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‘Not so ridiculous’: Avicenna on the existence of nature (*ṭabīʿa*) contra Aristotle and the Ashʿarites

> We will indulge in whatever the truth itself reveals of its form, testifying against [its] opponent through [what he] accepts and rejects.[1]

1. INTRODUCTION

In this paper, I set out to explicate what I take to be a distinctive argument that Avicenna offers for the existence of nature (*ṭabīʿa*) as a causal power (*quwwa*) in bodies (*ajsām*). In doing this, I first clarify the philosophical and historical context of the argument, showing that its two main targets were the Aristotelian tradition on the hand and the Ashʿarite theological (*kalām*) tradition on the other. With regards to the Aristotelian tradition, which took the existence of nature as a given, I show that the shaykh departs from it in this regard for at least two reasons. The first has to do with a certain feature of how Avicenna conceptualized, consistent with the Aristotelian tradition, the hierarchical relation between the various sciences. That feature is: principles of a lower science must sometimes be proven by a higher one on the hierarchy. The second reason has to do with the influence of Avicenna’s theological contemporaries; for although such thinkers held, with the Aristotelians, that bodies display various kinds of activity or motion, they were anti-realists about any sort of powers and so of nature understood as a power. That is, they denied, against the Aristotelians, that bodies behaved in their characteristic ways in virtue of some internal power identifiable with ‘nature’ in the technical Aristotelian sense. Instead, bodies, they argued, do what they appear to be doing in virtue of a single, powerful, and transcendent being, i.e., God. Avicenna had to meet this challenge, and I show that he meets it in a unique manner - namely, by allowing, with the Ashʿaris, the causal involvement of a transcendent being in the production some effect *e* from some body *x*, and yet still showing, against them, that *e* must occur in virtue of some property *F* in *x*, where *F* makes a real causal contribution to *e*’s occurrence. In this way, Avicenna attempts to establish the existence of nature qua power and thereby refute occasionalism.

2. NATURE AS A POWER

At the beginning of *The Healing; Physics* I.5, the shaykh states:

> [T1] We set it down as a posit, which the natural philosopher grants and the metaphysician demonstrates, that the bodies undergoing these motions are moved only as a result of powers (*quwā*) in them which are principles of their motions and actions.[2]

The question of causal powers is then later taken up at *Metaphysics* IV.2 of *The Healing*.[3] In that context, we are presented, by way of an exhaustive division, with an intricate argument for the

[1] Avicenna, *The Physics of The Healing*, tr. J. McGinnis, 2, modified. (Henceforth as *The Healing; Physics*, followed by book, chapter, paragraph, and page number(s)).
[2] *The Healing; Physics* I.5.3, 39 (tr. J. McGinnis, modified).
[3] Avicenna, *The Metaphysics of The Healing* IV.2.20-23, 137-139, tr. M. Marmura. (Henceforth as *The Healing; Metaphysics*, followed by book, chapter, paragraph, and page number(s)). Both Bertolacci and McGinnis hence err when they suggest the argument for nature’s existence comes at *The Healing; Metaphysics* IX.5 or IX.2 respectively.

existence of causal powers in bodies, the conclusion of which is that bodies must have a nature (*ṭabīʿa*), understood in the technical Aristotelian sense as the intrinsic source or principle of a body's activities and rests. In employing this strategy, Avicenna is running the following two claims together:

1. Bodies have causal powers, and
2. Bodies have natures (in the Aristotelian sense)

The reason for this is that, on the Avicennian view, nature (in the Aristotelian sense) just is a sort of power; or, equivalently, a causal power just is nature when considered in a certain respect. As he says at *The Healing; Physics* I.1 (emphasis mine):

> [T2] And natural things […] are called natural in relation to the *power* (*quwwa*) which is called nature (*ṭabīʿa*).[4]

This identification between being a nature and being a power is made even more explicit in *ʿUyūn al-ḥikma* where, immediately after having offered a condensed version of the argument for causal powers we consider below, the shaykh writes:

> [T3] And because every body is characterized, as we said, by a place, a quality, and the remaining [categories] – in sum, by motion and rest – these, therefore, belongs to them on account of a power (*quwwa*) that is a principle of the movement to those states. And this is [the meaning of] the term 'nature' (*al-ṭabīʿa*).[5]

It's clear from T2-3, then, that, according to the shaykh, the issue about bodies having causal powers and the issue about them having natures amount to the same issue considered in different ways. Hence, to establish the one is to establish the other.

Having said all that, let me now, before going through the argument at *The Healing; Metaphysics* IV.2 in detail, first contextualize it by saying something about its philosophical and historical background.

3. HISTORICAL-PHILOSOPHICAL BACKGROUND

There are two background motivations for the Avicennian argument, each of which is related to the two main traditions he was influenced by and directly engaged with in his context. I say these two traditions are the 'motivations' for the argument in the sense that it is meant to address them specifically. First, there's the Aristotelian philosophical tradition which Avicenna inherited; and second, there's the *kalām* theological tradition, which he was in one way or another influenced by.[6] Let me take up each in turn.

For the former, see *The Reception of Aristotle's Metaphysics in Avicenna's Kitāb al-Shifāʾ. A Milestone of Western Metaphysical Thought* (Leiden: Brill, 2006), 289; for the latter, see his translation of *The Healing; Physics*, 39 footnote 2. The same argument, with slight differences in nuance and much more condensed, appears in other Avicennian works as well. See for instance *Kitāb al-Najāt; Ilāhiyyāt* III.1.13, 526-529, as well as *ʿUyūn al-ḥikma* III.3, 49-50.

[4] *The Healing; Physics* I.1.1, 3 (tr. McGinnis, modified).

[5] *ʿUyūn al-ḥikma* III.3, 49.

[6] For the influence of these two traditions on Avicenna's metaphysics more generally, see Robert Wisnovksy, *Avicenna's Metaphysics in Context* (London: Gerald Duckworth & Co., 2003).

With respect to the Aristotelian tradition, the Avicennian argument fills an important gap left by Aristotle – namely, a justification of the existence of nature (*ṭabīʿa*) as a causal power which serves as a principle of the science of physics.[7] For Aristotle taught that nature's existence is something in no need of argument because it was obvious and 'known through itself'. At *Physics* II.1, he states:

> [T4] That nature exists, it would ridiculous to try to prove; for it is obvious that there are many things of this kind, and to prove what is obvious by what is not is the mark of a man who is unable to distinguish what is self-evident from what is not.[8]

If we then take T4 in light of Aristotle's definition of nature earlier at *Physics* II.1, i.e., that

> Nature *df* = 'a principle or cause of motion and rest in that to which it belongs primarily, in virtue of itself and not accidentally'[9]

we realize that, in the passage at T4, when it's said that nature's existence is evident and known through itself, Aristotle must mean that the claim

> bodies have an internal principle of their motions and rests, in a primary way and not accidentally

is a self-evident claim. And hence, according to him, the existence of 'nature' in the technical sense above is not in need of argument.

Avicenna knew the passage at T4 and found it perplexing if taken in just this way. In explicitly addressing it, he even first charitably distinguishes a sense in which it could turn out true:

> [T5] What is puzzling is the statement that 'the one inquiring into establishing [nature's existence] ought to be ridiculed'. I suppose what is meant by that is 'the one who inquires into establishing [its existence],

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[7] The same refusal to establish the existence of nature seems to be true of the Aristotelian tradition in general, as far as I can tell. For example, two of the most famous commentators on Aristotle in late antiquity, Philoponus (d. circa 570) and Simplicius (d. circa 560), in their respective commentaries on *Physics* II.2, both endorse Aristotle's claim that nature's existence is self-evident. For the former, see *Philoponus: On Aristotle Physics 2*, tr. A.R Lacey (Duckworth: 1997), 19-21; for the latter, see *Simplicius: On Aristotle Physics 2*, tr. B. Fleet (Duckworth & Co.: 1997), 24-26. Avicenna for his part was certainly familiar with Philoponus' commentary, but it's less clear that he knew of Simplicius' because it's not clear whether that work was translated into Arabic. For a general discussion of Avicenna's critical engagement with the Aristotelian tradition in terms of resolving major points of conflict that he saw within it, see *Avicenna and the Aristotelian Tradition*, D. Gutas (Brill, Leiden: Boston, 2014), ch. 6; for specific cases of such critical engagement, see *The Elements of Avicenna's Physics: Greek Sources and Arabic Innovations*, Andreas Lammer (Berlin: De Gruyter, 2018).

[8] Aristotle, *Physics* II.1.193a4-7, tr. R.P. Hardie and R.K. Gaye, in *The Complete Works of Aristotle*, ed. J. Barnes (New Jersey: Princeton University Press, 1984).

[9] See *Physics* II.1.192bb21-23. I deliberately leave Aristotle's definition ambiguous between an active sense and passive sense of being a principle of motion, to reflect the apparent difference, noted by both the ancients and moderns, between the account of nature he offers at *Physics* II.1 and *Physics* VIII.4. For two recent studies of this, see Richard Sorabji, *Matter, Space, and Motion: Theories in Antiquity and Their Sequel* (New York: Cornel University Press, 1988), ch. 12, 219-226, and Daniel Graham, *Aristotle. Physics. Book VIII* (Oxford: Clarendon Press, 2007), 74-89.

> while engaged in the science of physics, must be ridiculed' - since he wants to demonstrate, in the discipline [of physics] itself, its principles.[10]

The claim in T5 accords well with general Peripatetic scientific methodology, which states, roughly speaking, that a given science, as a systematic body of knowledge, has (i) a subject matter i.e., what the science is about; (ii) principles i.e., the propositions that are used to construct demonstrative arguments in the science; and (iii) conclusions (*maṭlūbāt*), which are the theses the demonstrations prove in that science. And in any given science, the existence of its subject matter and its principles are taken for granted.[11] With regards to (ii) the principles of a science, the shaykh more fully expresses the point in his work on the philosophy of science like so:

> [T6] 'Principle of demonstration' is said in two ways. So [one way] 'principle of demonstration' is said is with regard to science absolutely and [another way] 'principle of demonstration' is said is with regard to a certain science. The principle of demonstration with regard to science absolutely is a premise that has no middle [term] at all, i.e., it is not such that the proof of the relation of its predicate and its subject - be it an affirmation or a negation - depends on a middle term, so that another premise would be prior to it and before it. The principle of demonstration with regard to a certain science may have a middle term in itself, yet it is laid down in that science as a posit and, in that stage (*martabatihi*) in that science, does not have a middle [term]. Rather, either its middle is in a science before it or on a par with it or its middle is in that [same] science after that stage […].[12]

The passage above makes at least three claims of interest for what follows. First, a principle of demonstration may be a principle for science as such; second, it may be a principle for some science and not another; and third, if the latter, then this type of principle may be demonstrated in another science. If we then suppose *p* is some proposition that one employs in the constructions of demonstrative arguments in a given science, we can say that the truth of *p* itself is either not demonstrable *at all* by a proposition more known than it – in which case *p* would not be demonstrable by something more evident than itself in *any* science; or, the truth of *p* is demonstrable, but not by anything within the science that employs it as a principle. The first type of principle we can call the absolutely self-evident and the second the relatively self-evident. The latter type is not demonstrable within the science that employs it; rather, the science simply assumes its truth, i.e., as evident within it. But, it must be established in another science.

