

Conservation and Causation in Avicenna's Metaphysics

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TABLE OF CONTENTS

Introduction.....	1
Chapter 1: The Efficient Cause in Metaphysics.....	10
1.1. The argument of <i>Shifāʾ Metaphysics</i> VI 1.....	11
1.2. The argument of <i>Shifāʾ Metaphysics</i> VI 2.....	34
1.3. The argument of <i>Shifāʾ Metaphysics</i> VI 3.....	44
Chapter 2: The Generation of Individuals of a Species: A Causal Division of Labor.....	54
2.1. Causes of animal generation in Aristotle's <i>Generation of Animals</i>	57
2.2. Avicenna's biological account in <i>Shifāʾ Kitāb al-Ḥayawān</i>	61
2.3. Avicenna's account in <i>Shifāʾ Kitāb al-Nafs</i>	79
Chapter 3: The Metaphysical Efficient Cause in Avicenna's Emanative Cosmology.....	105
3.1. Creation (<i>ibdāʿ</i>) and generation (<i>iḥdāth</i>) in <i>Shifāʾ Metaphysics</i> VI 2.....	106
3.2. The essential ends of nature in <i>Shifāʾ Metaphysics</i> VI 5 and <i>Physics</i> I 7.....	120
3.3. A passage on God's knowledge and causation in <i>Shifāʾ Metaphysics</i> VIII 6.....	140
Chapter 4: The Proof for the Necessary Being and the Metaphysical Efficient Cause.....	145
4.1. Establishing the full text of the proof.....	152
4.2. The argument of <i>Najāt Metaphysics</i> II 12.....	165
4.3. The argument of <i>Najāt Metaphysics</i> II 13.....	173
4.4. The argument of <i>Najāt Metaphysics</i> II 14.....	174
4.5. Explanatory adequacy and the proof.....	194
4.6. Infinite regress and the proof.....	211
Conclusion.....	216
Bibliography.....	225

ABSTRACT

This dissertation examines Avicenna's theory of efficient causation in light of his approach to central problems in metaphysics, from the proof of the Necessary Existent to his emanative cosmology. Avicenna provides an internally coherent *metaphysical* account of efficient causation. A metaphysical account of the efficient cause explains the *existence* of the effect or essence in a way that is not explained by the causes of motion, as investigated in physics. That is, a full explanation of the cause of the existence of an essence is not found in the four causes of natural change and motion. Avicenna aims to clarify what the explanatory division of labor is between the account of the natural philosopher and that of the metaphysician. In so doing, Avicenna develops a theory of causation that ties his innovative concepts of the contingent in itself and necessary in itself to the concept of efficient causation. A central distinction that Avicenna advances in relation to the efficient cause is that between the cause of the effect qua species (*nawʿ*) and the cause of the effect qua individual (*shakhs*). The distinction is relevant to understanding his view of the role of the causes of the essence, including the Active Intellect. Drawing on the above theory of efficient causation, the study reexamines Avicenna's famous proof for the Necessary Existent. The analysis shows that his metaphysical account of efficient causation is at the heart of his proof for a Necessary Existent. The "cause of persistence" (*ʿillat al-thabāt*), in particular, is argued to have a more critical role than previously acknowledged, and is explicated in the context of his theory of efficient causation in metaphysics.

RÉSUMÉ

Cette étude porte sur la théorie de la causalité efficiente chez Avicenne, au regard de son approche des questions fondamentales de la métaphysique, telles que l'Être Nécessaire ou la cosmologie d'émanation. Avicenne propose une théorie *métaphysique* de la causalité efficiente qui présente une cohérence interne et qui ne dépend pas des causes du mouvement, telles qu'elles sont traitées dans la physique, pour rendre raison à l'*existence*, autrement dit à l'essence, de l'effet. En effet, chez Avicenne, la justification de la cause de l'existence d'une essence ne tire pas sa légitimité des quatre causes du changement et du mouvement naturels. Il divise ainsi les tâches du philosophe naturel et du métaphysicien. Avicenne développe alors une théorie de la causalité qui relie ses concepts innovateurs du contingent en soi et du nécessaire en soi à son concept de la causalité efficiente. Il distingue entre la cause de l'effet en tant qu'espèce (*nawʿ*) et la cause de l'effet en tant qu'individu (*shakhṣ*), ce qui permet de comprendre le rôle des causes de l'essence, y compris de celui de l'intellect agent. En nous appuyant sur cette théorie de la causalité efficiente, nous voulions réexaminer sa célèbre preuve de l'Être Nécessaire. Nos analyses visent à démontrer que sa théorie métaphysique de la causalité efficiente est au cœur de sa preuve d'un Existent Nécessaire. En particulier, nous soutenons que, chez Avicenne, la « cause de la persistance » (*ʿillat al-thabāt*) est plus essentielle que généralement admis et que cette cause s'explique dans le contexte de sa théorie de la causalité efficiente en métaphysique.

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INTRODUCTION

It is now well-known to scholarship that Avicenna aims to advance a sophisticated approach to Aristotelian causal theory that aims to resolve central problems in Aristotle's texts. In doing so, Avicenna critically engages the interpretive projects of earlier thinkers, including the commentarial tradition of Late Antique philosophers.¹ In this work, building on current scholarship, I explore central aims of Avicenna's interpretation of Aristotelian causal theory, focusing on what it means to provide a "metaphysical" account of causes. I will focus chiefly on his interpretation of efficient causation. Most generally, Avicenna's approach to efficient causation in metaphysics, I argue, involves the following methodological concern: he aims to fulfill Aristotle's promise of applying the principles of demonstrative science to metaphysics.² In so doing, Avicenna not only sharpens received definitions of efficient causation and related concepts, but he aims to distinguish more fully causal accounts that are studied in physics from those that are properly investigated in the science of metaphysics. While physical causes aim to

¹ The seminal work in this regard is Robert Wisnovsky's study of Avicenna's approach to metaphysics and causation, which engages central distinctions developed in the late antique tradition aimed at resolving interpretive problems to the four causes in the texts of Aristotle. See his *Avicenna's Metaphysics in Context* (Ithaca, NY: Cornell University Press, 2003). See discussion below for further sources relevant to this study. Another important aspect of Wisnovsky's study is Avicenna's contemporary or "Islamic" context. As will be seen, Avicenna argues against the thesis of separate forms of some late antique philosophers, on the one hand. On the other, he is very concerned to highlight and argue against non-demonstrative concepts of causation offered by *mutakallimūn* that preclude a proper metaphysical analysis of causing existence.

² Regarding Avicenna's approach to reworking metaphysics, see Amos Bertolacci, *The Reception of Aristotle's Metaphysics in Avicenna's Kitāb al-Shifā': A Milestone of Western Metaphysical Thought* (Leiden: Brill, 2006), 107-263 (especially 215-263). Bertolacci states, "Avicenna regards the *Metaphysics* as the starting-point of a process of mutual integration between metaphysics and demonstration that, according to him, reaches its peak only in his own *Ilāhiyyāt*. By starting to apply demonstration to metaphysics, Aristotle is viewed by Avicenna as the initiator of a new phase of Greek philosophy (1.1); but what he has accomplished in this respect, according to Avicenna, is insufficient: *the method of metaphysics needs to rely on demonstration much more substantially than it does in the Metaphysics*," (262, emphasis mine).

explain motion and change, they fall short of providing an account of the *being* of things. Here, Avicenna aims to clarify what the explanatory and ontological division of labor is between the principle of motion, as the physicists (*al-ṭabīʿiyyūn*) mean, and the principle and giver of existence.³ In metaphysics, Avicenna attempts to develop a robust, demonstrative theory of causation that ties his innovative concepts of the contingent in itself and necessary in itself to the concepts of efficient causation.⁴

Here, I argue that a central distinction that Avicenna advances with regard to the efficient cause is that between the cause of the effect qua species (or essence) (*nawʿ*) and the cause of the effect qua individual (*shakhṣ*). In the following, I assess the methodological principles that underlie the distinction as well as how it informs his approach to particular problems. Avicenna views the cause of the effect qua species as explanatorily and ontologically distinct from the cause of the effect qua individual. Importantly, by causes of the effect qua “individual,” Avicenna does not mean a particular as standardly understood, e.g., Socrates or this red item. Rather, he uses “individual” in an original sense to refer to the entire domain of effects or explananda in physics, which assesses causes that account only for motion and change, including

³ *Metaphysics* VI 1 (2): 258. I will cite the *Metaphysics* of the *Shifāʾ* from Avicenna, *The Metaphysics of the Healing*, ed. and trans. Michael E. Marmura (Provo, 2005), with my modified translations. The standard edition of the Arabic text is Ibn Sīnā, *al-Shifāʾ: al-Ilāhiyyāt*, edd. G. Qanawati and S. Zaʿid (vol.1) and edd. M.Y. Musa, S. Dunya, and S. Zaʿid (vol.2), (Cairo, 1960). My citations will consist of book, chapter, Marmura’s paragraph numbers in parentheses, and the page and line numbers from the Cairo edition. I will cite the *Physics* of the *Shifāʾ* from Avicenna, *The Physics of the Healing: Books I & II*, ed. and trans. Jon McGinnis (Provo: 2009), with some modifications. My citations will consist of book, chapter, and McGinnis’ paragraph in parenthesis and page number. There are two editions of *Kitāb al-Samāʿ al-Ṭabīʿī: Al-Ṭabīʿiyyāt, al-samāʿ al-ṭabīʿī*, ed. Saʿīd Zāyid (Cairo: 1983), and *Al-Ṭabīʿiyyāt, al-samāʿ al-ṭabīʿī*, ed. Jaʿfar al-Yāsīn (Beirut: 1996). McGinnis’ emended edition is based on these two in addition to the Tehran lithograph of the *Shifāʾ* and the available medieval Latin translation of Avicenna’s *Physics*. For more on this and the source texts, see the *Translator’s Introduction* of the edition, esp. pp. xxxi-xxxiv.

⁴ Daniel D. De Haan, “Where does Avicenna Demonstrate the Existence of God?,” *Arabic Sciences and Philosophy* (2016) 26, 97-128. De Haan shows that, in I 6-7, Avicenna does the preliminary work to establish the properties that belong to necessary existence and possible existence, “which are the first principles of metaphysics.” In Chapter 4, I discuss Avicenna’s proof for the Necessary Existent, and how aspects of the following account of efficient causation are central to understanding the proof as one conducted in the science of metaphysics.

the explanandum of how an individual attains its species form, as in the case of the humanity of a son from the father. According to Avicenna, the efficient cause, as defined in metaphysics, gives a contingently existent *essence* its existence and must not only be external to the species but external to the natural causes of motion and change.⁵

Avicenna's approach is significant in the context of Aristotle's original project, and the relationship between explanatory causes in physics and those promised in metaphysics.

Avicenna's aim in metaphysics is to establish a framework for assessing the kind of causing explained by the efficient cause of existence, and he does that in part by contrasting it with the role of the efficient cause of motion in physics and showing the latter's explanatory limitations. He argues that causes of motion in physics, including substantial change in the domain of generation and corruption, can only go so far, and that the true, essential cause of an effect must ultimately provide an account of the cause of the effect *qua* species. This, of course, raises the central problem of what it means to cause existence and why exactly physical causes are insufficient in doing so. To Avicenna, the "true" efficient cause – i.e., that which provides a full account of efficient causation as understood in metaphysics – gives existence to essences that are not in themselves sufficient for their own existence. But what, precisely, is the explanandum of

⁵ I will use this phrase to refer to Avicenna's efficient cause of existence. As far as I can tell Avicenna does not refer to it as such but instead just speaks of the efficient cause simpliciter, as pursued in the science of metaphysics or in physics (i.e. an efficient cause of *motion*). In the context of metaphysics, Avicenna examines cause and effect as that which attaches to the existent *qua* existent. This means, with respect to efficient causation, he is seeking efficient causes of existence. Thus in *Shifā' Metaphysics* VI 1, when defining the four causes, he defines the *fā'il* as such, "[We mean] by agent the cause that gives (*yufid*) existence that is other than itself" At a broader level, Avicenna gives the science of metaphysics the special and exclusive role of explicating the causes, which are then used (in part or in full) in the other sciences to explain their respective subject matters. This is explained, for instance, here, "Hence, theoretical reflection on these belongs to this [metaphysical] science, not in [the sense] that one science treats them as [it treats] contraries—for they are not contraries—but because one science, in the manner in which this science is one, explains their state of affairs. This is because, even if we admit that these causes do not combine in all sciences so as to become among the common things occurring in the subjects of the various sciences, they [nonetheless] are also found in separate and different sciences. Even if they were [all] in one science, it would not be within the power of the practitioner of that one science—as, for example, *the natural philosopher, in whose art all these principles are present—to explain them; [this is] because they are the principles of natural science, and [the natural philosopher] discusses [only] what occurs to them,*" *Shifā' Metaphysics* VI 5 (51): 299, emphasis mine.

efficient causation? There are several possibilities that can be considered philosophically and textually, which I will discuss in this study.

Is the role of the efficient cause to cause an individual thing to become a *specific kind* of thing? Put in the Aristotelian terms of Avicenna, is the efficient cause that which provides form, say humanity, to a particular portion of matter made ready to receive it? On this interpretation, the efficient cause would explain how a new compound of form and matter is generated, presumably, by explaining the cause of the existence of the forms that individual substances attain upon generation. This is one established reading of Avicenna's view. More specifically, Avicenna is said to hold that the efficient cause of the form is an incorporeal substance – i.e. the “Giver of Forms” – which produces and bestows the form upon prepared matter.⁶ As such, corporeal causes and physical processes in the natural world serve only to prepare matter, which then receives an individuated form from the Giver of Forms. Both Averroes and Aquinas attribute this view to Avicenna.⁷ However, there are a range of problems in attributing the view to Avicenna, from the status of differentiated forms within the Active Intellect to the “occasionalist” view of generation and corruption that it attributes to Avicenna.⁸ Most importantly, however, this reading fails to clarify a causal explanandum in relation to Avicenna's

⁶ Kara Richardson, “Avicenna and Aquinas on Form and Generation,” *The Arabic, Hebrew, and Latin Reception of Avicenna's Metaphysics*, ed. Dag Nikolaus Hasse and Amos Bertolacci (Berlin: Walter de Gruyter, 2012), 251-274.

⁷ Averroes states, “And this theory resembles that of Plato about forms separate from matter, and is the theory of Avicenna and others among the Muslim philosophers; their proof is that the body produces in the body only warmth or cold or moisture or dryness, and only these are acts of the heavenly bodies according to them. But that which produces the substantial forms, and especially those which are animated, is a separate substance which they call the giver of forms,” *Tahāfut al-Tahāfut*, transl. Simon van den Bergh (London: Oxford Press, 1954) 407-408. See also Herbert Davidson, *Alfarabi, Avicenna, and Averroes on Intellect* (Oxford: Oxford University Press, 1992), 251. Aquinas states, “But form, which must become and is not presupposed, must be from an agent who does not presuppose anything but can make something out of nothing. And this is a supernatural agent, which Plato posited to be a giver of Forms. And Avicenna called this the lowest intelligence among separated substances,” qtd. in Richardson, “Avicenna and Aquinas”, 254.

⁸ Richardson highlights the problem of an occasionalist reading of substantial generation as well as the problem of how such a view conflicts with Avicenna's view of the unity of the composite substance.

view of efficient causation, and what role the Giver of Forms plays within it. For the reasons discussed below, Avicenna cannot be said to invoke an incorporeal cause to explain the generation of individuated forms or, as Aquinas states, to invoke “an agent who does not presuppose anything but can make something out of nothing.”⁹ Nor can Avicenna be said to invoke the incorporeal causes to simply avoid an infinite regress of corporeal causes, as Averroes suggests.¹⁰ Rather, Avicenna is interested in explaining an aspect of Aristotelian metaphysics that he believes remains unexplained even if one affirms the causal roles of corporeal agents and motions. That is, while the causes proper to physics explain the continued generation of things, including the infinite production of the individuals of a species, they do not explain a further metaphysical question, namely, why contingent essences exist, or are instantiated in the first place. As Avicenna states in *Shifāʾ Metaphysics* VI 5, “As for the individuals of the infinitely generated beings, they are not essential ends in nature. Rather, essential ends are, for example, that the substance that is man, horse, or palm *exists* [i.e., is instantiated in “some” human], and that this existence be a persisting (*dāʾim*), stable (*thābit*)¹¹ existence.”¹² Avicenna does not render corporeal causes and motions as outside of, or irrelevant to, metaphysics; rather, they are indispensable to metaphysics but insofar as they explain the fundamental causes of the existent and its attributes. However, he departs from the reading of Aristotle that, for example, Averroes provides regarding the status of the species, “That which is generated by an individual essentially is another individual like him – or itself. This is why Aristotle says that a man is generated by

⁹ See note above.

¹⁰ Averroes, *Commentary on Metaphysics*, Zeta 9 in *Tafsīr mā baʿd aṭ-ṭabīʿīyāt* 3 vols. (Beirut: Imprimerie Catholique, 1938–1952), 886; transl. in Jon McGinnis and David C. Reisman, *Classical Arabic Philosophy: An Anthology of Sources* (Indianapolis: Hackett Publishing Company, 2007), 334.

¹¹ Here *thābit* refers to the formal stability of the species, i.e. that over time the species “horse” does not evolve into another species.

¹² *Shifāʾ Metaphysics* VI 5 (22): 289–290. In Chapter 3, I discuss his distinction between an “unspecified” human and an individual human.

man and by the sun. It is the individual that is generated essentially. The form [of the species], however, is generated accidentally.”¹³ According to Averroes (and Aristotle), the continuity of the species-form is sufficiently explained by both the corporeal agent (i.e., the father) and the celestial motions. For Avicenna, the *continuity* of a contingent form or essence is explained with reference to the causes of motion, but this does not explain the *existence* of the contingent essence, which requires an efficient cause that endows it with existence. Avicenna states that the causality of such causes is “external to the natural order” and that “the natural philosopher has no business discussing it [such an efficient principle] since it has nothing to do with the science of physics.”¹⁴

¹³ Averroes, *Epitome of the Metaphysics*, 162-163, qtd. in Gad Freudenthal, “The Medieval Astrologization of Aristotle’s Biology: Averroes on the Role of the Celestial Bodies in the Generation of Animate Beings,” *Arabic Sciences and Philosophy*, 12 (2002), 117.

¹⁴ Avicenna states, “The efficient principle common to all in the first sense (if natural things have an efficient principle in this sense) would not be a part of the natural order, since everything that is part of the natural order is subsequent to this principle, and it is related to all of them as their principle [precisely] because they are part of the natural order. So, if that principle were part of the natural order, then either it would be a principle of itself, which is absurd, or something else would be the first efficient principle, which is a contradiction. Consequently, the natural philosopher has no business discussing [such an efficient principle], since it has nothing to do with the science of physics. Also, if there is such a thing, it may be a principle of things that are part of the natural order as well as things that are not part of the natural order, in which case its causality will be of a *more general existence* than [both] the causality of what specifically causes natural things and the things that are specifically related to natural things,” *Shifā’ Physics* I 2 (10): 17, emphasis mine. The passage comes in the context of Avicenna discussing the principles of natural things. When he turns to discuss the efficient cause and final cause, he states they are each common (*mushtarak*) to natural things and proceeds to distinguish two senses of common. The first sense of common is the sense in which an agent is a common cause of several particular effects. He says this is the efficient principle that produces the first cause from which all effects or actualities follow, and that in this first sense of common, common denotes a numerically one existing entity. The second sense of common is the way in which “agent” is said of each particular agent in a general sense, i.e. as a universal. He then proceeds to discuss the efficient principle that is common in the first sense in the above passage, where he states it does not concern the natural philosopher to discuss “it.” I can see two different readings of what the pronoun here refers to (the thing that is not up to the natural philosopher to discuss): 1) the common efficient principle in the first sense, which he is discussing in the lines above that he says is not a natural entity; or 2) it could refer to the “something else” of the prior sentence. In this reading, Avicenna would be saying that *if* one takes the common efficient principle to be a natural entity, then two problems follow: i) it would be the cause of itself (since earlier he said it is a principle of all things natural); and ii) something *else* must be posited to be the efficient cause since if it is natural then it too would be an effect of some non-natural cause. Thus the natural philosopher would have no business discussing *that* something else, the further posited principle, presumably because it is outside of the natural order. However, under both of these readings, it seems the result that I am focusing on would still follow: that this efficient principle that is common to all in the first sense, i.e. that he states is not natural and is a cause to all of what is natural (and maybe some non-natural things too), is not up to the physicist to examine.

The following work describes and assesses the central features of Avicenna's theory of the metaphysical efficient cause and how it applies to specific problems, including central premises in his "metaphysical" argument for the existence of the First Cause, the causal role of the Giver of Forms and the relative roles of natural versus incorporeal agents in the substantial generation of sublunar individuals. At a methodological level, I approach the focal philosophical distinctions – including that between the efficient cause of the effect qua species versus the efficient cause of the effect qua individual and the explanatory role of the cause of persistence – in the context of his interest in applying the method of demonstrative science in metaphysics. I examine the central features of his metaphysical theory of efficient causation in chapter 1 and turn to its application to specific problems in Avicenna's metaphysics in chapters 2, 3 and 4. The latter chapters assess the related concept of formal and final causation in metaphysics.

To elaborate further, Chapter 1 reconstructs the argument for what might be called a "metaphysical efficient cause" in *Shifā' Metaphysics* VI 1-3, culminating in a conception of the cause of existence as causing the existence of the essence or species-ness of effects. All Aristotelian causes treated in physics proper, he argues, cause at the level of the effect qua individual and so a fuller account in metaphysics is needed. Chapter 2 explores Avicenna's biological account of the development of the human faculties and the attainment of the rational soul in *Shifā' Kitāb al-Ḥayawān* and his account of the individuation and emanation of the human soul in *Shifā' Kitāb al-Nafs*. I argue that Avicenna's analysis falls within the framework of a physical explanation of causes of "individuals", as defined in the previous chapter. In Chapter 2, I examine Avicenna's well-known remarks in *Kitāb al-Nafs* regarding the emanation of the human soul. I argue that a close reading of the arguments and context of those passages supports a reading of emanation from within his larger framework of metaphysical efficient

causes. That is, in contrast to one dominant reading of emanation as causing individual forms, Avicenna denies the possibility of the Active Intellect producing individuated forms, including the rational soul. Here, what is needed is a philosophical reading of how emanation functions on causal terms. I argue that Avicenna's account of metaphysical efficient causes provides the relevant theory.

Chapter 3 explores how Avicenna's causal distinctions— most significantly that between cause of the effect qua species and cause of the effect qua individual—apply in the contexts of Avicenna's discussions of divine and superlunary causation in his emanative cosmology. Expanding on my findings in Chapter 2, I argue that Avicenna's view that the Giver of Forms “emanates” forms has to be translated into the causal language used above. In contrast to the unchanging celestial realm, where the individual and essence are both one and eternal, the account of causing in the realm of generation and corruption must distinguish between causing the instantiation of a species and causing the coming-to-be and corruption of multiple individuals that possess a common essence. I argue that emanation must accordingly be revised, as not some intervention of the Active Intellect in each physical sublunar process of generation, but as a causing of the contingent essences that populate the cosmos which are individuated by material and physical efficient causes and processes.

Chapter 4 applies the causal theory to the proof for the existence of a Necessary Being. There, I first argue that the proof, as it appears in the *Metaphysics* of the *Najāt*, is more complicated than the received view; it spans three chapters, II 12-14 and not simply II 12, the latter being the locus classicus for the proof in modern literature. Each of these chapters of the proof argues for distinct premises for the larger aim of proving a Necessary Being in metaphysics. I show that the causal principle of metaphysical efficient causation is at the heart of

his “metaphysical” proof for a Necessary Being, referred to there as a “cause of persistence” (*‘illat al-thabāt*), and accordingly entails important revisions of our understanding of the nature of the proof and of divine causality. Here the very meaning of calling the proof “metaphysical” is at question. I argue that Avicenna sees metaphysics as the only science that can trace the true causes of things to a first principle. That is, he believes that physics cannot properly explain the true cause of an infinite chain of individuals of a species. I argue that his causal principle of persistence that is introduced in the proof – that every contingent requires a coexisting cause of its persistence in existence – can only be understood through the lens of his account of the metaphysical efficient cause. The concept of continuous causation is a corollary of his definition of metaphysical efficient causation, specifically the causing of the effect qua species. I suggest his proof for the Necessary Being, specifically his causal principle of persistence, is part of Avicenna’s larger reworking of Aristotle’s *Metaphysics*.

CHAPTER 1

The Efficient Cause in Metaphysics

In this chapter, I examine Avicenna's view of efficient causation in *Shifā' Metaphysics* VI 1-3. His account, stretching three chapters, represents a sustained inquiry into the precise senses of efficient causation that is proper to the science of metaphysics.¹⁵ Avicenna aims to distinguish the efficient cause of existence from the efficient causes of motion, and more generally the explanatory framework of the four kinds of change explained in Aristotelian natural philosophy. Avicenna's analysis is to be viewed as "metaphysical" in the sense that his analysis of the efficient cause provides the fullest and ultimate account of the existence of things. To be an efficient cause of existence means to be the efficient cause of the existence of an "essence", which Avicenna will argue is not what the causes of motion explain. While causes of motion are causes of the effect qua "individual", true efficient causes are those that can be said to cause the

¹⁵ To my knowledge there is no sustained treatment of the argument of VI 1-3 for a metaphysical efficient cause, as such. The most extended treatment of these texts may be found in Kara Richardson's PhD dissertation, "The Metaphysics of Agency: Avicenna and His Legacy" (University of Toronto, 2008), chapters 1 and 2; and in her discussion of selected texts from VI 1-2 in "Avicenna's Conception of the Efficient Cause," *British Journal for the History of Philosophy* 21 (2013), 220-239, to the end of arguing for the thesis that Avicenna holds a unified view of efficient causality that encompasses both natural and divine agents. For studies that treat metaphysical efficient causality in Avicenna, see Michael Marmura, "The Metaphysics of Efficient Causality in Avicenna (Ibn Sina)," *Islamic Theology and Philosophy*, ed. Michael Marmura (SUNY Press, 1984), 172-187; Thérèse Druart, "Metaphysics," *The Cambridge Companion to Arabic Philosophy*, ed. Peter Adamson and Richard C. Taylor (Cambridge: Cambridge University Press, 2005), 327-348 esp. 338-340; Robert Wisnovsky, "Final and Efficient Causality in Avicenna's Cosmology and Theology," *Quaestio* 2 (2002), 97-124; Robert Wisnovsky, "Towards a History of Avicenna's Distinction Between Immanent and Transcendent Causes," in *Before and After Avicenna*, ed. David Reisman (Brill, 2003), 49-68; Taneli Kukkonen, "Creation and Causation," *The Cambridge History of Medieval Philosophy*, ed. Robert Pasnau and Christina van Dyke (Cambridge University Press, 2010), 232-246, esp. 240-242; Luis Xavier López-Farjeat, "Causality in Islamic Philosophy," *The Routledge Companion to Islamic Philosophy*, ed. Richard C. Taylor and Luis Xavier López-Farjeat (Routledge, 2016), 131-140, esp. 132-136; and Richard C. Taylor, "Primary and Secondary Causality" *The Routledge Companion to Islamic Philosophy*, ed. Richard C. Taylor and Luis Xavier López-Farjeat (Routledge, 2016), 225-235, esp. 230-233.

effect qua “essence” or species. What the efficient cause of existence is causing, precisely, is revealed gradually over the course of these three chapters, to which I now turn.

1.1. The argument of Shifā’ Metaphysics VI 1

In this chapter, we learn that Avicenna is interested in establishing a sense of efficient causation that moves beyond received or commonly held notions of the causal agent and provides a more fundamental sense of efficient causation, namely an agent cause of existence.¹⁶ He states at the beginning of the chapter,

TI. 1

By efficient cause, [we mean] the cause which bestows an existence that is distinct from itself. That is, its essence would not be by primary intention the subject, for what acquires existence from it [i.e. for its effect], of something which is formed in it, in such a way that it [the cause] would be in its essence the potentiality for its existence [the existence of the composite effect]—except [that it might be such a material cause of the effect] per accidents [in a case where the efficient and material causes of an effect happen to coincide].¹⁷

¹⁶ See a parallel discussion in *Najāt Metaphysics* I 12: “On contingency being the cause of the need for the Necessary, not generation (*hudūth*) as the weak from among the Islamic theologians suppose (*yatawahhamuhu du‘afā’ al-mutakallimīn*).” I will cite from Avicenna, *Kitāb al-Najāt*, ed. Majid Fakhry (Beirut: Dār al-Āfāq al-Jadīda, 1985), in book, chapter, and line numbers.

¹⁷ The example here would be a body that is a receptacle for and informs an accident, like the color ‘red’. I read this sentence as aiming to exclude the fifth category of causes he lists later, and specifically the material cause that is “a recipient but is not part of the thing” VI 1 (4): 258. In his subsequent division, he states, “If it is not that for whose sake it is, then it is either the case that [the effect’s] existence derives from it in that it does not exist in [the cause] except accidentally—and this would be its agent—or else [the effect’s] existence derives from it in that it is in it, [in which case] it would also be its element or its subject,” *Metaphysics* VI 1 (3): 258. The example of this kind of material cause is the relation of the substrate to an accident, as opposed to the matter in relation to a form-matter

Along with that, it is necessary that that existence should not be for the sake of [the efficient cause] by way of its being an efficient cause; but, rather, if inevitably so, then through some other consideration. This is because the metaphysicians do not mean by efficient cause only the principle of motion, as the physicists (*al-ṭabīʿiyyūn*) mean, but the principle and giver of existence (*mabdaʾ al-wujūd wa-muḥḍihi*), as in the case of the Creator (*al-bārī*) with respect to the world. As for the natural efficient cause, it does not bestow any existence other than imparting motion in one of the forms of imparting motion. Thus, in the natural sciences, that which bestows existence (*muḥḍ al-wujūd*) is a principle of motion.¹⁸

Wa-bi-l-fāʿili al-ʿillatu allatī tufīdu wujūdān mubāyinan li-dhātihā. Ayy lā takūnu dhātuhā bi-l-qasdi al-awwali maḥallan li-mā yastafīdu minhā wujūda shayʾin yataṣawwaru bihā ḥattā takūna¹⁹ fī dhātihā quwwata wujūdihi illā bi-l-ʿaraḍi. Wa-maʿa dhālika fa-yajibu allā yakūna dhālika al-wujūdu min ajlihi min jihati mā huwa fāʿilun bal in kāna wa-lā budda fa-bi-ʿtibārin ākhara. Wa-dhālika li-anna al-falāsifata al-ilāhiyyīna laysū yaʿnūna bi-l-fāʿili mabdaʾa al-tahrīki faqaṭ ka-mā yaʿnīhi al-ṭabīʿiyyūn bal mabdaʾa al-wujūdi wa-muḥḍahu mithla al-bārī li-l-ʿālamī. Wa-ammā al-ʿillatu al-fāʿiliyyatu al-ṭabīʿiyyatu fa-lā tufīdu wujūdān ghayra al-tahrīki bi-aḥadi anḥāʾi al-tahrīkāti. Fa-yakūna muḥḍu al-wujūdi fī al-ṭabīʿiyyāti mabdaʾa ḥarakatin.

composite. In the latter case, the material cause is a part and cause of the composite, whereas in the former case the essence of the material cause is *distinct from* the effect, though the effect inheres *in it*.

¹⁸ *Shifāʾ Metaphysics* VI 1 (2): 257, 10-16.

¹⁹ Reading *takūna* instead of *yakūna* of the Cairo edition.

Avicenna, here, defines the efficient cause as that which bestows an existence on a thing distinct from itself. Here, the efficient cause cannot be a part of the effect (as in the case of matter to the composite of form and matter) but it also cannot be a cause in the sense of a recipient or substrate in which an accident inheres. That is, in the latter case, though the efficient cause is not a *part* of the effect, the effect is potentially “in” the cause in virtue of the relation of the inherence of an accident in a recipient. In short, the efficient cause is one that is distinct from the essence of the effect and does not possess the potentiality to receive the effect. Here, Avicenna states the efficient principle assessed in metaphysics is broader than the efficient principle that is studied in physics. It can be noted that there is no suggestion here, as one might think, that the distinction concerns one between physical and immaterial causes or movers.

As will be seen, Avicenna believes that causing any natural species or essence, such as human, requires an analysis of essence and its general properties, such as contingency, generation, and persistence. An important distinction here that he is advancing towards in VI 3 is the following: that causes can be said to cause one of two aspects of their being an effect— the effect qua individual or the effect qua species. That is, broadly, Avicenna will assimilate physical causes to the cause of the effect qua individual and metaphysical causes to the cause of the effect qua species. The former refers to existents not as “particulars” but insofar as they are existent natural kinds subject to motion and change, while the latter refers to the very contingency and existence of the natural kind or species. That is, insofar as the natural kinds are contingent essences, they require a further causal explanation beyond accounting for the continued process of generation and corruption. This fundamental distinction between two aspects of caused reality in turn corresponds to an explanatory division in the sciences, which Avicenna alludes to here in this opening passage.

Before arriving at a sharper definition of the efficient cause, Avicenna's first step is to isolate what precisely is being caused by the efficient cause. Beginning at VI 1 (6), Avicenna turns from defining the four causes to the specific analysis of the efficient cause, which spans the first three chapters of Book VI. He returns to the three other causes in VI 4. I turn to the central features of the efficient cause that Avicenna first defines. In VI 1, Avicenna states,

TI. 2

The efficient cause bestows on another thing an existence that the latter does not possess in virtue of its essence. The issuing of that existence from this, which is the efficient cause, is such that the essence of this efficient cause is neither receptive of the form of that existence, nor is it [the essence of the efficient cause] connected to it [existence] through a connection that is intrinsic to it. Rather, the essence of each one of the two [cause and effect] is external to [the essence] of the other and neither has the potentiality to receive the other.²⁰

Wa-l-fā'ilu yufīdu shay'an ākhara wujūdan laysa li-l-ākhari 'an dhātihi. Wa-yakūnu ṣudūru dhālika al-wujūdi 'an hādhā alladhī huwa fā'ilun min ḥaythu lā takūnu dhātu hādhā al-fā'ili qābilatan li-ṣūrati dhālika al-wujūdi wa-lā muqāranata lahu muqārinatan dākhilatan fīhi. Bal yakūnu kullu wāḥidin min al-dhātayni khārijan 'an al-ākhari wa-lā yakūnu fī aḥadihimā quwwatu an yaqbala al-ākhara.

The definition serves to exclude the formal, material, and final causes. More significantly, for present purposes, it also stresses the importance of having a well-defined notion of the essence in

²⁰ *Shifā'* *Metaphysics* VI 1 (6): 259, 11-14.

analyzing efficient causation. In addition, it makes clear what the explanandum is: a thing that exists and yet does not have existence in its *own* essence. From here, Avicenna moves to discussing the relations between efficient causation and the generation of an effect, that is, its move from nonexistence to existence.²¹ Avicenna spends a great deal of space addressing misconceptions of efficient causation and the related concepts of existence, necessity, and contingency.

