon fire or upon [a person's] body which prevents burning, is like the denial of someone who has not observed talc and its effect. In God's power there are strange and wondrous things, not all of which we have observed.¹⁴

Notice that al-Ghazâlî's explanation here suggests that God simply took advantage of a little known natural property. Apparently, people from India had discovered that coating oneself with talc produces some kind of fire suit and at fairs fakirs were making money demonstrating this fact.

He also offers a remarkable explanation for another kind of miracle that is compatible with secondary causes and the existence of natures and this time speaks of Moses' turning of a staff into a serpent. Once again for the staff and the serpent he uses Qur'ânic terms.

The changing of a staff into a serpent is possible in this way [as can be seen from the fact] that matter can receive every form, so that earth and the other elements can be changed into a plant, a plant, when eaten by an animal, is changed into blood, blood is changed into semen; and semen, when ejaculated in the womb, creates an animal. This, according to the order of habitual occurrences, takes place over a long period of time. But why does [our] opponent deny that it is within God's power that matter should pass through these stages in a period of time shorter than usual? And if a shorter period of time is allowed, there is nothing that keeps it from being the shortest.

^{14.} HYMAN (trans.), op. cit., 281; Arabic, 287-88.

As a result these powers are speeded up in their actions and through this the miracle of the prophet comes to be.¹⁵

Recall that the very same explanation of a speeded up process such that what ordinarily takes a long time is now realized in an instant was given by Bonaventure, who was not speaking of a staff changed into a serpent but of bread being changed into the body of a man. Commenting on al-Ghazâlî's explanation of how God can miraculously speed up and even render instantaneous the passage from the elements in wood into a snaking serpent in his recent very interesting book *Al-Ghazâlîs Philosophical Theology*, Frank Griffel tells us that such explanations are not disruptions of the physical course of events. Yet, I would contend that though the order in the chain of causes may remain the same, there is a disruption of the usual course of events as what would usually take a long time, is now suddenly reduced to an instant. The speeding up is miraculous, just as Bonaventure had claimed.

But things become even more interesting. Further down in this section al-Ghazâlî tells us:

A horse [is created] only from the semen of a horse, inasmuch as its coming to be from a horse determines the preponderance of the form of a horse over the other forms and it receives the preponderant form only in this way. Likewise barley does not come from wheat, nor an apple from the seed of a pear. We further see kinds of animals, such as worms, which are generated from dust, and these do not generate other animals at all. Then there are other animals, such as the mouse, the snake, and the scorpion, which are both not generated and generated from other animals, since they can [also] be generated from dust.¹⁷

^{15.} HYMAN (trans.), op. cit., 281; Arabic, 288.

Al-Ghazâlî's Philosophical Theology, (Oxford University Press, Oxford, 2009) 157.
Griffel carefully analyzes the seventeenth discussion of the *Incoherence*, 147-73.

^{17.} HYMAN (trans.), op. cit., 28; Arabic, 290.

What al-Ghazâlî alludes to with animals generated from dust is spontaneous generation. The ancients and the medievals did believe that some animals did not reproduce themselves but were emerging from slime or dust. So, according to al-Ghazâlî, serpents may be generated in two ways: by sexual reproduction, the usual mode, and by spontaneous generation. The turning of a staff into a serpent could be a speeding up of the natural process of spontaneous generation. That serpents may be generated in two ways may also explain why Bonaventure had claimed that serpents may be produced by seminal reasons, as seminal reasons are required to explain spontaneous generation, and by natural reasons when serpents beget serpents.

Why does al-Ghazâlî give a fairly naturalistic explanation of miracles and in particular of that of Moses turning a staff into a serpent? Does it not indicate that somehow such a feat could be duplicated by someone who would not be a prophet and use it to attempt convincing people of a false claim, such as in his thought experiment of changing a staff into a serpent in order to support the claim that three is greater than ten? Do not al-Ghazâlî's explanations make it very difficult to distinguish a miracle from magic or deception?

We may also wonder which of the two theories of causal explanation, occasionalism or that which uses secondary causes and natures, he endorses. The traditional view was that al-Ghazâlî was a strict Ash'arite and endorsed the first, while he used the second simply as an available weapon against Aristotelian philosophers but without endorsing it. The late Richard Frank broke this tradition in arguing that under the influence of Ibn Sînâ (or Avicenna to give him his Latin name), al-Ghazâlî abandoned the occasionalism of strict Ash'arism in favor of the second theory and so of the existence of secondary causes and natures. A lively debate ensued between him and his friend Michael Marmura who defended the traditional interpretation. More recently Frank Griffel argued that al-Ghazâlî

^{18.} Al-Ghazâlî and the Ash'arite School (Duke University Press, Durham, 1994)

^{19.} Ghazâlî on Causes and Intermediaries, "Journal of the American Oriental Society"115 (1995) 89-100.

does not endorse either of the two but considers both as possible as they leave space for miracles. Griffel maintains that in fact al-Ghazâlî is not interested in choosing between these two theories as he does not think that miracles can lead to certainty and so should not move us to faith.