In light of the above, when Aristotle says at T4 that nature's existence is 'evident' and 'known through itself', on the basis of what is said at T6 the shaykh understands him to be saying either that nature's existence is evident, but relative to the science of physics or natural philosophy, or he intends that it is unqualifiedly evident. If the former, there's no disagreement; for, as we've seen in T5, the claim that

(i) Nature (as an internal principle of motion) exists

[10] *The Healing; Physics* I.5.4, 40 (tr. J. McGinnis, modified)
[11] *The Healing; Metaphysics* I.1.8, 2-3, where Avicenna briefly alludes to this point.
[12] Avicenna, *The Healing; Demonstration* I.12, 110.

is a premise the truth of which physics assumes when it employs it in proving claims about what it studies, i.e., mobile being.[13] But if so, then (i) needs to be justified in another, higher science. If the latter i.e., Aristotle takes (i) to be evident absolutely speaking, something in no need of justification in any science, then Avicenna thinks he's mistaken:

> [T7] If [the former] or some other related interpretation is not what is meant, but rather what is meant is that this power's existence is self-evident (*bayyin bi-nafsihi*), then it is not something that I am willing to listen to and endorse. How could it be, when we frequently find ourselves forced to undertake a great deal of work to prove that every [body] undergoing motion has a mover? And so how can he be ridiculed who sees a motion and seeks an argument proving that it has a mover – let alone one who grants [that there is] a mover but makes it external?[14]

That is, if (i) were self-evident unqualifiedly, then it would also be equally self-evident e.g., that

(ii) Every body in motion has a mover.

Proposition (ii) would not be in need of argument just as (i) isn't in need of one on this interpretation. But the consequent is clearly false; for it is not obvious that *every* body in motion has a mover. Perhaps some bodies undergo motion in a brute-fact sort of way, i.e., simply on their own in a manner such that the motion isn't analyzable in terms of some division within the body. Or, even granting (ii), it is not obvious that that mover is something intrinsic to the body, which nature is supposed to be on the Aristotelian account. That is, perhaps the mover of every body undergoing some sort of motion is an entity extrinsic to them.[15] And Aristotle himself recognized the non-evidentness of the claim that everything in motion has a mover, insofar as he explicitly attempts to justify it in places like *Physics* VIII.4.

In sum, that bodies undergo motion is uncontroversial – it is a datum of experience which we must reason from. But that they have a nature in the Aristotelian sense of an internal principle of that motion is disputable, and hence that claim is one we must reason to. This is the import of the shaykh's claim at the end of T7 that in many cases justificatory work must be done to show that bodies do in fact have something in them which is the source of their motions. So the basic point is that either nature's existence is evident in the sense delineated at T5-6, with the consequence that Aristotle owes us, according to an agreed upon scientific methodology, an argument for nature's existence. Or, it is not evident in that sense but rather evident in a non-relative way, which Avicenna thinks is false for the reasons mentioned above.

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[13] And again, Aristotle himself suggests as much when at *Physics* VIII.3.253b5-6 he states (emphasis mine) "it is a *hypothesis* that nature is a principle of motion."

[14] *The Healing; Physics* I.5.4, 40 (tr. J. McGinnis, modified)

[15] As we'll see in a moment, in the Islamic context the view that the motions of bodies are due to an agent external to them is precisely the option the Ash'rite theologians, as well as independent thinkers like Abū Bakr al-Rāzī, took. So insofar as Avicenna knew the thought of both, it is not unlikely that a view like theirs may have played some part in his disagreement with the Peripatetics over the self-evidentness of the existence of nature. For the Ashʿarite *kalām* tradition, see footnote 22 below. For Rāzī, see *Maqāla fī mā baʿd al-ṭabīʿa*, 116-117, 120. For a study of these passages in Rāzī, see Peter Adamson, 'Against Nature: Two Critics of Naturalism in the Islamic World' (forthcoming).

Now one might think that Aristotle does indeed offer, or can be plausibly interpreted as offering, in at least two places, some sort of justification for (i), and from that infer that he must have then took the claim about its existence to be self-evident but *not* in the absolute way. The first place one might appeal to is the *Physics* itself, specifically I.2, where Aristotle is responding to the Parmenidean threat to the very possibility of studying the natural world (or doing physics).[16] The Parmenidean there claims that

(iii) What exists is one and unchangeable

and Aristotle criticizes (iii) in at least two ways. In the first, he notes that (iii) would entail that there are no principles (presumably of the objects that physics studies, i.e., natural bodies); and the reason for this is because "a principle must be the principle of some thing or things"[17], which implies multiplicity. But, the Parmenidean thesis (iii) forbids multiplicity, and hence principles too will be done away with. So insofar as 'nature, per *Physics* II.1, is for Aristotle a principle of sorts, *Physics* I.2 can then be seen as a defense in a way of nature's existence qua a principle. The second way Aristotle criticizes (iii) at *Physics* I.2 is that he argues it would equally do away with the existence of motion as such, which Aristotle rightly thinks is an undeniable feature of at least some bodies.[18] Now insofar as nature, for Aristotle, is a principle of motion, he can be understood as saying that a denial of motion would entail a denial of nature as a principle (of motion). And to that extent, he can be seen again at *Physics* I.2 as offering some kind of defense of (i) i.e., the claim that nature exists.

The second place one might appeal to as evidence for the view that Aristotle does offer, or can be interpreted as offering, a justification of nature's existence is *Metaphysics* IX.3. There, Aristotle is responding to the Megarian thesis that (where F is some activity)

(iv) Nothing has the capacity to *F* before it actually *F's*

i.e., that there are no inactive powers in things.[19] Now to the extent that nature for Aristotle is a causal power of sorts, and a power is a principle, to that extent, one might reason, his defense of the existence of powers at IX.3 can be viewed as a defense, again, of the existence of nature qua principle. For nature, according to him, is the source of a thing's activities or motions, and so, one might think, is the capacity or power for those activities or motions.

However, even granting the above interpretations of *Physics* I.2 and *Metaphysics* IX.3 as legitimate, I think they fail to show that, when Aristotle claimed at T4 that nature's existence is 'known through itself' or self-evident, he meant that its self-evidentness is relative in the sense specified above. And this for the simple reason that what Aristotle offers in both contexts is a *dialectical* justification, against the Parmenidian and Megarian theses respectively, of (i). This is why his arguments at *Physics* I.2 and *Metaphysics* IX.3 all have the form of a reductio ad

[16] See *Physics* I.2.185a1-186a1-3.
[17] Ibid., 185a2-4
[18] Ibid., 185a12-15
[19] For recent studies of *Metaphysic*s IX.3 that see it as having to do with the existence of powers, see Stephen Makin, *Aristotle. Metaphysics Book Θ* (Clarendon Press: 2006), 60-8; Jonathan Beere, *Doing and Being. An Interpretation of Aristotle's Metaphysics Theta* (Oxford University Press: 2009), ch. 3; and Rebekah Johnson, 'The Existence of Powers', in *APEIRON* (2008), 171-190.

absurdum: if principles or powers don't exist, then various absurd consequences follow. And the method of reductio style argumentation is usually applied when defending propositions one takes to be self-evident or 'known through themselves' in an *absolute* way - the reason for this being that self-evident first principles don't themselves have further, better known principles by which they can be demonstrated.[20]

The sheikh, by contrast, is explicit about (i)'s qualified or relative self-evident character. At *The Physics* I.5, he writes:

> [T8] The truth, however, is that the claim that 'nature exists' is a principle of the science of physics; it is not on the natural philosopher to address anyone who denies it. Establishing [its existence] belongs only to the metaphysician, whereas it belongs to the natural philosopher to study its quiddity.[21]

The above, then, is more or less the general Aristotelian background to which, in my view, the Avicennian argument is intended, partly, as a response. But as I said earlier, I think the argument is also meant to address Avicenna's theological contemporaries, and so I now want to turn to characterizing the relevant *kalām* background.

In the Islamic tradition, there are basically two competing models of the natural world: atomism and hylomorphism. Generally speaking, thinkers who usually held the former were theologians (*mutakallimūn*), belonging either to the Ashʿarī or Muʿtazilī schools, while those who held the latter were philosophers (*falāsifa*/*ḥukamā*) usually belonging to the Avicennian camp. As far as the ontology of the former is concerned, the most basic division for them is between beings that are eternal (*qadīm*) and those that come to be or occur in time (*muḥdath*). To the former category belong only God and His attributes; to the latter, everything other than God (*mā siwā Allāh*), which is the world as a whole (*al-ʿālam*) understood as, to use Sabra's phrase, 'all that occurs' (*kullu mā yuḥdath*).[22] That which occurs refers to a spatio-temporally conditioned event (*ḥadith*) which, as such, is either something that occupies space (*mutaḥayyiz*) or something that inheres in something that occupies space. The former is called 'substance' (*jawhar*), and comes in two types: either as simple (*basīt*), which is a fundamental i.e., indivisible, particle or atom; or as composite (*murakkab*), which is an arrangement of two or more simple substances and as such is called 'body' (*jism*). That which exists in what occupies space is called 'accident' (*ʿaraḍ*), understood as a phenomenal property. According to the *mutakallimūn*, there are four types of accident which necessarily characterize every substance, whether simple or composite, called 'modes of being' or 'happenings' (*al-akwān*, sing. *kawn*). These are: 1) motion, 2) rest, 3) separation, and 4) contact/aggregation.[23] Motivated by scriptural concerns, the Ashʿarite thinkers

[20] Avicenna himself employs the dialectical reductio ad absurdum method of argumentation at *The Healing; Metaphysics* I.6-7 when defending the first proper principles, in the domain of assent (*taṣdīq*), of the discipline of metaphysics. For discussion of these chapters, see Daniel De Haan 'Where Does Avicenna Demonstrate The Existence Of God', in *Arabic Sciences and Philosophy* vol. 26 (2016), 109-121.

[21] *The Healing; Physics* I.5.4, 40 (tr. J. McGinnis, modified). For the historical and philosophical background to Avicenna's account of the quiddity or essence of nature at *The Healing; Physics* I.5, see Andreas Lammer, 'Defining nature: from Aristotle to Philoponus to Avicenna', in *Aristotle and the Arabic Tradition*, eds. A. Alwishah and J. Hayes (Cambridge University Press: 2015), 121-142.