In the next passage, he begins by recalling the Aristotelian view that the efficacy or “actuality” of an efficient cause can depend on preparatory causes. He establishes that preparatory causes are not to be included in the concept of efficient causation but they play a role external to efficient causation. The point sets up his following discussion of views that directly or indirectly challenge such aspects of the Aristotelian notion of efficient causation. Specifically, he investigates the status of the nonexistence of the effect, ruling out aspects of the effect that are attributed by some thinkers to the efficient principle. I read the following passages as focusing on two aspects of the generation of an essence in time that are falsely attributed to efficient causation,

TI. 3

For some efficient causes, it so happens that it is not at a certain time an agent, and that its effect is not an effect. Rather, its effect is nonexistent and, thereafter, there occurs to the efficient cause causes by which it becomes an efficient cause in actuality—and we have previously spoken about this—and, at that time, it becomes an efficient cause such that, from it, the existence of a

²¹ As will be seen, with respect to his causal theory in metaphysics, Avicenna is not really concerned with contingents coming to be in time.

thing comes about after not existing. Hence, existence occurs to this [latter] thing, and to that [same] thing [also] belongs [the fact] that it had not existed. It is not due to the efficient cause that it had not existed, nor that it came to be after nonexistence. Rather, from the efficient cause it derives only its existence. Hence, if nonexistence belonged to it in virtue of itself, it is then necessary that its existence came to be after it had not existed, so that it became an existent after it was a nonexistent.

Thus, that which it possesses essentially from the agent is existence...As for its having been nonexistent, [this] is not due to a cause that acted on it; for its being nonexistent may be attributed to a certain cause, namely, the absence of a cause. As for its existence being after nonexistence, [this] is not a matter that came to be through a cause. For it is not at all possible for its existence to be except after nonexistence. And that which is not possible has no cause. Yes, its existence is possible to be or not to be. Its existence, hence, has a cause. [Similarly,] its nonexistence may be or may not be. It is possible, hence, for its nonexistence to have a cause. But the fact that its existence comes after nonexistence, has no cause...²²

It is, thus, true that its existence has the possibility of coming to be or of not coming to be after the nonexistence that obtained; but it is not true that its existence after nonexistence inasmuch as it is an existence after nonexistence

²² *Shifāʾ Metaphysics* VI 1 (7-8): 259,18 – 260,11.

has the possibility to be an existence after nonexistence or not to be after nonexistence.²³

Fa-min al-fā^cili mā yattafiqu waqtan an lā yakūna fā^cilan wa-lā maf^cūluhu maf^cūlan. Bal yakūnu maf^cūluhu ma^cdūman thumma ya^criḍu li-l-fā^cili al-asbābu allatī yaṣīru bihā fā^cilan bi-l-fi^cli wa-qad takallamnā fī hādhā fī-mā salafa fa-ḥīna^ʾidhin yaṣīru fā^cilan fa-yakūnu ^canhu wujūdu al-shay^ʾi ba^cda mā lam yakun. Fa-yakūna li-dhālika al-shay^ʾi wujūdun wa-li-dhālika al-shay^ʾi annahu lam yakun. Wa-laysa lahu min al-fā^cili annahu lam yakun wa-lā annahu kāna ba^cda mā lam yakun. Inna-mā lahu min al-fā^cili wujūduhu. Wa-idhan fa-in kāna lahu min dhātīhi al-lāwujūdu lazima an ṣāra wujūduhu ba^cda mā lam yakun fa-ṣāra kā^ʾinan ba^cda mā lam yakun.

Fa-alladhī lahu bi-l-dhāti min al-fā^cili al-wujūdu... Wa-ammā annahu lam yakun mawjūdan fa-laysa ^can ^cillatin fa^calathu. Fa-inna kawnahu ghayra mawjūdīn qad yunsabu ilā ^cillatin mā, wa-huwa ^cadamu ^cillatīhi. Fa-ammā kawnu wujūdihi ba^cda al-^cadami fa-amrun lam yaṣīr li-^cillatin. Fa-innahu lā yumkinu al-battata an yakūna wujūduhu illā ba^cda ^cadamin. Wa-mā lā yumkinu fa-lā ^cillata lahu. Na^cam, wujūduhu yumkinu an yakūna wa-an lā yakūna. Fa-li-wujūdihi ^cillatun. Wa-^cadamuhu qad yakūnu wa-qad lā yakūnu. Fa-yajūzu an yakūna li-^cadamihi ^cillatun. Wa-ammā kawnu wujūdihi ba^cda mā lam yakun fa-lā ^cillata lahu.

²³ *Shifāʾ Metaphysics* VI 1 (10): 261, 1-3.

*Fa-ḥaqqun anna wujūdahu jā'izun an yakūna wa-an lā yakūna ba^cda al-
^cadami al-ḥāṣili wa-laysa bi-ḥaqqin an yakūna wujūduhu ba^cda al-^cadami min
ḥaythu huwa wujūdun ba^cda al-^cadami jā'izun an yakūna wujūdan ba^cda al-
^cadami wa-an lā yakūna ba^cda al-^cadami.*

Avicenna draws out two aspects of the effect that one might (mistakenly) attribute to the causal activity of the efficient cause: 1) the effect's *temporally* prior nonexistence, i.e. the prior nonexistence of those effects that come-to-be in time, and 2) the effect's *essentially* prior nonexistence, i.e. the very fact that the effect's existence is one that comes after nonexistence. In the latter he is referring to the fact that the effect's essence does not entail existence: with respect to itself, the effect is nonexistent, and with respect to its cause, existent. Avicenna clarifies that the temporally prior nonexistence of the effect is not caused by the effect's cause but rather by the absence of the cause. The nonexistence of an effect in the sense of (1) can only be said to have a cause in the loose sense of *lacking* a cause. As for the sense of (2), the essentially prior nonexistence of an effect, Avicenna asserts that this *cannot* be caused. And he says this is because it is impossible for it to be any other way—an effect cannot possibly be an existence that is *not* preceded by nonexistence with respect to itself. The argument will be rigorously set out by Avicenna in the context of his proof for the Necessary Existent, as discussed in Chapter 4. It seems the impossibility he is alluding to is that it would be absurd to suppose *both* that x is caused with respect to its existence and yet *also* hold that existence is not ontologically posterior with respect to x. The latter would entail that x, with respect to itself, is existent, in which case it can no longer be “an existence that is preceded by nonexistence”. And so its existence cannot possibly be externally caused. Thus if one grants that x is an effect, that its existence is externally

caused, then to Avicenna this necessarily entails that nonexistence is prior for x.²⁴ To suppose otherwise is to fall into contradiction, or impossibility. Thus the efficient cause does not cause x to be an existence-that-is-preceded-by-nonexistence. With respect to its essence, the effect can only be viewed as contingent with respect to existence. Rather, the metaphysical efficient cause causes only *existence*, as we will see shortly, “It does not derive from the agent [the fact that] it did not exist, nor that it came to be after nonexistence, but from the agent it derives only its existence.”²⁵

The opponent Avicenna has in mind here is someone who thinks *ḥudūth* is what makes something in need of a cause, a topic he treats extensively elsewhere as discussed shortly. Avicenna’s strategy in the above passage is to first break *ḥudūth* down into its components: first, there is the prior nonexistence in a temporal sense, and second, there is the prior nonexistence with respect to the effect’s essence. Then, he considers whether each of these components could have an efficient cause. He says there is no cause of the first component, since the temporally prior nonexistence of the effect is not due to any existent cause, but due simply to the absence of the effect’s cause. He then says there is no cause of the second component either, because this fact cannot possibly be caused. It is in the very nature or essence of the effect to not contain existence, and so if it does exist, then existence would come after the nonexistence that it has with respect to its essence. Having determined that the first component is due simply to the *absence* of the cause and that the second component has no cause, Avicenna has thereby supported his claim that *ḥudūth* cannot be what is “caused” since its attendant components cannot properly be said to have an efficient cause. I take it that Avicenna is not suggesting that

²⁴ Again here, “Therefore, if nonexistence belonged to it from itself, it then follows necessarily that its existence came to be after nonbeing. It thus became a being after nonbeing,” *Shifā’ Metaphysics* VI 1 (7): 260.

²⁵ *Shifā’ Metaphysics* VI 1 (7): 260.

his opponent *actually* thinks the temporally prior nonexistence has an actual efficient cause, nor that the opponent *actually* thinks the very “contingency” of the effect has an efficient cause. It would be difficult to imagine an opponent holding either of these views.²⁶ Rather, he is trying to show that if one *does* think that *ḥudūth* is what makes something in need of a cause of existence, they cannot really identify any feature of *ḥudūth* qua *ḥudūth* that would require a cause of existence.²⁷

Here, Avicenna is sharpening the concept and role of an efficient cause. The case of generation draws out central concerns regarding the (necessary) relation between an efficient cause and a contingent effect. He is, however, moving towards a concept of “essential” efficient causation. Avicenna here is drawing on his more basic premise that the essences of contingents do not contain existence—for x to be x, it does not include that x exists—and so were they to exist, their existence would constitute an existence after nonexistence (sometimes temporally but importantly with respect to the essence).²⁸ Here, he alludes to the role of causes external to the

²⁶ At best, someone may think a cause is needed to explain why an effect is generated at the time that it is, as opposed to some other time. Here *tarjīḥ* (preponderance) arguments of *kalām* would be relevant—that there must be some cause for the selection of one alternative over the other: broadly, existence over nonexistence, but specifically here, the time at which an effect comes into existence as opposed to some other time. Al-Bāqillānī, for instance, makes this latter point, where the cause would be the agent’s will. Al-Māturidī and al-Juwaynī apply a *tarjīḥ* argument to the generation of the world as a whole, where the claim is that only an agent with will could cause the world to come into existence at the time that it did as opposed to some other time (in addition to the claim that an agent must have selected out existence for the world over nonexistence). See Herbert Davidson, “Arguments from the Concept of Particularization,” *Proofs for Eternity, Creation, and the Existence of God in Medieval Islamic and Jewish Philosophy* (Oxford: Oxford University Press, 1987), 154-212, esp. 159-162.

²⁷ Of course, Avicenna’s claim here is not that *ḥudūth* has no causes *simpliciter*, but rather that the two components of *ḥudūth* that Avicenna outlines have no cause of *existence*. Both Avicenna and the opponent would agree that coming-to-be requires physical causes of generation, or what Avicenna would consider efficient causes of motion. See Omer M. Alper, “Avicenna’s Argument for the Existence of God. Was He Really Influenced by the *Mutakallimūn*?” *Interpreting Avicenna: Science and Philosophy in Medieval Islam* (Leiden: Brill, 2004), 129-141. Alper argues that though Avicenna is influenced by the *mutakallimūn* as Averroes claims, the former “generalizes” the earlier *kalām* uses of the concept to apply to his new metaphysical proof. In chapter 4, I assess this claim and argue that Avicenna aims to address objections from *mutakallimūn* but is not immediately influenced or concerned by their view of efficient causation. In fact, he will try and exclude views that are not based on a notion of continuous time and generation.

²⁸ See Robert Wisnovsky, “Avicenna and the Avicennian Tradition,” *The Cambridge Companion to Arabic Philosophy*, ed. Peter Adamson and Richard C. Taylor (Cambridge: Cambridge University Press, 2005), 92-136, esp. 105-113.

(metaphysical) efficient cause that play a role in the nonexistence and coming-to-be of a contingent effect, i.e. preparatory causes. That is, Avicenna asserts that the efficient cause imparts existence²⁹ but has no role in the temporal determination of an effect. This becomes important later for Avicenna's argument that the metaphysical efficient cause acts on the effect qua species and not qua individual. For the time and means through which a thing comes to be falls under the latter, the purview of natural causes. In the following chapter, Avicenna summarizes this view here in saying,

TI. 4

For it belongs to the effect in itself to be an *is-not* (*lays*) and it belongs to the effect through its cause to be an *is* (*ays*). That which belongs to the thing in itself is prior in the mind in essence, [though] not in time, than that which belongs to it from another. Hence, every effect constitutes a 'something' after 'nothing' in terms of essential posteriority.³⁰

Fa-inna li-l-ma' lūli fī nafsīhi an yakūna "lays" wa-yakūnu lahu 'an 'illatihi an yakūna "ays". Wa-alladhī yakūnu li-l-shay'ī fī nafsīhi aqdamu 'inda al-dhihni bi-l-dhāti lā fī al-zamāni min alladhī yakūnu 'an ghayrihi. Fa-yakūnu kullu ma' lūlin aysan ba'da laysin ba'diyyatan bi-l-dhāti.

Avicenna's strategy here is to break coming-to-be down into all the aspects that are purported to be caused and discard those parts that are not actually caused by the efficient agent in order to

²⁹ Avicenna also wants to be able to maintain that even things existing from eternity could and must have an efficient cause of existence, which is another important motivation for being able to show that causedness is not tied to generation. For a discussion of this, see Wisnovsky, "Avicenna and the Avicennian Tradition", 121-124.

³⁰ *Shifā' Metaphysics* VI 2 (9): 266, 13-15.

isolate what precisely the agent is causing.³¹ He does so by basing his analysis on the very nature of the effect as being defined, essentially, as a thing contingent in itself and excluding non-essential aspects of the effect. Now that he has set aside two aspects (1 and 2), Avicenna can isolate what causing the existence of an effect truly means,

T1. 5

Since you have already learned that origination means nothing other than existence after not having been, then there is existence, and there is being after not having been. The originating cause possesses neither efficacy nor indispensability in [the thing's] not having been. But, rather, its efficacy and indispensability consist only in that existence comes about from it.”³²

‘Alā annaka qad ‘alimta anna al-ḥudūtha laysa ma‘nāhu illā wujūdun ba‘da mā lam yakun, fa-hunāka wujūdun wa-hunāka kawnun ba‘da mā lam yakun. Wa-laysa li-l-‘illati al-muḥdithati ta‘thīrun wa-ghinā’un fī annahu lam yakun. Bal inna-mā ta‘thīruhā wa-ghinā’uha fī anna minhu al-wujūda.

As noted, for Avicenna, this discussion is part of a larger critique of those *mutakallimūn* who define causedness in terms of origination. Here, Avicenna has just completed the first phase of his argument, which was to argue that the aspects that their view holds as caused cannot really be caused in any meaningful sense of agent causation. This is aimed at those *mutakallimūn* who include in their notion of efficient causation the requirement of the temporal nonexistence of the

³¹ That he begins his analysis with an effect that comes-to-be may seem counter-intuitive, since ultimately he will tie essential causedness not to coming-to-be but to the contingency of the essence. But here he is beginning with the opponent’s view, or more “loose” or “common” senses, in order to proceed to the precise, scientific account.

³² *Shifā’ Metaphysics* VI 1 (14): 262, 6-8.

effect.³³ The second phase of Avicenna's argument comes next, which is aimed at the heart of the issue: what *makes* something in need of a cause? Avicenna is not happy with only correcting our view of what is actually being caused in coming-to-be. He has done this much already. He also wants to show what makes something *in need* of that cause of existence. His strategy in the following passages is to, again, establish his own view by drawing out problems with the opposing view, namely that temporal origination is what makes something in need of a cause. He turns to this next,

TI. 6

Someone may think that the agent and the cause are needed only for a thing to have existence after nonexistence and that, once a thing is brought into existence, the thing would [continue to] exist as sufficient unto itself [even] if the cause is no longer present. So some believe that a thing is in need of the cause only for its origination, but that, once it is originated and comes to exist, it no longer needs a cause. For such a person, the causes are thus only the causes of origination, being [temporally] prior [to their effects] not simultaneous with them. This is a false belief because...³⁴

*Wa-rubba-mā ḡanna ḡānnun anna al-fā'ila wa-l-^cillata inna-mā yaḡtāju ilayhi
li-yakūna li-l-shay'i wujūdun ba^cda mā lam yakun wa-idhā wujida al-shay'u
fa-law fuqīdat al-^cillatu la-wujida al-shay'u mustaghniyan bi-naḡsihi. Fa-*

³³ As well, according to some arguments of *tarjih*, there is also the explanandum of why an effect came into existence at the time that it did, given that a contingent is balanced equally with respect to existence and nonexistence and would need an external, willing agent to tip the scales in favor of existence and at the time that it did come into existence. Avicenna also argues against this view in *Ishārāt Metaphysics* V 1-3 but especially V 2: 63-65. See also fn. 26.

³⁴ *Shifā' Metaphysics* VI 1 (11): 261, 5-8.

*ẓanna man ẓanna anna al-shayʿa inna-mā yaḥtāju ilā al-ʿillati fī ḥudūthihi fa-
idhā ḥadatha wa-wujida fa-qad istaghnā ʿan al-ʿillati fa-takūnu ʿindahū al-
ʿilalu ʿilala al-ḥudūthi faqaṭ wa-hiya mutaqaḍdimatun lā maʿan. Wa-huwa
ẓannun bāṭilun li-anna...*

Avicenna’s strategy here in dismissing the opponent’s view of what makes something in need of a cause is to argue against a corollary of that view: an effect can persist without its efficient cause after it has been brought into existence.³⁵ In response to the above, Avicenna considers in the following passages the plausibility of this corollary by sifting through the various options that may account for the effect’s acquired necessity of existence. In VI 1, he reduces each option to contradiction or impossibility and is left to conclude that its necessity of existence must be anchored in an *external* cause.³⁶ Again, drawing on his fundamental distinctions of essence and contingency, he argues that the effect cannot be necessarily existent through its own quiddity (nor an attribute of the quiddity), since then it would be necessarily existent in itself (which is impossible since it was nonexistent before and came-to-be). Nor can origination itself render it necessarily existent, since origination is not necessary in itself, in addition to the fact that origination has ceased and hence it can no longer cause anything. Nor can the effect be necessary through an attribute of its quiddity qua existing, since these attributes come to be with the coming-to-be of the quiddity and would hence face the same objections that origination faced. So then this attribute must itself be necessitated by another attribute, and this cannot regress *ad*

³⁵ Those *mutakallimūn* who hold the view Avicenna is critiquing cannot possibly think such persistent existents need *no* causes in order to persist in existence. Fakhr al-Dīn al-Rāzī makes this point in his commentary on parallel passages in the *Ishārāt*: the disagreement is in what precisely the effects are dependent upon. I will treat this passage in Chapter 4.

³⁶ This may not be how the opponent would frame her view—that the effect that continues to be on its own has become *necessary* of existence with respect to itself—but Avicenna must think this is what her view (that an effect can persist on its own without its cause) amounts to.

infinitum since each would still be contingently existent.³⁷ The attributes must ultimately terminate at some external cause. Thus a thing cannot come to be and continue to exist without an external cause of its existence.³⁸ He concludes it must be the case that “the originated existence remains an existence (*yabqā wujūdan*) through an external reason (*sabab*), namely, the cause.”³⁹

This is his argument here⁴⁰ for the claim that an effect that comes-to-be requires a co-existing cause for as long as it exists.⁴¹ Thus far we have learned that existence is what is being

³⁷ The infinite regress of possibly existent attributes is not an option because we would never arrive at anything that necessitates the attribute. Avicenna does not dismiss it out of absurdity. In my view, this is consistently Avicenna’s central concern in disallowing infinities in causal contexts, not problems related to absurdity. I consider additional examples and discuss this more fully in Chapter 4.

³⁸ The text of the argument: “Existence after [a thing’s] origination must either be necessary existence or not necessary existence. If its existence is necessary, then its being necessary through that quiddity is either due to that quiddity itself— so that the quiddity entails necessity of existence, in which case it would be impossible for [the thing] to be originated— or else it is rendered necessary by [the quiddity] through a condition. The condition is either origination, [or] one of the attributes of that quiddity, or something different. The necessity of its existence cannot be through origination, for origination itself is not [something whose] existence is necessary in itself. How, then, can the existence of another be necessary through it? [Moreover,] origination has ceased. How can it, now that it has ceased to exist, be the cause of the necessary [existence] of something else? The alternative is to say that the cause is not origination [itself], but a thing’s having undergone origination, in which case this would be one of the attributes of the originated thing and thus included in the second of the [first two of the three] divisions. [Turning, then, to the second division,] we say: These attributes must either belong to the quiddity inasmuch as it is a quiddity, not inasmuch as it is something that has been brought about into existence (in which case what is a necessary concomitant for them must be a necessary concomitant of the quiddity), or else these attributes came into being with existence and thus what is said about the necessity of its existence is identical with what has been said about the first [alternative, that of origination]. Thus, either there would be infinite attributes, all of which are of this character, so that all would be possible of existence, [and] not necessary in themselves, or else they would terminate with an attribute that is necessitated by an external thing. The first alternative renders all the attributes in themselves [only] possible in [their] existence. But it has become clear that that whose existence is possible in itself exists through another, so that all the attributes become necessary through another that is external to them. The second alternative necessitates that the originated existence remain an existence only through an external reason— namely, the cause,” *Shifā’ Metaphysics* VI 1 (12-13): 261-262.

³⁹ *Shifā’ Metaphysics* VI 1 (13): 262.

⁴⁰ He gives an extensive, and different, argument for this claim in *Najāt Metaphysics* II 14, as part of his larger argument for the Necessary Being. Interestingly, in that context he refers to this causal principle not as the metaphysical efficient cause, but as the cause of persistence (*‘illat al-thabāt*), which in my view is an invocation of the same causal principle but in different terms. One reason for this may be because in the proof he is trying to emphasize an implication of his view of metaphysical efficient causation, namely that the Necessary Being does not simply exercise causal efficacy at some point and is no longer needed afterwards, but that the Necessary Being is a *continuous* and *permanent* cause of all contingents for as long as they persist in existence. I will treat this argument in Chapter 4.

⁴¹ In *Ishārāt Metaphysics* V 1: 57-58, Avicenna concisely outlines the view that a cause is only needed to be brought into existence and frowns upon those who go so far to say that the world could persist in existence even if the divine ceased (hypothetically), “Most people (*al-‘amma*) think that the dependence of a thing they call effect (*maḥḥūl*) on

caused, and we learned this by eliminating the other contenders that are associated with origination but are not actually caused by the agent: 1) the effect's having been temporally preceded by nonexistence and 2) the fact that the effect is an existent after nonexistence. But, even if we grant that *existence* is what is being caused, we still do not know what makes something *in need* of a cause of existence. One may very well still think at this point that if something is the kind of thing that comes-to-be in time, then it needs a cause of existence. And still grant, with Avicenna, that the cause is neither causing 1 or 2. That is, one may still think what makes something in need of a cause of existence would be the fact that it was temporally preceded by nonexistence. *And* that when an agent does come along and cause it to be, that agent is only causing existence. But then once it causes it to be, then it no longer needs that agent, since the effect has gotten over what made it in need of that cause. Avicenna wants to establish that being temporally originated is *not* the essential reason that makes something in need of a cause of existence, even if it may very well be true that everything that comes to be in time happens to need a cause of existence. To address this, Avicenna took the opponent's position to

the thing they call agent (*fā'il*) is with respect to what they (*al-ʿamma*) think makes an effect to be an effect and an agent to be an agent. And that is that [the cause] existentiates (*awjada*), creates (*ṣanaʿa*) and makes (*faʿala*) and this [the effect] is existentiated, created, and caused. And all that amounts to the fact that something obtains from another existence after it was non-existent. And they sometimes say: once [the thing] comes into existence, then the need for an agent ceases (*zālat*), so that if the agent were absent (*fuqida*) then it would be possible that the effect continues to exist, just as they observe in [the case of] the absence (*fiqdān*) of the builder but the subsistence (*qiwāmi*) of the building. Many of them go to the extent of not being weary of saying: if it were possible for the Exalted Creator to be nonexistent, His nonexistence would not affect the [continued] existence of the world. [This is] because to them the world was in need of the Exalted Creator only in that He had existentiated it, i.e. He had brought it out of nonexistence into existence, so that He is an agent through this, so if it has been made and existence was obtained for it over nonexistence, then how can it, after that, come into existence from nonexistence such that it would need the cause?" in *al-Ishārāt wa-al-tanbihāt, maʿa sharḥ Naṣīr al-Dīn al-Ṭūsī wa Fakhr al-Dīn al-Rāzī*, ed. Sulaymān Dunyā (Cairo: Dār al-Maʿārif, 1966). That is, if the function of the efficient cause is to bring something into existence from nonexistence, then if something already exists (namely, the world), then under this view God would not be able to exercise causal agency on it. For God cannot cause the already existing world to come into existence from nonexistence (at least, not insofar as the world already exists; whether God can destroy and recreate the world is not the point here). And, as Avicenna suggests, even more problematically, God would not even be *needed* to exercise any causal agency on the world, because some go so far as to take this view of efficient causation to entail that the world may persist in existence even if God were to cease existing. I return to this passage in Chapter 4.

its logical conclusion to show that it is untenable. A corollary of the opponent's view is that, if being temporally originated is what makes something in need of a cause, then ipso facto once it is caused to be, it no longer needs that cause. Avicenna attacks the opponent's view by attacking its corollary. He shows that something *cannot* persist on its own without an external cause of existence. So then the view must also be false. Being temporally originated must not be what makes something in need of a cause of existence. Because if it were, then the effect can exist on its own after being caused to be at t1, but he thinks he has shown that it cannot.⁴² So then there must be something else that is making it in need of this cause of existence.

Crucially, Avicenna proceeds not by giving just any account of what makes this effect in need, but an account that cuts as explanatorily deep as possible— i.e. that reveals the *essential* account of agent causation. We see Avicenna pursuing a similar project in *Ishārāt Metaphysics* V 1-3. There, he again seeks the *essential* account of what the cause is causing. Like in the above discussion, he proceeds to strip away what he takes to be accidental meanings that accrue to cause and effect and arrive at what truly makes a cause a cause and an effect an effect— the very essence, so to speak, of cause and effect. He states, “It is necessary for us to resolve the meaning of our saying, ‘[a thing] is created (*ṣuni‘a*)’, ‘made (*fu‘ila*)’, and ‘brought into existence (*ūjida*)’, into the simple parts of its meaning, and remove from it whatever enters only accidentally into our aim.”⁴³ Avicenna considers the various ways in which the efficient cause has been described in order to determine what actually makes an efficient cause an efficient cause. He considers all

⁴² He also seems to suggest a more “theological argument”, namely that the opponent's view would entail that God is no longer needed once He brings everything into existence, and could theoretically die with no effect on creation. See *Ishārāt Metaphysics* V 1: 58, qtd. above in fn. 41. It is difficult to imagine an opponent actually thinking the world would be unaffected by God perishing, even though Avicenna states that they do. If they do, it is possible that this point is just made to explicate and emphasize their view that what makes something in need of a cause is origination, i.e. *if* it were possible for God to be nonexistent (which they obviously do not think it is), *then* in principle things could still continue to exist. What is clear at least is that Avicenna is drawing out an absurdity of the opponent's position that an effect can persist on its own without a cause.

⁴³ *Ishārāt Metaphysics* V 2: 59. I treat this text more fully in Chapter 4.

the attendant meanings that are often attached to acts of agency, filters out those he takes to be accidental, in order to be left with the essential account. Some of the discarded accounts of “effect” are: being the result of motion, the result of an instrument, the result of a willful act, or the result of a natural act. Avicenna concludes, “The truth is that these things are extraneous to what makes a thing an effect.”⁴⁴

Similarly, here in *Shifā’ Metaphysics* VI 1, Avicenna begins the chapter by stripping away two accidental meanings that accrue to the cause and concludes that these things are not really what the cause is causing. Having identified the causal activity correctly as causing existence, he continues to fine tune his account of causation by next stripping it of another accidental meaning, temporal origination, because he says it is not what in essence makes an effect in need of a cause. That this is Avicenna’s program is made more explicitly clear, for instance, in the following passages:

TI. 7

It so occurred (*‘araḍa*) that that [thing] came to be at that time after not having been. But that which occurs (*al-‘āriḍ*) by chance (*bi-l-ittifāq*) plays no part in [what] constitutes a thing. Hence, the prior nonexistence plays no part in the originated thing’s existence’s having a cause.⁴⁵

So it becomes clear that the effect in itself needs its bestower of existence for its very existence but origination and other things are matters that occur to it

⁴⁴ *Ishārāt Metaphysics* V 2: 61.

⁴⁵ *Shifā’ Metaphysics* VI 1 (14): 262, 8-10.

accidentally and that the effect needs that which bestows existence on it always, permanently, as long as [the effect] exists.⁴⁶

The efficient cause that most people call the efficient cause is not in reality an efficient cause with respect to the way they render it an efficient cause. For they make it an efficient cause where one ought to consider that it is not a cause, so that it is not an efficient cause insofar as it is a cause but insofar as it is a cause and [has] a concomitant thing with it.⁴⁷

Thumma ʿaraḍa an kāna dhālika fī dhālika al-waḡti baʿda mā lam yakun. Wa-l-ʿarīḍu alladhī ʿaraḍa bi-l-ittifāqi lā dukhūla lahu fī taqawwumi al-shayʿi. Fa-lā dukhūla li-l-ʿadami al-mutaqaddimi fī an yakūna li-l-wujūdi al-ḥādithi ʿillatun.

Fa-qad bāna anna al-maʿlūla yaḥtāju ilā mufīdihi al-wujūda li-naḡsi al-wujūdi bi-l-dhāti lākinna al-ḥudutha wa-mā siwā dhālika umūrun taʿriḍu lahu wa-anna al-maʿlūla yaḥtāju ilā mufīdihi al-wujūda dāʾiman sarmadan mā dāma mawjūdan.

Wa-l-fāʿilu alladhī tusammīhi al-ʿāmmatu fāʿilan fa-laysa huwa bi-l-ḥaḡiqati ʿillatan min ḡaythu yajʿalūnahu fāʿilan. Fa-innahum yajʿalūnahu fāʿilan min ḡaythu yajibu an yaʿtabara fīhi annahu lam yakun fāʿilan fa-lā yakūnu fāʿilan

⁴⁶ *Shifāʾ Metaphysics* VI 1 (17): 263, 16-18.

⁴⁷ *Shifāʾ Metaphysics* VI 1 (16): 263, 3-5.

*min ḥaythu huwa ʿillatun bal min ḥaythu huwa ʿillatun wa-amrun lāzimun
maʿahu.*

Avicenna argues that taking temporal origination as internal to the concept of efficient causation threatens to obscure the true function of the cause of existence, which is to impart existence to an essence. Having set aside temporal origination along with the other discarded candidates that were deemed merely “accidental”, Avicenna now sets forth his positive view: it is the very essence of a thing that makes it in need of a cause:

TI. 8

Hence, the prior nonexistence plays no part in the existence of the originated thing’s having a cause. Rather, that kind (*nawʿ*) of existence inasmuch as it belongs to that species of quiddities (*māhiyyāt*) deserves to have a cause, even if it continues [to exist] and endures.⁴⁸

As for existence, inasmuch as it is the existence of this quiddity, it is possible for it to be by a cause. But as for the description of this existence— namely, that it is after not having been— it cannot be by a cause. Hence, a thing inasmuch as its existence is originated— that is, inasmuch as the existence belonging to it is described as being after nonexistence— in reality has no cause. Rather, the cause belongs to it inasmuch as the quiddity has existence. Thus, the state of affairs is the opposite of what they think. Indeed, the cause is

⁴⁸ *Shifāʾ Metaphysics* VI 1 (14): 262, 9-11.

only for existence. If it so happens that nonexistence precedes it, then it is originated and, if it did not so happen, it would not be originated...⁴⁹

Hence, if it is clear that *the existence of the quiddity is connected with what is other inasmuch as it is an existence for that quiddity*, not inasmuch as it is [something that comes to be] after not having been, then that existence in this respect is caused— so long as it exists. Likewise, it is an effect connected with what is other. Thus, it becomes evident that the effect needs that which bestows existence on it by essence— [conferring only] existence itself— *but [it becomes evident also] that origination and other things are matters that occur to it accidentally* and that the effect needs that which bestows existence on it always, permanently, as long as [the effect] exists.⁵⁰

Fa-lā dukhūla li-l-‘adami al-mutaqaddimi fī an yakūna li-l-wujūdi al-ḥādithi ‘illatun. Bal dhālika al-naw‘u min al-wujūdi bi-mā huwa li-dhālika al-naw‘u min al-māhiyyāti mustahiqqun li-an yakūna lahu ‘illatun wa-in istamarra wa-baqiya.

Fa-ammā al-wujūdu min ḥaythu huwa wujūdu ḥādhihi al-māhiyyati fa-yajūzu an yakūna ‘an ‘illatin. Wa-ammā ṣifatu ḥādhā al-wujūdi wa-hiya annahu ba‘da mā lam yakun fa-lā yajūzu an takūna ‘an ‘illatin. Fa-l-shay‘u min ḥaythu wujūduhi ḥādithun ay min ḥaythu anna al-wujūda alladhī lahu mawṣūfun bi-annah ba‘da al-‘adami lā ‘illata lahu bi-l-ḥaqīqati. Bal al-

⁴⁹ *Shifā’ Metaphysics* VI 1 (15): 262,15 – 263,2.

⁵⁰ *Shifā’ Metaphysics* VI 1 (17): 263, 13-18.

*‘illatu lahu min ḥāythu li-l-māhiyyati wujūdun. Fa-l-amru bi-‘aksi mā
yazunnūna. Bal al-‘illatu li-l-wujūdi faqat. Fa-in ittafaqa an sabaqahu
‘adamun kāna ḥādithan wa-in lam yattafiq kāna ghayra ḥādithin.*

*Fa-idhā zahara anna wujūda al-māhiyyati yata‘allaqu bi-l-ghayri min ḥaythu
huwa wujūdun li-tilka al-māhiyyati lā min ḥaythu huwa ba‘da mā lam yakun
fa-dhālika al-wujūdu min hādhihi al-jihati ma‘lūlun mā dāma mawjūdan. Ka-
dhālika kāna ma‘lūlan muta‘alliqan bi-l-ghayri. Fa-qad bāna anna al-ma‘lūla
yaḥtāju ilā muḥidihi al-wujūda li-naḥsi al-wujūdi bi-l-dhāti lākinna al-ḥudūtha
wa-mā siwā dhālika umūrun ta‘riḍu lahu wa-anna al-ma‘lūla yaḥtāju ilā
muḥidihi al-wujūda dā‘iman sarmadan mā dāma mawjūdan.*

Critically, Avicenna refers to the effect as the *quiddity*— the explanandum of interest here in his account of causation is the existence of *quiddities*, but not just any “species” of quiddity, but rather only contingent ones. He states, “That kind (*naw‘*) of existence inasmuch as it belongs to that species of quiddities (*māhiyyāt*) deserves to have a cause, even if it continues [to exist] and endures.” This is an important point that needs highlighting. Avicenna qualifies four times in just these passages alone, in almost identical phrasing, that existence is caused “*inasmuch as* it is an existence of the quiddity”. His conclusion here of what is being caused is precisely and purposefully articulated. He does not say that it is the existence of some particular in space-time that is being caused. He does not attach causedness to the existence of “Socrates,” for Socrates includes a number of accidental features such as being pale skinned and changing and the teacher of Plato, among many others. Socrates’ changing is a genuine explanandum, but not the explanandum that he takes to be most fundamental to a (contingent) existent and which he is

pursuing here in metaphysics. Unlike in physics, the explanandum of metaphysics is the existence of contingent essences in the unqualified sense. And here he alludes to his point articulated later that to cause existence is to cause the existence of the *quiddities* and not any ordinary individual or object, qua described as a particular or with respect to the accidental features of causedness he outlined.

