1. Preliminaries

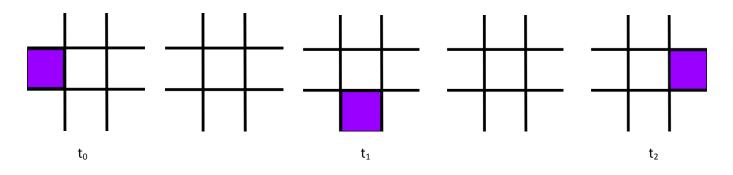
1.1 Open Questions

- Is Ghazali an occasionalist?
- **What is Ghazali's definition of a miracle?**
- **What is the philosophers' definition of a miracle?**
- **What is the role of Ghazali's notion of** *possibility* in his defense of miracles?
- How does Ghazali's view of *will* related to his view of *agency*?
- ↓ Is natural philosophy (science) possible without natural causes?
- **Without natural causation, can there be miracles**?
- Is al-Ghazali's skepticism epistemological or ontological (see Nadler), or merely functional (see Halevi)?
- Does al-Ghazali succeed in reconciling two extreme views of causality or does he reject one outright? (Alon)

1.2 Background on Atomism¹

- a. All material substance is made up of atoms (matter-atoms)
- b. All space and time is divided into discrete units of space (space-atoms) and discrete units of time (time-atoms)
- c. Motion is accomplished in discrete jumps: moving from one unit of space into a nearby unit of space in one time unit
- d. In each instant of time, god creates the atoms and its properties, and destroys them, only to be recreated in the next time unit.
- e. The discrete nature of space is consistent with Aristotle's arguments that space, time and matter are all of the same type: if one is discrete all must be; if one is continuous, all must be.
- f. Cubical atoms avoid the necessity of the void, but create greater problems for Euclidean geometry. However, circular motion is problematic in discrete space-time.
- g. Modern analogies: strobe lights, moving pictures

Motion in discrete space-time:



¹ Dhanani's chapters on Atomism are excellent.

1

1.3 Definition of *Miracle*

- a. Merriam-Webster Definition #1: an extraordinary event manifesting divine intervention in human affairs
- b. Stanford Encyclopedia of Philosophy
 - * "A miracle (from the Latin *mirari*, to wonder), at a first and very rough approximation, is an event that is not explicable by natural causes alone. A reported miracle excites wonder because it appears to require, as its cause, something beyond the reach of human action and natural causes."²
 - "A common approach is to define a miracle as an interruption of the order or course of nature."
 - * "David Hume (Hume 1748/2000; cf. Voltaire 1764/1901: 272) famously defined a miracle as "a violation of the laws of nature," and this definition has been the focus of lively discussion ever since. Hume evidently means to denote something beyond mere changes in the regular course of nature, raising the bar higher for something to qualify as a miracle but also raising the potential epistemic significance of such an event if it could be authenticated."
 - "The laws of nature … describe the ways in which the world—including, of course, human beings—works when left to itself, when not interfered with. A miracle occurs when the world is not left to itself, when something distinct from the natural order as a whole intrudes into it. (Mackie 1982: 19–20)" (See source for complete reference.)
- c. Alon (pg 400): "The concept of a miracle was not an easy one, for even among the *mutakallimun* there were some thinkers...who denied what al-Ghazali would regard as a miracle, such as a stone that does not fall when in mid-air, or wood that does not burn when put into fire, etc. This makes one suspect that some *mutakallimun* held attitudes even more extreme than some of the philosophers on the subject of miracles."
- d. Marmura (pg 201): "He does not suggest that if the woman fails to have a child, this is a miracle. The miracle is not an improbable event in this sense—indeed, if it were, it would not be a miracle. For the miracle is an actual disruption of the orderly sequence of events, not an unexpected event that in principle can be explained along natural causal lines."

1.4 Causation

- a. Who or what can be a cause?
- b. Are there 4 types of causes as Aristotle asserts?
- c. The central role of *agency*.
- d. If secondary causes exist, why cannot god violate those relationships?
- e. Necessary-in-itself vs. necessary-but-contingent
- f. Is pre-knowledge that god will not act arbitrarily necessary for understanding habitual "causation"?