[22] A.I Sabra, 'The Simple Ontology of *Kalām* Atomism: An Outline', in *Early Science and Medicine* 14 (2009), 68-78.

[23] Ibid., 77-78.

combined this atomic model of the world with an occasionalist model of God's causal relation to that world - a doctrine that was properly founded by the eponymous Abū'l-Ḥasan al-Ashʿarī (d. 936).[24] According to Ashʿarī and his followers, God is the true and exclusive causal agent of events - a doctrine which was endorsed in direct conscious opposition to a view of the world on which there are natures that are sources of effects. Ibn Fūrak (d. 1015), a later member of the school, reports the following:

> [T9] [Ashʿarī] denied the doctrine of natural disposition and nature (*al-ṭabʿ wa'l-ṭabīʿa*), and said that all events are actions of God, by His choice, will, governance, and determination – without any of these necessitating another event, or a nature that engenders it – but, rather, all are His invention by His choice and in the manner He chooses and knows.[25]

The key consequence of this combination of atomism and occasionalism for our purposes here is that all bodies were deemed as being devoid of any sort of nature understood in the technical Aristo-Avicennian sense, i.e., as a causal power for various kinds of activity.

Let me now offer a concise characterization of Ashʿarite occasionalism by drawing on one of the best, later members of that school, Abū Ḥāmid al-Ghazālī (d. 1111).[26] My focus will not be so much the reasons why the Ashʿarites endorsed occasionalism, but rather its central thesis, of

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[24] Abū l-Ḥasan al-Ashʿarī, *Al-Ibānah*, 9. For an important later Ashʿarite theologian, see Abū Bakr al-Bāqillānī, *Al-Inṣāf*, 31. For a general history of occasionalism in the Islamic world, see Ulrich Rudolph, 'Occasionalism', in *The Oxford Handbook of Islamic Theology*, ed. S. Schmidtke (Oxford: Oxford University Press, 2016), 347-363. Rudolph argues that, strictly speaking, early Muʿtazilite theologians e.g., Abū l-Hudhayl (d. 842) and his successors, whom Ashʿarī critically engaged with, did not endorse full-fledged occasionalism. Rather, they only laid the foundations for it, which Ashʿarī later built on to finally articulate an occasionalist doctrine proper. And in fact Ashaʿarī himself reports that, in general, the Muʿtazila, with the exception of Jubbāʾī (d. circa 915), believed in causal relations involving 'natures'. See his *Maqālāt al-islamiyyīn wa-l-Ikhtilāf al-muṣallīn*, 314 and 412. See also Ibn Fūrak, *Mujarrad maqālāt al-Ashʿarī*, 275-276. Whatever the case may be, to the extent that some of these early Muʿtazilī theologians' denial of powers was local i.e., confined to non-human entities, to that extent they also serve as a target for the Avicennian argument we shall consider below.

[25] See A.I. Sabra, 'Kalām Atomism as an alternative philosophy to Hellenizing Falsafa', in *Arabic theology, Arabic philosophy. From the Many to the One: Essays in celebration of Richard M. Frank*, ed. J.E. Montgomery (Leuven; Paris; Dudley, MA: 2006), p. 244 (tr. modified). See also ibid., 245-246. For Ibn Fūrak, see *Mujarrad* 76.8-11, as well as 271, where it is reported that Ashʿarī in a work called *al- Idrāk* aimed to show that fire doesn't cause burning in cotton upon contact but rather God does so (i.e., occasionalism).

[26] I choose Ghazālī deliberately, for reasons having to do with the famous (in modern scholarship) 17th discussion of his *Tahāfut al-falāsifa*. For some studies, see M. Marmura, 'Al-Ghazâlî's Second Causal Theory in the 17th Discussion of His Tahâfut,' in *Islamic Philosophy and Mysticism*, P. Morewedge (ed.), Delmar (N.Y.): Caravan Books, 1981, 85–112; R.M. Frank, *Creation and the Cosmic System: Al-Ghazâlî & Avicenna*, Heidelberg: C. Winter, 1992, and *Al-Ghazali and the Ash'arite School*, Durham: Duke University Press, 1994; M. Marmura, 'Ghazâlian Causes and Intermediaries,' in *Journal of the American Oriental Society* 115 (1995): 89–100; S. Riker, 'Al-Ghazali on Necessary Causality in 'The Incoherence of the Philosophers,' in *Monist* 79, no. 3 (1996): 315-24; B. D. Dutton, 'Al-Ghazâlî on Possibility and the Critique of Causality,' in *Medieval Philosophy and Theology* 10 (2001): 23–46; E. O. Moad, 'Al-Ghazali's Occasionalism and the Natures of Creatures,' in *International Journal for Philosophy of Religion* 58, no. 2 (2005): 95-101; F. Griffel, Al-Ghazâlî's Philosophical Theology, New York: Oxford University Press, 2009. See also footnote 63 below.

which I'll give a general description with a view to setting up a target for the Avicennian argument we will consider immediately after.[27]

At the end of the chapter on God's attribute of power (*qudra*) in his *Al-Iqtiṣād fī'l- I ʿtiqād*, Ghazālī faithfully reproduces the above Ashʿarite view of God's causal relation to the world when he writes:

> [T10] [A]ll events (*ḥawādith*), their substances and accidents, and those that occur in the animate or inanimate beings – come into existence through the power of God (Glorious and Exalted is He), who is their exclusive originator. It is not true that some created things come into existence through other created things, but all of them come into existence through divine power.[28]

Now there are different versions of occasionalism and its proponents differ over details of the doctrine. But, its common core is the thesis that God is the *only* efficient cause of beings in the world, such that the claim:

> For any event that comes to be at *t*, God is the 'exclusive originator' of that event at *t*

turns out true. We can capture this occasionalist thesis in the claim:

> (OC) Only God possess efficacious (*taʾthīr*) causal power

where

> A causal power, *F*, is 'efficacious' just in case *F* makes a real causal contribution to some effect, e

Let us take the standard example: the occurrence of burning upon fire touching a piece of cotton. When this happens, the common sense view - that it is the fire that acts on the cotton, causing it to burn - is false according to proponents of OC. Rather, in their view, what happens, metaphysically speaking, is that God directly produces or originates, on the "occasion" of fire's coming into contact or conjunction with the cotton, the effect of being burnt in the cotton.[29] The fire has no efficacy at all. But, this description of the scenario should not mislead one into thinking that on this account God merely produces an effect (i.e., burning of cotton) at some moment *t* when two otherwise independent things (the fire and the cotton) come into contact at *t*. The occasionalists state something much stronger, namely, that God directly creates the atoms arranged 'fire-wise' *as contacting* i.e., with the accident of 'contact', and directly produces the atoms arranged cotton-wise as being in contact (with the fire at *t*) and with the accident of *being burnt* i.e., the accident of separation, at *t*. That is, God creates, at *t*, the whole event 'fire's burning – cotton's being burnt'. On this latter formulation, God is the direct and only efficient

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[27] For arguments justifying occasionalism, see for instance Al-Ashʿarī, *al-Lumaʿ* in *The Theology of al-Ashʿarī*, ed. R.J. McCarthy (Beirut: 1953), 33-44; Abū Bakr al-Bāqillānī, *Kitāb al-tamhīd*, 286-287; *Al-Inṣāf*, 41, 44-45; and Al-Juwaynī, *Kitāb al-irshād*, 215-225.

[28] Al-Ghazālī, *Moderation in Belief* II.1, 103, tr. Aladdin M. Yaqub, modified. (Henceforth as *Al-Iqtiṣād*, followed by treatise, part, and page number(s). All translations from this work are Yaqub's unless otherwise noted.

[29] Al-Ghazālī, *Incoherence of the Philosophers* VII.2, 166-167, tr. M. Marmura. (Henceforth as *Tahāfut*, followed by chapter, paragraph, and page number(s)).

cause of everything about the fire, cotton, and the burning at *t* - "all *ḥawādith*, their substances and accidents" - and not just the effect of burning. All power is located in God – or more precisely, God's will.

The above is the gist of the Ashʿarite atomist-occasionalist model of the natural world. The Avicennian view, on the other hand, states that bodies are composites of a material and formal principle. It challenges the occasionalist tenet of the Ashʿarite system insofar as the hylomorphic principles of a body endow that body with a set of natural capacities or powers that explain its characteristic behaviour. As such, hylomorphism entails that bodies are equipped with capacities that, contra the proponents of occasionalism, make genuine causal contributions to the world. Importantly, however, Avicenna does not try to reject a claim like OC by appealing to hylomorphic considerations; for of course doing would amount to appealing to premises which the Ashʿarites simply wouldn't grant from the start. Were the shaykh to proceed in that way, he'd be refuting them from the presuppositions of his own system, and so either beg the question against his opponents or simply talk past them. Instead, the argument the shaykh presents at *The Healing; Metaphysics* IV.2 is supposed to appeal only to premises which the opponents already concede.

I now clarify what these premises are. Principally, they are two in number. The first is empirical in nature. Generally stated, it says something like:

> (EP) Events in the world display regularity

A particular example of which would then be, say, that

> Burning regularly proceeds from fire when it touches cotton

According to the shaykh, EP as instanced in the fire-cotton case is a premise that falls under those he terms 'the experientials' (*al-majarrabāt*). These constitute one class of premises the assent to which is immediate i.e., does not involve any intermediary term.[30]

The second premise is a version of the principle of sufficient reason (PSR). The PSR, as regards existence and non-existence, states that

> For anything that exists (or doesn't exist) there's a sufficient reason/cause (*ʿilla*) why it exists (or doesn't exist)

Now the shaykh endorses the PSR in this form.[31] However, it's not clear that his theological opponents do. But whatever the case may be, what's important to point out is that in the context at hand i.e., as far as the argument for nature's existence is concerned, he employs a particular version of the PSR that his theological opponents *are* in fact committed to. This particular version of the PSR is known, in the parlance of the post-Avicennian tradition, as 'the rule of determination or preponderance' (*qāʿida al-tarjīḥ*). This rule, which we can call QT, can be defined as follows (where is x some entity (*dhāt*) and F some attribute (*ṣifa*):

[30] For the account of this type of immediate premise, see *Kitāb al-najāt*; *manṭiq* II.43, 113-114.
[31] For Avicenna's commitment to the PSR understood generally, see *The Healing; Metaphysics* I.6.1, 4-6. For an analysis of these passages which sees them as employing it, see Kara Richardson 'Avicenna and the Principle of Sufficient Reason' in *Review of Metaphysics* 67.4 (2014), 743-768.