At the level of methodology, it is clear that Avicenna will not be interested in accounts of causing that invoke the ordinary (or insufficiently refined) particulars or universals since there can be no demonstrations of corruptibles.⁵¹ What can be known in the strict scientific sense and in turn constitute premises in demonstrations, are essences. He is, like in other parts of his *Metaphysics*, making his study of causes scientific, in accord with the method and conditions outlined in the *Posterior Analytics*. Here, Avicenna applies the method of demonstration in this chapter, and will continue to apply it in the chapters to come, by defining the essential features of the existent qua cause and effect. Here, parallel to providing a scientific definition of natural kinds in physics, in metaphysics he is advancing a scientific definition of the second-order concepts of cause and effect and their properties, including contingency, causedness, and generation. On the one hand, he criticizes commonly held views, including that of *mutakallimūn*, which confuses accidental properties or facts with the essential properties of the cause and effect – i.e. those internal to their definition.

But, as we will see, we also see this methodology inspiring his aim to distinguish the efficient cause of metaphysics from the efficient cause of physics. That is, although the physicists pursue Aristotelian scientific inquiry by proceeding from essential definitions, they

⁵¹ See for instance the chapter, “On there being no demonstrations of corruptibles” in *Najāt Logic, Book of Demonstration* 15: 111.

only account for aspects that take for *granted* the existence of contingent essences in their causal theory. They account for the essence qua moving, or qua subject to change. In metaphysics, Avicenna wants to seek causes of the essence qua existent.⁵² The point becomes clearer as Avicenna proceeds in his analysis of efficient causation in the next chapter.

1.2. *The argument of Shifā' Metaphysics VI 2*

Avicenna is still engaged with elucidating the metaphysical efficient cause, as this chapter's title promises to address challenges to the view that Avicenna established in the previous chapter: "On resolving doubts directed against what the adherents of true doctrine hold, to the effect that every cause coexists with its effect; and on ascertaining the true statements about the efficient cause."⁵³ It is important to note that Avicenna here will be arguing for the coexistence of the efficient cause with its effect, and not for the coexistence of the formal or material causes with their effects.⁵⁴

⁵² See also the discussion on the contingent and the necessary in *Shifā' Metaphysics I 6*. Avicenna makes a similar argument here, "Moreover, whatever is possible in existence when considered in itself, its existence and nonexistence are both due to a cause. [This is] because, if it comes into existence, then existence, as distinct from nonexistence, would have occurred to it. [Similarly,] if it ceases to exist, then nonexistence, as distinct from existence, would have occurred to it. Hence, in each of the two cases, what occurs to the thing must either occur through another or not. If [it occurs] through another, then [this] other is the cause. And if it did not exist through another, [then the nonexistence of the other is the cause of its nonexistence]. Hence, it is clear that whatever exists after nonexistence has been specified with something possible (*jā'iz*) other than itself. The case is the same with nonexistence. *This is because the thing's quiddity is either sufficient for this specification or not. If its quiddity is sufficient for either of the two states of affairs [existence or nonexistence] to obtain, then that thing would be in itself of a necessary quiddity, when [the thing] has been supposed not to be necessary [in itself].* And this is contradictory. If [on the other hand] the existence of its quiddity is not sufficient [for specifying the possible with existence]—[the latter] being, rather, something whose existence is added to it—then its existence would be necessarily due to some other thing. [This,] then, would be its cause. Hence, it has a cause. In sum, then, either of the two things [existence or nonexistence] would obtain necessarily for [the possible that was] due, not to itself, but to a cause. What one thinks of as 'existence' is through a cause (namely, an existential cause); and the nonexistential idea [would be realized] through a cause (namely, the absence of the [former] existential idea, as you have known)," *Shifā' Metaphysics I 6 (4-5)*: 38-39.

⁵³ *Shifā' Metaphysics VI 2*: 264.

⁵⁴ Of course, this does not preclude them from also being simultaneous to their effects.

Avicenna opens with a return to the same challenge that he addressed in VI 1, namely that the effect can persist on its own after it has been caused to exist. He states,

TI. 9

Regarding that which is [erroneously] believed that the son continues to exist after the father, that the building continues to exist after the builder, and that the warmth continues to exist after the fire [is removed], the reason for this is the conflation (*takhlīt*)⁵⁵ that results from ignorance of the true cause (*al-‘illa bi-l-ḥaqīqa*).⁵⁶ For the builder, the father, and the fire are not, in reality, causes of the subsistence of these effects. For the builder, the one mentioned as the maker [of the building], is neither the cause of the subsistence of the mentioned building nor, moreover, of its existence.

As for the builder, his movement is the cause of a certain motion. Thereafter, his immobility and refraining from motion, or his ceasing to move and affect transportation after having transported, constitute a cause of the termination of that motion. [Now,] that very act of transporting and the termination of this motion are a cause of a certain combination, and that combination is a cause of a certain shape taking place; and each of [the things] that constitutes a cause coexists with its effect.

⁵⁵ Marmura translates this as “ignorance”. I think Avicenna’s point is to critique those who are conflating the apparent and the technical sense of cause that he is advancing.

⁵⁶ Marmura translates this as “the true nature of the cause.” I do not think Avicenna’s critique here is that the opponent is missing something about what the cause is really like in its nature. This might imply that the opponent has correctly identified the entity in the world that is the cause, but is simply not understanding its “true nature.” Rather, Avicenna’s critique is that the opponent entirely misses what the real cause is in these scenarios.

As for the father, he is the cause of the movement of the sperm. The motion of the sperm, if it ends in the above mentioned way, is a cause of the occurrence of the sperm in the womb. Its occurrence in the womb is then a cause of something. *As for its becoming formed as an animal and its continuity as an animal, [this] has another cause.* If this, then, is the case, then every cause coexists with its effect. Likewise, fire is the cause of heating the element of water. Heating is a cause of annulling in actuality the water's disposition to receive or sustain the watery form. This is because some other thing is a cause of bringing about the complete disposition in such a circumstance for the reception of its opposite— namely, the fiery form. *The cause of the fiery form consists of the causes that clothe the elements with their forms, [these causes] being separable.*

Thus, *the true*⁵⁷ *causes coexist with the effect.* As for those that are prior, these are causes, either accidentally or as helpers. For this reason, it must be believed that the cause of the building's shape is the combination, the cause of this [the combination] being the natures of the things being combined and their persisting in the way they are composed, the cause of this [the persistence] being the separate cause that is the efficient cause of the natures. The cause of the son is the combination of his form with his matter through the cause that gives forms. The cause of the fire is the cause that gives forms and the

⁵⁷ I use "true" to distinguish the use of *ḥaqīqiyya* here from his other use of *dhātiyya*. Avicenna seems to be using the former in this chapter to make the point that, for those who think the effect can persist on its own without a cause once the effect is brought into existence, they are not understanding what the "true" cause is. If they did, they would see that the "true" cause of the existence of the building and the son is not the builder and father but rather its essential cause, the metaphysical efficient cause of existence. This "true" cause must exist alongside its effect.

cessation of the complete⁵⁸ disposition for the contrary of these forms, both together. We thus find that the causes exist alongside the effects.⁵⁹

*Wa-alladhī yuẓannu min anna al-ibna yabqā ba^cda al-abi wa-l-binā³a yabqā
ba^cda al-bannā³i wa-l-sukhūnata tabqā ba^cda al-nāri fa-l-sababu fīhi
takhlīṭun wāqī^cun min jihati jahli al-^cillati bi-l-ḥaqīqati. Fa-inna al-bannā³a
wa-l-aba wa-l-nāra laysat ^cilalan bi-l-ḥaqīqati li-qiwāmi hādhihi al-ma^clūlāti.
Fa-inna al-bāniya al-^cāmila lahu al-madhkūra laysa ^cillatan li-qiwāmi al-
binā³i al-madhkūri wa-lā ayḍan li-wujūdihi.*

*Ammā al-bannā³u fa-ḥarakatuhu ^cillatun li-ḥarakatin mā. Thumma sukūnuhu
wa-tarkuhu al-ḥarakata aw ^cadamu ḥarakatihi wa-naqlihi ba^cda dhālika al-
naqli ^cillatun li-ntihā³i tilka al-ḥarakati. Wa-dhālika al-naqlu bi-^caynihi wa-
ntihā³u tilka al-ḥarakati ^cillatun li-jtimā^cin mā wa-dhālika al-ijtimā^cu ^cillatun
li-tashakkulin mā wa-kullu wāḥidin mimmā huwa ^cillatun fa-huwa wa-
ma^clūluhu ma^can.*

⁵⁸ There is a question of whether *al-tāmm* modifies *al-isti³dād* or *zawāl*. If it modifies *zawāl*, then the clause would instead read, "...and the complete cessation of the disposition opposed to those forms..." I am not sure if it is possible to interrupt the *nisba* in this way, and it is not clear why he would need to add "complete" to cessation, which seems complete on its own. It is most likely modifying *al-isti³dād*. Avicenna discusses *al-isti³dād al-tāmm* in *Shifā³ Metaphysics* VI 3 in the context of his discussion of the cause of the effect's individual existence, i.e. the cause of the effect qua individual. There he proceeds to discuss two divisions, one in which the cause and effect share in the *isti³dād* of matter, like fire causing fire, and the other in which the cause and effect do not share in the disposition of matter, like the light of the sun and the light of the moon. The former is further divided into cases in which there is an *isti³dād tāmm* versus those in which there is an *isti³dād nāqīṣ* in the recipient. The former refers to the absence in the nature of a thing of an opposing impediment to what it is potentially, while the latter refers to the presence in the nature of a thing of this said opposing impediment. An example of the former is the disposition of heated water to cool, and an example of the latter is the disposition of water to become warm. That is, in the latter case there is in the nature of water a power that impedes the heating that occurs to it from the outside, and that impediment continues to exist alongside the external cause of its heating. See *Shifā³ Metaphysics* VI 3 (11-15): 271-272. See also Robert Wisnovsky, Wisnovsky, Robert. *Avicenna on Final Causality* (Doctoral dissertation, 1994). Available from

ProQuest Dissertations & Theses A&I.

⁵⁹ *Shifā³ Metaphysics* VI 2 (1-5): 264,5 – 265,5 emphasis mine.

Wa ammā al-abu fa-huwa °illatun li-ḥarakati al-minā. Wa-ḥarakatu al-minā idhā intahat °alā al-jihati al-madhkūrati °illatun li-ḥuṣūli al-minā fī al-qarāri. Thumma ḥuṣūluhu fī al-qarāri °illatun li-amrin. Wa-ammā taṣwīruhu ḥaywānan wa-baqā°uhu ḥaywānan fa-lahu °illatun ukhrā. Fa-idhā kāna ka-dhālika kāna kullu °illatin ma°a ma°lūlihā. Wa-ka-dhālika al-nāru °illatun li-taskhīni °unṣuri al-mā°i. Wa-l-taskhīnu °illatun li-ibṭāli isti°dādi al-mā°i bi-l-fī°li li-qubūli ṣūratī al-mā°iyyati aw ḥifẓihā. Wa-dhālika anna shay°an ākhara °illatun li-iḥdāthi al-isti°dādi al-tāmmi fī mithli hādhihi al-ḥāli li-qubūli ḍiddihā wa-hiya al-ṣūratu al-nāriyyatu. Wa-°illatu al-ṣūratī al-nāriyyati hiya al-°ilalu allatī taksū al-°anāṣira ṣuwarahā wa-hiya muḥāriqatun.

Fa-takūnu al-°ilalu al-ḥaqīqiyyatu mawjūdatan ma°a al-ma°lūli. Wa-ammā al-mutaqaddimātu fa-hiya °ilalun immā bi-l-°araḍi wa-immā mu°īnātun. Fa-li-hādihā yajibu an yu°taqada anna °illata shakli al-binā°i huwa al-ijtimā°u wa-°illatu dhālika ṭabā°i°u al-mujtami°āti wa-thabātuhā °alā mā ullifat wa-°illatu dhālika al-sababu al-muḥāriqu al-fā°ilu li-l-ṭabā°i°i. Wa-°illatu al-waladi ijtimā°u ṣūratihī ma°a maddatihī bi-l-sababi al-muḥāridi li-l-ṣuwari. Wa-°illatu al-nāri al-sababu al-muḥāridi li-l-ṣuwari wa-zawālu al-isti°dādi al-tāmmi li-ḍiddi tilka al-ṣuwari ma°an. Fa-najidu idhan anna al-°ilala ma°a al-ma°lūlāti.

Avicenna here addresses the point that, in many cases, effects “seem” to persist after their causes’ demise, such as the son that continues to exist after the passing of the father and the building that continues to exist after the passing of the builder. This seems to provide reason to side with the view that causes are only needed to bring something into existence. Here, in response, Avicenna again objects to the opponent’s view in order to establish his own view. This

time Avicenna advances from a different angle, namely that the objector fails to understand that the causal scope of such prior causes is actually limited to certain motions that helped prepare for the coming-to-be of the effect but never caused the *existence* of the effect whatsoever. To show this, Avicenna draws on the fact that cause and effect must be simultaneous, suggesting that the opponent fails to apply this principle, for if she did, then it would become clear that the true effects of the father and builder are actually simultaneous to the father and builder and hence other than the son and building that persist after them.⁶⁰ The upshot is that the effect that continues to persist, such as the son and building, must have some other cause that *coexists* with it in time. This rules out the father and builder as candidates and makes room for other causal candidates to fill the vacancy.

As is evident, I understand these considerations to be preliminary or more “soft” arguments against the challenging view. That is, Avicenna gives reasons to question the opponent’s position but ultimately they are not sufficient to stand on their own, since one may grant that the son and building need causes that coexist with them but deny that these causes are efficient causes of the existence of their *essences*. The opponent may simply hold, for example, that the coexisting cause(s) are maintaining causes needed to keep this individual going, such as sources of nourishment, protection from the elements, etc. In other words, one may accept that cause and effect are simultaneous, but not recognize the existence of the son after its generation to be a genuine ‘effect’, an explanandum that requires a simultaneously existing cause—at least not in the sense that Avicenna holds. But I take Avicenna’s primary aim here to distinguish and

⁶⁰ Avicenna is here drawing on Aristotle’s discussion of the simultaneity of cause and effect in *Physics* II 3, where Aristotle distinguishes between actual and potential efficient causes. An actual cause, such as the housebuilder house-building, is simultaneous with its effect, the house-being-built. When the actual cause ceases, so does its effect (again, defined here not as the house but the house-being-built). However, with potential causes, this is not always the case—the housebuilder and the house do not pass away simultaneously. See Aristotle *Physics* II 3 195b16–21.

advance his own view of metaphysical efficient causation. One may well agree with Avicenna that the cause must coexist with the effect, but what's to prevent the builder or the father from being the cause of the *existence* of the building and the son, at time t_1 or even longer, after which other causes take over? The critical question is: what does it mean to cause *existence* and what agents can do it?

In the above passage, Avicenna's response entails a complete shift from what we may think these causes are doing. We can see the builder move materials around and execute the form of building that is in her mind, all the way up to putting the final brick in its place. But Avicenna wants to say that the builder did *not*, in so doing, cause the existence of the building— not *even* at time t_1 of the existence of the building corresponding to the placing of that final brick in its appropriate position. The case is similar with the father and the fire— their causal roles are restricted to causing certain motions but it is some other cause, a cause of natures, that is cited as causing the *existence* of the effect. The causes that appear to cause the thing are not responsible for causing the very existence of the effect, but rather of events that occur prior that help pave the way for the effect to come to be. Critically, Avicenna is not simply saying it is the nature itself that causes the effect to exist— but the *cause of* the existence of the nature is the cause of existence, the cause of the “subsistence of these effects.”

This may seem counter-intuitive— when the builder places the last brick of the house in place, did she not, in that act (and those that came before), thereby cause the building? What else is there to cause? Avicenna's point in this passage is that *in placing the final brick in its place*, the builder has not thereby caused the *existence* of the building, because causing *existence* turns out to be something completely different from molding and moving *particular* materials into

place. It is clear that causing existence means something very specific, namely causing a nature, an essence,⁶¹ and one cannot cause the existence of an essence through simply causing motions.⁶²

Though not yet explicit, Avicenna is drawing a line between efficient causes of motion and efficient causes of existence, not to mention other causes that may partake in the explanation of persistence, e.g., form and matter. As will be seen, he will more forcefully argue that they occupy two completely different dimensions in the causal nexus of the cosmos: a cause of motion can never cross into the nexus of causing existence, at least not *qua* mover.⁶³ The preliminary points above can, and are usually, read as connecting the metaphysical causes with physical causes, such that metaphysical causes “intervene” or temporally instantiate forms in the

⁶¹ This will become even clearer in *Shifā’ Metaphysics* VI 3 where Avicenna will argue that the cause of the effect *qua* species must be of a species that is other than the species of the effect, which suggests that Avicenna is looking to explain something above just the explanandum of an individual *becoming* a member of that species (i.e. causes of generation).

⁶² Strictly speaking, artifacts do not have real substantial forms and hence have no metaphysical efficient cause. The Active Intellect does not cause the form of building or chair. However, there *are* real natures in the components of artifacts, and those natures *are* caused by metaphysical efficient causes. This is why, for instance, in discussing the causal steps for the generation of a building, Avicenna only invokes essences or natures once he reaches the level of the building’s components, not the building itself, “For this reason, it must be believed that the cause of the building’s shape is the combination, the cause of this [the combination] being the natures of the things being combined and their persisting in the way they are composed, the cause of this [the persistence] being the separate cause that is the efficient cause of the natures,” *Shifā’ Metaphysics* VI 2 (5): 265.

⁶³ There is a parallel passage dealing with the builder and building in the *Physics*, and there Avicenna repeats the same result vis-a-vis the true cause of the building and even explicitly defers the appropriate treatment of this discussion to first philosophy. “What is not possible is that the effect itself should exist while the cause is entirely absent. What [seems] to throw doubt upon this is the case of a building and its remaining after the builder [departs]. So you must know that the building *qua* the effect of the builder does not remain after builder [departs], for the effect of the builder is to move the parts of the building until they form an integral whole— [an action] that does not continue after he departs. As for the persistence of the integral whole and the presence of the shape, it persists as a result of certain existing causes that *if they cease to be, then the building ceases to be* (*idhā fasadat fasada al-binā’*). The independent verification of this account and what in the preceding was like it will be deferred until first philosophy, and so wait until then,” *Shifā’ Physics* I 12 (8): 80, emphasis mine. The last sentence is especially interesting because if causing existence were simply a matter of causing the building or the son to attain its form, then this *would* be the proper subject matter for physics. I expand on the explanatory division of the sciences in relation to Avicenna’s treatment of the metaphysical efficient cause in the next section. This is yet another example of many where Avicenna explicitly says physics cannot treat the metaphysical efficient cause and this ought be taken very seriously in our account of *what* this causing consists of. As for the italicized phrase, Marmura translates it as, “when they are destroyed, bring about the destruction of the building.” I take the “when” and “destroyed” to be too strong, as they rule out the possibility that these causes are the heavenly Intellects. I do not think the Arabic is that determined. Of course Avicenna does not think the Intellects ever cease or are “destroyed,” but he is simply making the point that the building depends essentially on such causes such that *if* they to cease to exist, the building would immediately cease to be as well.

world of generation and corruption. As noted above, Averroes believes that Avicenna invokes the incorporeal cause to avoid an infinite regress of corporeal causes. No such distinctions are found in the above discussion. This leads to several puzzles that have not been fully addressed, to which I return below. However, I argue that Avicenna wants to maintain a stark distinction between these explananda in order to draw out the causal function of the true cause of the effect. This is part of his larger project of establishing a metaphysical efficient cause. That is, in order to show that we need this other, more primary efficient cause, he must show that moving causes only go so far and that we must posit some other principle to account for this explanandum, the existence of contingent essences— from the very beginning of their existence to the very end. He thinks this explanandum remains unexplained even after we have given a full account of a thing's efficient causes of motion. Thus all these efficient causes that we thought were causing the existence of the thing are actually operating within an entirely different dimension of the causal structure of the cosmos limited to motions. But it turns out that every existent has, in addition to properly suited matter, a contingent essence whose existence must be explained.

And that explanation cannot be found in movers, not even the movers that “transferred” the form into the thing nor in the form itself. I expand on this more in Chapter 2 and 3 where I revisit the problem of the relative roles of natural and metaphysical causes (specifically, the Giver of Forms) in substantial generation. There I argue that causes of motion can cause a particular to *attain* its species form, while causes of existence cause the very existence of the contingent essences that the particular instantiates. Avicenna is here using causing existence as a technical term that refers to causing the existence of otherwise contingent essences and must not be confused with our common sense or *prima facie* understanding of causing existence as causing

some particular, Zayd (inclusively of the properties he has qua individual).⁶⁴ The latter is a genuine explanandum but is accounted for at the level of natural efficient causation (as well as the other causes of the effect qua individual, a category that will be advanced in VI 3).

Avicenna concludes the chapter with a clear statement that this higher, more primary cause is a continuous *cause of the existence of essences*, which individuals instantiate:

T1. 10

It has thus become evident and clear that the essential causes of a thing through which the essence of the thing exists in actuality must be simultaneous with it (*al-‘ilal al-dhātiyya li-l-shay’ allatī bihā wujūd dhāt al-shay’ bi-l-fi‘l yajibū an takūna ma‘ahu*)⁶⁵, not prior in existence in terms of a priority where it would cease to exist when the effect comes into being, and that this [latter priority] is only possible with respect to causes that are not essential or not proximate. And it is not prohibited for causes that are not essential or not proximate to regress infinitely; rather, such is necessary.⁶⁶

Fa-qad bāna wa-waḍaḥa anna al-‘ilala al-dhātiyyata li-l-shay’i allatī bihā wujūdu dhāti al-shay’i bi-l-fi‘li yajibū an takūna ma‘ahu lā mutaqaddimatan fī al-wujūdi taqadduman yakūnu zawāluhu ma‘a ḥudūthi al-ma‘lūli wa-anna hādhā inna-mā yajūzu fī ‘ilali ghayri dhātiyyatin aw ghayri qarībatin. Wa-l-

⁶⁴ Accordingly, wherever I speak of causing existence, I invoke this technical sense that I take Avicenna to be advancing.

⁶⁵ Marmura translates as “the essential causes of things through which the existence of the essence of that thing comes about in actuality,” but *comes about* might suggest that the essence itself comes-to-be, and correspondingly is caused separately by a higher agent in each case of substantial generation. The text does not have these generative connotations.

⁶⁶ *Shifā’ Metaphysics* VI 2 (8): 266, 5-8.

*‘ilalu ghayru al-dhātīyyati aw al-ghayru al-qarībati lā yumna‘u dhahābuhā ilā
ghayri al-nihāyati bal yūjibuhu.*

This is Avicenna’s final response to the objection that he began the chapter with. That is, the opponent who thinks that the effect can persist in existence without its cause is actually conflating two completely different kinds of causing that the effect needs. The metaphysical efficient cause, the one responsible for causing the existence of essences, is always there and needed for the effect to persist. In Avicenna’s view, the objector just never even posited such a cause and was instead engrossed with the apparent causes— the father, the builder, and the fire.⁶⁷ I turn now to the next chapter, where Avicenna concludes his discussion of the efficient cause.

1.3. The argument of Shifā’ Metaphysics VI 3

In this chapter, we find the culmination of Avicenna’s argument for a metaphysical efficient cause. Avicenna is here continuing to track the same distinction that he made in VI 1-2, between the mere causes of motion of a thing versus the causes of existence. But now he subsumes this distinction under a more fundamental one: causes of the effect qua individual versus causes of the effect qua species. Causes of motion are placed under the former category, responsible for causing an effect insofar as it is an individual (in addition to the other three

⁶⁷ For instance, with respect to the son, he says, “As for its becoming formed as an animal and its continuity as an animal, [this] has another cause.” And with respect to the fire, the ‘other’ cause that causes existence is a cause of the fiery form, “This is because some other thing is a cause of bringing about the complete disposition in such a circumstance for the reception of its opposite— namely, the fiery form.” And with respect to the building, the cause of natures is again invoked as the true cause, the cause of existence, “...the cause of the building’s shape is combination, the cause of [the latter] being the natures of the things being combined and their remaining in the way they are composed, the cause of [these natures] being the separable cause that produces the natures,” *Shifā’ Metaphysics* VI 2 (3-5): 264-265.

Aristotelian causes treated in physics), while causes of existence cause the effect insofar as it is a kind.⁶⁸ This final piece on the metaphysical efficient cause is central to what it means to cause existence and what agents can cause it. He states,

Tl. 11

There is here, however, another explication by another kind of verifying inquiry (*taḥqīq*) which *we must not ignore*. This [explication] is that causes and effects, at first consideration according to thought, divide into two parts.

[The first] part [is one] where the natures in the effect and its [own] specificity and essential quiddity necessitate that, in its existence, it is an effect of a nature or natures. The causes would thus necessarily be different from its specificity, since they are causes of it with respect to its species, not [to] its individual [instance]. If this is the case, then the two species are not one [and the same], since what is being sought after is the cause of that species. Rather, the effects would be necessitated by some other species, and the causes would necessitate a species other than their own. These [latter] would be essential causes of the thing absolutely caused with respect to the species of the effect.

[The second] part [is one] where the effect is not the effect of the cause, nor is the cause the cause of the effect in [terms of the effect's] species, but in [terms of] its individual [existence]. Let us take this according to what thought outwardly dictates by way of division— what is found outwardly as existing

⁶⁸ Importantly, the final cause, for Avicenna, is also a cause of existence, though in a manner posterior to the effect's external existence. See Robert Wisnovsky, "Towards a History of Avicenna's Distinction between Immanent and Transcendent Causes," 49-68.

examples of it— and by way of expansion [on this], until we show *the true state that must obtain for it through our examination of the cause that gives the form of every [existent] that has form from among bodies.*

An example of the first [part] is the soul's being a cause of voluntary motion;⁶⁹ an example of the second is this fire's being the cause of that fire.⁷⁰ The difference between the two things is known. For this fire is not the cause of that fire in that it is the cause of the specificity of fire, but in that it is the cause of some fire. If considered in terms of specificity, it would be the cause of specificity accidentally. The case is similar with [the causal relation] of father to son, not inasmuch as this is a father and that a son, but with respect to the existence of humanity.⁷¹

Wa-lākin hāhunā tafṣīlun ākharu bi-naw^cin min al-taḥqīqi yajibu an lā naghfulahu. Wa-huwa anna al-^cilala wa-l-ma^clūlāti tanqasimu fī awwali al-naẓari ^cinda al-tafakkuri ilā qismayni.

Qismun takūnu ṭibā^cu al-ma^clūli fīhi wa-naw^ciyyatuhu wa-māhiyyatuhu al-dhātiyyatu tūjibu an yakūna ma^clūlan fī wujūdihi li-ṭabī^catin aw li-ṭabā^ci^ca.

⁶⁹ Avicenna delineates three causes of voluntary motion in his discussions on final causation in *Metaphysics* VI,5: the most remote (and first cause) being the imaginative or cogitative faculty of the soul, followed by the less remote appetitive faculty, and finally the proximate being the motive power in organs. “[Y]ou must know that every voluntary motion has a proximate [originating] principle, a remote principle, and a principle that is more remote. The proximate principle is the motive power in the organ’s muscle. The principle next to it is the resolution [to act] on the part of the appetitive faculty; the one more remote than this is imagining or cogitating. If some form is inscribed in the imagination or rational thought and the appetitive faculty is moved to the resolution to act, the motive power in the organs will serve it.” For the whole discussion see the first third of the chapter, pp. 220-225.

⁷⁰ It is important to keep in mind Avicenna’s remarks that these examples are just loose, preliminary ones, “what is found outwardly” in order to begin to draw out the basic distinction. He then pursues a more precise treatment where we learn what more properly constitutes these categories.

⁷¹ *Shifā’ Metaphysics* VI 3 (7-10): 270,11 – 271,8 emphasis mine, Marmura’s translation with minor changes.

Fa-takūnu al-‘ilalu mukhālīfatan li-naw‘iyyatihi lā maḥālata idh kānat ‘ilalan lahu fī naw‘ihi lā fī shakhṣihi. Wa-idhā kāna ka-dhālika lam yakun al-naw‘āni wāḥidan idh al-maṭlūbu ‘illatu dhālika al-naw‘i. Bal takūnu al-ma‘lūlātu tajibu ‘an naw‘in ghayri naw‘ihā wa-l-‘ilalu yajibu ‘anhā naw‘un ghayru naw‘ihā. [Wa]-takūnu ‘ilalan li-l-shay‘i al-ma‘lūli dhātīyyatan bi-l-qiyāsi ilā naw‘i al-ma‘lūli muṭlaqan.

Wa-qismun minhu yakūnu al-ma‘lūlu laysa ma‘lūla al-‘illati wa-l-‘illatu ‘illata al-ma‘lūli fī naw‘ihi bal fī shakhṣihi. Wa-l-na‘khudh hadhā ‘alā ṣāhiri mā yaqtaḍihi al-fikru min al-taqṣīmi wa ṣāhiri mā yūjadu lahu min al-amthilati wa-‘alā sabīli al-tawassu‘i ilā an nubayyina ḥaqīqata al-ḥāli al-wājibati fīhi min naẓarinā fī al-sababi al-mu‘ṭi li-ṣūratī kulli dhī ṣūratin min al-ajsāmi.

Fa-mithālu al-awwali kawnu al-naḥsi ‘illatan li-l-ḥarakati al-ikhtiyāriyyati. Wa-mithālu al-thānī kawnu hādhihi al-nāri ‘illatan li-tilka al-nāri. Wa-l-farqu bayna al-amrayni ma‘lūmun. Fa-inna hādhihi al-nāra laysat ‘illatan li-tilka al-nāri ‘alā annahā ‘illatu naw‘iyyati al-nāri bal ‘alā annahā ‘illatu nārin mā. Fa-idhā u‘tubira min jihati al-naw‘iyyati kānat hādhihi al-‘illatu li-l-naw‘iyyati bi-l-‘araḍi. Wa-kadhālika al-abu li-l-ibni lā min jihati mā huwa abun wa-dhālika ibnun bal min jihati wujūdi al-insāniyyati.

Here Avicenna echoes his results in VI 2 (and, of course, those of Aristotle’s fundamental intuitions regarding causation), where we learned that it is the very essence of the effect that makes it in need of a cause, not an accidental feature of it. Specificity in the latter sense, that is of *this* cause existentiating *that* effect, is accidental. As such, he immediately follows by stating

that since it is the very nature, specificity, and quiddity of the effect that makes it in need of a cause of existence, then its cause would be a cause of the very species of the effect. And since this cause, the metaphysical efficient cause, is causing the effect qua species, then the cause must be of a different species than the effect. That is, a thing cannot cause itself. Accordingly, he goes on to emphasize, as he did in VI 1-2, that the entities we *think* fulfill this causal role do not and cannot actually do so: when this fire causes that fire, or this father causes that son, they are not causing the existence of the species or essence of the effect which they both share. They are only responsible for causing individual fires and sons. Specificity is not properly accounted for. But these individual effects instantiate essences that cannot possibly be caused by other individuals that instantiate the same essence. The son requires a cause of his humanity that is not human.

The context of this passage is significant, as is his expansion of what the two causal categories refer to on *closer* analysis, as he had anticipated in the introduction to the discussion. Avicenna turns to an extended discussion on the cause of the effect qua individual.⁷² The discussion is not immediately pertinent to the discussion here, except to draw out the following point. The examples Avicenna uses to illustrate causes of the effect qua individual are telling: they represent a range of causes across the sublunar and superlunar realms that are usually taken as true causes of a thing (i.e., substantial change), such as fire heating water to the point that it transforms into fire, salt changing honey into salt, and the light of the sun causing light here or on the moon.⁷³

Avicenna's contention is that in all of these apparent cases of substantial change that we take *prima facie* to be causing their effects – indeed that the Aristotelian physicists might take to

⁷² Specifically with respect to “the place where we believe that it is possible for the agent and patient to be equal, the place where it is believed that it is possible [for the patient] to be in excess of [the agent], and the place where it is possible only for [the patient] to be lesser than [the agent],” *Shifāʾ Metaphysics* VI 3 (25): 267.

⁷³ *Shifāʾ Metaphysics* VI 3 (11-24): 271-275.

be the paradigmatic case of causing – the cause’s efficacy is actually limited to (explaining) causing at the level of effect qua individual and not the species-ness of the effect. The salt can turn honey into salt, but it cannot cause the very essence of saltness that it and the new salt share. Importantly, he ends the discussion by referring the reader to the *Physics* as the appropriate place to further explore such causes:

TI. 12

This subject deserves to be expanded on at a greater length than what we have done. It belongs, however, more properly to the art of physics. It is, however, necessary to mention here an amount sufficient to resolve the perplexity and make its interpretation plain. Then, if someone wishes to probe this to the full, he could probe it in what has been investigated in the science of physics, and particularly what he may find from us.⁷⁴

*Wa-min ḥaqqi hādhā al-mawḍi‘i an yubsaṭa baṣṭan akthara mim mā
basaṭnāhu. Lākinnahu awlā bi-l-ṣinā‘ati al-ṭabī‘iyyati. Wa-inna-mā yajibu an
nadhkura hāhunā qadra mā tanḥallu bihi al-shubhatu wa-yaḏhara wajhuhā.
Thumma in shā‘a mustaqṣin an yastaqṣiya dhālika istaqṣāhu min al-aqāwīli
al-mustaqṣāti fī ‘ilmi al-ṭabī‘ati wa-khuṣūṣan mā ‘asā yajiduhu min jihatīnā.*

The crucial point made by Avicenna’s elaboration of his “first blush” distinction between cause of the effect qua species and cause of the effect qua individual is that the latter category does not simply refer to the kind of explaining that is conducted in physics. Rather, Avicenna’s point is aimed at the interpretation of Aristotle’s approach and, in particular, the place of the

⁷⁴ *Shifā’ Metaphysics* VI 3 (25): 275,18 – 276,3.

demonstrative analysis of physics. In short, the explanatory causes of motion and change in physics are restricted to explaining “individual” effects, in the sense that they explain the generation and corruption of individuals of a species but not the very existence of their contingent essence. Here, he drives home the point that what physicists and others take to be the causes of a thing are only causes of certain motions. These causes, namely the efficient, formal, material, and final cause in the *Physics*, operate at only one level of the causal structure of the cosmos. For Avicenna, it is becoming clear that there are two explanatory levels of efficient causation: the domain of the effect qua individual and the domain of the effect qua species. This is not to say that the metaphysical efficient cause does not have an effect on individuals. It certainly does, but the bipartite causal theory suggests that we understand its causal activity in a way *other* than how we understand the causal activity of agents in the realm of the effect qua individual: as movers in linear causal chains that end in some individual effect in space-time.⁷⁵ Of course, that the metaphysical efficient cause causes the effect qua species makes good sense for other reasons. As noted, the idea of incorporeal efficient causes, causing forms, in some coordinated emanated sense, raises various puzzles. What does it mean to separately cause the form in each case of generation if form never exists separately for Avicenna? That is, how are we to understand an incorporeal agent of form, emanating non-separable form, in the temporal process of generation and corruption?⁷⁶ Avicenna wants to avoid the implication that forms exist

⁷⁵ This is in contrast to, say, a view that Taneli Kukkonen outlines with respect to Albert the Great—that he refused to admit a discrepancy between educating a form from the potentiality of matter and procession from the First. The former is simply the way creation is spoken of in physics and the latter is simply the way creation is spoken of in metaphysics. See Kukkonen, “Creation and Causation,” *Cambridge History of Medieval Philosophy* Vol.1, ed. Robert Pasnau and Christina Van Dyke (Cambridge University Press 2010), 232-246.