² These quotes are from SEP article on Miracles: http://plato.stanford.edu/entries/miracles/

2. Discussion 17

Griffel (pg 185): Any viable explanation of cosmology:

- i. Must include an act of creation from nothing at some point in time;
- ii. Must allow that God's knowledge includes all creatures and all events, universally and as individuals;
- iii. Must account for the prophetical miracles that are related in revelation;
- iv. Must account for our coherent experience of the universe and must allow predictions of future events, meaning that it must account for the successful pursuit of the natural sciences;
- v. Must take into account that God freely decides about the creation of existences other than Him.
- (1) No necessary connection between "cause" and "effect".
 - **U**Does this depend on looking at the universe as though it were a black box?
 - If there is a necessary connection, violating it is impossible, and not even God can do that which is impossible. (Nadler, 455)
 - Averroes: Logic implies the existence of cause and effect. (522)³ [Does al-Ghazali deny this?]
 - **4** Can notions of "necessary but contingent" save causation?
 - If geometry is so well established as to be irrefutable, does this not imply at least some necessary causation (i.e. that the sun will rise as long as the Earth turns?)

(5) "The one who enacts the burning by creating blackness in the cotton, [causing] separation in its parts, and making it cinder or ashes is God, either through the mediation of His angels or without mediation."

(5) "What proof is there that it is the *agent*?" [emphasis mine]

- Alon (pg 401): "(a) The agent of events and things is Allah acting either directly or through "the angels. (b) Cause acts through Allah's creation which is the reason for its regularity also."
- Ibid. "...it is Allah who is the sole agent, but He may act either directly or through the angels. While Allah is the agent, there is a nature in things which he has created and which makes them act in a fixed manner, so that, for example, when two identical pieces of cotton come into contact with fire, both burn." [does this make sense in light of atomism?]
- ↓ Marmura (pg. 186): "Agency relates to the will."

³ These are section numbers for *Incoherence of the Incoherence*.

What is an agent? Is it only god? Only god and his angels? Or can his creations also be agents, like people?

4

The story about the blind man is a logical fallacy. Can the experiment be repeated? If we cannot trust our senses of the natural world, how can we even believe in god, whom we cannot see at all?

(8) "...the exacting among them have agreed that these accidents and events that occur when the contact between bodies takes place... emanate from the bestower of forms, who is one of the angels..."

 Averroes calls this argument sophistry. Causes that are not perceived are still unknown. One relation can hinder another. (519-20)

(9) Effects on substances differ with the same cause.

(9) Argues that philosophers deny miracles by making the fire no longer fire, or Abraham no longer Abraham. But would that also not be a miracle?

2.1 The First Approach

(13) Evil Demon argument (our senses are deceived), cf. Descartes.

(15) God's benevolence, despite the possibility of these things, creates a habit unshakably fixed in our minds, that things will continue according to past habit.

(17) "If, then, God disrupts the habitual [course of nature] by making [the miracle] occur at the time in which disruptions of habitual [events] take place, these cognitions [of the nonoccurrence of such unusual possibilities] slip away from [people's] hearts, and [God] does not create them."

- ↓ Is nature what is "habitual" or is god?
- All the negatives make this hard to comprehend, but is he saying that we have a cognition that something unusual has happened against habit because the idea put in our heads by god that they will not occur goes away? Or do we only perceive them as disruptions, even if they are not?
- Griffel (pg. 187): "In an occasionalist universe, prophetical miracles can indeed be created: God disrupts His habitual course of action and adapts the knowledge of the witness to His disrupted course of action." [what does this mean?]

Al-Ghazali, Causality, & Miracles: Tahafut Discussion 17

- **4** Griffel (pg. 194) "God's habits are ascribed in his foreknowledge."
- Griffel (pg 198) "Apart from what he writes in the *Incoherence*, there is no indication 5 that al-Ghazali ever believed that miracles are a break in God's habit."
- Averroes: "...whether they mean the habit of the agent, the habit of the existing things, or our habit to form a judgment about such things?" (523) He quotes the Koran here: Thou shalt not find any alteration in the course of God...
- Ibid. "...but 'habit' is an ambiguous term..." [Is he accusing al-Ghazali of equivocation?]

2.2 The second approach

(18) "With all this, however, we allow as possible that a prophet may be cast into the dire without being burned, either by changing the quality of the fire or by changing the quality of the prophet. Thus there will come about either from God or from the angels a quality in the fire which restricts its heat to its own body so as not to transcend it (its heat would thus remain with it, and it would [still] have the form and true nature of fire, its heat and influence, however, not going beyond it), or else there will occur in the body of the prophet a quality which will not change him from being flesh and bone [but] which will resist the influence of the fire."