> QT: for any *x* that is contingently *F* (or not-*F*, for any not-*F*), there's a sufficient reason/cause (*ʿilla*) why *x* is F (or not-F)

Or more simply put, there's some explanatory factor that determines – in the sense of necessitates - why something contingent is the case or not the case.[32] On the Avicennian view, QT, as a specific version of the PSR, would be a premise that falls under those called 'the primaries' (*al-awwaliyyāt*). Like with the experientials, the assent to the primaries is also immediate.[33]

With that preceding Aristotelian and *kalām* background in place, I now turn to *The Healing; Metaphysics* IV.2's argument for the existence of nature as a power intrinsic to bodies.

4. THE AVICENNIAN ARGUMENT

The shaykh's argument, as I said, presupposes EP and QT – two self-evident premises that he and his theological opponents share. The syllogistic order (*naẓm al-qiyās*) the argument as a whole takes is a compound repetitive disjunctive conditional (*sharṭiyya munfaṣila istithnā ʾī murakkaba*), a highly abridged version of which can be stated like so:

> If any effect, e, proceeding from a body neither accidentally or by force, e proceeds from it either (1) because of its being a body, or (2) because of some feature *F* inhering in it, or (3) because of some entity *E* really distinct from it, which can either be (3.1) another body or (3.2) something incorporeal.
>
> But ~ ((1) v (3.1-2)).
>
> Therefore, (2).

And *F* is what's called a power. Therefore, powers exist.

Let us now turn to the detailed version of the argument. The shaykh begins with a statement of the conclusion to be established (*maṭlūb*):

> [T11] Every body from which an act proceeds (*ṣadara*) neither accidentally (*bi'l-araḍ*), nor by compulsion (*bi'l-qasr*) from another body, acts through some power (*quwwa*) in it.[34]

Note the non-causal language ('proceeds from' as opposed to 'produced or caused by') in which the conclusion is formulated, in order to avoid any begging of the question against the opponent. This is meant as a precise demarcation of conclusion to prove, namely, that for any body from which some activity proceeds in (i) a non-accidental and (ii) a non-forced way, the act proceeds

[32] Why do I think the PSR qua QT is implicit in the Avicennian argument for nature's existence? Two reasons; first, the various disjuncts of that argument, as well as the reasoning offered for or against them, as we'll see below, make no sense unless something like QT is presupposed. And second, because for Avicenna the PSR, as is evident from *The Healing; Metaphysics* I.6, is a first principle, in the domain of assent, of the science of metaphysics; as such, it makes perfect sense that he appeals to a particular version of it in the construction of demonstrations in that science.
[33] For an account of this type of immediate premise, see *Kitāb al-najāt*; *manṭiq* II.50, 121-123.
[34] *The Healing; Metaphysics* IV.2.20, 137. (All translations from this work from here on out are my own).

from the body in virtue of a power in it i.e., for the act.[35] Conditions (i)-(ii) are important for two reasons, one related to the *kalām* background, the other to the Aristotelian. As regards the former, conditions (i)-(ii) limit the target of Avicenna's argument to cases of regularity, where regularity is opposed to what happens randomly or by chance. For on Avicenna's view, that which happens randomly, by chance, or coincidentally, is a subset of what happens by accident, and hence to rule out the latter kind of act/event (i.e., the accidental) entails ruling out the former type (i.e., the random/chance/coincidental event).[36] So events or acts that proceed from a body in a non-accidental way specifically of relevance here are those that are said to occur in a regular and constant way. That it is this feature of the act or event that is crucial is again more evident in the abridged *ʿUyūn al-ḥikma* version of the argument, which begins by precisely noting such regularity:

> [T12] Every body from which, in what is habitually sensed (*fī al-ʿāda al-maḥsūsa*), an act always proceeds - either that act proceeds from it due to its corporeality, or due to a power (*qūwwa*) in it, or because of an external cause (*bi-sabab khārij*).[37]

The expression *fī'l-ʿāda al-maḥsūsa* – 'in what is habitually sensed' or, even more broadly, 'in sense experience' - is supposed to designate what happens in a consistent or predictable way. In fact, the Ashʿarite theologians themselves explicitly use it to refer to the 'habitual course of things' which they chalk up to God's constantly creating them in that way (more on this below). So insofar as that expression describes the character of the events that occur in the world, namely, that they happen in a regular way, the claim at T11 then basically is:

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[35] An accidental act or event, on Avicenna's view, is the opposite of the essential act or event. As such an opposite, the accidental is said in many ways. At *The Healing; Physics* I.13.2, 74, he explains the difference like this:

> The essential efficient cause is like […] the fire when it heats; it is a principle of that very act itself and is taken insofar as it is its principle. The accidental efficient cause is anything apart from that […].

Avicenna then goes on to specify the latter notion. In one sense, the accidental is what happens by chance or coincidentally, where this is opposed what occurs either always or for the most part i.e., regularly (*The Healing; Physics* I.13.10, 87). In another sense, an act or event is *bi'l-ʿaraḍ* (accidental) just in case it proceeds from something in virtue of something else – an example is of a man at rest on a boat which is in motion (*The Healing; Physics* I.5.6, 42). Though at rest, he's also moving insofar as the boat he's on is moving. But he's not in motion in the way the man on the street walking is in motion. There's clearly a difference between the two, even though motion 'proceeds' (*ṣadara*) from both just in the sense that both are moving. In the former case, the act of moving proceeds from the man because of something else, i.e., the boat, and so his being in motion is said to be in an accidental way. (For a detailed discussion of acts or motions *bi'l-ʿaraḍ*, see *The Healing; Physics* IV.13). An act that proceeds from a body by force (*bi'l-qasr*) is also accidental in a way. But this case differs from the previous two cases in that the body in question is truly undergoing the act, but it proceeds from the body because of something external to it. The example given is of a stone that is being dragged along the ground (*The Healing; Physics* IV.14.1); the stone itself really is moving, unlike the man at rest on the ship, but it moves only because something else is forcing that act or motion on it, and not of itself. The upshot of all this is that, on the shaykh's view, any act that is not accidental - in the sense in which accidental is opposed to the essential at *The Healing; Physics* I.13.2, 74 – that act will proceed from a body in virtue of a power in that body.

[36] For Avicenna's own extensive, positive account of chance or the coincidental, see *The Healing; Physics* I.13.

[37] *ʿUyūn al-ḥikma* III.3, 49.

> An act which proceeds regularly i.e., non-accidentally, from a body (or an event which regularly happens), proceeds due to a power in it (or, in the event case, due to powers in the bodies involved in the event)

The regularity condition is important for the argument in that it is a datum the Ashʿarite theologians concede and attempt to offer an explanation for as well. The second reason, related to the Aristotelian background, is that conditions (i)-(ii) allow Avicenna to say that, although bodies have powers, such powers are not attributable to them in an indiscriminate way; that is, it's not the case that a body possesses a power for whatever act happens to proceed from it. Rather, only if an act is one that is essential and not forced is there a power in the body for the act. So, if the argument turns out sound, (i)-(ii) will be criteria for determining whether a body has a genuine causal capacity for an act we observe to proceed from it.

The shaykh continues:

> [T13] In the case of that [act] which is by volition (*irāda*) and choice (*ikhtiyār*), it is obvious (*ẓāhir*).[38]

The Ashāʿira maintain that there is, at least in the case of human beings, a difference - one that is known of necessity (*ḍarūrī*) - between a voluntary act like raising one's hand and an involuntary one like a tremor. The difference is that the former, unlike the latter, involves a power or capacity (*istiṭāʿa*) for the act in the human being.[39] As T13 indicates, this is a claim Avicenna agrees with. In fact, as we'll see below, he'd be willing to go as far as to agree, for the sake of argument, with their further claim that the capacity for the act is a generated one (*hādith*), i.e., one that God creates in the human being and does so at the same moment as creating the act of lifting his arm. For granting all of this so far is consistent with anti-occasionalism. What Avicenna will deny though is their insistence that the created capacity in the creature for the act is not in any sense causally responsible for the act, i.e., that it actually does not produce the act in any way.[40] The shaykh can certainly reject this last claim on independent grounds but, as far as his present argument is concerned, we'll see that a consequence of it will be that, in the case of creatures that have volition and choice, even if God endows them, as the Ashāʿira say, with a capacity to act but brings about the act Himself, still the capacity He endows them with must in some sense causally contribute to the act. And in the case of those creatures which don't have volition and choice, Avicenna will argue that *even if* an external entity is somehow involved in the production of their acts, the explanation for this too must ultimately be grounded in factors (= powers) internal to them. The argument focuses exclusively on this latter i.e., non-volitional, category, since it is the non-evident case.

How then does the shaykh establish that the acts of non-volitional bodies must proceed from them in virtue of powers in them? He begins with an initial disjunction:

> [T14] As for [acts] which are not by volition and choice, the act proceeds either [1] from [the body's] essence (*dhātihi*) or [2] from a distinct thing that is corporeal or [3] from a distinct thing that is incorporeal (*ghayr*

[38] *The Healing; Metaphysics* IV.2.20, 137.
[39] Cf., *Al-Iqtiṣād* II.1, 92-93.
[40] Cf., ibid., II.1, 94-95.

jismānī).[41]

Here we have a first use of the QT principle in combination with the EP premise: if a given act proceeds regularly from some non-volitional body, there must be some reason or cause why. That reason is either because of some factor intrinsic to the body or because of one outside it. Let us assume then *e* is some effect (or type of effect) e.g., burning, that occurs in a regular manner on the occasion of body *x* (or bodies of type *x*), e.g., fire, conjoining or contacting some body *y* (or bodies of type *y*), e.g., cotton. Then, for any connection between *x*, *y*, and occurrence of *e*, *e* is either due to

(1) *x* qua body, or
(2) some material entity, *c*, different from *x*, or
(3) some immaterial entity, *G*, different from *x*

Option (3) will be further distinguished, as we'll see below at T21; but as stated, it doesn't yet amount to the occasionalist thesis of the Ashāʿira, although it includes that thesis. For at this stage of the argument, whether that immaterial entity *G* is a *divine* agent or not, or whether it is a volitional agent or not, are open questions.[42]

The line of argument that ensues will run as follows. With respect to option (1), the shaykh will argue that, on analysis, it turns out to be the conclusion sought at T11. As for option (2), he will reject because it contradicts an assumption laid down earlier. Finally, with respect to option (3), he will show that, however we construe the relation of that separate, incorporeal agent *G* to the body *x* from which, on this assumption, G produces the effect *e*, that agent *G* can produce *e* only in virtue of some property *F* in *x* which makes a causal contribution to *e*. So option (3), too, turns out to be the conclusion sought at T11.