⁷⁶ There are problems with the view that interprets Avicenna’s Giver of Forms as imparting individual forms down in each case of substantial generation. Avicenna agrees with Aristotle that forms cannot exist separately from the matter in which they inhere, but it is not obvious how this view could escape the implication that individual forms would exist separately so as to be caused separately by an agent that is outside of the natural order. This seems foreign to Avicenna’s views on form and matter. In addition, it is unclear what it would mean for an immaterial agent to act directly on material effects in space-time, *in* their individual existence; it is also unclear what it would

mean for an immaterial agent to act alongside natural agents to jointly produce an individual material effect. Averroes raises these and other problems in his *Commentary on Metaphysics*, Zeta 9. There he critiques the view that there is a separate cause of forms, which he attributes to Avicenna and Farabi “who call [the separate form] the Active Intellect contra the philosophy of Aristotle,” (882) and who are ultimately inspired by Plato who thinks “there are [separate] substances and forms that give these generated plants and animals the forms by which they are plants and animals. This is what Plato most vigorously argues against Aristotle,” (881). In addition to the above problems, he also thinks it is impossible to produce a single, unified effect from two agents, “The demonstration that Aristotle uses to support that is that the forms are not generated in themselves, because if they were, then the generation would be without the matter of the enmattered thing. Consequently, what is generated is something informed, but if that is so, then what generates it is that which moves the matter until it receives the form, that is, that which causes [the form] to emerge from potency to act. Now what moves matter must be either a body possessing an active quality or a power of a substance that acts through a body possessing an active quality. If what generates the subject of the form were other than what generates its form, then the subject and its form would be actually two things, which is impossible. Thus, the subject does not exist without the form, unless it is said by homonymy. So because the subject of the form has existence only through the form, the agent’s activity is associated with [the subject] only due to [the subject’s] association with the form. Since the agent’s activity is neither associated with the form alone, nor with the subject without the form, consequently then, the agent’s activity is clearly associated with the subject only on the part of its association with the form. So what generates the form’s subject is what generates the form; in fact, there would be no subject if it were not for [the agent’s] generating the form and generating both of them simultaneously. If the subject of the form were to be generated from one agent and the form from another agent, then a single effect insofar as it is one would be generated from two agents, which is impossible; for it will not be associated with a single act, unless it is an act of a single agent. So one should rely on this [demonstration] in this situation, namely, that on which Aristotle relied,” (885). This then leads him to conclude that Avicenna and Farabi “neither understood Aristotle’s demonstration nor accepted its truth” and were hence “undone. The conceit does not belong to Avicenna alone, but also to al-Farabi; for it is evident in his book on the two philosophers that he had problems concerning this account. This earlier group of men was inclined toward the thought of Plato only because it was an opinion very much akin to that upon which the theologians of our religion rely in this account, namely, that the agent of all [generated] things is one, and that some of the [generated] things do not bring about an effect in others. In other words, they believed that from some of them creating others they would be committed to the infinite series of actual causes, and so they asserted an incorporeal agent,” (885-886). He goes on to emphasize the (correct) Aristotelian view that “what is not mixed with matter in a certain way be produced from what is absolutely unmixed with matter, just as he required that whatever is mixed with matter be produced from what is mixed with matter,” (886) in Averroes, *Tafsīr mā ba’d aṭ-ṭabī‘iyāt* 3 vols. (Beirut: Imprimerie Catholique, 1938–1952); transl. in McGinnis and Reisman, *Classical Arabic Philosophy*, 330-335. In my view Averroes is completely justified in his critique of this view along these lines (with the exception of saying that a Giver of Forms was posited to avoid an actual infinite—Avicenna has no problem affirming the infinite series of generation and corruption and his motivations for positing a Giver of Forms lie elsewhere). But Averroes is not justified in attributing this view to Avicenna, as I aim to show. Another problem with the view that interprets Avicenna’s Giver of Forms as imparting individual forms down in each case of substantial generation is that it would be difficult to make sense of all the passages in Avicenna’s physics that follow Aristotle in giving a natural account of the eduction of form from the potentiality of matter in individual cases of substantial generation. I discuss this account in Chapter 2. Avicenna defines the efficient cause in physics, “The agent is *that which impresses the form belonging to bodies into their matter*, thereby making the matter subsist through the form, and from [the matter and form] making the composite subsist, where [the composite] acts by virtue of its form and is acted upon by virtue of its matter,” *Shifā’ Physics* I 2 (7): 16, emphasis mine. Avicenna follows this in concrete contexts that discuss the generation of form in substantial generation, in which natural agents are said to cause form, for instance, “Now, it may perchance be that the essence of the agent, form, and end is a single essence, but that it should be an agent, form, and end is a single accidental to it. *For in the father, there is a principle for generating the human form from semen*. Now, that is not everything there is to the father, but only his human form, and *it is only the human form that exists in the semen*. Also, the end toward which the semen is moved is nothing but the human form. Insofar as it makes the human species subsist with the matter, however, it is a form, whereas *insofar as the semen’s motion terminates at it*, then it is an end, and insofar as its composition begins from it, then it is an agent. Again, when it is related to the matter and composite, it is a form. When it is related to the motion, then sometimes it is an end and at other times it is an agent: it is an end with respect to the motion’s termination, which is the form that is in the son,

separately from that which they are a form of in the sublunar world, since essence or “nature” has no existence “in the manner of the procession to other things, as if it were an emanation but has not yet arrived.”⁷⁷ I think Avicenna’s argument for a metaphysical efficient cause and the bipartite causal theory that it culminates in here in VI 3 offers a way out of these conundrums. I will develop this view more fully in the coming chapters.

In addition to advancing these dual explanatory levels of efficient causation and situating them within an explanatory division of the sciences, in these passages Avicenna also holds that the cause of species that he is seeking must be *outside* of the species itself. This suggests that he is not simply seeking to explain why this clump of matter is a human, for that would be its formal cause. He is also not seeking to explain *how* this clump of matter became human, for that would be its natural efficient causes and motions— e.g. the father that transferred the form of humanity through the semen, to which I turn in the next chapter. When Avicenna seeks a cause of species here, he is not speaking of either of these explananda, which have already been accounted for in physics and fall under the rubric of effect qua individual. Rather, Avicenna is asking a further question, identifying an additional explanandum that will require an explanatory structure beyond the posited four causes explored in physics. It is the absolute contingency of the essence, of all species forms that populate the cosmos, that motivates him to posit this

while it is an agent with respect to the motion’s beginning, which is the form that is in the father,” *Shifā’ Physics* I 11 (5): 73, emphasis mine. Also, at *Physics* I 14 (8): 96, he describes the agent that provides the form in cases of generation as actually *moving* the matter toward the form, “...the form coincidentally belongs to the matter from some agent that provides that form specific to it and moves it toward that form and that it does that always or for the most part.” This would seem to be a description that is difficult to attribute to the Giver of Forms, since Avicenna has emphasized that causes of existence do not act by moving. Still, this question must be treated in the context of Avicenna’s biological account of substantial generation in *Shifā’ Kitāb al-Ḥayawān*, which I pursue in Chapter 2. It is for all of these reasons, and others that I will explore more fully in chapter 3, that Avicenna seems to caution us against understanding emanation of form to be a sending down of individual forms in each case of generation in *Shifā’ Physics* I 7 (2-3): 51-52.

⁷⁷ *Shifā’ Physics* I 7 (3): 52. I treat this passage, which occurs in the context of his discussion of universal nature, in Chapter 3.

metaphysical efficient cause that causes the existence of essences. Appealing to prior members of the species is not sufficient, since none are self-explanatory with respect to the existence of the contingent essence and other properties of the essence. As he will argue again in the proof for the Necessary Existent, since the contingency of the essence always remains, it will always need a cause of its continued existence. In particular I will focus on what it means to invoke a cause of the existence of, say, the son as long as the son exists (or a cause of persistence, *‘illat al-thabāt*). Here, the “individual” causes in the series of preceding ancestors will not suffice.

For now, this passage concludes the argument for a metaphysical efficient cause in *Shifā’ Metaphysics* VI 1-3. In the next chapter I consider additional texts that expand on the metaphysical efficient cause and its role in the generation of the human soul and sublunary species.

CHAPTER 2

The Generation of Individuals of a Species: A Causal Division of Labor

In this chapter, I begin by examining Avicenna's account in *Shifā' Kitāb al-Ḥayawān* of the development of the human faculties and the attainment of the rational soul. I argue that Avicenna's analysis falls within the framework of a physical explanation of causes of "individuals", as defined in the previous chapter. That is, his analysis provides an explanation of the efficient and material causes of individuals of a species. His account follows that of Aristotle in *Generation of Animals*, with some departures as highlighted below. However, Avicenna believes that such an account falls short of a true explanation of a contingent, namely the essential cause of the species-form, humanity. As discussed earlier, the received view is that this cause is the Active Intellect in virtue of causing individual souls for each particular human. Against this position, I argue that the intellects, and the Active Intellect in particular, can only be said to cause the species and not the individual souls *qua* individuated, according to Avicenna. Here, I turn to his account in *Shifā' Kitāb al-Nafs* of the individuation and emanation of the human soul, and its relation to the corporeal body. One of the strongest challenges to the causal framework I outline in the previous chapter is Avicenna's well-known remarks in this work regarding the emanation of the human soul. In the following, I argue a close reading of the arguments and context of those passages in fact supports my reading of his causal framework. Avicenna denies the possibility of the Active Intellect producing individual forms, including the rational soul. As Avicenna states, "It is not possible that from [the intellect] occurs a multiplicity

that is the same in species.”⁷⁸ I argue that the Active Intellect does not emanate individual human souls but serves simply as a cause of the species. Individuation is an accidental feature of nature attributed to material and intermediary causes, such as the heavenly motions.⁷⁹ As such, individuation is external to the Active Intellect’s essential role of causing the species, i.e., existentiating a contingent essence. Here, causing a species in the world of generation and corruption requires, in addition to the essential cause of species, external and accidental causes that maintain the continuity of the species thorough multiple, successive individuals and involves natural processes, such as procreation. Thus, in the case of generation and corruption, causing a species and causing the individual involve distinct domains of analysis, which loosely fall into metaphysics and physics respectively. Finally, this chapter raises points regarding Avicenna’s causal distinction between “creation” (*ibdāʿ*) and “generation” (*ḥudūth*) in his emanative cosmology that is more fully dealt with in the next chapter which focuses on Avicenna’s *Metaphysics* of the *Shifāʾ*.

⁷⁸ *Shifāʾ Metaphysics* IX 4 (18): 409.

⁷⁹ This contrasts with, for instance, Averroes who in the Third Discussion of the *Tahāfut* takes the heavenly bodies, qua movers, to be the essential cause of an individual human, while the father is only an accidental cause, an instrument of the heavenly bodies. For Averroes it is essential to the heavenly bodies to be in motion (*wujūduhā fī al-ḥaraka*); their movers are causes of being. He seems to go on to generalize this to the world, that because “its substance is in virtue of motion” then it is only in need of a simultaneous cause insofar as it is continuously moving. Otherwise the world would not “after its existence, need the Creator”. See Averroes, *Tahafot At-Tahafot*, ed. Maurice Bouyges (Beirut: Dar el-Machreq, 2003), 167-168. An English translation may be found in Averroes, *Tahafut al-Tahafut (The Incoherence of the Incoherence)*, transl. Simon van den Bergh (London: Oxford University Press, 1954), 100. See also the “Fourth Discussion”, where he discusses the essential role of heavenly bodies and only accidental role of sublunary generators in the generation of a new individual. He states the father is only an instrument, an accidental cause of the son. See Averroes, *Tahafot At-Tahafot*, 267-269; Averroes, *Tahafut al-Tahafut*, 159. Avicenna would agree that the father is only an accidental cause with respect to explaining the existence of the son, but that the heavenly bodies, qua causes of motion, fall under the rubric of cause of effect qua individual. This is why Avicenna considers them, along with sublunary efficient causes, to be causes of individuation and not essential causes of the existent (or the effect qua species), as will become clear in passages such as T2.15 below. The true cause of existence of the son would be its *metaphysical* efficient cause, which causes the species humanity in an unindividuated manner.

Aristotle's *Generation of Animals* discusses the relative contributions of the male and female in animal generation and the causes and nature of embryological development.⁸⁰ The corresponding work in Avicenna spans books XV to XIX of *Shifā' Kitāb al-Ḥayawān*.⁸¹ In the context of my analysis of Avicenna's causal distinctions, I will focus on Avicenna's treatment of embryological development and its causes, which occurs in XVI 1.⁸² I am especially interested in how Avicenna causally accounts for the embryo becoming the kind of species it is. To this end, how he accounts for the embryo's attainment of the nutritive, sensitive, and rational souls—in various kinds of living things—is especially important for my purposes. If the standard account of the role of an emanative form is correct, one should expect Avicenna to depart from our standard view of Aristotle's account of animal generation by invoking an external, immaterial cause (the Active Intellect) in the generation of animal species. In the same way that Aristotle's works on animals have been shown (by James Lennox⁸³ and others as discussed below) to flesh out his account of the generation and analysis of animal essences, Avicenna's biological works, I argue, are important to explore what he does with the basic Aristotelian account of animal

⁸⁰ See Devin Henry, "Generation of Animals," *A Companion to Aristotle*, ed. Georgios Anagnostopoulos (Chichester, U.K.: Wiley-Blackwell, 2013), 368-384 for an overview of the *Generation of Animals*. See James Lennox's many works on Aristotle's biology, including "Aristotle's Biology," *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Spring 2017) for a brief outline of the book as a whole, as well as of the *History of Animals* and the *Parts of Animals*, and their place in the larger context of Aristotle's biological works, particularly as part of a larger methodological project informed by the *Posterior Analytics*.

⁸¹ For a discussion of causation and biological generation, see Robert Wisnovsky, "Towards a History of Avicenna's Distinction between Immanent and Transcendent Causes," 49-68, esp. 51ff, and for a helpful overview see "Humors, parts, and functions," "Reproduction and growth," and "Perfection and life," in Robert Wisnovsky, *Avicenna on Final Causality*, 110-134. Some important themes are treated in Jon McGinnis, "On the Moment of Substantial Change: A Vexed Question in the History of Ideas," *Interpreting Avicenna: Science and Philosophy in Medieval Islam*, ed. Jon McGinnis (Leiden: Brill, 2004), 42-61 and Jon McGinnis, "Medicine and the Life Sciences," *Avicenna* (Oxford: Oxford University Press, 2010), 227-243.

⁸² For Avicenna's treatment of the relative causal contributions of male and female, and on whether the female also contributes *sperma* and what the nature of that contribution is, see *Shifā' Kitāb al-Ḥayawān* XV 2-3. This is a notoriously contentious issue in modern Aristotelian scholarship, namely "whether the female also produces semen like the male and the fetus is a mixture of two semens, or whether no semen is secreted by the female, and, if not, whether she contributes nothing else either to generation but only provides a receptacle, or whether she does contribute something, and how and in what manner she does," (*Generation of Animals* I 19, 726a29-726b1).

⁸³ See for instance James Lennox, "Form, Essence, and Explanation in Aristotle's Biology," ed. Georgios Anagnostopoulos (Chichester, U.K.: Wiley-Blackwell, 2013), 348-367.

generation. I cannot pursue a full comparison of their accounts of animal generation here, or even a full account of Avicenna's. Instead I focus broadly on the causes of animal generation, of embryological development and in particular the causes of the nutritive, sensitive and rational souls. I begin with a brief outline of Aristotle in this regard before turning to Avicenna.

2.1. Causes of animal generation in Aristotle's Generation of Animals

The Aristotelian account of the causes of animal generation can be found in the last few chapters of *GA* I⁸⁴ and the first half of *GA* II, especially 1-4 where he discusses the causes and development of the embryo—in particular the nutritive, perceptive, and rational souls (as applicable to the animal in question). The male is identified as the efficient cause, providing the semen which triggers the development of the embryonic matter through the semen's heat. The female is identified as the only contributor of the matter of the fetus.⁸⁵ The father provides no material part of the fetus, similar to the case of the carpenter with respect to the building—the wood does not come from the carpenter herself.⁸⁶ Furthermore, just as the art of house-building in the soul of the carpenter is the source of the motion of the bricks (by means of tools, which contain “the motion of the art”)⁸⁷, so too the human form in the father is the source of the motion

⁸⁴ Here Aristotle is primarily concerned with the relative contributions of the male and female in generation, and in particular whether they both contribute *sperma*. But important groundwork is laid for what is to come in II.

⁸⁵ On closer examination, it seems this does not exhaust the female's causal role in generation. Based on later developments in *GA* II 4-5, the mother also provides the nutritive soul and it is the sensitive soul, which strictly speaking defines animal, that is provided by the father. For this reading see Henry, “Generation of Animals,” 372-373 and 375-377.

⁸⁶ “From these considerations we may also gather how it is that the male contributes to generation. The male does not emit semen at all in some animals, and where he does this is no part of the resulting embryo; just so no material part comes from the carpenter to the material, i.e. the wood in which he works...” *GA* I 22 730b9-12

⁸⁷ The analogy unfolds in detail at *GA* II 22 730b9-24. Especially, “[T]he shape and the form are imparted from him [the carpenter] to the material by means of the motion he sets up. It is his hands that move his tools, his tools that

of the embryonic matter (by means of the instrument of semen).⁸⁸ Aristotle likens the power of semen over the embryonic matter to the power of rennet to curdle milk.⁸⁹ It is the heat in the semen that triggers the initial development of the embryo. In this way, animal generation follows a key Aristotelian principle: “[I]n all products of nature or art, a thing is made by something actually existing out of that which is potentially such as the finished product.”⁹⁰ It is the male parent who is actually what the embryonic matter is potentially.⁹¹ Aristotle likens the developmental process to an automatic puppet: once the embryo is set into motion by the semen, it gradually develops into the actuality of that which it is potentially.⁹² But unlike artifacts, natural things have within themselves their own source of motion. A building requires an efficient cause outside of itself (the carpenter) from the beginning of its construction all the way

move the material; it is his knowledge of his art, and his soul, in which is the form, that move his hands or any other part of him with a motion of some definite kind, a motion varying with the varying nature of the object made. In like manner, in the male of those animals which emit semen, nature uses the semen as a tool and as possessing motion in actuality, just as tools are used in the products of any art, for in them lies in a certain sense the motion of the art. Such, then, is the way in which these males contribute to generation,” (730b14-24).

⁸⁸ Aristotle explains that the embryo comes from the female insofar as the female contributes its matter, and it comes from the male insofar as the male contributes the agency that informs it, “[W]henever one thing is made from two of which one is active and the other passive, the active agent does not exist in that which is made; and, still more generally, the same applies when one thing moves and another is moved. But the female, as female, is passive, and the male, as male, is active, and the principle of the movement comes from him,” (GA I 21 729b10-14). He then goes on to apply once again his analogy with the carpenter, “[T]hat one thing which is produced comes from them only in the sense in which a bed comes into being from the carpenter and the wood, or in which a ball comes into being from the wax and the form. It is plain then that it is not necessary that anything at all should come away from the male, and if anything does come away it does not follow that this gives rise to the embryo as being in the embryo, but only as that which imparts the motion and as the form; so the medical art cures the patient,” (GA I 21 729b16-22).

⁸⁹ “[W]hat the male contributes to generation is the form and the efficient cause, while the female contributes the material. In fact, as in the coagulation of milk, the milk being the material, the fig-juice or rennet is that which contains the curdling principle, so acts the secretion of the male...” (GA I 20 729a9-14). Aristotle uses the analogy again in GA II 3, to emphasize that the semen forms no material part of the embryo, “This material of the semen dissolves and evaporates because it has a liquid and watery nature. Therefore we ought not to expect it [the semen] always to come out again from the female or to form any part of the embryo that has taken shape from it; the case resembles that of the fig-juice which curdles milk, for this too changes without becoming any part of the curdling masses,” (737a10-16).

⁹⁰ GA II 1 734b20-22. Again for example at GA II 1 734a30-32 and GA II 4 740b19-25. And repeated again at GA II 3 736b9-15 but in the context of the souls—that the embryo must potentially have the souls before it has them actually. It must be of the right kind of material that can be developed to perform the soul functions.

⁹¹ GA II 1 734b34-36.

⁹² GA II 5 741b6-9.

to its completion. But the father only causes the *initial* development of the embryo, or in particular the embryonic heart,⁹³ which once developed then becomes the primary and internal source of the continued development of the offspring.⁹⁴ Aristotle likens the embryonic heart to the son who, upon separating from his parents, must manage his own house.⁹⁵ Thus Aristotle's account of animal generation is aligned with that of *Physics* II 1 of nature as an internal source of change and rest.⁹⁶

As the animal parts develop, the embryo acquires the corresponding soul functions in virtue of these structures. The embryo is said to already possess a nutritive soul in virtue of its capacity for growth⁹⁷, and as the sensory organs develop, it acquires the sensory soul.⁹⁸ This happens immediately—once the matter is prepared into the right structure with the right function, such as functioning organs, then it is ensouled.⁹⁹ This is because an Aristotelian soul is not the kind of thing that exists separately from what it is a soul *of*.¹⁰⁰ Having a soul is to have a capacity to perform certain functions characteristic of that kind, be it, broadly speaking, growth (nutritive soul) or sensation (sensitive soul).¹⁰¹ And insofar as those functions depend upon a physical

⁹³ Henry identifies three distinct effects of the father and delineates two readings of what it means for father to cause form (373ff).

⁹⁴ *GA* II 4 739b33-740a24.

⁹⁵ *GA* II 4 740a6-7.

⁹⁶ *Physics* II 1 192b21-23.

⁹⁷ Henry distinguishes *two* levels of nutritive soul: the power to construct the parts of the body, which is caused by the mother, and a more general one to process nutrition and grow in size, which is caused by the father. This is suggested as a solution to Aristotle arguing both that the nutritive soul constructs the body parts, including sense organs, *and* that the father alone provides the sensory soul (Henry, “Generation of Animals,” 374).

⁹⁸ “[N]obody would put down the embryo as soulless or in every sense bereft of life (since both the semen and the embryo of an animal have every bit as much life as a plant), and it is productive up to a certain point. That then they possess the nutritive soul is plain (and plain is it from the discussions elsewhere about soul why this soul must be acquired first). As they develop they also acquire the sensitive soul in virtue of which an animal is an animal,” (*GA* II 3 736a31-736b2).

⁹⁹ “Now the semen is of such a nature, and has in it such a principle of motion, that when the motion ceases each of the parts come into being and is ensouled,” (*GA* II 1 734b22-24).

¹⁰⁰ Except perhaps the rational soul, see below and fn 109.

¹⁰¹ Thus, once it is performing the function, then it is said to have that soul, “It is plain that the semen and the embryo, while not yet separate, must be assumed to have the nutritive soul potentially, but not actually, until (like those embryos that are separated from the mother) it absorbs nourishment and performs the function of the nutritive soul,” (*GA* II 3 736b9-12).

body, then soul is not the kind of thing that can enter the embryo from outside—be it on its own or through a body, such as being carried in by the semen.¹⁰² As Aristotle points out, “walking cannot exist without feet.”¹⁰³

After the nutritive and sensitive souls, the rational soul is acquired in the case of humans, and it must be acquired last.¹⁰⁴ But unlike the nutritive and sensitive souls, Aristotle seems to allow for the possibility of the rational soul to “enter from outside.” He prefaces this short discussion on how the rational soul is acquired by saying it is “a question of the greatest difficulty, which we must strive to solve to the best of our ability and as far as possible.”¹⁰⁵ He then delineates three options for how the souls are acquired: 1) they all come into being in the embryo, not previously existing outside of it; 2) they all exist previously; or 3) some come to be in the embryo while others exist previously outside it.¹⁰⁶ The next sentence clarifies what he means by coming from outside, namely that it was carried in by the semen. He states, “Again, it is necessary that they should either come into being in the material supplied by the female without entering with the semen of the male, or come from the male and be imparted to the material in the female.”¹⁰⁷ He dismisses option 2, since the nutritive and sensitive souls are tied to bodily parts but cannot be carried in by the semen since they would need to be the souls *of* the semen, but “the semen is only a residue of the nutriment in process of change”¹⁰⁸. He instead opts for option 3, whereby the nutritive and sensitive souls come to be in the embryo and the

¹⁰² Aristotle dismisses this at *GA* II 1 734a35ff and *GA* II 3 736b22-27.

¹⁰³ *GA* II 2 736b24.

¹⁰⁴ “For the end is developed last, and the peculiar character of the species is the end of the generation in each individual,” (*GA* II 3 736b3-5).

¹⁰⁵ *GA* II 3 736b4-5.

¹⁰⁶ *GA* II 3 736b15-17.

¹⁰⁷ *GA* II 3 736b18-19.

¹⁰⁸ *GA* II 3 736b26-27.

rational soul comes from outside.¹⁰⁹ This is because the rational soul's function is not tied to any bodily part or organ that is specifically for thinking¹¹⁰—it is not a bodily function in the way that walking is. But Aristotle must not mean that the *semen* carries the rational soul in, for what would it mean for the rational soul to be *in* the semen if it is not the rational soul *of* the semen? Semen is obviously not rational. Aristotle does not specify whence the rational soul enters from outside and the issue is left undeveloped.¹¹¹ But it is perhaps what Avicenna seizes on. I turn to Avicenna now.

2.2. Avicenna's biological account in *Shifā'* *Kitāb al-Ḥayawān*

In *Kitāb al-Ḥayawān*¹¹² XVI 1, when discussing the status of the various faculties of the soul and the causes of embryological development at various stages, Avicenna makes no explicit mention of the Active Intellect. Though he does indirectly invoke it at one point, by reference to an “external” cause. It is not where one might expect. Avicenna does not invoke it as a cause of the fetus becoming the species that it is, including in the case of human fetuses, or in other words its causing the form of the rational soul. Avicenna instead gives a standard Aristotelian account in that he attributes such changes, including substantial changes and the ensoulment of various species, to the natural efficient cause—be it the father's semen in the initial stages, or the

¹⁰⁹ “It remains, then, for the reason alone so to enter and alone to be divine, for no bodily activity has any connection with the activity of reason,” (*GA* II 3 736b27-28).

¹¹⁰ *De Anima* III 4 429a24-27.

¹¹¹ This is separate from, but must be considered in the context of, the issue of whether the human intellect can function without a body. See Hendrik Lorenz, “Ancient Theories of Soul,” *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Summer 2009), that Aristotle seems to think that sensory impressions (*phantasmata*) are involved in acts of thought. Specifically *De Anima* III 7 431a14-17, III 8 432a7-10, *De Memoria* I 449b31ff. Which is in turn related to whether the human soul can survive bodily death for Aristotle, see *De Anima* I 1 403a3-25.

¹¹² I cite from Avicenna, *Kitāb al-Ḥayawān*, *Kitāb al-Samā' al-Ṭabī'ī*: *Al-Ṭabī'īyāt*, *al-samā' al-ṭabī'ī*, ed. Sa'īd Zāyid (Cairo: 1970), in book, chapter, page and line numbers.

embryonic heart in the later stages. Similarly, in *Kitāb al-Ḥayawān* XV, in discussing the male and female contributions to sexual generation, their reproductive parts and roles in generation, the contentious issue of whether the female contributes sperma, and the developmental stages of animals in the womb in general, Avicenna again makes no mention of the Active Intellect or an immaterial, separate cause of form.¹¹³

Importantly, Avicenna also discusses embryological development earlier in *Kitāb al-Ḥayawān*, for instance his account in IX 5 of the changes embryonic matter undergoes, beginning with the frothing of the semen, all the way up to and including the birth of the baby¹¹⁴. The chapter, entitled “An analysis of the alterations of the fetal matter until it is completed”, opens with:

T 2. I

The first of states [in the completion of the fetus] is the frothing (*zabadiyya*) of the semen, which is part of the activity of the formative power¹¹⁵. The second [lit: other] state is the emergence of the drop of blood (*al-nuqṭa*) in the uterine wall (*al-ṣifāq*), and its expansion in the uterine wall a certain extent. The third state is the alteration of the semen into the clot (*al-‘alaqa*), and after this [alteration], its alteration into the lump (*al-muḍgha*).¹¹⁶ After this is its

¹¹³ *Shifāʾ Kitāb al-Ḥayawān* XV 1-3: 384-399.

¹¹⁴ 172-178.

¹¹⁵ *wa huwa min fiʿl al-quwwa al-muṣawwira*. McGinnis translates as “which is the actuality of the formal power,” (McGinnis, *Avicenna*, 240). I understand Avicenna here to be referring to the very nature of the semen, as being the efficient cause of its motion.

¹¹⁶ These three stages of development can be translated into modern terms as zygote (*nuṭfa/nuqṭa*), embryo (*‘alaqa*), and fetus (*muḍgha*).

alteration leading to the generation of the heart, the primary organs and its blood vessels, followed by the generation of the extremities (*al-aṭrāf*).¹¹⁷

Fa-awwalu al-aḥwālī zabadiyyatu al-minā wa-huwa min fi^cli al-quwwati al-muṣawwirati. Wa-l-ḥālu al-ukhrā zuhūru al-nuqtati al-damawiyyati fī al-ṣifāqi wa-mtidāduhā fī al-ṣifāqi imtidādan mā. Wa-thālithu al-aḥwālī istiḥālatu al-minā ilā al-^calaqati wa-ba^cdahā istiḥālatuhu ilā al-muḍghati. Wa-ba^cdahā istiḥālatuhu ilā takawwuni al-qalbi wa-l-a^cḍā'i al-ūlā wa-aw^ciyatihā wa-ba^cdahā takawwunu al-aṭrāfi.

Here the only efficient cause that is invoked is the formative power, or nature, of the semen.¹¹⁸ And this is despite the fact that Avicenna considers embryological development to contain a number of *substantial* changes. This is clear, for instance, in a passage detailing embryological development from *Shifā' Physics* II 3, where at least two substantial changes are explicitly mentioned,

T 2. 2

Still, when one observes semen gradually developing into an animal and the seed gradually into a plant, one imagines that there is a motion here [namely, with respect to substance]. What should be known is that, up to the point that the semen develops into an animal, it happens to undergo a number of other developments between which there are continuous qualitative and quantitative alterations; and so, all the while, the semen is gradually undergoing alteration. In

¹¹⁷ *Shifā' Kitāb al-Ḥayawān* IX 5: 172, 4-7.

¹¹⁸ To be clear, as I will discuss, Avicenna does hold in XV that the embryonic heart is the efficient cause of the *continued* development of the offspring. On the embryonic heart taking over as efficient cause, see *Shifā' Kitāb al-Ḥayawān* XVI 1: 401.

other words, it is still semen until it reaches the point where it is divested of its seminal form and becomes an embryo. Its condition [remains] like that until it is altered [into] a fetus, after which there are bones, a nervous system, veins, and other things that we do not perceive, [remaining] like that until it receives the form of life. Then, in like fashion, it alters and changes until it is viable and there is parturition. Someone superficially observing the transformation imagines that this is a single process from one substantial form to another and therefore supposes that there is a motion with respect to the substance, when that is not the case and, instead, there are numerous motions and rests.¹¹⁹

*Lākin nahu lammā raʿā anna al-minā yatakawwanu ḥaywānan yasīran yasīran
wa-l-bidhru nabātan yasīran yasīran tawahhama min dhālika anna hunāka
ḥarakatan. Wa-alladhī yajibu an yuʿlama huwa anna al-minā ilā an
yatakawwana ḥaywānan taʿriḍu lahu takawwunātun ukhrā taṣīlu mā baynahumā
istiḥālātun fī al-kayfi wa-l-kammi fa-yakūnu al-minā lā yazālu yastahīlu yasīran
yasīran wa-huwa baʿdu minā ilā an yablughu ḥaddan tankhaliʿu ʿanhu šūrātu al-
minawiyyati wa-taṣīru ʿalaqatan. Wa-ka-dhālika ḥāluhā ilā an tastaḥīla
muḍghatan wa-baʿdahā ʿiḍāman wa-ʿaṣaban wa-ʿurūqan aw ūmūran ukhara lā
nudrikuhā wa-ka-dhālika ilā an yaqbala šūrata al-ḥayāti. Thumma ka-dhālika*

¹¹⁹ *Shifāʾ Physics* II 3 (6): 141. Avicenna, *The Physics of the Healing: Books I & II*, ed. and trans. Jon McGinnis (Provo: 2009). I cite the translation of McGinnis with some modifications. There are two editions of *Kitāb al-Samāʿ al-Ṭabīʿī*: *Al-Ṭabīʿīyāt, al-samāʿ al-ṭabīʿī*, ed. Saʿīd Zāyid (Cairo: 1983), and *Al-Ṭabīʿīyāt, al-samāʿ aṭ-ṭabīʿī*, ed. Jaʿfar al-Yāsīn (Beirut: 1996). McGinnis' emended edition is based on these two in addition to the Tehran lithograph of the *Shifāʾ* and the available medieval Latin translation of Avicenna's *Physics*. For more on this and the source texts, see the *Translator's Introduction* of the edition, esp. pp. xxxi-xxxiv. My citations will consist of book, chapter, and McGinnis' paragraph and page number.

*yastahīlu wa-yataghayyaru ilā an yashtadda fa-yanfaʿilu. Lākin ẓāharu al-ḥālī
yuwahhamu anna hādhā sulūkun wāḥidun min šūratin jawhariyyatin ilā šūratin
jawhariyyatin ukhrā wa-yuẓannu li-dhālika anna fī al-jawhari ḥarakatan wa-
laysa ka-dhālika bal hunāka ḥarakātun wa-sukūnātun kathīratun.*

Here, from the seminal form to the reception of the life form, Avicenna identifies several alterations of matter. It is unclear whether the intermediate stages are indeterminate matter being prepared for the reception of the life-form or whether there are intervening substantial changes. It seems unlikely that the embryo and fetus are more than indeterminate matter being prepared for the life-form. The status of the intermediate stages of change is immaterial to the present discussion.¹²⁰ Notably, despite there being at least two episodes of substantial change in embryological development, there is no invocation in either case of the Active Intellect as efficient cause.