- Can't the philosophers use the talc argument, too?
- **4** Is this necessary given the atomist position in the background?
- Averroes accuses al-Ghazali of trying to confuse his opponent by regarding as established what his opponent refused to admit. (528)
- How can sorcery intervene in cause and effect, but not god? (Alon)

(19) Locally accelerate time.

↓ Could god not also slow it down?

(21) Prophets make miracles occur to prove their prophethood in order to spread the good. Not a power native to him, but flows from god or angels. (compare Avicenna)

- Griffel (pg. 197): "Avicenna has taught that prophetical miracles and sorcery result from the same faculty of the human soul."
- Griffel (pg 195): "The effect of a prophetical miracle depends on those witnessing it knowing it to be a miracle."
- Ibid. "The goal of these strict conditions was to distinguish a prophetical miracle both from simple marvels and from sorcery."
- Griffel (pg 196): "This is due to it being nearly impossible, al-Ghazali implies, to distinguish a prophetical miracle from sorcery. While God creates the former to guide people to revelation, He also chooses to create the latter to confuse and misguide people." [would it be too much to ask why?]

- Ibid. "Thus, when deciding whether an event or a text is truly a divine revelation... they must accept the positions of other people uncritically." [how does this jive with previous?]
- Griffel (pg 197): Recognize the prophets through the good effect they have on our souls.

(25) "...how can we know that it is impossible for a disposition or occur in some bodies that allows their transformation in phase of development in the shortest time so that they become prepared for receiving a form they were never prepared for receiving previously, and that this should not come about as a miracle? The denial of this is only due to our lack of capacity to understand, [our lack of] familiarity with exalted beings, and our unawareness of the secrets of God, in any manner whatsoever, what has been related of the miracles of the prophets."

(29-33) Impossibility.

What role is possibility playing in al-Ghazali's treatment of miracles?

(37) "As for God's moving the hand of the dead man, setting him up in the form of a living person who is seated and writes so that through the movement of his hand ordered writing ensued, [this] in itself is not impossible as long as we turn over [the enactment of] temporal events to the will of a choosing being. It is only disavowed because of the continuous habit of its opposite occurring. You statement that, with this, the well-designed act ceases to indicate the [existence of] the knowledge of the *agent* is not true. For the *agent* now is God, who is the performer of the well-designed act and [the] knower of it." [emphasis mine]

3. Conclusions

- Griffel (pg 180): "Frank claims that contrary to common opinion, al-Ghazali teaches (1) that the universe is a closed, deterministic system of secondary causes whose operation is governed by the first created being, an "angel"(or "intellect") associated with the outermost sphere; (2) that God cannot intervene in the operation of secondary causes, celestial or sublunary; and (3) that it is impossible that God has willed to create a universe in any respect different from this one He has created."
- Griffel (pg 201): "The distinction between al-Ghazali's type of occasionalism and the position that God exerts control through secondary causality is limited to the cosmological explanations of causal connections. This question belongs to the realm of metaphysics, teaches al-Ghazali, and should have no influence on how we respond to God's creative activity."
- Griffel (pg 203): "...he nowhere says that the connection between two events is necessary. He says only that the way our judgment connects these two events is necessary."
- Averroes: "Therefore, we do not find that any of the ancient philosophers discusses miracles, although they were known and had appeared all over the world, for they are

the principles on which religion is based..." (527) [Is he accusing al-Ghazali of being a bad philosopher?] 7

- Averroes: "For true knowledge is the knowledge of a thing as it is in reality." (531) [Does al-Ghazali's universe have this kind of knowledge?]
- Does al-Ghazali believe his own arguments, or is he merely using the language of his opponents to defeat them, regarding causation, etc.?
- Marmura (pg. 189): "Thus, Ghazali tells us that the premises of a demonstration must be certain." [He accepts mathematics and geometry, and yet there is no way to prove parallel lines don't converge; it is axiomatic. How can any empirical premise be certain?]
- Does the behaviour of those who believes they have witnessed a miracle conform to al-Ghazali's view? Do they go back to their old views of habitual causation after it has passed?
- McGinnis (pg. 463): "...al-Ghazali's theological works provides some evidence that al-Ghazali was not a traditional Islamic occasionalist, but a modified occasionalist, allowing to a certain degree natural, secondary causation similar to the medieval Arabic philosophers' view."

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