Let us now take up each disjunct at T14. With respect to (1), it returns to the desired conclusion. The shaykh argues as follows:

> [T15] If [the act] proceeds from [1] the [body's] essence, and its essence shares corporeality with other bodies but differs from them in [being] that from which that act proceeds, then in its essence there's a factor (*maʿnā)* additional to corporeality, which is a principle for the procession (*ṣudūr*) of this act from it - and this is what is called 'power' (*quwwa*).[43]

The thought here is: bodies have the fact that they're bodies in common but obviously differ in the effects which arise from, or issue out of, them. If then an effect *e* issues from some body merely because of it being a body, then *e* would equally arise or issue from all bodies; for they are all equivalent in that regard i.e. qua bodies. But the effect clearly does not arise from every body equally, as sense experience bears out. For fire burns cotton in a regular way, and not gold; and heat arises out of fire in a regular way and not out of snow. If so, that must then be because the body in question has some attribute not identical to the attribute of merely being a body, and is peculiar to it in that it explains why *it* specifically, and not some other kind of body, produces the specific effect in question in a regular way. Whatever that attribute is, we call it a 'power'.

[41] *The Healing; Metaphysics* IV.2.20, 137.
[42] The occasion to deal with the Ash'arite view proper will come only at T23 below.
[43] Ibid., IV.2.20, 137-138.

Therefore, bodies have powers; and therefore, powers exist. So if option (1) is true, then nature understood as a power exists and occasionalism is refuted.

The argument against option (2) runs as follows:

> [T16] If that [act proceeds] from [2] another body, then the act would [proceed] from that [initial] body by compulsion or accidentally. But it had been supposed [to proceed] neither by compulsion from another body nor accidentally.[44]

According to this option, two different bodies are involved in the causal scenario, such that from one of them some act or effect proceeds in virtue of the other body – in the way, e.g., heat proceeds from a piece of metal because it had previously been heated by fire. The argument against option (2) is fairly clear: it contradicts the initial assumption that the act or effect proceeds from the first body non-accidentally and in a non-forced way. For if *e* proceeds from body *x* because of body *c*, then *e* would proceed from *x* either accidentally or by force – in just the same way that the man at rest on a boat moves because the boat is moving, or that the metal heats a body of water as a result being made hot by fire. For 'an act to be due to another' is just a part of what it means for it to be accidental and forced.

The shaykh then takes up option (3) and sub-divides it:

> [T17] If [the act is] from [3] something separate (*mufāriq*) [i.e., from matter], then either this body's being distinguished by this mediating [of the act] from that separate [entity] is [3.1] because of that by which it is a body or [3.2] due to a power in it or [3.3] due to a power in that separate [entity].[45]

In what follows, the shaykh is going to argue that options (3.1) and (3.2) land us back to where we started; for both options entail the conclusion to be established.

The thought in T17 involves another appeal to the QT principle; for if the external, non-material entity *G* produces *e* from body *x* in a regular way, there must be a reason for that. That reason either has to do with the body in question – that is, with the fact that the body is fire or cotton - or with the external immaterial entity *G* outside that body. On the one hand, if the former, then the reason that *G* produces the act exclusively from *x* is, again, either because of the mere fact that *x* is a body or because of some special property that *x* has – that is, it either has to do with the mere fact that fire or cotton are both bodies, or with the fact that they possess certain special, say, chemical power-properties *F* and *F** (however *F* and *F** are empirically specified). On the other hand, if the reason has to do with *G* itself, it must be grounded in some power-property possessed by *G*, which it brings to bear on body *x* and thereby produces effect *e* from it. With this last disjunct i.e., (3.3), we don't actually have the occasionalist view yet, although (3.3) indistinctly contains it (we'll see the reason for this below, T21).

How are options (3.1) and (3.2) are handled? Against (3.1), which states that *G* regularly produces *e* from body *x* because of the fact that *x* is a body, the shaykh urges the following:

[44] Ibid., IV.2.20, 138.
[45] Ibid.,

> [T18] If [3.1] it is because of that by which it is a body, then every body would share in [mediating the act]; but they do not share in [mediating the act].[46]

What is meant by 'body *x* mediating the act' i.e., from *G*? I take in the following way:

> 'the act's always occurring by means of *x* (as opposed to some other body *y*)'

So at (3.1), what is essentially being asked is: 'why does *G* regularly produce burning, say, from fire - where 'burning being regularly produced from fire' just means 'fire's regularly mediating that act or effect (i.e., of burning)' - and not from some other body, e.g., snow?' In other words, fire 'mediates the act or effect' in that it serves as an *intermediary* between the external entity *G* and the effect or act produced by *G* in some other body e.g., cotton.

The move whereby (3.1) at T18 is eliminated is familiar from T15. If body *x* mediated the effect or act *e* that comes about through *G* because of the mere fact that *x* is a body, then, because every body other than *x* is equally a body, they would equally be suitable for mediating, and so should mediate, *e* from *G*. But, as a matter of fact, bodies other than *x* clearly do not; for we observe that *e* proceeds out of *x* is a regular way and not any other kind of body. But given the QT premise, that must be due to some causal factor, and that factor can't be located, as (3.1) would have it, in the fact that *x* is a body. In that case, and this implicit in the reasoning at T18, it must be due to a factor in *x* over and above its being a body. And insofar as this factor causally explains *e*'s occurrence, it is a power. Hence, powers exist in bodies.

As for T17's option (3.2), it too, like option (1) at T11, and option (3.1) at T17, turns out on analysis to be the desired conclusion (*maṭlūb*). The shaykh explains:

> [T19] If [3.2] it is due to a power in [the body], then this power is a principle for the procession of the act from it and, further, would be so even if [the act] emanated from and with the aid of the separate [entity] or due to it being the first principle of [the act].[47]

That is to say, the view that *x* mediates the effect or act *e* from *G* in virtue of some power-property *F* in *x* entails that *F* in a real sense is a principle for the production of *e*. If fire burns cotton because it has property F, then that property actually contributes to cotton's being burned. And insofar as *F* causally contributes to *e*'s occurrence, it would then in a real sense be, in Avicennian terms, a *muʾaththir*, i.e., a causally efficacious agent with respect to the effect *e*. That is why *F* is there in *x* in the first place; otherwise, *F*'s existence would be otiose, and we'd have to fall back on one of the earlier disjuncts in order to account for *e*'s regular occurrence from *x*. But as things stand, given option (3.2), *F*'s being causally efficacious with regards to *e* would hold true, the shaykh insists, even if *G*'s causal activity was a necessary condition for *e*'s occurrence. That is, he is claiming that *x* would still be a genuine cause of *e*, *even if* the separate entity *G* somehow aided it in producing *e* or, equivalently, even if that separate entity was the primary or first principle (and so where *x* would be a non-primary principle) of the effect that issues from *x*.[48] This last point is crucial – as we'll see, it will be reiterated below at T34 when the final conclusion of the argument is drawn. In making that point, Avicenna is attempting to accommodate to the extent that he can - as I noted above - a key feature of the Ashʿarite account

[46] Ibid.,
[47] Ibid.,
[48] My thanks to an anonymous OSMP referee for forcing me to clarify this point.

of God's causal relation to events in the world. It all depends on what the effect in question is, as can be gleaned from the way natural efficient causes are divided up at *The Physics* I.10:

> [T20] The principle of motion is either what prepares or what completes. What prepares is that which makes the matter suitable, like what moves semen during the preparatory states. What completes is that which gives the form. And it seems that the giver of the form by which the natural species subsist is outside of the natural order.[49]

From T19 in combination with the passage above, we see that what the shaykh intends with the general claim:

x mediates *e* from *G* in virtue of *F*

is that *F* causes *e*'s occurrence insofar as *F prepares* for it. And the exact preparatory contribution of *x*'s *F* to *e* depends on whether *e* is some accidental modification of another thing (i.e., some type of motion) or it is a substantial form. If the former, *F*'s being a preparatory principle of *e* is just for it to cause *e*'s very occurrence; if the latter, *F*'s being a principle of *e* is for *F* to actually modify something else, *y*, such that *G*, the separate entity, produces *e* in *y*. To this extent, the shaykh is accommodating the Ashʿarite insistence on the involvement of a separate immaterial cause in the events of the world; for in certain events i.e., substantial changes, the causal activity of an extrinsic and non-bodily cause i.e., the Giver of forms, is required.[50] In both accidental and substantial changes, however, *x*'s power-property *F* makes a genuine causal contribution - qua specifying or preparing – to the occurrence of *e* even if, as the end of T19 states, in the latter case it does so "with the aid of [the separate entity]".

For now though let us set aside this distinction (between the cause that prepares and the one that completes) and attend to the next step in the argument, which concerns T17's disjunct (3.3). It is further divisible:

> [T21] If [the act] is [3.3] due to a power in that separate [entity], then either [3.3.1] that very power itself necessitates that [act] or [3.3.2] it is specified [by] a will (*irāda*).[51]

At this stage of the argument, we get a clear demarcation of an occasionalist position, namely option (3.3.2), which has it that the separate entity *G*, i.e., a divine agent according to the theologians, the only entity with power, produces *e* by an act of *volition*. Option (3.3.1), on the other hand, seems to have a Greek background – specifically certain Neoplatonist philosophers Avicenna was familiar with. In this regard, John Philoponus (d. circa 574) stands out; he taught that nature is an active, non-volitional principle that, though existing outside bodies, nevertheless

[49] *The Healing; Physics* I.10.3, 65 (tr. J. McGinnis, modified). For an account of Avicenna's views on substantial generation, see Kara Richardson, 'Avicenna and Aquinas on Form and Generation' in *The Arabic, Hebrew, and Latin Reception of Avicenna's Metaphysics*, eds. D. Hasse and A. Bertolacci (Berlin: Walter De Gruyter, 2011), 251-274; and Jon McGinnis, 'On the Moment of Substantial Change: A Vexed Question in the History of Ideas' in *Interpreting Avicenna: Science and Philosophy in Medieval Islam, Proceeds of the Second Annual Symposium of the Avicenna Study Group*, ed. J. McGinnis (Leiden: E.J Brill, 2004) 42-61.

[50] But note: the Giver of forms, according to Avicenna, is not a divine agent, though it is outside the natural order. This is another difference between his view and that of the Ashʿaris.