KH IX 5 goes on to discuss the development of the embryo in further detail, up until the birth of the baby, but no invocation of the Active Intellect is made, including at any of the points of substantial change. Avicenna does invoke God when discussing the specific case of the baby's passing through the birth canal at the end of the chapter. He states that it is necessary for the child's major joints to be dislocated during childbirth and that God's "assistance and care" makes it that the joints quickly return to their "natural continuity". Here, God however is not invoked as a direct cause of the joints snapping back to their natural state; rather, this is said to occur through God's providence.¹²¹

¹²⁰ For a treatment of this passage, but in the context of arguing that Avicenna upholds an instantaneous view of substantial change, see Jon McGinnis, "On the Moment of Substantial Change: A Vexed Question in the History of Ideas," 42-61.

¹²¹ *Shifāʾ Kitāb al-Ḥayawān IX 5*: 178.

Indeed, in the above contexts, God is invoked not as a direct efficient cause of the fetus *acquiring* its substantial form, but of the very nature of the child-- which here includes the fact that its joints come apart prior to birth for an easier pass through the birth canal, and then return quickly to its natural state of connected joints. Once again it seems like the Necessary Being, and the intermediate metaphysical causes that are the Intellects, cause natures and the contingent ways they operate in the world.¹²²

In any case, similar to the order and program of Aristotle's biological works,¹²³ Avicenna does not seem to be concerned here in IX 5 in identifying the *causes* of animal generation and embryonic development¹²⁴ but rather in establishing a factual account of the phenomenon before turning to seek causal explanations—that is beginning inquiry with *the fact that* and only then exploring *the reason why*.¹²⁵ That he does not invoke an Active Intellect *here* is not conclusive, since he is not fully engaged in seeking causes until *KH* XV and in particular XVI 1.¹²⁶ I turn to that account now.

Avicenna begins his discussion of the causes of embryonic development and the acquiring of the various soul faculties in XVI 1. He identifies the male's semen as the initial efficient cause of the generation of the fetus, which builds on his earlier results in XV 2-3. His

¹²² In the context of the *Physics* passage discussed in chapter 1 (*Shifā' Physics* I 7) regarding the particular nature and the two senses of universal nature, this seemed to be Avicenna's point of the role of the universal nature in the absolute sense.

¹²³ See Lennox, "Aristotle's Biology". Also Aristotle, "These things, then, have now been said by way of outline to provide a taste of what things need to be studied, and what it is about them that needs to be studied, in order that we may first grasp the differences and the attributes belonging to all animals. After we do this, we must attempt to discover the causes. For it is natural to carry out the investigation in this way, beginning with the inquiry into each thing; for from these inquiries it becomes clear both about which things (*peri hôn*) the demonstration (*tên apodeixin*) should be and from which things (*ex hôn*) it should proceed," (*HA* I 6, 491a7–14).

¹²⁴ Which he *does* pursue later in *Shifā' Kitāb al-Hayawān* XV and XVI.

¹²⁵ *Posterior Analytics* II 1 89b29-31.

¹²⁶ This is only a very preliminary observation. It remains to be studied whether Avicenna's biological works-- like Aristotle's *History of Animals*, *Parts of Animals*, and *Generation of Animals*-- follow the stages of scientific investigation outlined by the *Posterior Analytics*.

discussion is summarized at the end of XV 3, where he states that the female's contribution to generation is material, and the male's is a principle of motion.¹²⁷ Avicenna expands upon this causal model in XVI 1, with a focus on the coming-to-be of the soul faculties in animals. He states,

T 2. 3

Let us examine the state of semen, and whether it contains a part of a soul (*juzʿ nafs*), I mean a power (*quwwa*), or not. When the semen moves toward the generation of the fetus, this is not due to some other cause from outside, but it is rather due to its nature that is constrained¹²⁸ by God's permission (*bi idhni Allah taʿālā*). So in it [the semen] is the principle of the nutritive soul. And the parts/organs are not generated by it simultaneously, for experience points to the priority of the heart in generation.¹²⁹

Fa-l-nanzur fī ḥālī al-minā wa-hal fīhi juzʿu nafsīn aʿnī quwwatan am laysa fīhi. Wa-lammā kāna al-minā yataḥarraku ilā takwīni al-janīni laysa bi-sababin gharībin min khārijin bal bi-ṭabīʿatihi al-musakhkharati bi-idhni Allāhi taʿālā. Fa-fīhi mabdaʿu al-naḥsi al-ghādhīyati. Wa-laysa takawwunu al-aʿdāʿi minhu maʿan fa-inna al-tajribata tadullu ʿalā taqaddumi al-qalbi fī al-takawwuni.

¹²⁷ XV 3: 399.

¹²⁸ Robert Wisnovsky points out to me two possible readings here: 1) as a passive participle (*musakhkhara*), in which case it would translate as “that is constrained by God's permission”, and it would mean that God in His grace is constraining nature; or 2) as an active participle (*musakhkhira*), in which case it would translate as “that constrains [natural things] with God's permission,” and it would mean God is giving nature permission to constrain natural things. See Qurʾān 14:33, “He [God] has made the sun and moon subservient to you (*sakhkhara lakum*)”.

¹²⁹ *Shifāʾ Kitāb al-Ḥayawān* XVI 1: 401, 7-10.

Embryonic development begins with the motion of the semen, in accordance with his account in IX 5. But here Avicenna emphasizes that it is the very nature of the semen that is the efficient cause of its motion, and not some external cause. Avicenna here leaves out the initial role of the father as a cause of moving the semen into the mother, which he does mention explicitly in other places.¹³⁰

Interestingly, to the Aristotelian account of nature as an internal source of motion, Avicenna adds that the nature itself is in some sense subordinate to God. He does not say more than that here, but this could be a reference to the bipartite causal schema that I outline—namely that natures, or essences, are contingent and require explanation outside of themselves, and that Avicenna identifies the Necessary Being as the ultimate cause of these essences rather than the direct cause of particular instances.

Avicenna then identifies the nutritive soul as the first to develop, due to the activity of the semen. However, like Aristotle, Avicenna notes a limit to the causal efficacy of the semen—once the embryonic heart comes to be, it then serves as the efficient cause of the continued development of the fetus.

After a brief excursion into the generation of the embryonic heart and lung, Avicenna goes on to detail the coming to be of the nutritive soul,

T 2. 4

The action of the seed (*zarʿ*) of the father in the seed of the mother occurs only in the manner of the actions of naturally generated things, the bulk of which is in the manner of the meeting of the mover and moved...The semen moves something

¹³⁰ See for instance here, “As for the father, he is the cause of the movement of the semen. The motion of the semen, if it ends in the abovementioned way, is a cause of the occurrence of the semen in the womb...” *Shifāʾ Metaphysics* VI 2 (3): 264.

else, namely the semen of the mother, so it [the semen of the father] first moves towards generating the principle, then it bestows upon the first organ (*al-ʿuḍw*) a power that is the principle that moves towards generating the other [bodily] parts in order. And then the seminal clot comes to possess a soul... So if it becomes a possessor of soul, the soul in it moves towards the completion of the [bodily] parts. And this soul becomes at that point a nutritive soul since it has no¹³¹ other action, and even if it has within it the power to do something else.¹³²

Lākinna fiʿla zarʿi al-wālidi fī zarʿi al-ummi inna-mā yakūnu ʿalā sabīli al-aḡʿālī wa-l-takwīnāti al-ṭabīʿiyyati allatī julluhā ʿalā sabīli mulāqāti al-muḥarriki wa-l-mutaḥarriki... Thumma al-minā yuḥarriku shayʿan ākhara ay nuṭfata al-marʾati fa-yuḥarriku awwalan ilā takwīni al-mabdaʾi thumma yubʿathu ʿan al-ʿuḍwi al-awwali quwwatun hiya mabdaʿu yanḥū ilā takwīni sāʾiri al-aḡḡāʾi minhu bi-l-tartībi. Wa-takūnu al-nuṭfatu al-munʿaqidatu ṣārat dhāta nafsīn... Fa-idhā ṣāra dhālika dhā nafsīn taḥarrakat al-nafsu fīhi ilā takmīli al-aḡḡāʾi. Wa-takūnu hādhihi al-nafsu ḥīnaʾidhin nafsān ghādhiyatan idh lā fiʿla lahā ākhara wa-in kānat fīhā al-quwwatu li-ghayri dhālika.

Through its motion, the semen is first directed towards generating the first organ of the embryo, which is said to then be responsible for generating the other organs. This must be the embryonic heart. It is not entirely clear here at exactly what point the embryo is said to have the nutritive soul—either at the point of being a seminal clot or at the point of having an embryonic heart. It is also possible that these are not two separate points in development, if the “seminal clot” already

¹³¹ Reading the *aw lā* as the variant *idh lā* in the apparatus.

¹³² *Shifāʾ Kitāb al-Hayawān* XVI 1: 401,15 - 402,4.

possesses the embryonic heart. In either case, it would have the nutritive soul in virtue of its capacity for growth, whether as a clot or as possessing an embryonic heart that develops further organs.

Avicenna does shortly go on to distinguish two stages of nutritive soul in the embryo, the first coming from the father, which he refers to as the “general” (*muṭlaq*) nutritive soul. It is present in the embryo only until a certain point, namely until “the mixture alters to a certain [point of] alteration” at which point it now “connects with” (*tattaṣilu*) the “particular” (*khāṣṣa*) nutritive soul. He says it is as if the general nutritive soul attained from the father does not have the power to complete the development of the embryo all the way to its completion, as a fully formed animal.¹³³ These two levels of nutritive soul might help explain the above passage, where Avicenna says both that it is upon the generation of the seminal clot that it has the nutritive soul, *and* that it is when it has its embryonic heart and is engaged in developing the other organs that it has a nutritive soul. The former might be the nutritive soul that he here calls the general one attained from the father, and the latter may be the more developed nutritive soul which comes with the embryonic heart, that he calls *khāṣṣa* and which includes this more advanced function of self-development and growth, the efficient source of which is not the father or semen.

It can be noted that, at either level of nutritive soul, Avicenna does not invoke an immaterial, external cause of the attainment of the nutritive soul, but instead makes clear that it comes about from “the manner of the actions of naturally generated things.” The father moves the semen, which prepares the matter supplied by the mother until the embryonic heart forms. The heart is then the efficient cause of the embryo’s continued development. And insofar as the embryo has a capacity for growth and development, then it is ensouled.

¹³³ *Shifāʾ Kitāb al-Ḥayawān* XVI 1: 402-403.

As the embryo continues to develop and acquires the sensitive organs, it is now said to have the sensitive soul,

T 2. 5

And when the nutritive power in the seminal clot becomes ready to receive acts then it is prepared for the sensitive soul, so in it is the power to receive the soul insofar as it is sensitive.¹³⁴

*Wa-l-nuṭṭatu idhā ista^caddat fihā al-quwwatu al-ghādhīyā li-qubūli af^cālī
u^ciddat li-l-naḥsi al-ḥissiyyati fa-takūnu fihā quwwatu qubūli al-naḥsi min ḥaythu
hiya ḥissiyyatun.*

This makes sense in the context of the Aristotelian conception of soul, whereby the soul¹³⁵ is not something separately existing from what it is a soul *of*. This is why Aristotle rules out the possibility that the soul is carried in by the semen or somehow exists separately and is *put into* the embryonic matter. Avicenna here, as well, identifies the capacity to be ensouled with being sensitive. If something is said to have the capacity to perform certain life functions, then as soon as the seminal clot is sensitive—in virtue of the newly developed sensory organs—then it is said to be ensouled.

Avicenna continues on to discuss the rational soul. This passage is especially important, not least because it is the only place in his discussion, thus far and in what follows, wherein Avicenna invokes an external cause in the causal process.¹³⁶ He states,

¹³⁴ *Shifāʾ Kitāb al-Ḥayawān* XVI 1: 402, 10-11.

¹³⁵ At least, the nutritive and sensitive souls. As was seen in Aristotle, the rational soul may be an exception.

¹³⁶ The only other place he comes close to discussing external causes is here, “And know that the sperm, even though it has a motive power, does not rise to its action except through a helper (*mu^cīn*) from outside, like the seed as well. This helper consists in two things: suitable matter and a suitable environment, similar to [the case of] the seed that needs suitable matter in the earth and suitable air,” XVI 1: 405. But clearly by causes “from outside”, Avicenna is still referring to natural causes- be they material or efficient.

T 2. 6

And if the heart and brain come to be inside [the fetus] then the rational soul becomes connected (*ta^callaqa*)¹³⁷ to it, and the sensitive [soul] emerges (*tafīḍu*) from it [the rational soul].¹³⁸ As for the rational (*nuṭqiyya*), it is different (*mubāyina*) and is not material, but it is not intellecting (*^cāqila*)¹³⁹ yet. Rather it is like how [the rational soul] is in the inebriated and struck down (*maṣrū^c*)¹⁴⁰. And it [the rational soul] becomes perfected (*tastakmilu*) through something external that bestows (*yufīd*) the intellect (*al-^caql*). As for the other faculties (*quwā*)¹⁴¹, they become perfected through the body and bodily functions. And if it were the case that the boy is sensitive and then he becomes human (*insānan*) through rationality (*nuṭq*), then, in being perfected, he would change in species to [another] species (*naw^c*).¹⁴²

Fa-idhā šāra al-qalbu wa-l-dimāghu mawjūdayni fī al-bāṭini ta^callaqa bihā al-naḥsu al-nuṭqiyyatu wa-tafīḍu minhā al-ḥissiyyatu. Ammā al-nuṭqiyyatu fa-takūnu mubāyinatan wa-takūnu ghayra māddiyyatin wa-lākin nahā lā takūnu ^cāqilatan

¹³⁷ This is how Avicenna refers to the relationship that the rational soul has to an individual human body, but in *Shifāʾ Kitāb al-Nafs* V 3 he states that the precise connection between body and soul is obscure. See Thérèse Druart, “The Human Soul’s Individuation and Its Survival After the Body’s Death: Avicenna on the Causal Relation Between Body and Soul,” *Arabic Sciences and Philosophy*, 10 (2000), 259-273.

¹³⁸ *Shifāʾ Kitāb al-Ḥayawān* XVI 1: 403. That is, there are not three separate souls in a human, but rather one soul with all the faculties associated with the three kinds of soul.

¹³⁹ Reading *^cāmila* as the variant *^cāqila* in the apparatus. However, according to the way that I understand the passage, *^cāmila* (“acting”) would make sense as well in that Avicenna is explaining here how the rational soul becomes an *actual* rational soul and not simply a potential, non-active one.

¹⁴⁰ The general meaning of *maṣrū^c* would include those who are having an epileptic fit as well as those who have had a stroke. It could also mean insane, but I take it that Avicenna wants to invoke a meaning here that indicates only a temporary lack of rational capacity.

¹⁴¹ I.e. those associated with the nutritive and sensitive souls.

¹⁴² *Shifāʾ Kitāb al-Ḥayawān* XVI 1: 403, 3-8.

*ba^cdu. Bal takūnu ka-mā fī al-sakrāni wa-l-maṣrū^ci. Wa-inna-mā tastakmilu fī
amrin khārijin yufidu al-^caqla. Wa-ammā sā^ciru al-quwā fa-tastakmilu bi-l-
badani wa-l-umūri al-badaniyyati. Wa-law kāna al-ṣabiyyu ḥassāsan thumma
yaṣīru insānan bi-l-nuṭqi la-kāna yantaqilu bi-l-istikmāli min naw^cin ilā naw^cin.*

It is not immediately clear why Avicenna takes the development of the heart and brain to be the point at which the rational soul becomes connected to the fetus, but the lines that follow emphasize that the rational soul is *not* material. For Avicenna the rational soul certainly does not refer to the function of any bodily organ. But still the development of the heart and brain might be the point at which the fetus is said to attain its rational soul because for Avicenna rational activity still does depend upon sensory capacities, which *are* the function of bodily organs.¹⁴³ Intellection begins with sensory perception of particulars, perceptions which are then subject to a process of abstraction by the intellect. And so the fetus at least has the *capacity* for rational activity once the brain and heart is fully developed, which also seems to coincide here with the emergence of the sensitive soul.

But in the lines that follow, it seems that Avicenna wants to causally account for an additional aspect of the rational soul—its *actual* intellection. He says the rational soul is not yet intellecting (^c*āqila*) [or active (^c*āmila*), to include the other variant] and compares its state to the inebriated. It seems his point is that the inebriated certainly still *has* the rational soul in that she has the capacity for intellection, but is not currently *exercising* that capacity. Perhaps an even further aspect of the analogy is relevant—she is not only not currently exercising the capacity, but *cannot* exercise the capacity (until becoming sober). Avicenna does hold that humans cannot

¹⁴³ On the theoretical and practical intellect's dependence on the body, see *Shifāʾ Kitāb al-Nafs* V 1: 185. I cite *Shifāʾ Kitāb al-Nafs* from Avicenna, *Kitāb al-Nafs*, ed. Saʿīd Zāyid (Cairo: 1983), in book, chapter, page, and line numbers.

intellect intelligibles, despite their capacity to do so, without the Active Intellect. It is here, at this exercise of the rational soul's capacity for rational thought, that Avicenna invokes an external cause.

Thus it seems Avicenna distinguishes here two aspects, or stages, of the rational soul—1) its bare “existence”, i.e. its becoming “connected” (*ta'alluqa*)¹⁴⁴ to the fetus and having the capacity or potentiality to intellect, which he attributes to the emergence of the heart and brain; and 2) its actual functioning, i.e. actively intellecting intelligibles, which he attributes to an external cause.¹⁴⁵ Avicenna's terminology is further telling. The rational soul *becomes perfected* (*tastakmil*) when transitioning to this state of active intellection, a term he continues to use in the passage. Avicenna, following Aristotle, defines the soul as a first perfection in *Najāt Physics* VI 1, “The soul is the first perfection of a natural body possessed of organs that performs the activities of life.” He then goes on to apply the distinction between first and second perfection to the soul. He writes,

T 2. 7

The ‘first perfection’ is that by which the species actually becomes a species, like the shape that belongs to the sword. The ‘second perfection’ is whatever comes after the thing's species such as its actions and affections, like the act of cutting that belongs to the sword...¹⁴⁶

¹⁴⁴ See Druart, “The Human Soul's Individuation,” on his use of this term in describing the relation between the human body and soul.

¹⁴⁵ In the context of his view of the stages of intellection, this state would be the acquired intellect (*'aql mustafād*), whereby the human attains the intelligibles from the Active Intellect. A discussion of this may be found in Jon McGinnis, “Psychology II: Intellect,” *Avicenna* (Oxford: Oxford University Press, 2010), 118-120.

¹⁴⁶ *Shifā' Kitāb al-Nafs* I 1: 10, 4-6. For a treatment of Avicenna's theory of perfection, including the different ways in which he articulates the distinction between first and second perfections, and in relation to his theory of causality and especially final causality, see Robert Wisnovsky, *Avicenna's Metaphysics in Context*, 113-141.

Fa-l-kamālu al-awwalu huwa alladhī yaṣīru bihi al-naw^cu naw^can bi-l-fi^cli ka-l-shakli li-l-sayfī. Wa-l-kamālu al-thānī huwa amrun min al-umūri allatī tatba^cu naw^ca al-shay³i min af^cālihi wa-nfi^cālātīhi ka-l-qat^ci li-l-sayfī.

Thus in the context of the rational soul, the first perfection refers to that which gives the fetus the power to intellect, which is also what makes it the species that it is—human, even though it is not currently intellecting. In order to advance into what Avicenna calls the second perfection, an external cause is required. Just as the second perfection of a sword is to be an actually-cutting sword, the second perfection of a rational soul is to be an actually-intellecting rational soul.¹⁴⁷

If this reading is correct, an interesting upshot is that Avicenna seems to suggest that an external cause is not needed to make the fetus human, i.e. to give it its rational soul (i.e., the capacity or power to intellect). However, what *does* require an external cause is for this rational soul to actually intellect, to actually cognize intelligible forms. And although Avicenna does not mention here what this external cause is, we know from his theory of intellection that it is the Active Intellect that is a cause of a rational soul's attainment of this second perfection.¹⁴⁸ Thus the fetus becomes human by attaining its rational soul upon the development of the heart and brain, but it cannot actually intellect without this external cause.

This seems to be Avicenna's point, again but more pointedly, in the example of the boy. He suggests it would be absurd if it were the case that the boy, who in moving from a state of not intellecting to a state of intellecting, would thereby become human, would “change in species to

¹⁴⁷ For Aristotle on the first potentiality (one is a ‘knower’ insofar as one is human, i.e. has the potential to be a knower but has yet to acquire knowledge), the second potentiality / first actuality (having grammatical knowledge but not thinking of it now), and the second actuality (actually exercising that knowledge), see *De Anima* II 5 417a21ff.

¹⁴⁸ A full account of Avicenna's theory of intellection cannot be given here. But see McGinnis, *Avicenna*, 117-148.

[another] species.” The implication is that the boy, even though not intellecting, and much like the inebriated and the fetus, is *still* human, is *still* rational, even if he is not currently exercising that power of rationality that the rational soul endows him with. Rather, in exercising one’s rational powers, one does not thereby change in species but is rather transitioning from the first perfection to the second perfection. Without this distinction that Avicenna sketches here in this passage from the *KH*, and which he more precisely describes as first and second perfection in the *Najāt*, one would be forced to hold that the inebriated ceases to be human when inebriated. Avicenna tries to draw out this absurdity with his point about the boy.

It is the first perfection, this capacity for intellection that is attained by the fetus, which still counts as having the rational soul and as being human. And interestingly, Avicenna does not invoke any external cause for the fetus to become human, to attain this rational soul (in its state of potential intellection). He instead only pinpoints the development of the heart and brain as the point at which the fetus becomes human. This, of course, raises puzzles of its own.¹⁴⁹ But it is interesting because it suggests that the attainment of the rational soul can be causally accounted for by natural efficient causes, and that the causal role of the Active Intellect vis-à-vis the rational soul is specifically with respect to the second perfection. That is, an external cause is needed for the rational soul’s *activities*, its actual intellection, but not of its very coming-to-be in a given individual. It seems that an individual becomes human through natural efficient causes, and becomes an *actually intellecting* human through the Active Intellect.

This seems to be Avicenna’s point in invoking the Active Intellect as cause in this passage from *Shifā’ Kitāb al-Nafs* V 5,

¹⁴⁹ For instance, is there anything distinct that happens embryologically to human fetuses that might explain why, in acquiring a heart and brain, they not only acquire a sensitive soul as all animals do but also a rational soul which only humans do? Perhaps it is a more developed brain, one with more advanced brain functions that allow for the acts of abstraction that humans must partake in in order to acquire the intelligible form from the Active Intellect.

We say: the human soul is at one time potentially intellecting and then becomes actually intellecting, and whatever emerges from potency to act does so only through an actual cause which brings about its emergence. So there is here a cause that brings about our souls' emergence from potency to act with respect to the objects of intellection. Since it is the cause giving the intellectual forms, it is nothing but an actual intellect in which the principles of the intellectual forms are abstracted.¹⁵⁰

Naqūlu: inna al-naḥḥa al-insāniyyata qad takūnu ʿāqilatan bi-l-quwwati thumma taṣīru ʿāqilatan bi-l-ḥiʿli wa-kullu mā kharaja min al-quwwati ilā al-ḥiʿli fa-inna-mā yakhruju bi-sababin bi-l-ḥiʿli yukhrijuhu. Fa-hāhunā sababun huwa alladhī yukhriju nufūsanā fi al-maʿqūlāti min al-quwwati ilā al-ḥiʿli. Wa-idh huwa al-sababu fi iʿṭāʾi al-ṣuwari al-ʿaqliyyati fa-laysa illā ʿaqlan bi-l-ḥiʿli ʿindahū mabādiʾu al-ṣuwari al-ʿaqliyyati mujarradatun.

Of course, this passage taken by itself does not indicate that this is the *only* causal role of the Active Intellect vis-à-vis the rational soul, in the way that the passage from the *KH* above seems to suggest. But it does provide more context for what Avicenna has this external cause do in causing the “perfection” of the rational soul. I will shortly turn to compare this causal account of the generation of a human, and in particular the rational soul, with passages in the *Kitāb al-Nafs* of the *Shifāʾ* as well as the *Najāt*.

But before then, Avicenna concludes *KH* XVI 1 with a treatment of egg-laying animals that is of relevance to understanding his account of the causes of embryological development and

¹⁵⁰ *Shifāʾ Kitāb al-Nafs* V 5: 208, 3-7.

generation. There, he says the active cause (in the male) moves towards “forming the species form and transforming the egg matter.”¹⁵¹ Again, there is no mention here of an external immaterial cause. There is no mention of the Active Intellect, or Giver of Forms. He goes so far as to explicitly say the natural efficient cause *forms the species form*. And if my reading of the passage on the rational soul is correct, then this seems to be Avicenna’s position with respect to the generation of human souls as well.

Thus far, if my reading of these passages from *KH IX 5*, *XV 1-3*, and *XVI 1* are correct, then it seems in his biological works Avicenna is very closely following Aristotle’s account of the causes of embryological development, in particular of the species forms and souls (at least, up until and including the first perfection of the rational soul). That is, he invokes natural efficient causes to explain the coming-to-be of animals, including becoming the species that they are. The moving cause educes the species form from matter that contains the potential to be what the efficient cause is actually—be it a human or a chicken. The only points we have seen where Avicenna invokes an immaterial external cause is: 1) God as a cause of the nature of the baby (particularly of the fact that its nature is such that its bones become disjointed for birth and then quickly fuse back together) (in *KH IX 5*); 2) God as a cause of the nature of the semen, which is in turn a cause of the semen’s motion toward generating the fetus (in *KH XVI 1*);¹⁵² and 3) the Active Intellect, or explicitly “external”, cause of a human’s actual intellection (in *KH XV 1*).

If this is right, it would then follow that the Active Intellect plays no role in the generative process of new individuals, including humans, in Avicenna’s biological account. He does invoke the ultimate metaphysical efficient cause, the Necessary Being, but not as being a

¹⁵¹ *Kitāb al-Ḥayawān* XVI 2: 408.

¹⁵² See fn. 128.

part of the causal chain of generation in the embryo. God is instead said to be some kind of cause of the natures, which do the actual causal work in generation. Perhaps this view might be summarized by reference to a passage from Aristotle about the generation of plants and animals, particularly their goal-directedness towards reproduction and attaining life faculties, “In all this nature acts like an intelligent workman.”¹⁵³ Avicenna would agree, but just not explanatorily take for granted this intelligence. It is here that, in my view, he invokes metaphysical efficient causes as causes of natures and their causal patterns.

I turn now to consider passages in the *Kitāb al-Nafs* of the *Shifā’* on the coming-to-be of the rational soul.

2.3. Avicenna’s account in *Shifā’ Kitāb al-Nafs*

Avicenna discusses the coming-to-be of the human soul in *Shifā’ Kitāb al-Nafs* V 3-4, in the context of explicating the relationship between the human soul and body and the soul’s continued existence and individuation after the corruption of the body. Here, I argue that a close reading of the passages shows that the individuation of the soul does not occur in virtue of the Active Intellect but with respect to external, intermediary and preparatory causes. I will discuss the status of intermediary causes more generally in the next chapter. I argue that while the cause of the existence of the species is always one (i.e., the intellects), the cause of individual souls and things, particularly in the sublunary realm of generation and corruption, occurs with respect to matter and intermediary causes. Avicenna’s theory asserts that the causes of individuals are “accidental” and many, while the cause of species is essential and one. In this chapter, I focus on

¹⁵³ GA II 23 731a25.

Avicenna's texts in *Kitāb al-Nafs*, which support and anticipate that reading, in particular, that the Active Intellect is not strictly the cause of individual souls qua individual but is the cause of the species, humanity. Individuation of the human soul, and its "emanation", occurs through external, accidental causes of preparing matter.

Avicenna argues that the human soul cannot pre-exist the existence of the body and must come to be with the coming-to-be of the body. He states,

T 2. 9

We state: Human souls do not exist (*qā'ima*) separately from bodies and then obtain in bodies, because human souls are the same in species and concept (*ma'ānā*). So if it is supposed that it has existence that does not come-to-be with the coming-to-be of bodies, but is rather a separate existence, it is not possible that the soul is multiple in that existence. That is, because the multiplicity (*takaththur*) of things is either with respect to the essence and form, or it is with respect to [their] relation to the element (*'unṣur*) and matter, which [i.e., the relation] is multiple in virtue of its multiplying through locations that comprise every matter from a [certain] aspect and times that are specific to each of them in its generation and the causes that divide them. They do not vary with respect to the essence and form, because its form is one. So it varies only in terms of what receives the essence or what the essence is specially related to it, and this is the body. If it were possible that the soul can exist without a body, then it is not possible that there be a difference in number of [one] soul [from another] soul, and this is absolutely [the case] with everything. Things which are themselves forms (*ma'ānā*) alone [rather than form-matter composites], and whose specificity

is multiplied by their individuals, are multiplied only through the bearers and receptacles and things affected by them or through some relation to them and their times. And if they were separate initially, then they were not [at that time] differentiated, as we have stated; so it is impossible for difference and multiplicity to come to be among them. Thus it has been invalidated that the souls prior to their entering bodies are multiplied in number with respect to their essences.¹⁵⁴

Wa-naqūlu: inna al-anfusa al-insāniyyata lam takun qā'imatan mufāriqatan li-l-abdāni thumma ḥaṣalat fī al-abdāni li-anna al-anfusa al-insāniyyata muttafiqatun fī al-naw'i wa-l-ma'nā. Fa-idhā furiḍa anna lahā wujūdan laysa ḥādithan ma'a ḥudūthi al-abdāni bal huwa wujūdun mufradun lam yajuz an takūna al-nafsu fī dhālika al-wujūdi mutakaththiratan. Wa-dhālika li-anna takaththura al-ashyā'i immā an yakūna min jihati al-māhiyyati wa-l-ṣūratī wa-immā an yakūna min jihati al-nisbati ilā al-^ʿunṣuri wa-l-māddati al-mutakaththirati bi-mā tatakaththaru bihi min al-amkinati allatī tashtamilu ^ʿalā kulli māddatin fī jihatīn wa-l-azminati allatī takhtaṣṣu bi-kulli wāḥidīn minhā fī ḥudūthihi wa-l-^ʿilali al-qāsimati iyyāhā. Wa-laysat mutaghāyiratan bi-l-māhiyyati wa-l-ṣūratī li-anna ṣūratahā wāḥidatun. Fa-idhan inna-mā tataghāyaru min jihati qābili al-māhiyyati aw al-mansūbi ilayhi al-māhiyyatu bi-l-ikhtiṣāṣi wa-hādhā huwa al-badanu. Wa-ammā idhā amkana an takūna al-nafsu mawjūdatan wa-lā badanun fa-laysa yumkinu an tughāyira nafsun nafsan bi-l-^ʿadadi wa-hādhā muṭlaqun fī kulli shay'in. Fa-inna al-ashyā'a allatī dhawātuhā ma'ānin faqaṭ wa-qad takaththarat

¹⁵⁴ *Shifā'* Kitāb al-Nafs V 3: 198,9 - 199,3.

naw[°]iyyātuhā bi-ashkhāṣihā fa-inna-mā takaththuruhā bi-l-ḥawāmili wa-l-qawābili wa-l-munfa[°]ilāti [°]anhā aw bi-nisbatin mā ilayhā wa-ilā azminatihā faqaṭ. Wa-idhā kānat mujarradatan aṣlan lam tatafarraq bi-mā qulnā. Fa-muḥālun an yakūna baynahā mughāyaratun wa-takaththurun. Fa-qad baṭala an takūna al-anfusu qabla dukhūlihā al-abdāna mutakaththirata al-dhāti bi-l-[°]adadi.

In this passage, Avicenna underscores the potential causes of the multiplicity of human souls. It should be noted that the points raised here are directly connected to the passages in Book VI, discussed in the next chapter. There he states explicitly that multiplicity – i.e., causing individuals of a species – is not the essential aim in nature but that “essential ends are, for example, that the substance that is man, horse, or palm exists, and that that this existence be a persisting (*dāʾim*), stable (*thābit*) existence.”¹⁵⁵ Moreover, he states, “For, if it were possible for man to remain permanently, as do the sun and the moon, then there would be no need for generation and multiplication in progeny.”¹⁵⁶ As we will see, Avicenna will distinguish between causing things in the manner of “generation” (*ḥudūth*), which requires matter and intermediary causes, and causing things without preceding matter or intermediary causes, which he calls “creation” (*ibdāʾ*). In the above passage, he considers two options. It is either the case that multiplicity within a species arises with respect to the essence that these individuals share, or it arises with respect to the matter that instantiates these essences. He says multiplicity cannot arise due to the essence because they are all the same in species and hence cannot have differences in their essences. Their essences must be the same, so the essence, and in turn the cause of essence, cannot possibly be the source of their differentiation and hence multiplicity. Rather, what varies

¹⁵⁵ *Shifāʾ Metaphysics* VI 5 (22): 289-290.

¹⁵⁶ *Shifāʾ Metaphysics* VI 5 (22): 290.

and hence what individuates and causes multiplicity within the species is their matter along with *place* and *time*, which differentiate qualitative and individual differences. As we will see, these differences are important in individuation but are not essential causes. He also qualifies that the source of multiplicity with respect to things that are simply “concepts” (*maʿāni*)—i.e., immaterial forms-- is through the material constituents that the form is *related* to in varying ways—i.e., *ḥawāmil*, *qawābil*, and *munfaʿilāt ʿanhā*. Here Avicenna is referring to the case of the human soul, since for him it is not the form *of* the body such that the rational soul is imprinted in the body. In the case of the immaterial intellects of the celestial realm, multiplicity is not possible. However, as he will emphasize below, the human soul is said to have a certain relation¹⁵⁷ to body, which is what differentiates it. He concludes that without this differentiating factor of *relation to matter*, it is impossible that there be a multiplicity of souls. Thus human souls cannot pre-exist the body but rather come-to-be in time with the coming-to-be of the body. Hence the soul of Zayd and the soul of Socrates do not exist prior to Zayd and Socrates’ bodies coming-to-be. This argument is telling not just with respect to its aim of showing that rational souls come-to-be in time, but also with respect to *how* individual rational souls are caused.

This initial account of how multiplicity arises serves as a framework that Avicenna returns to and builds upon in his discussions in the next chapter. There, Avicenna is arguing that the soul does not perish with the perishing of the body. He outlines three potential *relations* or connections (*taʿalluq*) that the soul would have with respect to the body if it is assumed to perish with the perishing of the body and proceeds to dismiss all three.¹⁵⁸ In this context, he writes,

¹⁵⁷ He uses both *nisba* and *ʿalāqa* to refer to this connection between the body and human soul, which he strives to explicate throughout V 3-4, and especially to maintain the *individuated* soul’s survival of bodily death.

¹⁵⁸ For a discussion of this see Druart, “The Human Soul’s Individuation,” 267-270.