As we have now seen how al-Ghazâlî explains the possibility of miracles and other wonders, we need to move to our next point. For him are miracles really important for establishing religious assent?

Let's go back to the *Munqidh*. There al-Ghazâlî asserts that to reach sure and certain knowledge of prophecy one should not seek it

...from the changing of the staff into a serpent and the splitting of the moon. For if you consider that sort of thing alone, without adding the many, indeed innumerable, circumstances accompanying it, you might think it is a case of magic and deception, and that it was a "leading astray" coming from God Most High, because "He leads astray whom He will and rightly guides whom He will" (16.95/93).²⁰

The splitting of the moon is a miracle attributed to Mohammed, the seal of prophecy. So even in the case of true prophecy a miracle does not guarantee "sure and certain knowledge" of the veracity of the prophetic claim, just as turning a staff into a snake would not shake "sure and certain knowledge" of arithmetic that ten is greater than three. Why would a miracle not move to faith? Because it is very difficult to distinguish a miracle from magic or illusion and there are no clear criteria for such a distinction. That Moses' and Muhammad's miracles are not suitable grounds for faith in prophecy is also attested in *Al-Qistâs al-Mustaqîm*, in English *The Correct Balance*, where he tells us:

I have believed in the veracity of Muhammad—Peace be upon him!—and in the veracity of Moses—Peace be upon him!—not by reason of the splitting of the moon and the changing of the

^{20.} R. J. McCarthy, op. cit., 100, n. (118); Arabic, 44.

staff into a serpent: for that way is open to ambiguity, and one may not rely on it.²¹

Later on, in the same text, rhetorically addressing a Bâtinite al-Ghazâlî speaking of their Imam asks him:

Or does he summon men of insight to follow him blindly, when they would not accept the utterance of the Apostle by "taglîd", nor would they be convinced by the changing of a stick into a snake? Rather would they say: "This is an unusual feat—but whence does it follow from it that its doer is veracious? Among the marvels of magic and talismans in the world is that by which men's minds are baffled, and only he can distinguish an apologetic miracle from magic and talismans who is familiar with all of them and their multiple kinds, so that we can know that the apologetic miracle is outside them, just as [the] magicians [of Pharaoh] recognized the feat of Moses because they were among the masters of magic. And who is capable of that?" Rather they would wish to know his veracity from his words [what he says], as the learner of arithmetic knows, from arithmetic itself, the veracity of his teacher in his saying: "I am an arithmetician." 22

This last text is very interesting as it moves from the little importance of "miracles" as distinguishing them from magic or deception is so difficult, to the certainty of arithmetic grounded not in claims made by the mathematics teacher but in arithmetic itself. The learner coming to understand arithmetic, a sure and certain science, grasps the validity of arithmetic. But sure and certain knowledge

^{21. (}R. J. McCarthy (trans.), Freedom and Fulfillment, 316, n. (100); Arabic, V. Chelhot (ed.), (Imprimerie Catholique, Beirut, 1959) 81. A kind and learned referee indicated that in C. Field, The Alchemy of Happiness, (The Octagon Press, London, 1908) 118, al-Ghazâlî says: "This is a kind of certainty which requires no support from miracles such as the conversion of a rod into a snake, the credit of which may be shaken by apparently equally extraordinary miracles performed by magicians."

^{22.} R. J. McCarthy, op. cit., 324-25, n. (125); Arabic, 91-92.

does not stop there. The sure and certain knowledge first sought after in various sciences such as logic and mathematics is now moved to the veracity of a prophet. This bold move rests on first considering the discipline of arithmetic, which validates itself so to speak, in anyone who understands it, to the veracity of the claim by the teacher that he is, indeed, an arithmetician. Likewise prophetical words themselves ground sure and certain knowledge of the veracity of a claim to be a prophet rather than miracles.

Just as Abelard's Philosopher al-Ghazâlî himself downplays reliance on miracles. Abelard's Philosopher had argued this view from the impossibility of distinguishing a miracle from demonic deception as the magicians too had been able to turn their staff into a serpent. Despite the fact that the Qur'an states that the magicians were unable to duplicate Moses' miracle as their serpents were not real, al-Ghazâlî takes the same stance of avoiding reliance on miracles. He too claims they are difficult to distinguish from magic and deception and so outward feats should not lead to religious assent as they cannot grant sure and certain knowledge of the veracity of a prophetic claim. The two causal theories he presents make room for the possibility of miracles but at the same time the second in particular makes miracles difficult to distinguish from rare events from which the causes are only known to the magicians or still unknown to all human beings. Al-Ghazâlî's drive for certainty that God bestowed on him at birth led him not to rely on miracles or outward feats to be moved to faith.

In the end Bonaventure, Abelard, and al-Ghazâlî all understand the great epistemological difficulty involved in distinguishing miracle from magic or deception and so qua philosophers raise similar issues about "Moses and the magicians."