[51] *The Healing; Metaphysics* IV.2.21, 138.

somehow permeated them and thereby managed or regulated them (*tadbīr*).[52] A number of Arabic philosophers also maintained this Neoplatonic view of nature.[53]

Whoever the proponents of (3.3.1) were, the shaykh rejects the view by noting that it reduces to one of the divisions already dealt with:

> [T22] If [3.3.1] the very power necessitates that [act], then necessitating that [act] from this body itself must be due to one of the reasons mentioned [above] - and so the argument is brought back to where it was before.[54]

The reasoning seems to be: insofar as *e* is due to *G*'s power in a necessary way, that causal power, considered as such, is indifferently related to all bodies. Why then, one might wonder, does *e* regularly occur when, say, *x* and *y* are related or when *x* and *z* are related, and not when say *z* and *y* - or some other connection not involving *x* - are related? It can't because of some fact about *G*'s power itself; for, again, that power is equally related to all bodies. The following example may illustrate the force of the argument at T22: consider a source of light, e.g., the sun. Though it equally or indifferently shines on rocks *x* and *y*, yet we observe only rock *x* reflecting its light. Why is this the case? Nothing about the sun's rays can explain the difference, for they fall on both rocks equally. The explanation must then be sought on the side of *x*, namely, that it has some property that rock *y* lacks – say, the fact that it is a diamond and so is of a particular material constitution which reflects, and so has the *capacity* to reflect, light. The point then is that if *e*'s occurrence is due to something on the side of body *x*, then, as T22 indicates, we just run again those steps of the argument that we did when dealing with options (3.1) and (3.2) earlier. The upshot of the argument contra (3.3.1), then, is that in order to explain the characteristic behavior of a body, there's no need to posit nature as an entity extrinsic to that body, which produces acts from it by somehow being diffused in it or governing it. Rather, we must inevitably end up appealing to some factor immanent in the body in question to account for the production of acts or effects from it. Hence, the explanation will necessarily be in terms of properties the body possesses, and not some transcendent universal nature. And so, even if nature as the Neoplatonists conceive it exists, it can't explain the phenomenon they posit it to explain;

In order to avoid these consequences, the anti-realist about powers as intrinsic features of bodies must then hold that effect *e* is due to some additional factor on the side of, not *x*, but *G*, which he then identifies with a specifying act of volition (*irāda*). If so, that move amounts to (3.3.2) of T21, which is the one I noted the Ashʿaris ultimately opt for.

In addressing (3.3.2), the shaykh again appeals to the QT principle:

> [T23] As for [3.3.2] it being by way of volition, then that volition either distinguished this body from all other bodies [3.3.2.1] by a property

[52] See Philoponus, *On Aristotle's Physics 2,* 197.34-198.1.
[53] For the details of this Neoplatonist view of nature, as well as its reception among Arabic philosophers, and Avicenna's critical reaction to it in the context of Aristotle's definition of nature, see Andreas Lammer, *The Elements of Avicenna's Physics: Greek Sources and Arabic Innovations*, ch. 5.
[54] *The Healing; Metaphysics* IV.2.21, 138.

> peculiar to [the body] or [3.3.2.2] randomly (*juzāfan*) and in however a chance way.[55]

That is, if per (3.3.2) *e* issues from *x* in a regular manner because *G* wills its occurrence on every occasion, then either there must be some principled reason why *G*'s volition constantly specifies *x* – as opposed to any other body *x** - as that from which to produce *e* specifically - as opposed to any other effect *e**. Or, there is no such reason, in which case it just so happens that *G* does so, in the sense that the specification by *G* is completely arbitrary.[56] The latter alternative implies that it is possible for *G* to will *e* from *y* just as much as it in fact does from *x* or will *e** from *x* just as much as it in fact wills *e* from *x* (e.g., heat from snow just as much as from fire, etc.).

Disjunct (3.3.2.2) is then ruled on the grounds it fails to account for the consistent way in which *e* in fact proceeds from *x*:

> [T24] If [3.3.2.2] randomly and in however a chance way, [the event] would not continue [happening] in this perpetual or for the most part order (*niẓām al-abadī wa'l-aktharī*); for chance affairs are those which are neither always nor for the most part. But natural things are either always or for the most part. Therefore, they are not by chance.[57]

That is, random or chance events, by definition, are those that don't occur either always or for the most part. But the putative causal connections in the world happen either always or for the most part, as we can empirically observe. Hence, the divine will *qua operating in an arbitrary way* can't be the explanation. The Ashʿarite will surely have to concede this point, insofar as he denies that God does things in a random way in the sense characteristic of someone who lacks knowledge or is ignorant and whose behaviour is hence irrational. And conceding that much is enough for the Avicennian to infer that there must then be a reason why the divine will regularly specifies the events that it does.

However, the issue bears further consideration (*fīhi naẓar*). For although the Ashʿarite may grant this conclusion, namely, that the divine will operates in a non-arbitrary manner, he will still have to deny, contra what the shaykh wants at T23, that the explanatory factor must be located on the side of the body which the divine will specifies for the production of the act or effect, *e*. Instead, the explanatory factor appealed to, the Ashʿarite may urge, remains in God Himself. And this factor is what they call the divine custom or habit (*al-ʿāda*).[58] So on their view, God's habit or custom (*ʿāda*) explains the regular connections between events in that those events display order and regularity due to God's constantly creating them in that way on each particular occasion. He constantly chooses to will *e* from *x* as opposed to *y* and that's the sufficient reason for *e* regularly following *x* as opposed to *y*. Nothing in the argument at T24, one might think, tells against this.

But one would be wrong to think that. For what is at issue in T24 is not the cause of *x*'s regularly mediating *e*'s occurrence. At this point, we already known the identity of that cause i.e., the divine will. Rather, what is at issue is the reason for the divine volition consistently choosing *x* (as opposed to some non-*x*) to mediate the production of *e*. In other words, the divine habit

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[55] Ibid.,

[56] In other words, the proponent of (3.3.2) may hold that although there is a reason why the effect *occurs* (as opposed to not occurring) there's no reason why *that effect* occurs, and no reason why it proceeds from the *specific* body it in fact consistently proceeds from.

[57] Ibid., IV.2.21, 138.

[58] Ibn Fūrak, *Mujarrad* 131-132, 134.5-8, and 176. Bāqillānī, *Kitāb al-bayān*, 50-55.

explains *e*'s regular production from *x*, not why the volition *itself* regularly chooses *x* over its alternatives. At T24, the shaykh is asking about the reason for the divine regularity (= habit), not the regularity on the side of *x*, *y*, and *e*.

The Ashʿarite at this point might simply insist: 'the regularity of the divine will just has no ground in anything over and above mere acts of volition i.e., that amount to the choosing of one possibility over another'. This response is no good though; for, the Avicennian will point out, he is committed to the following claim:

> The divine will in itself is indifferently related to every possibility

The possibilities in this case being effects and the occasions to produce them. As one later member of the school, Juwaynī (d. 1085), put it in his *al-Irshād*:

> [T25] For every event, God wills its coming into being. And it is not the case that God's volition is specifically related to one class of events to the exclusion of another class.[59]

Now if that is the case, a difficulty arises for the Ashʿarite – namely, that the QT principle – a premise both parties share – is violated. For the divine will's relation, per T25, to both *x* and ~*x* (for some ~*x* e.g., *y*) being one of equality means that its specification or attachment (*taʿalluq*) to either alternative is contingent in the sense that there's no necessity (*ḍarūra*) that it should (consistently) choose one alternative over the other. But if so, the contingency involved in the divine will's choice on any given occasion demands, given QT, a reason/cause (*ʿilla*) why it opts for one alternative over the other on that occasion. Otherwise, the Ashʿarite is then effectively saying:

a) *x* is contingently *F*, but
b) there's no reason or cause why x is *F*

in which case we have a determination of some contingent without a determining factor - a violation of the QT principle.

At this point, the Ashʿarite may bite the bullet and reject QT by insisting that no additional explanatory factor is needed despite the contingency of the divine will's choice (of *x* over ~*x*, for any not ~*x*). That is, he may insist that the divine will just brutely *and* contingently specifies *x* over ~*x* in a regular way, given that

> [T26] […] the will is nothing but an attribute whose function is to distinguish one thing from among its counterparts.[60]

The trouble with this view is that it opens the door to Humeanism; for as far as contingency goes, the divine will and any other event are equivalent. Hence, if no determining factor is required in the case of the divine volition's (contingent) specification of *x* over ~*x*, then it is also not required in the case of the (contingent) event of *x* occurring at the moment that it does as opposed to ~*x* occurring. And if there's no difference at all between the two with respect to contingency holding

[59] Juwaynī, *Kitāb al-irshād*, 238.
[60] Ghazālī, *Al-Iqtiṣād* II.1.4, 109.

of both, then not only is the regularity of events that we started with rendered unintelligible, but any way to establish a divine cause of such events is blocked.

A second difficulty also arises at this point - namely, the principle of non-contradiction (PNC) will be violated. For the divine will cannot *both* regularly choose *x* specifically as opposed to ~*x*, and be equally related to the two. In other words, according to the Avicennian, the following two commitments of the Ashʿarite:

i) The divine will is equally related to *x* and ~*x*

And

ii) The divine will regularly chooses *x* over ~*x*

are inconsistent with each other. For 'equality' i.e., of the divine will in relation to *x* and ~*x*, and 'preponderance' or determination i.e., of that will for *x* over ~*x*, are contradictory properties. Hence, it would be a contradiction to hold both are true of the divine will in one and the same respect. And so, on analysis, it turns out that claims (i) and (ii) are denials of each other, so that if the divine will regularly chooses *x* over ~*x* (for some ~*x*), this means that it isn't equally related to ~*x*; and vice versa.

The upshot of the above argument is that there's pressure on the occasionalist opponent to give up either claim (i) or claim (ii). If he gives up (ii), he gives up a self-evident experiential premise. If he gives up (i), then the Avicennian can conclude that the divine isn't equally related to *x* and ~*x*, and hence that, as T24 argued, the explanation for the regularity of events is not the divine will qua operating arbitrarily or randomly but qua operating on the basis of some principled reason.

Now with T23's option (3.3.2.1), we've seen that the shaykh wants to locate this reason in some factor belonging to the body from which God, according to the occasionalists, produces an effect. But suppose the Ashʿarite again grants this much, but again denies, against (3.3.2.1), that the explanatory reason must be located in the body from which the effect is willed. Instead, he might claim, given that God activities are wise activities, the explanatory reason, whatever it may actually be, falls under His attribute of knowledge.

In my view, this move is no good on Ashʿarite principles. The reason is because they hold the view that knowledge as such

> [T27] […] depends on what is known, attaches to it as is, and does not affect it or change it.[61]

In other words, knowledge on the Ashʿarite view is conditioned by its object, which in this case would be *x*, i.e., the body from which God regularly produces some effect *e*. So on this account, God's knowledge of *x* i.e., that it mediates *e*, must be determined by some relation intrinsic to *x* and *e* themselves. And this in turns explains why He regularly chooses to bring *e* into existence from *x* as opposed to any ~*x*. But if so, when we inquire into the nature of this intrinsic relation between *x* and *e*, we realize it must hold either because of something about *x* qua body or because

[61] Ibid., II.1.4, 107.

of some factor additional to that. And hence, God must regularly choose *x* to mediate *e* either because of the mere fact that *x* a body or because of some additional feature that it has. With this, we see that disjuncts (3.1) and (3.2) of the Avicennian argument resurface once again, in which case we run the same steps as we did before when we first encountered them.