T 2. 10

Therefore, the connection of the soul with the body is not a connection of effect to essential cause. If the mixture and body is an accidental cause of the soul, then if the matter of a body comes to be that is suitable to be an instrument for the soul and a domain for it [the soul], the separate causes generate the particular soul, *or it is generated from them* [i.e., the separate causes] (*aw ḥadatha ʿanhā dhālika*). For the generation of it without a specifying (*mukhaṣṣis*) cause, in the manner of generating one thing rather than another, is impossible, and even with that this [generation without an individuating cause] makes it impossible that multiplicity in number occurs in it [“the soul” caused by the separate causes], as we have shown. This is because there must be for every existent that [comes to be] after not existing a matter that precedes it, in which is the preparation of receiving it or the preparation for a relation to it, as was shown in the other sciences... If the preparation for a relation and readiness for an instrument comes to be, then at that point it becomes necessary that *from the separate causes is generated a thing that is the soul*. And that is not [the case] only with the soul, but with everything that comes to be after not existing from among the forms. The preparedness of its matter and its becoming a nature for it is what preponderates (*yurajjih*) its existence over its nonexistence.¹⁵⁹

Fa-idhan laysa taʿalluqu al-nafsi bi-l-badani taʿalluqa maʿlūlin bi-ʿillatin dhātiyyatin. Wa-in kāna al-mizāju wa-l-badanu ʿillatan bi-l-ʿaraḍi li-l-nafsi fa-

¹⁵⁹ *Shifāʾ Kitāb al-Nafs* V 4: 203, 5-15, emphasis mine.

*innahu idhā ḥadathat māddatu badanin taṣluḥu an takūna ālatan li-l-naḥsi wa-
mamlakatan lahā aḥdathat al-‘ilalu al-mufāriqatu al-naḥsa al-juz’iyyata aw
ḥadatha ‘anhā dhālika. Fa-inna iḥdāthahā bi-lā sababin mukhaṣṣiṣin iḥdātha
wāḥidin dūna wāḥidin muḥālun wa-ma‘a dhālika fa-innahu yumna‘u wuqū‘u al-
kathrati fihā bi-l-‘adadi li-mā qad bayyannāhu. Wa-li-annahu lā budda li-kulli
kā’inin ba‘da mā lam yakun min an tataqaddamahu māddatun yakūnu fihā
tahayyu‘u qubūlihi aw tahayyu‘u nisbatin ilayhi ka-mā tabayyana fī al-‘ulūmi al-
ukhrā... Idhā ḥadatha al-tahayyu‘u li-l-nisbati wa-l-isti‘dādu li-l-ālati yalzamu
ḥina’idhin an yaḥdutha min al-‘ilali al-mufāriqati shay’un huwa al-naḥsu wa-
laysa dhālika fī al-naḥsi faqat bal kullu mā yaḥduthu ba‘da mā lam yakun min al-
ṣuwari fa-inna-mā yurajjiḥu wujūdahu ‘an lā-wujūdihi isti‘dādu al-māddati lahu
wa-ṣayrūratuhā khalīqatan bihi.*

Here, Avicenna describes in more precise terms what the Active Intellect, or the “separate causes”, is causing qua cause of the human soul. It is not just that the separate causes do not cause individual souls qua individuated, but he says it is *impossible* for them to cause individual souls qua individuated because the source of their differentiation lies not in the separate causes but in the matter. As such, he continues to qualify his language of “cause” and “generate” to the soul being “caused” or “generated” from the separate causes (*ḥadatha ‘anhā*). He says the individuating factor is either the matter that receives the form, or the matter that becomes related to the form, which is again a reference to the case of rational souls, which unlike other forms, are *connected* to the body but are not imprinted within the body. It is noteworthy that Avicenna is displaying care with his wording to avoid the implication that the separate causes are causing

individuals qua individual. For instance, he states that “the separate causes generate the particular soul or “*ḥadatha ‘anhā dhālika*”. He also later says that if there is a preparedness in matter, then *from* the separate causes *a thing* (*shayʿ*) is generated that is the soul. This is again in my view Avicenna referring to what the separate causes are causing in some looser sense that does not suggest that they are causing *individual* multiple souls qua individual. In the next chapter, I show that Avicenna does the same with respect to his language of emanation, where the causal role of intellects with respect to generated things requires qualification.

Interestingly, in the above passage Avicenna says that this causal model—the separate causes causing “rational soul” that is then individuated by matter— is what happens in the case of *any* form that is tied to generable and corruptible individuals, again a point emphasized in his *Metaphysics*. Thus with any species form from amongst the species that populate the sublunar world of generation and corruption, it is the *matter* (and other accidental causes he has mentioned) that differentiates, *not* the separate causes of form.¹⁶⁰ This is critical to understanding the nature of the causal contribution of the intellects. For when Avicenna says they emanate the appropriate form to the properly prepared matter, it must not be that they are emanating an *individual* form for each instance of prepared matter. We know this because Avicenna says it is impossible for the heavenly intellect to cause a multiplicity of effects the same in species.¹⁶¹ The Active Intellect must then be emanating *one* thing, a species form.¹⁶² That is, its causal act with

¹⁶⁰ Martin Pickavé discusses the Latin reception of Avicenna’s view on the cause of individuation of individuals of the same species, particularly the attribution to Avicenna of “accidental individuation” by some Latin readers, such as Henry of Ghent and Scotus, in Pickavé, Martin. “On the Latin Reception of Avicenna’s Theory of Individuation.” *The Arabic, Hebrew and Latin Reception of Avicenna’s Metaphysics*, 2011, 339-363 esp. 343-347. Pickavé gives reasons one might attribute this view to Avicenna, despite Avicenna not holding it. Pickavé discusses Avicenna’s actual view that an aggregation of (universal) accidents would not render a substance individual, and that matter serves as the cause of individuation.

¹⁶¹ See for instance *Shifāʾ Metaphysics* IX 5 (19), to be discussed below.

¹⁶² The Active Intellect does still emanate *many* different species forms, but this is only to say that with respect to each of those species forms, its act of emanation is singular.

respect to a given species is one, but its “effect” is multiple due not to the multiplicity of acts but to the multiplicity of the receiving matter. Still, Avicenna considers the Intellects to be *essential* causes of individual existents even if they do not cause them *qua* individual, but rather insofar as they are the cause of their essence/species. This is why in this passage he identifies the matter as just being an accidental cause (but, I take it, essential with respect to the effect *qua* individual).

It is also interesting that he states that it is the *matter* that preponderates the thing’s existence over its nonexistence. For Avicenna, a contingent thing does not contain existence within its essence and hence, if it exists, it is due to an external cause that has “tipped the scales” for it into existence.¹⁶³ But here he says the tipping factor is not strictly speaking the separate causes, but the prepared matter. This makes sense in the context of the causal framework that he has been outlining here, in that the causes of the *individuals* that populate a species, *qua individual*, are the material ones. Thus if the matter of Zayd becomes prepared and ready to be connected to rational soul, then the scales are tipped in favor of Zayd existing (via the species form “rational soul” caused by the separate causes and that “connects” with the body of Zayd). The separate causes cannot possibly be responsible for “tipping the scales” for Zayd to come-to-be because their causation cannot extend to causing *individual* members of a species *in their individuality*. Separate causes are causes of essences¹⁶⁴, and essences cannot possibly be sources of multiplicity as Avicenna has just argued, and will argue below (unless they are *different*

¹⁶³ See next chapter, Avicenna’s discussion of *muḥdath*. For *kalām* uses of arguments from *tarjih*, see Herbert Davidson, *Proofs for Eternity, Creation and the Existence of God in Medieval Islamic and Jewish Philosophy* (Oxford: Oxford University Press, 1987), 55-56; 162.

¹⁶⁴ Which Avicenna does not explicitly state here, but most predominately in the passages from *Shifā’ Metaphysics* VI 1-3 discussed in Chapter 1.

essences). It makes sense then that here Avicenna states it is the matter becoming prepared that is a cause of the scales tipping in favor of existence for this particular contingent Zayd.¹⁶⁵

Avicenna returns to this causal framework at the end of the chapter and adds another element to it, where he states,

T 2. 11

We have explained that the souls come to be and become multiple upon the preparedness of bodies, in that the preparedness of bodies necessitates that the existence of the soul emanates to them [the bodies] *from* the separate causes. It is apparent from this that this [the soul's coming to a body] is not by chance (*ittifāq*) and luck (*bakht*)¹⁶⁶ in such a way that (*ḥattā*) the existence of the generated soul is not through this mixture requiring (*istiḥqāq*) a generated,

¹⁶⁵ Avicenna discusses the role of the preparer of matter in rendering preponderant (*yurajjih*) the existence of one form (from the separate causes) for the matter over another in *Shifā' Metaphysics* IX 5 (4-6).

¹⁶⁶ These are the Arabic translations of Aristotle's αὐτόματον and τύχη, found in Ishāq's translation of Aristotle's *Physics* (See A. Badawi, 1984, *Aristotalis. Al-Tabi'a. Tarjama Ishaq ibn Hunayn*, I-II, al-Hay'a al-Misriyya al-'Amma li-l-Kitab, Cairo 1984 (p.111-135). For a fuller discussion in Aristotle see *Physics* II 4-6. A useful introductory note to these chapters in the Loeb edition explains the usage of these two terms in Aristotle, Aristotle used two words, one the more general, αὐτόματον (imperfectly represented by 'chance' or 'accident'), the other of narrower range, τύχη (imperfectly represented by 'fortune' or 'luck'). The English word that seems best to bring out the argument will be used in every case, without any attempt being made to secure exact correspondence. It will appear that, strictly, a 'chance result' means a result which (1) is produced 'incidentally' or 'in virtue of a concomitant' (κατὰ συμβεβηκός), and also (2) is 'purpose-serving' (ἐνεκάτου) in that it is desirable and might have been designed either (a) by conscious human purpose (it is then called 'luck,' τύχη) or (b) by the unconscious purposiveness of Nature (it is then called 'chance,' ταὐτόματον)." in Aristotle, Philip H Wicksteed and Francis Macdonald Cornford, *The Physics*, Loeb Classical Library, No. 228, 255, Cambridge, Mass.: Harvard University Press (1980): 141.

For a discussion of the use of *ittifāq* and *bakht*, see Avicenna's *Shifā' Physics* I 13, "Discussion of luck and chance: The difference between them and an explanation of their true state". In particular, he explains that *ittifāq* is more general than *bakht*, "Now, chance is more general than luck in our language, for every instance of luck is an instance of chance, but not every instance of chance is an instance of luck. So it is as if luck is said only of what leads to something of account, where its principle is a volition resulting from rational and mature individuals having a choice. If [luck], then, is said of something other than one such as that—as, for example, it is said of the piece of wood that is split and whose one half is used for a mosque while its other half is used for a public lavatory, that its one half is fortunate, while its other half is unfortunate—then it is said metaphorically. Anything whose principle is a nature is not said to come to be by luck and instead might be designated more properly as coming to be spontaneously, unless it is related to some other voluntary principle," I 13 (14): 89.

governing (*mudabbira*) soul¹⁶⁷ but [under the view that it is by luck and chance] it is rather [the case that] a soul comes to be (*wujidat*)¹⁶⁸, and it happens [by chance] (*ittafaqa*) that a body comes to exist with it, so it [the body] connects to it. Something like this is not at all an essential cause of multiplicity, but is perhaps accidental.¹⁶⁹ We have determined that essential causes are those that must be first, and then maybe the accidental ones follow. So if it is like that, then every body deserves, simultaneously with (*ma^ca*) the generation of the mixture of its matter, the generation of a soul for it, and it is not the case that a body deserves it and another body does not deserve it, since the individuals of species do not differ in the things by which species are constituted.¹⁷⁰

Wa-qad awḍaḥnā anna al-anfusa inna-mā ḥadathat wa-takaththarat ma^ca tahayyu³ in min al-abdāni. ^cAlā anna tahayyu³ a al-abdāni yūjibu an yafīḍa wujūdu al-naḥsi lahā min al-^cilali al-mufāriqati. Wa-ḡahara min dhālika anna ḥādhā lā yakūnu ^calā sabīli al-ittifāqi wa-l-bakhti ḥattā yakūna wujūdu al-naḥsi al-ḥādithati laysa li-stiḥqāqi ḥādhā al-mizāji naḥsan ḥādithatan mudabbiratan wa-lākin qad kāna wujidat naḥsun wa-ttafaqa an wujida ma^cahā

¹⁶⁷ Everything following the *ḥattā* is describing the view that Avicenna is criticizing, namely that the soul comes to the body by chance and luck. In other words, if it is by chance and luck then the soul would not be generated because there is a body that is ready and deserving of a soul.

¹⁶⁸ There is the variant *ḥadatha*, but *wujidat* offers gender agreement.

¹⁶⁹ See also *Shifā³ Physics* I 13, regarding chance and luck as causes, where Avicenna explains, “From this, it becomes clear that when there are chance (*ittifāqiyya*) causes, they are for the sake of something, except that they are their efficient causes accidentally, and the ends are accidental ends and are included among the causes that are accidental,” (87). Since accidental causes cannot explain that which is necessarily always or for the most part, Avicenna concludes, chance “concerns what is for the sake of something whose cause does not necessitate it essentially.”

¹⁷⁰ *Shifā³ Kitāb al-Nafs* V 4: 207, 3-11, emphasis mine.

*badanun fa-ta^callaqa bihā. Fa-inna mithla hādhā lā yakūnu ^cillatan
dhātiyyatan al-battata li-l-takaththuri bal ^casā an takūna ^caraḍiyyatan. Wa-
qad ^carafnā anna al-^cilala al-dhātiyyata hiya allatī yajibū an takūna awwalan
thumma rubba-mā talihā al-^caraḍiyyatu. Fa-idhā kāna ka-dhālika fa-kullu
badanin yastaḥiqqu ma^ca ḥudūthi mizāji māddatihi ḥudūtha nafsin lahu wa-
laysa badanun yastaḥiqquhu wa-badanun lā yastaḥiqqahu idh ashkhāṣu al-
anwā^ci lā takhtalifu fī al-umūri allatī bihā tataqawwamu.*

Avicenna is here dismissing an alternative model of how souls come to be and become connected to bodies. This model suggests that a particular soul is generated and exists until it happens to connect with a body that is also generated. It is as if there are a multiplicity of generated particular souls and generated particular bodies, and some will happen to come into contact, upon which those bodies are ensouled. Avicenna begins the passage by saying that the view that he has thus far outlined, that the Active Intellect cannot emanate a multiplicity and that the soul becomes multiple through the recipient, would not allow for this alternative model. He does not spell out why, but presumably if the soul is generated and then happens to meet a body, then the soul would have to somehow be existing as an individual prior to connecting to a body. But he has argued that the Active Intellect cannot cause a *particular* soul (or a particular from any of the species of the sublunary world) qua particular, since the source of its differentiation is the body. He has also argued that souls cannot possibly be individuated prior to their entering individual bodies. In this passage, Avicenna points out an additional reason this view is problematic—that it would not provide an adequate explanation of multiplicity. This is because multiplicity arises, under the view that is being rejected, by a soul happening to come into

contact with a body (not because a properly prepared body demanding it).¹⁷¹ It would only be an accident that this body would receive a soul, since the soul would be generated for some other reason and then happen to encounter and then ensoul the body. Thus this account would only offer an accidental cause of multiplicity.¹⁷² But multiplicity requires an essential explanation, like the one that Avicenna has offered: upon the proper preparation of body, a soul (caused by the Active Intellect) is generated *as a result* and “connects” and becomes a particular ensouled individual by virtue of the receiver, namely a material body. He goes on to say that it is not that some bodies deserve a soul and others do not, namely those that do not happen to encounter a soul, which would be the case under the rejected view.¹⁷³ In his own model, Avicenna argues that it is always the case that matter that is properly prepared always receives a form appropriate to it and does not simply remain in a perpetual state of potentiality. Interestingly, in other passages he takes this feature of the cosmos to demand a further explanation. It is not enough to only provide an essential account of multiplicity (which he is concerned with in this passage), but one must also provide an essential account of why it is always the case that prepared matter, the source of multiplicity, always receives a form to enform it. Elsewhere Avicenna seems to want to provide an essential account of *why* this is the case—of why matter that is properly

¹⁷¹ This seems to be in tension with the first problem that I understood Avicenna to have with this rejected view, that it presumes a soul can be differentiated prior to connecting to a body. The tension is that I first propose that the rejected view would hold soul can exist individuated prior to being connected to a body and then that its chance encounter with a body is the source of individuation (which Avicenna here says is an accidental and hence insufficient account of multiplicity). I am not sure how this might be resolved. One way might be to attribute a weaker claim to the rejected view, namely that prior to a soul connecting to a body it is not truly yet an individually existing entity until it connects to a body. But then I am not sure how exactly to characterize that prior existence since it seems it would need to be individual in order to happen to encounter a body in the way Avicenna describes this rejected view.

¹⁷² For Avicenna and Aristotle on chance and luck being only accidental causes, see fn 169 and fn 166 .

¹⁷³ This is all thanks to Stephen Menn’s reading of the passage, which corrects my misreading of *ittifāq* to be Avicenna arguing against a view that suggests a prepared body deserves *this particular soul* as opposed to some other particular soul.

prepared always receives a form. This feature is given an essential cause, the “universal nature,” discussed in Chapter 1.

Here, I turn to a passage in *Shifāʾ Metaphysics IX 4*, where Avicenna discusses the causation of individual rational souls in the context of his emanative cosmology, which refers to the above discussion. Avicenna discusses the manner in which rational souls are caused and how multiplicity within the species arises. He states,

T 2. 12

Among things of which there is no doubt is that there are here simple, separate intellects, [that] come to be with the coming-to-be of the bodies of humans, and they do not corrupt but rather endure. This has been shown in the natural sciences. And they do not proceed from the First Cause, because they are many [in number] and one in species, and because they are generated. Thus they are effects of the First through mediation.¹⁷⁴

Wa-mimmā lā shakka fīhi anna hāhunā ʿuqūlan basīṭatan mufāriqatan taḥduthu maʿa ḥudūṭhi abdāni al-nās wa-lā tafsudu bal tabqā. Wa-qad tabayyana dhālika fī al-ʿulūm al-ṭabīʿiyyati. Wa-laysat šādiratan ʿan al-ʿillati al-ūlā. Li-annahā kathīratun maʿa waḥdati al-nawʿ wa-li-annahā ḥādithatun. Fa-hiya idhan maʿlūlātu al-awwali bi-tawassuṭin.

¹⁷⁴ *Shifāʾ Metaphysics IX 4 (17): 408,16 - 409,1.*

Avicenna then considers whether the mediating causes, the Intellects, can be sources of the multiplicity of human souls, which he says is impossible,

T 2. 13

It is also not possible that there is from it¹⁷⁵ multiplicity the same in species. That is because the multiple notions (*ma^cānī*) that are in it, and through which the existence of a multiplicity in it is possible, if different in essence (*al-ḥaqā'iq*), [then] what each of them determines is something other in species than what another of them determines. Thus each [thing in it] does not necessitate [the same as] what the other [notion] necessitates, but rather [each necessitates] a different nature. And if [these notions] are the same in essence, then through what do they differ and [become] multiple when there is no divisibility in matter there? Thus it is impossible for multiplicity to proceed from the first effect, except [a multiplicity of] different species.¹⁷⁶

Wa-lā yajūzu aydan an takūna ^canhu kathratun muttafiqatu al-naw^ci. Wa-dhālika li-anna al-ma^cāniya al-mutakaththirata allatī fīhi wa-bihā yumkinu wujūdu al-kathrati fīhi in kānat mukhtalifata al-ḥaqā'iqi kāna mā yaqtaḍīhi kullu wāḥidin minhā shay^oan ghayra mā yaqtaḍī al-ākharu fī al-naw^oi. Fa-lam yalzam kullu wāḥidin minhā mā yalzamu al-ākharu bal ṭabī^catan ukhrā. Wa-in kānat muttafiqata al-ḥaqā'iqi fa-bi-mādhā takhālāfat wa-takaththarat wa-lā inqisāmu

¹⁷⁵ The First Cause's first effect, which is the first heavenly intellect beneath the Necessary Being.

¹⁷⁶ *Shifā'* *Metaphysics* IX 4 (18-19): 409, 4-9.

*māddatin hunāka? Fa-idhan al-ma^clūlu al-awwalu lā yajūzu ^canhu wujūdu
kathratin illā mukhtalifatu al-anwā^ci.*

Avicenna says here that a multiplicity of effects the same in species cannot be caused by the heavenly intellect. This is because there would need to be a multiplicity in the cause in order to cause a multiplicity of effects. But if there were a multiplicity in the cause, it would be such that there are either multiple *ma^cānī* different in essence or multiple *ma^cānī* the same in essence. If the latter, there would be no principle of differentiation, since the intellect is immaterial, so that is not possible. He concludes at the end of the passage that the only kind of multiplicity that can issue from the intellect is a multiplicity of different species, caused by the multiplicity of *ma^cānī* of varying essences that are in the cause.

Having ruled out the heavenly intellect as an essential cause of the multiplicity that is in each species, Avicenna instead attributes the cause of multiplicity within a species to be in “the recipient”,

T 2. 14

Thus the multiplicity of the recipient (*al-qābil*) is a cause of the multiplicity of the act of the principle which is one in essence...then the elements are generated and prepared for the reception of an effect (*ta³thīr*) which is one in species [and] many in number from the last intellect. For if the cause is not in the agent, then it is necessarily in the recipient. Therefore, it is necessary that every intellect generates the intellect beneath it and stops when it becomes possible that the intellectual substances that are divisible [and] multiple in number can come-to-be due to the multiplicity of the causes. [The process] ends there.¹⁷⁷

¹⁷⁷ *Shifā³ Metaphysics IX 5 (19): 409, 11-16.*

Fa-yakūnu takaththuru al-qābili sababan li-takaththuri fī^ʿli mabdaʾin wāḥidin bi-l-dhāti... Thumma tatakawwanu al-uṣtuqussātu wa-tatahayyaʾu li-qubūli taʾthīrin wāḥidin bi-l-naw^ʿi kathīrin bi-l-ʿadadi ʿan al-ʿaqli al-akhīri. Fa-innahu idhā lam yakun al-sababu fī al-fā^ʿili wajaba fī al-qābili ḍarūran. Fa-idhan yajibu an yaḥdutha ʿan kulli ʿaqlin ʿaqlun taḥtahu wa-yaqifu ḥaythu yumkinu an taḥdutha al-jawāhiru al-ʿaqliyyatu munqasimatan mutakaththiratan bi-l-ʿadadi li-takaththuri al-asbābi. Fa-hunāka yantahī.

Avicenna here, again, identifies the source of the multiplicity of human souls to be in the “elements” which he also refers to as the “recipient” and that which is “prepared” to be connected to the form of rational soul. He has concluded that the intellects cannot possibly be sources of this multiplicity. Importantly, this does not mean that the intellects are not efficient causes of the individuals, but rather that they are only the efficient cause of the individuals *qua species* and not *qua individual*. This is not the same as saying the intellects do not cause the individuals. The intellects are just not causally responsible for their multiplicity; they are not *per se* causes of the multiplicity (which is still *necessary* for the individual to be an individual instead of just one effect proceeding from the Active Intellect). The intellect is still the efficient cause of individuals but its act is not to cause each individual *per se*. Rather, it is because the intellect is acting on a material recipient that is capable of division that a plurality of effects follow instead of just one.

In the *Najāt*, Avicenna speaks more of this matter that is the recipient of the Active Intellect’s causal activity,

T 2. 15

It is necessary that the separate intellects, indeed the final one that is proximate to us [i.e., the Active Intellect], is that from which, with the participation of the celestial motions, a thing (*shay'*) emanates, in which is the impression (*rasm*) of the forms (*ṣuwar*) of the sublunar world in the manner of affection (*al-infi^cāl*), just as in that intellect or intelligible (*ma^cqūl*) is the impression of forms in the manner of action (*taf^cīl*).¹⁷⁸ Then there emanate from it the forms in it in order to specify it (*bi-l-takhṣīṣ*), [doing so] not through it alone [the Active Intellect], for one thing produces only one thing in one thing as you know, but rather with the participation of the celestial bodies. If some celestial influence specifies this thing, without the mediation of an elemental body or with the mediation of an elemental body, and gives it a specific disposition succeeding on the general one that is in its substance, then there emanates from this separate thing [the Active Intellect] a specific form and it is imprinted in that matter.¹⁷⁹

*Fa-yajibū an takūna al-^cuqūlu al-mufāriqatu bal ākhiruhā alladhī yalīnā huwa
alladhī yafīḍu ^canhu bi-mushāarakati al-ḥarakāti al-samāwiyyati shay'un fīhi
rasmu ṣuwari al-^cālamī al-asfali min jihat al-infi^cālī ka-mā anna fī dhālika al-*

¹⁷⁸ It is not clear what Avicenna means here. Stephen Menn suggests that *rasm* be read as a *maṣḍar*, i.e. to refer to the action of drawing or depicting something, instead of *rasm* referring to a drawing or depiction. Under this reading, to say the *rasm* is in something in the manner of action is to say that that thing is the agent doing the “imprinting” of a form on the patient, and to say the *rasm* is in something in the manner of affection refers to the patient being imprinted upon with a form. The agent here must be the “intellect or intelligible”, which must be a reference to the Active Intellect that he references at the beginning of the sentence. And this *shay'* which is emanated from the Active Intellect, and which is the patient that is “imprinted” with a “specific/specifying form”, must be prime matter.

¹⁷⁹ *Najāt Metaphysics* II 36: 317, 11-19.

‘aqli aw al-ma‘qūli rasma al-ṣuwari ‘alā jihati al-taf‘īli. Thumma tafīdu minhu al-ṣuwaru fihā bi-l-takḥṣīṣi lā bi-infirādi dhātihi fa-inna al-wāhida fī al-wāḥidi yaf‘alu ka-mā ‘alimta wāḥidan bal bi-mushārakati al-ajsāmi al-samāwiyyati. Fa-yakūnu idhā khaṣṣaṣa hādhā al-shay’ a ta’thīrun min al-ta’thīrāti al-samāwiyyati bi-lā wāṣiṭati jismin ‘unṣuriyyin aw bi-wāṣiṭatihi fa-yaj‘aluhu ‘alā isti‘dādin khāṣṣin ba‘da al-‘āmmi alladhī kāna fī jawharihi fāḍa ‘an hādhā al-mufāriqi ṣūratun khāṣṣatun wa-rtasamat fī tilka al-māddati.

The *shay’* that emanates from the Active Intellect, with the help of celestial motions, must be prime matter. Another possibility is that it is a form, but this would not concur with the phrase that immediately follows—that the *rasm* of the forms are *in* the *shay’*-- if the *shay’* is itself a form. Still, it is not clear what Avicenna means in the first sentence—that the *rasm* of the sublunar forms is in the *shay’* (prime matter) in the manner of affection, and the *rasm* of the forms is in the (heavenly) intellect or intelligible in the manner of action. One interpretation is that *rasm* be read as a *maṣḍar*, i.e. to refer to the *action* of drawing or depicting something, instead of *rasm* referring to a drawing or depiction. Under this reading, to say the *rasm* is in something in the manner of action is to say that that thing is the agent doing the “imprinting” of a form on the patient, and to say the *rasm* is in something in the manner of affection refers to the patient being imprinted upon with a form.¹⁸⁰ The agent here must be the “intellect or intelligible”, which must be a reference to the Active Intellect that he references at the beginning of the sentence. And this *shay’* which is emanated from the Active Intellect, and which is the patient that is “imprinted” with a “specific/specifying form”, must be prime matter. This reading has the advantage of offering an alternative way of understanding what Avicenna means by the

¹⁸⁰ This reading was suggested to me by Stephen Menn.

forms being “in” the Active Intellect or emanating *from* the Active Intellect without attributing to him a view he would certainly not accept, namely that forms have some separate existence (in the Active Intellect), i.e. a separate existence from the things they are forms *of*. And it seems Avicenna’s wording of the sentence, taking care to distinguish the different manners in which the *rasm* is in things, might be his way of making clear that the forms are only in the Active Intellect in this loose sense of being what the Active Intellect *impresses* into matter. It seems this reading could also work if *rasm* is read not as a *maṣḍar* but as an imprint or impression. The phrases “in the manner of action” and “in the manner of affection” would seem to be sufficient to convey the same meaning explained above. That is, the imprint of the forms on matter is “in” the Active Intellect in the manner of action, i.e. the Active Intellect *does* the “imprinting”; and the imprint of the forms on matter is “in” prime matter in the manner of affection, i.e. prime matter is the patient that was *imprinted* with forms. In this passage, Avicenna seems to be identifying two causal acts by the Active Intellect (in conjunction with the effect of celestial motions): the emanation of prime matter and the specification of it with sublunary forms. These must not be two *temporally* distinct acts, since prime matter has, with respect to itself, only potentiality and so cannot exist in actuality without some substantial form.¹⁸¹ But these two acts are at least ontologically distinct, and Avicenna here seems to be attributing them both to the causality of the Active Intellect. I understand this first sentence to then qualify how the next sentence is read, “Then there emanate from it the forms in it in order to specify it...” It cannot be that the forms have some existence separate from that which they enform, namely somehow in the Active

¹⁸¹ “Absolute matter (*hayūlā muṭlaqa*) is a substance which exists in actuality only when it receives corporeal form by virtue of the potentiality it has to receive forms. Absolute matter does not have in itself any form particular to it, except potentiality.” [Avicenna, *Hudūd*, 17; cited and discussed by Shihadeh (2014)]. Shihadeh, Ayman, “Avicenna’s Corporeal Form and Proof of Prime Matter in Twelfth-Century Critical Philosophy: Abū l-Barakāt, al-Masʿūdī and al-Rāzī,” *Brill* v. 42 (2014), pp.364-396. See esp. 366-369 for a discussion on Avicenna’s view of corporeal form and prime matter.

Intellect. Rather, being “in” and “emanating from” the Active Intellect must be understood through the first sentence—that the forms are in some loose sense said to be “in” the Active Intellect insofar as they are what the Active Intellect impresses into matter.

More directly to my present purposes, the rest of the passage is important for understanding the causes of multiplicity. Avicenna is careful to qualify here, and in the beginning of the passage, that the Active Intellect is not the sole cause with respect to these effects. This is because if it were, a multiplicity would not arise, “for one thing produces only one thing in one thing as you know”. Rather, the Active Intellect causes “with the participation of celestial motions” or “with the participation of celestial bodies”, which in turn he says may or may not work through the mediation of an elemental body.¹⁸²

In summary, from these texts, it becomes clear that the Active Intellect is not invoked as a cause or one of the causes of the generation of a new individual of a species, including the

¹⁸² Three chapters earlier, he pursued a parallel result with respect to the causality of the First. In the context of discussing the Necessary Being’s causal role with respect to the cosmos, Avicenna states the Necessary Being knows itself as cause of that which is good (*khayr*). More specifically, he describes the Necessary Being as causing the *order* (*niẓām*) of the good, “The First is content with the emanation of all existence from Him, but the truth is that the First’s only intellection is first, and essentially, that He intellects Himself that is the cause of the order of the good in existence, so He intellects the order of the good in existence.” (*Najāt Metaphysics* II 33: 311) But the Necessary Being as cause of the order of the good in existence must be understood to occur through intermediary causes, since he will shortly go on to argue that the first can have only one direct effect, owing to itself being simple. The direct effect of the First cannot be “a multiplicity, neither in number nor in being a composite of matter and form,” (*Najāt Metaphysics* II 33: 311). Thus he says its *direct* effect is only one, the first intellect (*Najāt Metaphysics* II 33: 312). Still, he carries on this theme of the First as cause of the order of that which is good in existence and even identifies some of the objects of intellection of the First in this respect. He states, “It is necessary that what He intellects with respect to the order of the good in existence is that He intellects how it [the *niẓām*] is possible, and how it [the *niẓām*] is the best of what could obtain for all of existence, [these being] among His necessary intellections,” (*Najāt Metaphysics* II 33: 311). He goes on to say that that which He intellects is identical to knowledge (which is identical to) power and to will, presumably to clarify to the reader that although he has distinguished here at least two different intellections with respect to intellecting the order of existence this does not mean that they exist distinctly in the First’s intellect or that He passes from a thought of one to a thought of the other. This would entail an actualization of a potentiality, and it would also entail a multiplicity in the First. He concludes, in categorical terms, that it is not possible that the direct effect of the First be multiple in number or in composition (i.e. a form-matter complex) (*Najāt Metaphysics* II 33: 311). For the First causes by intellecting Himself, and so positing a multiplicity in His direct effect would necessarily entail some kind of multiplicity within Him, which Avicenna has elsewhere argued to be impossible.

acquiring of its species form. Instead, Avicenna seems to follow an Aristotelian account of the generation of a new individual of a species, whereby the form of humanity in the father serves as a source of the motion of embryonic matter by means of the instrument of semen, just as the art of housebuilding in the soul of the carpenter is a source of the motion of the bricks by means of tools that carry the “motion of the art.” *Shifāʾ Kitāb al-Ḥayawān*¹⁸³ treats the development of the embryo, from its attainment of the nutritive soul, to the sensitive soul, and finally the rational soul. As far as I can tell, at no point is the Active Intellect invoked as a cause in this development or in the attainment of a soul. For instance, Avicenna makes no mention of the Active Intellect when discussing the development of the fetus and its becoming human. The only efficient cause he mentions is the father’s semen as an initial cause, followed by the embryonic heart taking over as efficient cause of the continued development of the fetus. As well, Avicenna does not even invoke the Active Intellect as a cause when discussing substantial changes the fetus undergoes.¹⁸⁴ Instead, the nutritive soul is said to come about in “the manner of the actions of naturally generated things”.¹⁸⁵ A similar account is given for the attainment of the sensitive soul.¹⁸⁶ It is also interesting that when discussing the attainment of the nutritive and sensitive souls, Avicenna uses emanative terminology even when clearly not speaking of the involvement of an immaterial agent like the Active Intellect. For instance, he says the sensitive soul *tafīdu* from the *fetus*,¹⁸⁷ insofar as the fetus becomes capable of sensitive acts. At the point that it is capable of such acts, the seminal clot is said to have the power to receive (*qubūl*) the sensitive

¹⁸³ Broadly XV-XIX which correspond with the *Generation of Animals*, and particularly IX 5, XV 1-3, and XVI 1

¹⁸⁴ T2.1 and T2.2

¹⁸⁵ T2.4, where this is said in the context of explaining the action of the seed of the father in the seed of the mother, whereby Avicenna proceeds to detail a series of motions that result in the seminal clot coming to possess a nutritive soul.

¹⁸⁶ T2.5, and surrounding context in *Shifāʾ Kitāb al-Ḥayawān* XVI, 1

¹⁸⁷ T2.6

soul.¹⁸⁸ Although evocative of the causality of the Active Intellect, its use here in the context of sublunary natural agents suggests that such language does not exclusively describe the causality of immaterial agents. Finally, Avicenna’s account of the development of the rational soul might suggest that there is no external cause of the fetus becoming human. It seems the rational soul is said to become connected to the fetus upon the development of the heart and brain. Only then does Avicenna finally involve the Active Intellect, or “something external”, and there it is a cause of the rational soul’s actuality, or the human’s actual intellection.¹⁸⁹ This is the only point in the development of a new individual that Avicenna invokes an external cause, and strictly speaking, as he makes clear, this cause is not a cause of the individual becoming human. He distinguishes between the first and second perfection, the first being that by which the individual becomes that species, or “the shape that belongs to the sword” and the second being the activities that follow, or “the act of cutting”.¹⁹⁰ The external cause is only invoked here for the second perfection, or actually intellecting.¹⁹¹ That the Active Intellect is not one of the causes in the causal chain of the generation of an individual human might be further supported by Avicenna’s example of the boy. In transitioning from a state of the first perfection to the second, to actually intellecting, Avicenna argues against the view that the boy would thereby “become human” – it is not the case that “he would change in species to [another] species” upon actualizing his intellect. Rather, he was already human—he was already rationally ensouled, but to actually intellect, the Active Intellect is needed.¹⁹² In so doing the boy is not changing species but actualizing a potentiality. It seems Avicenna invokes only natural efficient causes, i.e. causes of

¹⁸⁸ T2.5

¹⁸⁹ T2.6 and T2.8

¹⁹⁰ T2.7

¹⁹¹ T2.6

¹⁹² T2.6 and T2.8

motion, to explain the coming-to-be of a new individual including becoming the species that they are.

To involve the Active Intellect as a causal agent of the individual qua individual (whereby the Active Intellect intervenes within the linear causal chain of physical efficient causes that bring about the generation of an individual) would raise serious problems for Avicenna. First, an Aristotelian soul is not the kind of thing that can exist separately from what it is a soul *of*.¹⁹³ This is why Avicenna, following Aristotle, identifies the ability to perform a specific life function (in virtue of having the right configuration of parts) as being the point at which the fetus is said to have the soul in question. It is not clear why it would need to be somehow inserted separately from an external agent. Also, one would need to reconcile this with Avicenna's statement that, "Human souls do not exist (*qā'ima*) separately from bodies and then obtain in bodies, because human souls are the same in species and concept (*ma'na*). So if it is supposed that it has existence that does not come-to-be with the coming-to-be of bodies, but is rather a separate existence, it is not possible that the soul is multiple in that existence."¹⁹⁴ Second, if Avicenna can fully explain an individual attaining its form by reference to just natural efficient causes, then invoking an external cause as also causing it to attain its form is superfluous. If the relevant parts of the animal are developed, and it is now able to perform, say, sensitive acts, then what is there left to cause (at this level of the individual qua individual) with respect to the soul? Lastly, Avicenna goes to great lengths to argue that not only are the Intellects not a cause of multiplicity within a species, but that it is impossible for them to do so.¹⁹⁵ This is because 1) the source of differentiation of individuals lies in the matter. We are different human

¹⁹³ With the exception in Avicenna of a rational soul surviving bodily death.

¹⁹⁴ T2.9

¹⁹⁵ T2.13

beings because we have different bodies,¹⁹⁶ which then serves as an essential cause of multiplicity—the properly prepared body necessitates that a soul be provided for it¹⁹⁷; 2) the Intellect would have to have multiple *ma'ānī* in it the same in species to cause a multiplicity that is the same in species, but it only has multiple *ma'ānī* that are different in essence, which cause a multiplicity of different species.¹⁹⁸ As Avicenna states, “One thing produces only one thing in one thing.”¹⁹⁹ Thus he states that it is the case with “*everything*” that it cannot exist multiply without matter, that a form cannot pre-exist its obtaining in a body.²⁰⁰

Nonetheless, as I have argued in chapter 1, Avicenna does still attribute a causal role to the Active Intellect, but in my view it is simply not one that is involved in the generation of an individual qua individual. Its absence in Avicenna’s biological account of the generation of an individual offers further support for the claim that the Active Intellect must be responsible for an explanandum that is other than the explanandum of how an individual attains that form. This causal role comes through in the passages I treated from *Kitāb al-Ḥayawān*. In the only other places he invokes an external cause, Avicenna gives it the causal role of a cause of natures, as a *musakhkhir* of these natures and their causal patterns (e.g., God as a *musakhkhir* of the nature of the baby, and God as a *muṣakhkhir* of the nature of the semen). Importantly, this means the Intellects are still *causes* of individuals—indeed, they are essential causes of the individual insofar as they are a cause of the individual’s nature, i.e. causes of the individual qua species; but they are not causes of the individual *attaining* its nature, which I take to fall under the

¹⁹⁶ T2.9, T2.10, T2.14

¹⁹⁷ T2.11

¹⁹⁸ T2.13

¹⁹⁹ T2.15

²⁰⁰ T2.9, T2.10

explanatory domain of the effect qua individual (which is treated by the science of physics).²⁰¹ In the next chapter, I explore further aspects of Avicenna's emanative cosmology in the context of understanding his causal framework and how it informs his ontology in a thorough and systematic manner.

²⁰¹ This is why while the properly prepared matter is an essential cause of multiplicity, Avicenna still holds matter to be only an accidental cause of soul (T2.10).

CHAPTER 3

The Metaphysical Efficient Cause in Avicenna's Emanative Cosmology

This chapter explores how Avicenna's causal distinctions—most significantly that between cause of the effect qua species and cause of the effect qua individual—apply in the context of his explanation of the structure of the cosmos, i.e., his emanative cosmology which is often obscured by his looser emanative language. Here, in explaining the existence of the *contingent* forms and matter of the celestial and sublunary realms, Avicenna highlights a distinction between the cause of generated and corruptible individuals and the cause of the instantiation of the essences of those individuals. In contrast to the unchanging celestial realm, where the individual and essence are both one and eternal, the account of causing in the realm of generation and corruption must distinguish between causing the instantiation of a species and causing the coming-to-be and corruption of multiple individuals that possess a singular essence. As Avicenna states in *Shifāʾ Metaphysics* VI 5, “As for the individuals of the infinitely generated beings, they are not essential ends in nature. Rather, essential ends are, for example, that the substance that is man, horse, or palm exists, and that this existence be a persisting (*dāʾim*), stable (*thābit*) existence ... For, if it were possible for man to remain permanently, as do the sun and the moon, then there would be no need for generation and multiplication in progeny.”²⁰² In contrast to the view that the chief causal function of the superlunar intellects is to intervene in natural processes of generation and corruption and give an individual form, or cause an individual form to be instantiated, in the properly prepared matter, I argue that the intellects’

²⁰² *Shifāʾ Metaphysics* VI 5 (22): 289.

primary role is to cause the contingent species-form, or the cause of the effect qua species, as I have outlined in Chapter 1. While the intellects are essential causes of the species, members of a species are individuated by *accidental*, intermediary, or material causes external to the causal role of the intellects. The intellects are still essential causes of the individual, but simply not qua individual but rather qua species. As discussed in Chapter 2, the differentiation of individuals of a species occurs with respect to prepared matter and celestial motions. The following explores this bipartite approach to causation in the context of Avicenna's discussions of divine and superlunary causation in his emanative cosmology. I begin here with Avicenna's distinction between "creation" and "generation" and then turn to relevant passages in his discussion of final causality and God's knowledge of particulars.

3.1. Creation (ibdā^c) and generation (iḥdāth) in Shifā' Metaphysics VI 2

In the final lines of *Shifā' Metaphysics VI 2*, Avicenna discusses concepts related to causing the existence of an effect, focusing on the terms of *ibdā^c* and *iḥdāth*. Here, Avicenna defines the *mubdi^c* as that cause that is prior to the effect in essence and not just in time,

T3. 1

Since this has been settled, then, if something is by virtue of its essence always²⁰³ a cause of the existence of something else,²⁰⁴ then it is a cause of it always as long as its [the cause's] essence continues to exist. If [the cause] exists permanently, then the effect exists permanently. Such a thing in terms of causes is more deserving to be a cause (*awlā bi-l-ʿillīya*)²⁰⁵ because *it prevents the thing [from being] absolutely non-existent* (*yamnaʿu muṭlaqa al-ʿadami lil-shayʿ*).²⁰⁶ It is the one that gives complete existence to a thing. This, then, is the meaning that is called 'creation' (*ibdāʿ*) by the philosophers. It is the giving of existence to a thing after absolute nonexistence (*baʿd lays muṭlaqa*).

²⁰³ The *dāʾiman* can modify *kāna*, *sababan*, or *wujūd*. Most likely, it either modifies (adverbially) the *kāna* that introduces the conditional clause in the protasis or it modifies *sababan*. I read it as modifying *sababan* as adjective because it very clearly modifies *sababan* as an adjective in the apodosis. The two clauses are parallel in that the conditional concerns whether the cause is the cause of an effect always (*dāʾiman*) and if it is, then it does so insofar as the cause exists, i.e., be it eternally or for a certain period of time, as the next sentences state. If we assume that it modifies *kāna* adverbially then it will be modifying *shayʿ*, in which case the point of the sentence is unclear and no longer parallel with the apodosis. That is, what is at issues is not a continually existing *thing* but a continually existing cause.

²⁰⁴ The *Theology of Aristotle* speaks of God being utterly simple and hence free from all attributes. The implication is that as a cause, God is said to cause through His being alone and not through any attribute, as the Adapter states, "The first creator originated [the higher world] by being alone (*bi-annihi faqat*), not by any other attribute distinct from (*ghayr*) being (*al-anniyya*)," X.88 (B 147), transl. in Peter Adamson, *The Arabic Plotinus: A Philosophical Study of the Theology of Aristotle* (London: Duckworth, 2002), 131. The *bi-annihi faqat* should be transliterated as *bi-annahu faqat* ("by virtue of the fact that He [is] alone"); or, since that seems odd, it can be emended to *bi-anniyatihi faqat* ("by virtue simply of His being"), which would go well with the phrase that follows. For a discussion of God as "only being" (*anniya faqat*) in the *Theology of Aristotle*, see 124-137; for the larger theological and metaphysical context of the Adapter's thesis of the identification of God with being, see 111-170.

²⁰⁵ I take this as *awlā* instead of *ūlā*. *Awlā* is derived from the root w-l-y and is the comparative of *walī*. It is used with a preposition *bi* to mean worthier or more deserving. (Its use here conveys the meaning that such a thing has a stronger claim to be a cause.) *Ūlā* would be the feminine of *awwal* derived from the root a-w-l. *ūlā* would mean first and would not normally be used with the *bi*. One might expect a *fī* here instead of a *bi*, in which case the meaning would be the same (i.e. first in the sense of being prior or more deserving).

²⁰⁶ Avicenna is here treating the kind of effect that is not temporally preceded by matter. The "absolute nonexistence" here refers not to a prior *temporal* nonexistence, but to the fact that the effect with respect to itself is non-existent. With such effects, nonexistence is logically prior to the existence they receive from their cause. This meaning is not captured in the translation, in that as it stands it may suggest that the cause prevents the *absolute* nonexistence of a thing but still allows for some kind of nonexistence to precede it (such as being preceded by a matter). This is not Avicenna's point here, since he is clearly dealing with the kind of effect that is a *mubdaʿ*, i.e. one that is *not* preceded by a temporal nonexistence but only by a logical nonexistence (which all effects share in common).

For it belongs to the effect in itself to be an *is-not* (*lays*) and it belongs to the effect through its cause to be an *is* (*ays*). What belongs to the thing in itself is prior in thought in essence rather than in time to what belongs to it from something else. Therefore, every effect is existent after its nonexistence by an after-ness of essence.²⁰⁷

Wa-idh qad taqarrara hādhā fa-idhā kāna shayʿun min al-ashyāʿi li-dhātihi sababan li-wujūdi shayʿin ākhara dāʿiman kāna sababan lahu dāʿiman mā dāmat dhātuhu mawjūdatan. Fa-in kāna dāʿima al-wujūdi kāna maʿlūluhu dāʿima al-wujūdi. Fa-yakūnu mithla hādhā min al-ʿilali awlā bi-l-ʿilliyyati li-annahu yamnaʿu muṭlaqa al-ʿadami li-l-shayʿi. Fa-huwa alladhī yuʿfī al-wujūda al-tāmma li-l-shayʿi. Fa-hādhā huwa al-maʿnā alladhī yusammā ibdāʿan ʿinda al-ḥukamāʿi. Wa-huwa taʿyīsu al-shayʿi baʿda laysin muṭlaqin. Fa-inna li-l-maʿlūli fī nafsihi an yakūna “lays” wa-yakūnu lahu ʿan ʿillatihi an yakūna “ays”. Wa-alladhī yakūnu li-l-shayʿi fī nafsihi aqdamu ʿinda al-dhihni bi-l-dhāti lā fī al-zamāni min alladhī yakūnu ʿan ghayrihi. Fa-yakūnu kullu maʿlūlin aysan baʿda laysin baʿdiyyatan bi-l-dhāti.

The passage reproduces the familiar definition of essential causation that Avicenna follows throughout the metaphysics.²⁰⁸ This contrasts with and adds an additional explanatory layer to the concept of temporal priority and causation, as endorsed by the *mutakallimūn* among others. Here Avicenna gives an account of creation as giving something existence after nonexistence, but unlike these *mutakallimūn*, the priority of nonexistence to existence is not temporal but

²⁰⁷ *Shifāʾ Metaphysics* VI 2 (9): 266, 9-15.

²⁰⁸ And especially elucidated in *Shifāʾ Metaphysics* IV 1-2, to which I return shortly.

essential. Here, Avicenna discusses two kinds of giving existence, one in which the cause prevents the absolute nonexistence of its effect, and another in which the cause prevents the nonabsolute nonexistence of its effect. It is not immediately clear what these mean, but it is easier to consider in the context of the effect. If the effect is preceded by a prepared matter, then such an effect was preceded by a “nonabsolute nonexistence,” i.e. there was still a matter before it from which it was then generated. It is not that it was preceded by “absolute nonexistence”. In contrast, if the effect is *not* preceded by matter but is rather eternal²⁰⁹, i.e. the superlunar intellects, then “absolute nonexistence” would have been prevented. These effects were given existence eternally so, never being preceded by a matter that they were generated from. It is this latter kind of giving existence that Avicenna deems to be the “best of modes of the giving of existence” in the next passage.

Two points can be emphasized for the discussion below. First, a true or prior cause is that which prevents the absolute nonexistence of a thing. That is, as I argue below, a true cause does not simply bring a thing into being after its nonexistence in time but is a continuous cause of its existence for as long as the effect exists. For an individual to come into existence, the prior causes must first provide the existential conditions for the individual to be the kind of substance it will be. Second, the effect is nonexistent in itself. That is, the essence of the effect, being contingent, is nonexistent without a cause.²¹⁰

²⁰⁹ It is not immediately clear which category the eternal celestial bodies would fall under, i.e. eternal material effects. I take it that they would count as being under the second category, of preventing the absolute nonexistence of a thing. The outset of this passage indicates that this category is one in which the cause is eternally causing the effect, which would seem to include eternal material effects. Also, in the next passage (T3.2), Avicenna characterizes the other category (preceded by a nonabsolute nonexistence) to be “short” and “intermittent,” which cannot seem to apply to eternal material effects, but only to temporally generated ones.

²¹⁰ I argued the contingency of the essence of the effect provides the explanandum for Avicenna’s view of cosmic or higher causes of being.

I turn now to the term *muḥdath*. Avicenna provides two primary definitions of the term, the first of which is more inclusive. He states, “If the term ‘originated’ is applied to each thing that has existence after nonexistence, even if there is no temporal posteriority, then every effect will be originated.”²¹¹ That is, this definition, which includes essential posteriority and not just temporal, includes all effects according to Avicenna. The second definition stipulates the temporal posteriority of the effect and thus excludes effects that are not posterior in time but are posterior in essence. Avicenna notes here that he does not wish to dispute terminology and adopts the first definition. Importantly, however, Avicenna’s definition of *muḥdath* altogether dispenses with temporal posteriority/priority. Here, he clarifies what he means by absolute nonexistence versus nonexistence that is not absolute. He states,

T3. 2

Moreover, the originated in the sense that does not stipulate time must be such that either its existence is after absolute nonexistence or its existence is after a non-absolute nonexistence, being after a specific opposing privation (*‘adam*)²¹² in an existing matter, as you know. If its existence were after absolute nonexistence, then its proceeding from the cause in this manner would be ‘creation’, and it would be the best of modes of the giving of existence,

²¹¹ *Shifā’ Metaphysics* VI 2 (10): 268.

²¹² *‘adam* here translates στερησις (*Metaphysics* V 22, 1022b23). See Averroes, *Tafsir ma ba‘d at-Tabi‘at*, ed. M. Bouyges (Beirut: Imprimerie Catholique, 1952), 642; and Aristotle, *The Metaphysics*, ed. W.D. Ross (Oxford: Clarendon Press, 1924), Perseus Digital Library <http://www.perseus.tufts.edu/hopper/text?doc=urn:cts:greekLit:tlg0086.tlg025.perseus-grc1:5.1022b>. It is also used in *kalām* to just mean x does not exist, i.e. not that x is lacking in y. I take it that Avicenna is using it in the sense of στερησις in this sentence, since he is referring to the *muḥdath* as that which is preceded by a specific matter, which would not be an absolute nonexistence. He says this privation is *muqābil*, which I take to mean that the matter has some form that is opposing or contrary to the form of the *muḥdath* that will come-to-be. Then, Avicenna goes on to use *‘adam* again a few lines below, and there he is clearly using it in the sense of not existing, whereby the thing is not preceded by some matter.

because nonexistence (*‘adam*) would have been absolutely prevented (*muni‘a al-batta*)²¹³, existence being made to prevail over it. If nonexistence were made possible by any kind of possibility²¹⁴ which precedes (*yasbiqu*)²¹⁵ the existence, then the giving of being (*takwīn*) would be impossible except out of matter. In this case, the prevailing of bringing into existence (*sulṭān al-ījād*) – I mean, the existence of one thing from another – is weak, short, and intermittent.²¹⁶

Thumma al-muḥdathu bi-l-ma‘nā alladhī lā yastawjibu al-zamāna lā yakhlū immā an yakūna wujūduhu ba‘da laysin muṭlaqin aw yakūna wujūduhu ba‘da laysin ghayri muṭlaqin bal ba‘da ‘adamin muqābilin khāṣṣin fī māddatin mawjūdatin ‘alā mā ‘araftahu. Fa-in kāna wujūduhu ba‘da laysin muṭlaqin kāna ṣudūruhu ‘an al-‘illati dhālika al-ṣudūra ibdā‘an wa-yakūnu afdala anḥā‘i i‘ṭā‘i al-wujūdi li-anna al-‘adama yakūnu qad muni‘a al-battata wa-sulliṭa ‘alayhi al-wujūdu. Wa-law mukkina al-‘adamu tamkīnan yasbiqu al-wujūda kāna takwīnuhu mumtanī‘an illā ‘an māddatin. Wa-kāna sulṭānu al-ījādi a‘nī wujūda al-shay‘i min al-shay‘i ḍa‘īfan qaṣīran musta‘nīfan.

²¹³ I translate this more loosely as prevented, instead of “rendered impossible absolutely,” because the *al-batta* would seem to make “impossible” redundant, and because the point here does not seem to be a modal one, that it is impossible for certain things to not exist, since this clause is explaining *why* this type of giving existence is best—namely, because it prevented absolute non-existence. The larger context here is to contrast this type of giving existence with the lesser one of giving existence to things preceded by a privation in matter.

²¹⁴ This is instead of Marmura’s “firmly established”—whereby Avicenna would be making the point that in this case *‘adam* was not absolutely prevented, but rather *‘adam* was rendered possible (i.e. the *‘adam* as privation in matter). Note this reading would also go well with reading the *muni‘a al-batta* of the prior sentence as “rendering impossible absolutely,” where there the point would be that in the *other* case, *‘adam* was rendered *impossible*.

²¹⁵ The Cairo edition has *fa-sabaqa*, with *yasbiqu* as a variant. If it is *fa-sabaqa*, it would mean “so that it precedes”. If it is *yasbiqu*, then the subject is *tamkīn* and the meaning would be “which precedes.” *Yasbiqu* would be an adjectival clause of *tamkīn*.

²¹⁶ *Shifā‘ Metaphysics* VI 2 (11): 267, 4-9.

Avicenna is here explaining his sense of *muḥdath* as that whose existence is preceded by *‘adam*. But the “preceded by” must be understood non-temporally, even though one kind of *muḥdath* is temporally preceded by *‘adam*. Rather, his sense of *muḥdath* is inclusive of all contingents, since the priority of *‘adam* to existence is an essential one. However, he goes on to distinguish between different types of *muḥdath*: those that are preceded by an absolute nonexistence versus those that are preceded by a specific privation (a particular matter not having a particular form). The latter is further analyzed as an *opposing* privation, some existing matter that is y and yet has the potentiality to be x. This is why, at the end, Avicenna says the “prevailing of existence” of things like x, or the making of x to exist, is short and intermittent—since even if x is made to exist, it still can be non-x in the future.

In the passage, Avicenna refers to a previous discussion, which is most likely his discussion of generation (*ḥudūth*), priority/posteriority, and potentiality in *Shifā’ Metaphysics IV* 1-2. There he states,

T3. 3

Before its origination, every originated thing (*ḥādith*) is either possible to exist in itself or impossible to exist. That which is impossible to exist will not exist. That whose existence is possible is preceded by the possibility of its existence and [the fact] that it is possible of existence... We name the possibility of existence the potentiality of existence. And we name the bearer of the potentiality of existence, in which is the potentiality of a thing’s existence,

“subject,” “hyle”, “matter”, and other [names] in respect to different aspects.

As such, every originated thing is preceded by matter.²¹⁷

Inna kulla ḥādithin fa-innahu qabla ḥudūthihi immā an yakūna fī nafsīhi mumkinan an yūjada aw muḥālan an yūjada. Wa-l-muḥālu an yūjada lā yūjadu. Wa-l-mumkinu an yūjada qad sabaqahu imkānu wujūdihi wa-annahu mumkinu al-wujūdi... Wa-naḥnu nusammī imkāna al-wujūdi quwwata al-wujūdi. Wa-nusammī ḥāmila quwwati al-wujūdi alladhī fīhi quwwatu wujūdi al-shay³i mawḍū^can wa-hayūlā wa-māddatan wa-ghayra dhālika bi-ḥasabi i^ctibārātīn mukhtalīfātīn. Fa-idhan kullu ḥādithin fa-qad taqaddamathu al-māddatu.

Here, Avicenna views the contingency of originated things not simply in conceptual or temporal terms, but one that corresponds to, and is grounded in, the ontology of form and matter. This, of course, is a point that Ghazālī will argue against by stating contingency is simply a logical or mental attribute. In any case, Avicenna goes on to discuss the view that, given the above view of potentiality, some ancients have held that potentiality and matter are *temporally* prior to actuality and form in all cases. In response, he states,

T3. 4

The state of affairs regarding particular things that are generated and corrupted is as they have stated. For potentiality in them is prior in act by a priority in time. And as for universal things or eternal things which are not corrupted, even though they are particular, what is in potentiality does not precede them

²¹⁷ Shifā³ Metaphysics IV 2 (25): 182, 7-18.

at all. Moreover, potentiality is after [considering] these conditions posterior in all respects. This is because, inasmuch as potentiality does not subsist in itself, it must subsist in a substance that needs to come to be in actuality. For, if it had not become actual, it would not be prepared to receive anything...

Thus, something may well be in act without being required to have been anything in potentiality, as [is the case of] the eternal things, because they are always in actuality...In most things, that which takes [a thing] from potentiality to actuality is something homogenous to that actuality, existing in actuality before that action—as is the case of the hot [thing] that heats and the cold [thing] that cools.²¹⁸

Ammā al-amru fī al-ashyāʾi al-juzʾiyyati al-kāʾinati al-fāsidati fa-huwa ʿalā mā qālū. Fa-inna al-quwwata fihā qabla al-fīʿli qabliyyatan fī al-zamāni. Wa-ammā al-umūru al-kulliyyatu aw al-muʾabbadatu allatī lā tafsudu wa-in kānat juzʾiyyatan fa-innahā lā tataqaddamuhā allatī bi-l-quwwati al-battata.

Thumma al-quwwatu mutaʾakhhiratun baʿda hādhihi al-sharāʾi min kulli wajhin. Wa-dhālika li-anna al-quwwata idh laysat taqūmu bi-dhātihā fa-lā budda lahā min an taqūma bi-jawharin yaḥtāju an yakūna bi-l-fīʿli. Fa-innahu in lam yakun šāra bi-l-fīʿli fa-lā yakūnu mustaʿiddan li-qubūli shayʾin...

Thumma qad yakūnu al-shayʾu bi-l-fīʿli wa-lā yaḥtāju ilā an yakūna bi-l-quwwati shayʾan ka-l-abadiyyāti fa-innahā daʾiman bi-l-fīʿli... Wa-fī akthari al-amri fa-inna-mā yukhriju al-quwwata ilā al-fīʿli shayʾun mujānisun li-

²¹⁸ *Shifāʾ Metaphysics IV 2 (28-29): 183,12 – 184,7.*

*dhālika al-fi^cli mawjūdun qabla al-fi^cli bi-l-fi^cli ka-l-ḥārri yaskhanu wa-l-
bāridu yabrudu.*

Returning to the discussion of VI 2, Avicenna distinguishes *ibdā^c* of eternal things, which simply takes them out of absolute nonexistence and does not require prior potentiality or preparation of matter. In the case of generated things, there is an additional factor preventing, indeed making impossible their existence without it, which is the preparation of matter. As Avicenna states, “[A generated thing’s] formation would be impossible except out of matter.” Avicenna concludes the discussion of VI 2 and the concepts of creation and origination, by stating,

T3. 5

We will not argue about these names at all as long as the meanings are realized distinctly. And we find that some of them have permanent existence from a cause without matter, some of them with matter; some of them through an intermediary, some of them without an intermediary. It is good to call everything which has not come into existence from a pre-existing matter not ‘generated’ but ‘created’ (*mubda^c*), and to render the best of what is called ‘created’ that which comes to be from its first cause without an intermediary, regardless of whether [the intermediary²¹⁹] is material, efficient, or something else.²²⁰

²¹⁹ Marmura has “this first cause” in brackets here instead.

²²⁰ *Shifā³ Metaphysics* VI 2 (13): 267, 16-19.

*Wa-naḥnu lā nunāqishu fī hādhihi al-asmāʾi al-battata baʿda an taḥṣula al-
maʿānī mutamayyizatan. Fa-najidu baʿdahā lahu wujūdun ʿan ʿillatin
dawāman bi-lā mādḍatin wa-baʿdahā bi-mādḍatin wa-baʿdahā bi-wāsiṭatin
wa-baʿdahā bi-ghayri wāsiṭatin. Wa-yahṣunu an yusammā kullu mā lam yūjad
ʿan mādḍatin sābiqatin ghayra mutakawwinin bal mubdaʿan wa-an najʿalu
afdala mā yusammā mubdaʿan mā lam yakun bi-wāsiṭatin ʿan ʿillatihi al-ūlā
mādiyyatan kānat aw fāʿiliyyatan aw ghayra dhālika.*

For Avicenna, the division between a *mubdaʿ* and a *muḥdath/mutakawwin* is with respect to actuality/potentiality and preceding causal or material intermediaries rather than with respect to the temporal posteriority of the effect. Moreover, a *mubdaʿ* is not simply that which does not possess matter; rather, according to the above definition, it may be corporeal. The *mubdaʿ* is that which is not “preceded” by material or intermediary causes, nor preceded by a “specific opposing privation in existing matter.” Therein lies the key difference between a *mubdaʿ* and a *mutakawwin*.²²¹ In effect, Avicenna seems to hold that the eternal intellects of the superlunar realm are caused through pure actuality and in a manner that does not require taking into account other intermediary conditions.²²² Regarding the nature of the superlunar orbs, Avicenna states in IX,

²²¹ To be clear, cosmologically I understand Avicenna to hold that the only causes of existence are the Intellects. For instance, he has arguments to say that the souls of the celestial spheres cannot cause the existence of other souls, since they operate only through their bodies and a “body cannot serve as an intermediary between one soul and another” (see corresponding passages in *Najāt* Metaphysics II 34: 314-315). Thus if there are intermediary causes, it would be the Intellects that come above the Intellect that is causing.

²²² Which I think is Avicenna’s point here— even though he explicitly says *ʿillatahu al-ūlā*, when discussing causal chains with intermediaries, he still refers to the First as the ultimate cause and the others as *intermediates*. I also do not know what it would mean to have a first cause that is not the First in any essential causal series, which causing existence is.

T3. 6

You know that there are here numerous separated intellects and souls. So it is absurd that their existence should be acquired by the mediation of what has no separate existence. But you know that the aggregate of existents from the First includes bodies. Since you know that every body is possible in existence within the scope of itself and necessary through another, and you know that there is no way for it to proceed from the First without mediation, then these [bodies] come into being from Him through an intermediary. You further know that the intermediary cannot be pure unity, having no duality. For you know that from the one inasmuch as it is one, only one proceeds. Thus it is appropriate that [the body] proceeds from the first created things (*mubda^cāt*) by reason of its duality that must necessarily be in them or a multiplicity of whatever kind.²²³

Wa-anta ta^clamu anna hāhunā ^cuqūlan wa-nufūsan mufāriqatan kathīratan. Fa-muḥālun an yakūna wujūduhā mustafādan bi-tawassuṭi mā laysa lahu wujūdun mufāriqun. Lākinna ta^clamu anna fī jumlati al-mawjūdāti ^can al-awwali ajsāman. Idh ^calimta anna kulla jismin mumkinu al-wujūdi fī ḥayyizi nafsīhi wa-annahu yajibu bi-ghayrihi wa-^calimta annahu lā sabīla ilā an yakūna ^can al-awwali ta^cālā bi-ghayri wāsiṭatin fa-hiya kā³inatun ^canhu bi-wāsiṭatin. Wa-qad ^calimta annahu lā yajūzu an takūna al-wāsiṭatu waḥḍatan maḥḍatan lā ithnayniyyata fihā. Fa-qad ^calimta anna al-wāhida min ḥaythu

²²³ *Shifā³ Metaphysics IX 4 (10): 405, 9-15.*

huwa wāḥidun inna-mā yūjadu ʿanhu wāḥidun. Fa-bi-l-ḥarī an yakūna ʿan al-mubdaʿāti al-uwalī bi-sababī ithnayniyyatihi yajibu an yakūna fīhā ḍarūratan aw kathratin kayfa kānat.

This mediated causedness continues on all the way down to the sublunar world, where for instance he speaks of the First causing human souls not directly but via mediation:

T3. 7

Among things of which there is no doubt is that there are here simple, separate intellects, [that] come to be with the coming-to-be of the bodies of humans, and they are not corrupted but rather endure. This has been shown in the natural sciences. And they do not proceed from the First Cause, because they are many [in number] in spite of being one in species, and because they are generated. Thus they are effects of the First through mediation.²²⁴

Wa-mimmā lā shakka fīhi anna hāhunā ʿuqūlan basīṭatan mufāriqatan taḥduthu maʿa ḥudūthi abdāni al-nās wa-lā tafsudu bal tabqā. Wa-qad tabayyana dhālika fī al-ʿulūm al-ṭabīʿiyyati. Wa-laysat šādiratan ʿan al-ʿillati al-ūlā. Li-annahā kathīratun maʿa waḥdati al-nawʿ wa-li-annahā ḥādithatun. Fa-hiya idhan maʿlūlātu al-awwali bi-tawassuṭin.

Avicenna does not explicitly say that individual human souls are caused by a lower intellect independently but that, despite their unity in species, are caused through mediation. I discuss this point more fully in Chapter 2.

²²⁴ *Shifāʾ Metaphysics IX 4 (17): 408,16 - 409,1.*

So what does the above discussion tell us about the metaphysical efficient cause? The above provides a framework for assessing how Avicenna distinguishes between cause of the effect qua species and cause of the effect qua individual for various orders of effects in the cosmos. In most instances, as Avicenna notes, one must account not simply for the cause of the species-form but how that form is individuated with matter. As discussed in Chapter 2, the Active Intellect does not cause an infinite number of *individuals* insofar as they are individual; rather, the object of its causing existence is still fundamentally *one*, i.e. the species. The numerical multiplicity is due to material and intermediary causes that individuate the form.

In this respect, one may think that it is the limitations of sublunar matter, specifically the process of being preceded by privation and the need for efficient causes of motion to prepare matter, that determine in turn how the Active Intellect can act. That is, the Active Intellect cannot help but act in an “intermittent” fashion since the sublunar realm is not always ready to receive the forms. This view holds that the Active Intellect is in some sense always in the background waiting for the matter to be ready, and once it is, then it causes the form. And to some extent this is true—the form cannot be instantiated in an individual until there is suitably prepared matter, which would happen intermittently (the ‘gaps’ being when a matter is being prepared). However, it seems plausible to hold that sublunar matter is not the cause of the Active Intellect being in the lowest grade in the hierarchy of causes of existence. Under this view, it is *because* the First prevents, absolutely, nonexistence in its effect, and can do so directly with no prior help (intermediaries), that its causing is the highest. And it is *because* the Active Intellect cannot prevent the absolute nonexistence of a thing, can only cause that which is preceded by matter,

that its causing existence is of the lowest grade.²²⁵ Thus, perhaps the Active Intellect is deemed lower in the hierarchy of causing existence, not because it is limited by its patient-- sublunar matter, but rather because it was unable to emanate one eternal effect that instantiates the species. Its act is therefore said to be only “intermittent”. I only propose this as another possible view. These passages do not seem to be enough to determine that this view is correct, i.e. that the Active Intellect is indeed in some sense weaker than the higher intellects in causing existence, and that that weakness consists in the Active Intellect being unable to emanate one eternal species and one eternal body that is immutable.

3.2. The essential ends of nature in Shifā’ Metaphysics VI 5 and Physics I 7

Here I turn to Avicenna’s discussion of final causation to further explore how the distinction between causes of the effect qua species versus causes of the effect qua individual applies in the context of sublunar generation. The sublunar world would be the important context to explore, where distinct members of a species come to be for a duration and, in most cases, perish.²²⁶ Here, it becomes critical to distinguish what precisely the Active Intellect is causing in the sublunar world. For if, in causing existence, it causes not only the effect qua species but the effects qua individual, then my reading of the causal function of the metaphysical efficient cause (cause of the effect qua species) would find its refutation in the sublunar world. However,

²²⁵ The Active Intellect does not cause matter independently but with the participation of the “celestial motions”. See text T2.15.

²²⁶ I have explored this in the context of his biological and psychological works in Chapter 2. This chapter explores it in passages from the *Metaphysics*, specifically those related to divine causation and, now, final causation.

Avicenna's treatment of final causation in VI 5 of the *Metaphysics* of the *Shifā'* paints a picture of final causes in the sublunar context that seems to work within the framework of the distinction between causing the effect qua species (the purview of metaphysical efficient causes) and causing the effect qua individual. Avicenna states,

T3. 8

As for the individuals of the infinitely generated beings, they are not essential ends²²⁷ in nature. Rather, essential ends are, for example, that the substance that is man, horse, or palm exists, and that this existence be a persisting (*dā'im*), stable (*thābit*) existence. This is impossible with respect to the single individual to which one points, because every generated being is necessarily corruptible—and I mean the generated beings of corporeal hyle. Since this is impossible with the individual, it is retained in the species. Hence, the primary aim is the persistence (*baqā'*) of the human nature, for example, or some other nature, or a vague indeterminate individual (*shakhṣin muntashirin ghayri mu'ayyanin*)²²⁸, it being the final cause (*al-tamāmiyya*) of the action of the

²²⁷ Avicenna explains what an essential end is earlier in the chapter as “that which is sought after in itself” (*Shifā' Metaphysics* VI 5 (18): 288) and explicates it by contrast to the necessary (*al-darūrī*) end (a kind of accidental end), which is of three types: “either [(a)] something whose existence is indispensable for the existence of the end, in that it is in some respect a cause of the end— as, for example, [that] the hardness of iron [that is needed for] cutting, [which] is accomplished by it; [or (b)] something whose existence is indispensable for the existence of the end, not in that it is a cause of the end but in that it is something that is a necessary concomitant (*'amr lāzim*) of the cause—for example, it is necessary that there exist a blackish body so that cutting is achieved by it, [where] the blackish body is indispensable not because of its being blackish, but because it is a necessary concomitant of the iron which is indispensable [for cutting]; or [(c)] something whose existence is indispensable as a necessary concomitant of the final cause itself—for instance, the final cause of marriage, for example, is procreation, [and] procreation is followed by the love of the child and is a concomitant of it, because marriage was for its sake,” (*Shifā' Metaphysics* VI 5 (18): 289).