Having eliminated (3.3.2.2), the shaykh concludes to (3.3.2.1):

> [T28] It [3.3.2.1] remains, therefore, that [the will specifies the body] due to a property by which [the body] is distinguished from the rest of the bodies, and from this property is willed the procession of that act.[62]

That is, in terms of bringing about *e*'s existence, the relation of the divine will to *x* must be grounded in some special property of *x*. At this stage of the argument, it might seem that the shaykh has his conclusion - namely, there exists some power-property *F* in *x* in virtue of which *G* wills *e* from *x*. But that doesn't seem right. For occasioanlism still stands, the Ashʿarite might urge, insofar as the conclusion at T28 is compatible with an account of power-properties on which they are purely passive, in the sense of equally related to the effects that we observe occurring. And if so, then such power-properties wouldn't be make a real causal contribution to the observed effects. In Avicennian terms, they would not be 'active necessitating principles of those effects' – which is what they need to be for occasioanlism to be false. Moreover, an account on which such power-properties are indifferently passive is one on which they are immediately dependent on some external agent that activates them and thereby produces *e* upon their activation. So on this view, although the occasionalist gives up his anti-realism about powers by granting the Avicennian that the divine agent regularly chooses to produce *e* from *x* because of a power-property *F* in *x*, he can still hold that *F* is indifferently related to effects *e* and *e**. That is, that *F* is causally inert such that the only determining reason *e* in fact regularly proceeds from it, as opposed to not or anything else, is because of the specification of the divine will. And if so, then *F* in fact is not a really a principle (*mabda*) of, and so does not make any real causal contribution to, *e*'s occurrence.[63]

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[62] *The Healing; Metaphysics* IV.2.22, 138.

[63] Some interpreters seem to attribute this 'passive' view of powers, or at least one like it - which is a sort of intermediate position between traditional Ashʿarite occasionalism and the Avicennian theory of efficient causation - to Ghazālī himself in the 17th discussion of the *Tahāfut*, as well as certain other works like the *Iḥyāʾ ʿUlūm al-Dīn*, *al-Maqṣad al-Asnā*, and the *Al-Iqtiṣād* itself - see e.g., J. McGinnis, 'Occasionalism, Natural causation and Science in Al-Ghazālī', in *Arabic theology, Arabic philosophy. From the Many to the One: Essays in celebration of Richard M. Frank*, ed. J.E. Montgomery (Leuven; Paris; Dudley, MA: 2006), 441-463. Other interpreters agree with this sort of view insofar as they too think that Ghazālī did not endorse traditional Ashʿarite occasionalism - see e.g., Richard M. Frank's *Creation and the Cosmic System. Al-Ghazālī and Avicenna* (Heidelberg: Carl Winter, 1992), 12-21, and Frank Griffel's *Al-Ghazālī's Philosophical Theology* (Oxford: Oxford University Press, 2009), 204-205. For my part, basing myself strictly on *Al-Iqtiṣād*, I think that Ghazālī endorses classic occasionalism, and so disagree with specifically McGinnis' reading of the Ghazālian texts, especially in the *Tahāfut*, given that in that work, Ghazālī explicitly says he's not putting forth any positive doctrines of his own. But that's an interpretative issue the details of which I'm not interested in pursuing here. My basic point is, even assuming that McGinnis is right that Ghazālī believed in creaturely passive powers, the key point is he did not think that those powers were efficacious (*muʾaththir*) in any sense. As the *Al-Iqtiṣād* puts it, although the creaturely power 'attaches' to the object of power (*maqdūr*), it does not 'create' or 'produce it'. The only reason why the Ashʿarites, Ghazālī included, posit a creaturely power in the first place is to preserve the distinction, known of necessity, but which they claim the Mujbirites deny, between a voluntary movement and a tremor. It is *not* to show that (human) creatures make a real causal contribution to an event's occurrence - see *Al-Iqtiṣād* II.1.1, 94. But if so, this is just classic Ashʿarite

It seems to me that the shaykh explicitly recognizes something like this possibility with option (3.3.2.1.3) at T29 below, which is why he pushes the analysis further instead of terminating the argument at T28. We'll deal with (3.3.2.1.3) later though, at T33 below. For now, what's important is that the claim at T28 is not the desired conclusion. This is also why the next move the shaykh makes is to zero in on the relation obtaining between property *F*, which his opponent just granted exists in body *x*, and effect *e* (that God, on the occasionalist picture, wills from *F*) and inquire into why the external cause *G* regularly brings *it* specifically about:

> [T29] It must then be that either that [act] is willed because [3.3.2.1.1] that property necessitates that act or [3.3.2.1.2] it comes to be from [the property] for the most part or [3.3.2.1.3] it neither necessitates [the act] nor does it come to be from [the property] for the most part.[64]

If, as we've seen, the explanation for *e*'s regular occurrence can neither be grounded in *G*'s divine will itself, nor in the fact that *F*'s possessor, *x*, is a body, then it must be grounded in the power *F* itself. If so, then *F* itself will either be a power essentially directed to the production of *e* specifically as opposed anything else *e**, or *F* will be a power indifferently related to whatever effect *G* happens to produce from it at any given moment. This latter alternative is the same as the occasionalist option I just delineated above and identified with option (3.3.2.1.3) of T29, on which *F* is a causally inert passive power, i.e., indifferently related to effects *e* and *e**. Now if the former is the case, i.e., if *F* is essentially directed to *e*, then, as T29 has it, either *F* is such that it essentially necessitates *e*, which is option (3.3.2.1.1) of T29, or *F* essentially renders *e* to occur for the most part, which is option (3.3.2.1.2) of T29.

Obviously, no bona fide occasionalist, Ashʿarite or otherwise, can opt for (3.3.2.1.1); otherwise, it is straightforwardly clear that occasionalism is false:

> [T30] If (3.3.2.1.1) [the property] necessitates [the act], then it is a principle (*mabda*ʾ) of that [act].[65]

That is just what it means for something to be a principle, given QT. Nor will disjunct (3.3.2.1.2) be any good for the occasionalist; for the problem with that option is it reduces, on analysis, to the first one, i.e., (3.3.2.1.1). The shaykh explains:

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occasionalism i.e., the view that 'all *efficacious* power belongs to God', not 'all power belongs to God'. Relatedly, I would also disagree with the analysis (at ibid., 443-444) of what Avicenna is up to in *Kitāb al-najāt*; *ilāhiyyāt* III.2.1, 546-547. In that context, Avicenna is thought to be offering an argument for necessary causal relations, an argument which McGinnis says Ghazālī then addresses at *Tahāfut* VII. This doesn't seem right, however; for clearly that section of the *Najāt*, as its very title indicates, is about what the *notions* of necessary and possible existence mean, on which the shaykh will draw in the subsequent chapters to prove certain theses. One of these is that the relation between a cause and its effect is one of necessity, and the argument proper for that only comes two chapters later at *Najāt* III.2.3, 548-549 - where it is established that nothing exists unless it is necessitated to exist, i.e., by whatever causes it. And this argument at III.2.3 548-549 is just a more condensed version of the one offered for the same conclusion at *The Healing; Metaphysics* I.6, which McGinnis, correctly I think, believes Ghazālī accepts because it is "innocuous for [his] own theory of efficient causation" (ibid., 448) in so far Ghazālī goes on make the necessitating factor an act of (divine) volition. But if so, then the argument at *Najāt* III.2.3, 548-549 is equally harmless for Ghazālī's theory, and so he need not be interpreted, a la McGinnis, as seriously responding to it at *Tahāfut* VII. As far the Avicennian argument proper for causal powers we've been considering so far is concerned, Ghazālī nowhere addresses it in the 17th discussion of the *Tahāfut*.

[64] *The Healing; Metaphysics* IV.2.22, 138.

[65] Ibid.,

> [T31] If [3.3.2.1.2] for the most part, that which is for the most part - as you learned in *The Physics* – is identical (*bi-ʿaynihi*) to that which necessitates, but it has an impediment. For its being characterized as having the thing come to be for the most part is through an inclination (*mayl*) from its nature in the direction of what is from it. Hence, if [the thing] doesn't exist, this is due to an impediment. Therefore, what is for the most part is also in itself necessitated, if there is no impediment […].[66]

Recall what option (3.3.2.1.2) states: *e* is regularly brought about by *G* from *F* because *F* is of itself such that it leads to the production of *e*, not necessarily or always, but only for the most part. Avicenna responds to this by noting that the difference between a case where *F* leads to *e* for the most part and a case where it leads to *e* necessarily or always is that, in the former case, there's some obstacle present which bars *F* from producing its characteristic effect, *e*. Hence, were the obstacle not there, *F* would always in fact produce *e*.[67] The upshot of the argument at T31, then, is that the external entity *G* regularly produces *e* from *F* because *F* is essentially a principle of *e*. For *F*'s rendering *e*'s occurrence for the most part is because of some obstacle which, were it absent, *F* would always bring *e* about. And that which is always is, in a sense, that which is necessary. Therefore, *F* is related to *e* as the principle which necessitates it, which is just option (3.3.2.1.1) of T29.

With (3.3.2.1.1) and (3.3.2.1.2) eliminated, option (3.3.2.1.3) remains to be treated. According to this account, which I noted is the one the Ashʿarite must ultimately choose, *F* is equally related to *e* and ~*e* (for some ~*e*). Or more precisely, that *F*, despite *e* regularly proceeding from it through *G*, neither necessitates *e* nor renders it to occur for the most part. This move consists in the Ashʿarite introducing an indifference, similar to the one he affirms in the divine will (as stated in T25), into the power *F*, which power he concedes exists in *x*.

The shaykh rejects this view by arguing that it would again entail that *e*'s occurrence is a random event:

> [T32] If [3.3.2.1.3] this property [in *x*] neither necessitates [the act] nor does it [occur] from it for the most part, then [the act's] being from it and from something other than it would one and the same; and hence, [the act's] being specifically by [that property] would be random. But it has been stated that it is not random.[68]

In other words, if, per (3.3.2.1.3), *F* is completely neutral with respect to the occurrence of *e* specifically, then *e*'s proceeding from *F* and from anything other than *F* would be identical. And hence, *e*'s occurrence from *F* would be a purely chance affair. But we decidedly know that its being by chance is false; since, again, we observe that *e regularly* proceeds from *F*. Hence, F cannot be an indifferent power. Regularity is opposed to randomness; so this last option too fails to account for the fact that *e* constantly occurs from *F*. The same argument can be put another way: if the fact that effect *e* is regularly brought about by *G* from power *F* is in need of an explanation, then that this happens not only regularly but with the additional condition, per (3.3.2.1.3), that *F* is itself a purely passive or indifferent power is need of an explanation all the

[66] Ibid., IV.2.22, 138-139.
[67] For the full argument for the reduction, see *The Healing; Physics* I.13.6, 83-84.
[68] *The Healing; Metaphysics* IV.2.22, 139.

more. For if an indifferently related divine will can't explain, as we've seen, the regular occurrence of *e* from *x*, then an indifferently related divine will plus an indifferently related power *F* in *x* a fortiori can't explain *e*'s regular occurrence from *x*. For, again, a thing's being indifferent to *e* and its regularly brining about *e* are incompatible properties. Thus, either *F* is not a purely indifferent power or, if it is, *e*'s regular occurrence is inexplicable. The occasionalist is in a bind.

Before drawing the final conclusion, the shaykh considers one last possibility – which doesn't concern the occasionalist per se – that someone may opt for in order to avoid the conclusion that *F* itself is what necessitates *e*. The opponent suggests that *e*'s production is more properly attributable to, not *F*, but that which possesses *F* as a property, namely, body *x*, so that *x* has a better claim than *F* to occupying the role of 'the principle of *e*'.

> [T33] Likewise, if it's said: "[the act's] being [from] the possessor (*ṣāḥib*) of that property is more appropriate (*awlā*)", then its meaning is that [the act's] procession from it is all the more fitting (*awfaq*). And so [the property], then, [either] necessitates [the act] or facilitates (*muyassir*) its necessitation. That which facilitates is either a cause essentially (*ʿilla bi'l-dhāt*) or accidentally (*bi'l- ʿaraḍ*). And so if there is no essential cause other than [the property], then it is not an accidental [cause]; for that which is an accidental [cause] is in accordance with one of the two mentioned ways.[69]

The response to the objection states that it makes no real difference whether the production of *e* is more properly attributable to *F* or to what possesses *F* as property i.e., *x*. That is, *e*'s occurrence will still be accounted for in terms of *F* – whether alone or conjunctively with its bearer, *x*. This is because if we assume that it is *xF* jointly, as opposed to just *F* singly, that is responsible for *e*'s occurrence, *F*'s causal role in that, as the shaykh states, would either have to be (i) one of necessitation or (ii) one in which *F* merely *aids* its bearer *x* in necessitating *e*. If (i), then obviously *F* necessitates *e*, in which case *F* is properly a principle of *e*. But this is just the conclusion sought (*maṭlūb*). As for (ii), as already indicated in T20, in the context of *The Physics* Avicenna calls the 'facilitating' or 'aiding' cause' a 'preparing' (*muhayyiʾ*) principle, and defines it as "that which makes the matter suitable", i.e., for the action of something else so that some effect may be produced.[70] If we then assume, per option (ii), that *F* merely aids *e*'s being necessitated to exist, *F* will then, as the middle of T33 states, either be (ii.1) a per se (*bi'l-dhāt*) or (ii.2) a per accidens (*bi'l-araḍ*) facilitating cause of *e*.[71] For *F* to be a per se or essential cause of *e* is for it to be a "principle of that very [effect] itself and taken insofar as it a principle of it", whereas for *F* to be an accidental cause of *e* is for it to not be an essential cause in the sense just defined.[72] The accidental cause comes in various types, all of which presuppose the essential.[73] So if, then, *F alone* i.e., *F* without any other causal factors involved, is (ii.1) a per se facilitating cause of *e*, such that it brings *e* about regularly, then *F* can't be an accidental cause of *e* in any sense, especially not in the two senses we've been considering so far, namely, as a chance or a forcing cause. But as a per se cause of *e*, *F* is a necessitating principle of *e* – which, again, is just the conclusion sought. But should one opt to hold that *F* is (ii.2) a per accidens cause of *e*, there

[69] Ibid., IV.2.23, 139.
[70] *The Healing; Physics* I.10.3, 65 (tr. J. McGinnis).
[71] For Avicenna's explanation of this distinction, see ibid., I.12.2, 74-75.
[72] Ibid., I.12.2, 74.
[73] See footnote 35.

must then exist some cause *F** that is a per se cause and which *F* is parasitic upon. And the argument will then be about *F**. The upshot: either we end in a per se cause of *e* or an infinite regress threatens, in which case *e*'s existence will never be necessitated, with the result, given the QT principle, that *e* will not in fact exist. But this contradicts the datum that it in fact exists, and does so regularly. Therefore, the property *F* must be a per se, necessitating cause of *e*.

The shaykh then concludes:

> [T34] Therefore, it remains that that property in itself a necessitating [principle]. And so the necessitating property is called power (*quwwa*). And this power is [one] from which bodily activities proceed, even if by the aid of a more remote (*ab ʿad*) principle.[74]

The argument for the existence of causal powers in bodies ends here. As I noted at the beginning of this inquiry, T34's conclusion is also meant to be taken as showing that nature (*ṭabīʿa*) in the technical Aristotelian sense exists; for on Avicenna's view, nature just is a power and a power, considered in a certain respect, just is nature (in that technical sense). If so, the argument fulfils both its aims; on the one hand, it establishes the existence of nature qua power, and on the other, it refutes occasionalism, which is probably the greatest challenge to Aristo-Avicennian natures. For it shows that some body produces an effect *e* in virtue of *F* where *F* is a power-property of that body - and this even on the assumption, per the end of T34, that the body requires the causal co-operation of an immaterial entity to do so. In sum, if it's true that

Some body possesses efficacious causal power

then occasionalism, understood as a commitment to OC above i.e., that

Only God possesses efficacious causal power

is not true.

In light of the above analysis, we can summarize the shaykh's argument in a 15 premise argument like so:

1. Upon contact between body *x* and *y*, some effect *e* regularly occurs (empirical premise)
2. *e* is due to either (1) *x* qua body, (2) a power *F* in *x*, or (3) some incorporeal entity G.
3. ~ (1); otherwise, every body would produce *e*. But it doesn't.
4. If (2), that is the desired conclusion.
5. If (3), G regularly produces *e* from *x* either due to (3.1) *x* qua body, (3.2) a power *F* in *x*, or (3.3) a power *F** in G
6. ~ (3.1); otherwise, *e* would regularly occur from any body. But it doesn't.
7. If (3.2), that is the desired conclusion.
8. If (3.3), then *F** either (3.3.1) necessitates *e* or (3.3.2) specifies *e* because of a will, *w* (= OC).
9. If (3.3.1), that is either because of (3.1) *x* qua body or (3.2) a power *F* in *x*. Whatever the case, the desired conclusion is established.
10. If (3.3.2), then *w* regularly specifies *x* (over some non-*x*) for the production of *e* either (3.3.2.1) because of something, *F***, peculiar to only *x* or (3.3.2.2) *w* does so randomly.
11. ~ (3.3.2.2); otherwise, there would be no regularity. This contradicts 1.

[74] *The Healing; Metaphysics* IV.2.23, 139.

12. If (3.3.2.1), then *w* wills *e* from *x*'s *F*** either because *F*** (3.3.2.1.1) necessitates *e*, or (3.3.2.1.2) renders *e* to occur for the most part or (3.3.2.1.3) neither necessitates nor renders *e* to occur for the most part.
13. ~ (3.3.2.1.3); otherwise, *e* would be random. This contradicts 1.
14. If (3.3.2.1.2), this reduces to option (3.3.2.1.1).
15. Therefore, (3.3.2.1.1). And this is the conclusion sought (*maṭlūb*)

I leave the argument at that.

5. A QUESTION AND A SUGGESTION

Assuming he's serious, Avicenna's willingness to admit the causal relevance of a separate entity in the events of nature raises the question of what sort of causal model of the Creator-creature relation he endorses. In the contemporary literature, there are three main accounts: conservationism, concurrentism, and occasionalism.[75] Roughly, on conservationism, the separate entity only conserves a body and its powers in being, but makes no causal contribution to the effects of that body's powers at all. That is, the body itself is the only cause of those effects. On the concurrentist view, the separate entity not only conserves the body and its powers in being, it also, together with the body, contributes to the body's effects. As for occasionalism, as should be clear by now, it maintains that the separate entity is the only cause, both of the body, its powers, and the effects that are (mistakenly) attributed to those powers. Where does Avicenna stand on this scheme? The answer it seems depends on what the creaturely-effect is. It is likely that he is a conservationist if the effect in question is motion of any sort (or an accidental form more generally). But if the effect is a substantial form, then he can be understood as a modified occasionalist – I say 'modified' because, on this view, the separate causal agent, as already noted, is not God a la the Ashāʿira but an immaterial entity lower on the chain of being, i.e., the 'Giver of forms'. The explication and justification of these claims, though, I leave for another occasion.

6. CONCLUSION

In relation to the two traditions it is meant to address, the Avicennian argument we have been considering in detail is interesting and unique for at least two reasons. First, unlike Aristotle, Avicenna does not think that the existence of nature as a power is something *unqualifiedly* self-evident; that is, self-evident in a way such that it can only be justified indirectly or dialectically, i.e., by the absurdities that would follow were it to be denied, which as we've seen is Aristotle's preferred method, at least on a certain interpretation, in the *Physics* and *Metaphysics*. And there were at least two reasons why the shaykh denied that nature's existence is self-evident in this sense. The first had with a reason internal to the Aristo-Avicennian system; namely, with the way the hierarchical relation among the various sciences is conceived, where the principles of a lower science must be proven in a higher one. The second reason plausibly had to do with pressures from his Ashʿarite theological contemporaries who, as we've seen, accepted the fact that bodies are involved in events of various sorts but denied that they those events occurred because of some intrinsic power the bodies involved in them possessed. In connection with this last point, the second reason the Avicennian argument is interesting is that, when addressing occasionalism, it

[75] For a useful description of these three models of God's causal relation to the world, see Alfred Freddoso, 'God's General Concurrence with Secondary Causes: Pitfalls and Prospects', in *American Catholic Philosophical Quarterly* 67 (1994): 131-156. See also *Divine and Human Action: Essays in the Metaphysics of Theism* ed., Thomas V. Morris (Ithaca, NY: Cornell University Press, 1988).

concedes, as is evident from the end of T34, a fundamental tenet of that doctrine while still showing that there must be some factor *F* in a body in virtue of which some putative effect *e* is produced. So it doesn't deny outright an important facet of Ashʿarism, namely, the causal role of an external (in their view divine) agent in the events of the world. Rather, it accommodates that tenet in some way, and says: even so, there must be some feature in a body in virtue of which the phenomenal effect is either always or for the most part, i.e., regularly, produced with the assistance of said external cause. In my view, that is a feature of the argument that gives it powerful appeal.[76]

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