²²⁸ Here, and in the repetition of *shakhṣin muntashirin* a few lines below, Avicenna seems to be taking up Philoponus' solution to an apparent contradiction in Aristotle concerning whether the universal or the individual is prior and better known to us. At *Physics* I 1 184a16, Aristotle says it is the universals which are better known to us,

universal nature. And it [the vague indeterminate individual] is one. But for

this one, for it to attain permanently (*bāqīyan*), there must be individuals after

but in *Posterior Analytics* I 2 72a1, Aristotle says it is the individual that is prior and better known to us. In his commentary on Aristotle's *Physics*, Philoponus frames the problem as such, "It is a matter of debate in this connection, why Aristotle says that universals are posterior in nature and less clear, but to us prior and more clear, given that elsewhere he suggests the opposite, that knowledge of universals is less clear to us and naturally comes later; for grasping the universal is the work of understanding alone, and understanding comes later to us; and [it is a matter of debate] what things he means by 'universal' (καθόλου) here," 10,1 in John Philoponus, *Philoponus on Aristotle Physics 1.4-9* (Ancient Commentators on Aristotle), transl. Catherine Osborne (London: Duckworth, 2009), 32. To resolve this apparent conflict, and to determine the appropriate procedure for investigating the principles of nature, Philoponus distinguishes between the individual (τὸ καθ' ἑκάστων) and the indiscriminate particular (τὸ μερικὸν συγκεκριμένον). The indiscriminate particular is "universal" in that it can apply to many things, while the individual applies to only one. An indiscriminate particular would be something like 'a human being' or 'an animal', i.e. many different individuals can fit these indiscriminate descriptions; an individual on the other hand would be "Socrates". It is because the indiscriminate particular can apply to many things that Philoponus takes it to meet the criteria of being the universal (καθόλου) that Aristotle speaks of in *Physics* I 1 as being better known to us, but less known by nature. As he states, "We shall therefore understand the term 'universal'...as the particular which, in virtue of being indeterminate, is both indiscriminate and universal," 13,1 (*Philoponus on Aristotle Physics* 34). He gives the example of seeing Socrates from afar: we know first that it is an animal, which counts as "indiscriminate knowledge of him as animal" in that 'an animal' can be any of the kinds of animal. Then we know that it is a human being, which is still an indiscriminate particular. Finally, when the properties of the individual Socrates become apparent to us, then we come to know Socrates, the individual (τὸ καθ' ἑκάστων) (11,1 *Philoponus on Aristotle Physics* 32). He invokes Aristotle's example of the child who first refers to all men as fathers (*Physics* I 1 184b12) before attaining knowledge of her father as an individual (11, 1). (For Avicenna's discussion of this example, see *Shifā' Physics* I 1 (8): 54.) Similarly, Avicenna defines *al-shakhṣ al-muntashir* ('vague individual' or 'diffuse individual') as that which signifies some individual of a species in an indiscriminate manner. He states, "When vague individual is said of 1) this [indistinct likeness] and of 2) an individual imprinted upon sensation from a distance (assuming the impression is that it is a body without perceiving whether it is animal or human), then the expression vague individual is applied equivocally to them. The reason is that what is understood by the expression vague individual in [the first] case is one of the individuals of the species to which it belongs, without determining how or which individual; and the same holds for a certain man and woman. It is as though the sense of individual, while not being divided into the multitude of those who share in its definition, has been combined with the account of nature applied relative to the species or kind. From them both, there is derived a single account termed a vague indeterminate individual—just as is indicated by our saying, 'Rational, mortal animal is one,' which does not apply to many when it is defined in this way, since the definition of individuality is attributed to the definition of the specific nature. In short, this is an indeterminate individual. In [the second] case, however, it is this determinate corporeal individual. It cannot be other than it is, save that, owing to the mind's uncertainty, either the account of being animate or inanimate can be attributed to it in thought, not because the thing in itself can be such—that is, such that any one of the accounts could be attributed indiscriminately to that corporeality," (*Shifā' Physics* I 1(9): 9). Avicenna seems to also have in mind the interpretive problem in Aristotle that engaged Philoponus here, "So it is nearly self-evident that what is intended is the nature of the species, in order that it cause the existence of some individual (even if not some particular individual). In other words, [what is intended] is the perfection and the universal end. It is this that is better known by nature, while not being prior by nature (if, by prior, we mean what is stated in the *Categories* and we do not mean the end)," *Shifā' Physics* I 1 (4): 6. See fn. 233 for the larger context of this passage and its relation to the issue of universal and particular nature in Avicenna. For a study of Avicenna's treatment of *al-shakhṣ al-muntashir*, see Deborah Black, "Avicenna's 'Vague Individual' and its Impact on Medieval Latin Philosophy," *Vehicles of Transmission, Translation, and Transformation in Medieval Textual Culture*, ed. Robert Wisnovsky, Faith Wallis, Jamie Claire Fumo, and Carlos Fraenkel (Belgium: Brepols, 2011), 259-292. For a discussion of Avicenna's vague individual in the context of his method of physics, see Andreas Lammer, *The Elements of Avicenna's Physics: Greek Sources and Arabic Innovations* (De Gruyter, 2018), 62-72.

individuals *ad infinitum*. Thus the infinite number of individuals would constitute an aim according to the meaning of necessity in the first division,²²⁹ not in that it is an aim in itself. For, if it were possible for man to remain permanently, as do the sun and the moon, then there would be no need for generation and multiplication in progeny.

However, even though we have admitted that the aim is the infinity of individuals, the infinity of individuals is other than the meaning of ‘every individual.’ What proceeds infinitely is one individual after another individual, not one infinity after another infinity. Therefore, the end in reality exists here, and it is the existence of the vague individual (*shakhṣin muntashirin*), or the infinity of individuals. Moreover, the individual which leads to another individual, to a third, and to a fourth, is not in itself an end for the universal nature, but for the particular nature. Since it is an end for the particular nature, then there is no other further aim and end for that particular nature for which [the former] is its end. By ‘particular nature,’ I mean the specific power that governs one individual. And by ‘universal nature,’ I mean the power emanating from the substances of the celestial entities as one thing, and it is the governor of the totality of what is in the world of generation (*kawn*)²³⁰. You will know all this hereafter.

²²⁹ See fn. 227.

²³⁰ This must not be the entire caused cosmos, but only the sublunar world. I will return to discuss the meaning of *kawn*.

As for the motion which proceeds infinitely, it is one in continuity, as you have known from physics. Also, the aim of this motion is not motion itself inasmuch as it is this motion. Rather, the aim here is the perpetuity which we will be describing afterwards. This perpetuity is one thing, except that in existence it is connected to things, let us admit, numerically infinite.²³¹

Ammā ashkhāṣu al-kā'ināti al-ghayri al-mutanāhiyati fa-laysat hiya bi-ghāyātin dhātiyyatin fī al-ṭabī'ati. Wa-lākinna al-ghāyāti al-dhātiyyata hiya mathalan an yūjada al-jawharu alladhī huwa al-insānu aw al-farasu aw al-nakhlatu wa-an yakūna hādhā al-wujūdu wujūdan dā'iman thābitan. Wa-kāna hādhā mumtani'an fī al-shakhṣi al-wāḥidi al-mushāri ilayhi li-anna kulla kā'inin yalzamuhu ḍarūratan al-fasādu wa-a'nī al-kā'ināti min al-hayūlā al-jismāniyyati. Wa-lammā imtana'a fī al-shakhṣi istabqā bi-l-naw'i. Fa-l-gharaḍu al-awwalu idhan huwa baqā'u al-ṭabī'ati al-insāniyyati mathalan aw ghayrihi aw shakhṣin muntashirin ghayri mu'ayyanin wa-huwa al-illatu al-tamāmiyyatu li-fī'li al-ṭabī'ati al-kulliyyati. Wa-huwa wāḥidun. Lākinna hādhā al-wāḥida lā budda lahu fī ḥuṣūlihi bāqiyān min an yakūna ashkhāṣun ba'da ashkhāṣin bi-lā nihāyatin. Fa-yakūnu lā-tanāhī al-ashkhāṣi bi-l-ʿadadi gharaḍan ʿalā al-ma'nā al-ḍarūriyyi min al-qismi al-awwali lā ʿalā annahu gharaḍun bi-naṣsihi. Li-annahu law amkana an yabqā al-insānu dā'iman kamā tabqā al-shamsu wa-l-qamaru la-mā uḥtīja ilā al-tawāludi wa-l-takāthuri bi-l-nasali.

²³¹ *Shifāʾ Metaphysics VI 5 (22-24): 289,17 - 291,7 emphasis mine.*

‘Ālā annahu wa-in salamnā anna al-gharaḍa lā-tanāhī al-ashkhāṣi kāna lā-tanāhī al-ashkhāṣi ghayra ma‘nā kulli shakhṣin. Wa-inna-mā yadhabu bi-lā-nihāyatin shakhṣun ba‘da shakhṣin lā lā-tanāhin ba‘da lā-tanāhin. Fa-idhan al-ghāyatu bi-l-ḥaqīqati hāhunā mawjūdatun wa-hiya wujūdu shakhṣin muntashirin aw lā-tanāhī al-ashkhāṣi. Thumma al-shakhṣu alladhī yu‘addī ilā shakhṣin ākhara ilā thālithin ilā rābi‘in laysa huwa bi-‘aynihi ghāyatan li-l-ṭabī‘ati al-kulliyyati bal li-l-ṭabī‘ati al-juz‘iyyati. Fa-idh hiya ghāyatun li-l-ṭabī‘ati al-juz‘iyyati fa-laysa ghayruhā ba‘dahā gharaḍan wa-ghāyatan li-tilka al-ṭabī‘ati al-juz‘iyyati allatī hiya ghāyatuhā. Wa-a‘nī bi-l-ṭabī‘ati al-juz‘iyyati al-quwwata al-khāṣṣata al-tadbīri bi-shakhṣin wāḥidin. Wa-a‘nī bi-l-ṭabī‘ati al-kulliyyati al-quwwata al-fā’ida²³² min jawāhiri al-samāwiyyati ka-shay’in wāḥidin wa-hiya al-mudabbiratu li-kulliyyati mā fī al-kawni. Wa-anta ta‘lamu hādhihi kullahā ba‘da hādhā.

Wa-ammā al-ḥarakatu al-dhāhibatu ilā ghayri al-nihāyati fa-innahā wāḥidatun bi-l-ittiṣālī ka-mā ‘alimta fī al-ṭabī‘iyyāti. Wa-ayḍan fa-inna al-gharaḍa fī tilka al-ḥarakati laysa huwa nafsa al-ḥarakati bi-mā hiya hādhihi al-ḥarakatu. Bal al-gharaḍu hunāka al-dawāmu alladhī naṣīfuhu ba‘du. Wa-hādhā al-dawāmu ma‘nan wāḥidun illā annahu muta‘alliqu al-wujūdi bi-ashyā’a li-naslam anna ‘adadahā bi-ghayri nihāyatin.

This is a critical passage in which Avicenna states that true end in the sublunar world is the species, not the individual, and that the individual is only a necessary means towards this end,

²³² Marmura has *fā’ida* which makes more sense in the context, but he does not refer to a variant in a source.

namely the perpetual existence of sublunar species.²³³ Since the end is the continuity of sublunar species, such as man, horse or palm, he accordingly, on two occasions, refers to the end as “one”, in contrast to the infinity of individuals. And he says it is only because each individual of sublunar species are generable and corruptible that the end, the eternal instantiation of sublunar species, must be achieved through an infinity of individuals. Importantly, it is the *always* (*dā'im*) and persistent (*thābit*) clause that necessitates the infinity of individuals. For if these species were instantiated in just one generated and corrupted individual, then the species would have met the criterion of having existed. But their *eternal* existence, like the eternal existence of superlunar species, is the aim. Thus there must be some generable and corruptible individual of a species at any given time. Here Avicenna emphasizes that it is not the individuals themselves that are the ultimate end. He states that the existence of each individual is the end of some *other* cause, namely the “particular nature.”²³⁴ The end of the *particular* nature is reached with each

²³³ That the species, and not the individual, is the intended end is affirmed again in *Shifā' Physics* I 1 (4): 5-6. There Avicenna also adds that it is not the genera (animal, which would be fulfilled by *any* animal that exists) either that is the aim, nor of course the individual, but the species, “[...]common things] were not in themselves the things intended in the natures for the completion of existence, for what is intended in the nature is not the existence of an animal absolutely or a body absolutely, but rather that the natures of the specific things exist, and when the specific nature exists in the concrete particulars, there is some individual. So, then, what is intended is that the natures of the specific things exist as certain individuals in the concrete particulars. Now, the concrete individual is not what is intended except with respect to the particular nature proper to that individual; if the concrete individual [itself] were what was intended [by nature], then through its corruption and nonexistence the order of existence would be diminished. Likewise, if the common and generic nature were what was intended, then existence and order would be completed through its [singular] existence, whether it is, for example, the existence of some body or some animal, however it might be. So it is nearly self-evident that what is intended is the nature of the species, in order that it cause the existence of some individual (even if not some particular individual). In other words, [what is intended] is the perfection and the universal end. It is this that is better known by nature, while not being prior by nature (if, by prior, we mean what is stated in the *Categories* and we do not mean the end).” Avicenna reaffirms that it is not the individual that is the end, for if it were, the “order of existence would be diminished.” He goes on to affirm this again, “[Similarly,] its [nature’s] intention concerning the existence of the generable and corruptible particular individual is that the nature of the species exists; and when it is possible to achieve that end through a single individual whose matter is not subject to change and corruption, as, for example, the Sun, the Moon, and the like, then there is no need for another individual to belong to the species,” (*Shifā' Physics* I 1 (6): 7).

²³⁴ On the role of particular nature in substantial generation, see Avicenna’s discussion on nature in *Shifā' Physics* I 5. For instance, “A principle of motion with respect to substance is like nature’s state that brings about motion toward the form, being prepared by the modification of quality and quantity, as you will learn,” [(8): 44]. McGinnis here also points to *Physics* II 3 and *Kitāb al-Hayan* IX 5.

individual. As he states, “For, if it were possible for man to remain permanently, as do the sun and the moon, then there would be no need for generation and multiplication in progeny.”

Falling short of this permanent existence of sublunar species through just one eternally existing individual, the end must be achieved via the generation and corruption of individuals of each species. In the causal schema I have outlined, there is a causal division of labor in this regard: sublunar and superlunar natural efficient causes prepare matter while the superlunar metaphysical efficient causes, in this case the Active Intellect, cause the species. The species becomes differentiated into individuals due to the *patient* of the Active Intellect, i.e. that which receives its act. It is in this way that sublunar species like ‘man’ exist. It is causing the species, the instantiation of otherwise contingent essences, that is the ultimate aim, “Rather, essential ends are, for example, that the substance that is man, horse, or palm exists, and that this existence be a persisting (*dā’im*), stable (*thābit*) existence.” The point is helped by my previous analysis in Chapter 2 that argued that the individuation of human souls and all sublunar species is with respect to “accidental” causes of prepared matter and so forth, and not with respect to an essential cause. The cause of the existence of Zayd (an individual instantiation of a contingent essence) is due to the cause of its speciesness (i.e., the Active Intellect) and the causes of Zayd insofar as Zayd is an individual (i.e. matter and natural efficient causes in both the sublunar and superlunar worlds).

The passage is clear on what the *ends* are of the particular nature and the universal nature, but it is less clear what or who the particular and universal natures are. While it is not my aim to resolve this here, it is worth noting Avicenna’s use of these terms in the context of discussion of a universal nature in Philoponus’ commentary on *Physics* II 1, and of a divine power and nature in the Pseudo-Aristotle *De Mundo* and in Alexander’s treatise “On the Principles of the Universe

(*Fī Mabādi' al-Kull*)".²³⁵ Two themes of that discussion may be highlighted, as it seems

Avicenna is using "universal nature" in a very similar manner. First, it is invoked in the context

²³⁵ There is a long history of discussion of a universal nature that permeates the cosmos and is responsible for its order. For instance, Chrysippus speaks of all the parts of the cosmos, their states and processes, as being in accordance with universal nature, "Since universal nature extends to all things throughout, it must be the case that anything that somehow happens in the whole universe or in any of its parts, happens according to universal nature and its reason in due and unhindered sequence...nor could any of its (the universe) parts be susceptible of entering any process or assuming any state except in conformity with universal nature," (Plutarch's *de Stoicorum Repugnantiis* 1050C-D, transl. in Richard Sorabji, *The Philosophy of the Commentators Vol. 2 Physics* (London: Duckworth, 2004), 57. Similarly, Avicenna makes a point of including aberrations in the cosmos, such as the oversized head and the extra finger, as being in accordance with universal nature (*al-ṭabī'a al-kulliyya*) even if it is not in accordance with the particular nature (*al-ṭabī'a al-juz'iyya*) (*Shifā' Physics* I 7 (1 & 3). Philoponus makes this point in his commentary on *Physics* II 1 (201,10 – 202,12), "But perhaps even these are not absolutely against nature, but in respect of [their] particular nature [they are] not by nature but against nature, while in respect of universal nature [they are] both by nature and according to nature," (Sorabji, *Philosophy of the Commentators*, 57). He discusses the monster, which is not by the particular nature of man, i.e. humanity, but is rather still by universal nature, "...it [the monster] is not against nature but by nature and according to nature—for even these things [monsters] arise because nature as a whole alters the underlying matter and makes it unsuitable for receiving the form of the particular nature," (Ibid., 57). Philoponus explains that the motions of the heavenly bodies, and the surrounding atmosphere, might affect the matter that is being prepared to receive the human form in such a way that the matter becomes unfit to receive the human form, the form of the particular nature. Instead, "another form would arise" that is against the particular nature but in accordance with the universal nature, since it is "according to nature in the universe [that nature] destroys some things in generating others," (Ibid., 58). Philoponus gives the example of an artifact to illustrate this phenomenon in natural things. He asks one to imagine a lyre player who has tuned his lyre according to one of the scales but someone from outside then retunes some or all of the strings, or "rather (to keep closer to our example) that the strings are retuned by suffering from dampness or dryness in the atmosphere," (Ibid., 58). The lyre player then moves the strings in the proper way to produce some melody, but from the lyre comes an "inartistic, unorganized and indeterminate noise." Similarly in the case of the generation of a human, some motion of the heavenly spheres affects the matter that is being prepared to receive the form, such that what is produced is a monster that is not in accordance with the particular nature of humanity. It is not explicitly clear what he means by saying such aberrations are in accordance with universal nature. It seems what he has in mind is that generation and corruption is necessary, even if sometimes what is generated is not in accordance with the particular nature. This is similar to how Avicenna takes the generation of the extra finger to be in accordance with the universal nature, "The same is true of the additional finger, since it is intended by the universal nature, which requires that every matter that is prepared for a form be en clothed by it and that [that form] is not hindered; so when there is excessive matter deserving the form of finger-ness, it will not be denied and wasted," (*Shifā' Physics* I 7 (4): 53). Philoponus is likely developing this from Alexander of Aphrodisias, who is in turn influenced by the *De Mundo*. The *De Mundo*, as well as Alexander in the Arabic translation of his treatise, lost in Greek, *On the Principles of the Universe*, speaks of a δύναμις (*quwwa*) that is divine θεία (*ilāhī*) that permeates the cosmos and is a cause of the order therein. This power is said to preserve and hold the whole of the cosmos together. As Alexander states, "Since the First Mover is as we have described it, and the things moved by it without intermediary are also in that state, there follows from the motion of these things the generation and change of the perishable bodies having matter, according to the power of those [heavenly bodies] reaching them according to [the former's] diversity, and according to the assimilation of those different things which we have mentioned, because of the change and diversity of their motion, as we said before. This nature (*al-ṭabī'a*) and power (*quwwa*) are the cause of the unity (*ittiḥād*) and order (*intizām*) of the world. In the same way as happens in one city having one ruler residing in it, not separate from it, we also say that a certain spiritual power penetrates the whole world and holds its parts together," in Alexander, *Alexander of Aphrodisias On the Cosmos*, transl. Charles Genequand (Leiden: Brill, 2001), 113. He also speaks of this power as one that governs (*tadbīr*) and preserves (*ḥifẓ*). *De Mundo* is in turn an important source here. The Pseudo-Aristotle talks of God as making use of an "untiring power" to preserve (σωτηρία) and cause the order of all things. This divine power is said to penetrate all things, "It is more dignified and becoming for him

of discussing aberrations—for Philoponus, the monster, and for Avicenna, the extra finger. The aim here is to be able to consider such aberrations as still within nature, even though the monster is a clear deviation from the human being and the extra finger from the four in humans.

Philoponus distinguishes between the particular nature and the universal nature, which provides him a way of explaining how the monster is both clearly a departure from nature in one respect and yet still within nature in another respect. The monster is a clear departure from the particular nature (the species humanity), but it is still considered to be by nature, namely with respect to the universal nature.²³⁶ Avicenna makes a similar argument in *Shifāʾ Physics* I 7, where universal nature necessitates that if there is an excessive matter, then it ought receive the appropriate form so as to not be “wasted,” where a wasted matter would be a matter ready to receive a form but that remains without form.²³⁷ Thus even though such aberrations are not in accordance with the particular nature, he says they are still in accordance with the universal nature. The extra finger would then fall under this larger “order.” This leads to the second theme to be highlighted from the historical context of universal nature. The universal nature is taken to be a cause of the order of the cosmos and its preservation. In both Alexander and the *De Mundo*, the universal nature is taken to be a divine power that permeates the cosmos and preserves and holds the whole

[God] to be based in the highest region and for his power, penetrating through the whole cosmos, to move the sun and moon and to cause the whole heaven to revolve and to be the cause of preservation for the things on earth,” (398b6-10) in Pseudo-Aristotle, *Cosmic Order and Divine Power: Pseudo-Aristotle, On the Cosmos*, ed. Johan Carl Thom (Germany: Mohr Siebeck, 2014), 45. Here the Pseudo-Aristotle explains God’s causal efficacy mediated through a power (δύναμις), in the context of maintaining God’s transcendence. For more on the causal roles of this divine power in the *De Mundo*, see 397b10-401a10 (Ibid., 43-55); and in Alexander, see Alexander, *On the Cosmos*, 113-125. For a brief discussion of the influence of the *De Mundo* on Alexander, see Charles Genequand’s introduction to Alexander, *On the Cosmos*, 1-39, esp. 16-20. For a discussion of the Syriac and Arabic versions of the *De Mundo*, see Hidemi Takahashi, “Syriac and Arabic Transmission of *On the Cosmos*,” in Alexander, *On the Cosmos*, 153-167. For an introduction to the influence of the *De Mundo* in *falsafa* and *kalām*, see Hans Daiber, “Possible Echoes of *De Mundo* in the Arabic-Islamic World: Christian, Islamic and Jewish Thinkers” in Alexander, *On the Cosmos*, 169-180.

²³⁶ See fn. 234.

²³⁷ Ibid.

together.²³⁸ Alexander offers a useful analogy of a ruler, whose effect (rule) permeates the city. Analogously, he says the universal nature is the cause of the unity and order of the world. It is taken to be a spiritual power that permeates the world and, it seems, in so doing causes the orders of the world. The analogy is apt because the ruler's effect is not some determinate substance or entity, but rather the general order and rule of the city. This makes sense in the context of describing the universal nature as permeating the world and of being a cause of its order. This seems to be very close to how Avicenna speaks of the universal nature.²³⁹ He makes a point in *Shifā' Physics I 7* of emphasizing that neither the particular nature nor the universal nature have existence as discrete substances, and that it is only the particular (*al-juzʿī*) that exists.²⁴⁰ Rather, the universal nature is connected, like in Philoponus and earlier sources, to maintaining the order (*niẓām*) of the cosmos.²⁴¹ He later states that this management (*tadbīr*) of the cosmos emanates from the first principles, and that through the mediation of the first of the heavenly bodies, the order is preserved.²⁴² Thus it seems that for Avicenna, the universal nature refers to the order of the cosmos, like the rule that is present throughout a city, which governs that which is in the cosmos; and this order is ultimately caused by the first cause but through the mediation of superlunar causes. It is plausible that Avicenna is maintaining the view from Philoponus that the universal nature is an effect that descends from superlunar existents and which is responsible for the order and laws that govern the cosmos. And sometimes these laws contradict the particular

²³⁸ Ibid.

²³⁹ Avicenna also discusses the ways in which nature is predicated of the particular and of the universal in *Shifā' Physics I 7* (2-4): 51-53. There he seems to suggest *two* universal natures—one relative to a species, and the other “absolutely,” (*Shifā' Physics I 7* (2): 51). The former does not seem to just be the particular nature, since Avicenna mentions it *in addition* to these two universal natures [where the particular nature is said to be the “nature proper to each of the individuals,” (*Shifā' Physics I 7* (2): 51)]. He does not seem to take up *two* universal natures in his discussion that follows, and instead only speaks of one, so I am not sure what to make of it.

²⁴⁰ *Shifā' Physics I 7* (2): 51.

²⁴¹ “...a principle proper to the management (*al-tadbīr*) necessary for the conservation (*istihfāz*) of the cosmos according to its order (*niẓamihi*),” (*Shifā' Physics I 7* (2): 51).

²⁴² *Shifā' Physics I 7* (3): 52.

nature, but they are still in accordance with universal nature (like, for instance, the extra finger). The passage above from the *Metaphysics* (T3.8) may lead one to suppose that the universal nature is a discrete agent, in that Avicenna speaks of it having an end or aim, and that such an end is achieved through infinite individuals, it seems that the passages in the *Physics* would preclude this interpretation. In addition, Avicenna is most likely engaging a tradition of discussion in Philoponus and others who spoke of the universal nature not as some discrete existent but as tied to explaining the order and preservation of the cosmos at large. Again, here, I take the analogy of the rule of the ruler to be particularly illustrative.

Interestingly, in the *Physics* passages Avicenna gives several examples of particular “orders” or “laws” of the sublunar world that are in accordance with the universal nature, which may be further telling of the use and role of the universal nature in Avicenna.²⁴³ There he speaks of the death of an individual Zayd as being in accordance with universal nature because it allows for others to exist, who he says “deserve” to exist in the way Zayd has. Without death, Avicenna says there would not be enough food and space to go around.²⁴⁴ Another purpose of death is that it frees the soul from the body to achieve its true aim of “flourishing among the blessed”. And finally, universal nature intends that any properly prepared matter receive a form and not simply remain in perpetual potency—hence the extra finger, or the example of the “basket-head”²⁴⁵ he gives earlier. These examples all seem to invoke a similar understanding of universal nature as

²⁴³ I did not happen upon these examples in the historical context, but an exhaustive study has yet to be done, including some of Avicenna’s *kalām* interlocutors I have not explored. It would also be interesting to continue to trace the development of use of the universal nature.

²⁴⁴ Sarah Broadie also mentions this in her discussion of Aristotle *Generation and Corruption* II 10, with respect to the ways in which the behaviors of perishable particulars imitate imperishable eternal. Perishing and making room for others is said to be one behavior of particulars that exhibits an eternal pattern, and hence mimics the eternal. See “Heavenly Bodies and First Causes,” *A Companion to Aristotle*, ed. Georgios Anagnostopoulos (Chichester, U.K.: Wiley-Blackwell, 2013), 230-241, esp. 240.

²⁴⁵ *Al-ra’sa al-musaffafa*. *Safaṭ* is a basket or the scales of a fish. I take it that here it means the former, since the point is that there is extra matter, in which case “basket-head” would be a reference to someone with megaloccephaly. McGinnis translates it as “oversized head”. *Shifā’ Physics* I 7 (1): 50.

accounting for the order of the cosmos. But they also suggest that it is not simply order in a general sense that is being accounted for, but the very particular and specific “laws” or “rules” that govern the sublunar world.

A full study of the use and implications of universal and particular nature in Avicenna remains to be explored. But here I suggest an initial understanding of what these might refer

to.²⁴⁶ From the preliminary treatment here, it seems there could possibly be a connection with the

²⁴⁶ A different reading of the particular and universal nature in Avicenna is to take the universal nature to be the species itself, and its end the preservation of each individual of that species. This seems to be Marmura’s suggestion for this passage. In a footnote to the following excerpt, quoted in full above, “Hence, the primary aim is the persistence of the human nature, for example, or some other nature, or a vague indeterminate individual, it being the final cause of the action of the universal nature,” Marmura states, “Avicenna is speaking about the individuals or particulars in the world of generation and corruption. Each member of the species is transient, but the process of one transient individual being succeeded by another is eternal. The purpose of the universal nature— the nature of the species horse, for example— is to preserve the individual member of the species, without singling out any one specific individual,” (Marmura, *Metaphysics of the Healing*, 410). It does not seem possible to take the universal nature to be a reference to the very natures of sublunar species. Avicenna states the *end* of the universal nature is the always and persistent existence of the substance man, horse, etc. This would seem to preclude the possibility of the universal nature being the species themselves. Avicenna wants to make clear that the true, essential end of the universal nature is the perpetuity of sublunar substances, not each individual, and that this is attained through the infinity of individuals. The latter is simply a necessary means towards this essential end. He is responding to the objection raised at the beginning of the chapter, where the objector says there is actually no true end or perfection since ends regress infinitely, “Someone may say, ‘It is possible that for every end there is an end, in the same way that there is a beginning for every beginning, so that in reality there is no end and perfection. For end in reality is that in terms of which one finds rest. We may encounter things that are ends and which [in turn] have ends *ad infinitum*. For there are things that are thought to be ends but which are infinite, akin to conclusions that come successively from syllogisms and that are infinite,” (*Shifā’ Metaphysics* VI 5 (2): 284). The objector is presumably using the philosophers’ thesis of an eternal world against them: insofar as they posit an eternal process of generation and corruption, with its attendant infinity of individuals, then they cannot also posit final causation. Since ends would regress infinitely, and having reached no “first end,” then there is no end at all. Avicenna’s response is to say the infinite number of humans, and every other individual that constitutes sublunar species, are not in themselves ends but rather only a *means* towards this higher end which is actually one— namely, the eternal existence of the substance. Avicenna does later account for the end that Marmura is concerned with, namely the preservation of each individual. But Avicenna states this is not the essential end for the universal nature. Rather, it is the end for the “particular nature”: “Moreover, the individual which leads to another individual, to a third, and to a fourth, is not itself an end for the universal nature, but for the particular nature. Since it is an end for the particular nature, then there is no other further aim and end for that particular nature for which [the former] is its end,” *Shifā’ Metaphysics* VI 5 (23): 290. Avicenna says the universal nature is “the power emanating from the substances of the celestial entities as one thing, and it is the governor of the totality of what is in the world.” Under Marmura’s reading, one would have to think sublunar species forms are emanated from the celestial entities. However, only the Active Intellect emanates them. Avicenna argues elsewhere that sublunar species forms cannot be directly caused by superlunar causes above the Active Intellect. As well, there are many sublunar species forms to account for, but Avicenna here uses the singular (universal nature), which would be difficult to reconcile with that multiplicity. Also, sublunar species forms do not govern the totality of what is in the world. There is also a question of how to interpret *kawn* in the passage of T3.8. Marmura takes “world” (*kawn*) here to refer to the entire caused cosmos, “*Al-Kawn*: Here, the whole of the cosmos (which includes the world of generation and corruption) is meant,” (Marmura, *Metaphysics of the Healing*, 410). But if the “universal nature” is the sublunar species form(s), then this would

causal role of the metaphysical efficient cause. Avicenna speaks of the First as being responsible for the *tadbīr* of the cosmos in many other passages, and he might in part be referring to this explanandum in his discussion of the “universal nature,” which offers a way of making concrete an effect that is pervasive and yet not immediately demanding explanation in the way that a discrete existent would. It is also interesting because the universal nature in some ways might parallel the explanandum of the species that I take Avicenna to be accounting for through the metaphysical efficient cause, or the cause of the effect qua species, but at a much larger scale. That is, Avicenna might not only be wanting to account for the contingent species that populate the cosmos, but for the larger contingent ways in which the cosmos operates.²⁴⁷

Here I turn to another passage regarding final causation in *Shifāʾ Metaphysics* VI 5 that appears to apply the distinction of cause of the effect qua species and cause of the effect qua individual. Here Avicenna is addressing another objection with respect to the final cause. The objection states,

imply species forms govern the totality of the cosmos. Marmura’s reading of *kawn* to be the entire caused cosmos would work if “universal nature” is the First, since it is the only entity that could plausibly be responsible for governing the entire caused cosmos. However, the First is not the “power emanating from the substances of the celestial entities as one thing.” Thus it seems like *kawn* here must refer to the world of *kawn wa fasād*, of generation and corruption.

²⁴⁷ That is, for example, the fact that sublunar individuals perish instead of living forever (which would result in overcrowding and resource depletion—hence not allowing for others to exist); or the fact that the souls of individual humans are freed from the body to attain their true aim instead of being perpetually trapped by the body; or the fact that extra prepared matter does not remain without form *even* if it means the creation of “monsters”—aberrations from the particular nature of the species. (And of course the role of universal nature that is discussed in the *Metaphysics* passage of T3.8 is that it ensures the perpetual existence of sublunar species.) It is somehow determined that particular laws of the universal nature must prevail, and that sometimes these particular laws prevail *over* “competing” ones of the particular nature.

T3. 9

Someone may [also] say, “Let us admit that an end exists for every act. Then why has it been made a prior cause when in reality it is the effect of all causes?”²⁴⁸

Thumma li-qā'ilin an yaqūla: li-natruk anna al-ghāyata mawjūdatun li-kulli fi'lin, fa-lima ju'ilat 'illatan mutaqaddimatan wa-hiya bi-l-ḥaqīqati ma'lūlatu al-'ilali kullihā?

That is, it is held that the final cause comes prior to all the other causes in that it serves as the aim of their action. But this priority seems challenged by the fact that the final cause only comes to be in existence as a *result* of these causes. So how can the priority of the final cause be reconciled with the fact that its existence comes *after* the causes it is supposedly prior to?

Avicenna's response is predicated upon a distinction between the thingness (*shay'iyya*) of the final cause and its existence (*wujūd*), the former corresponding to its essence and the latter to its instantiation in reality.²⁴⁹ Strictly speaking, the existence of the final cause could be either its existence in external reality or in the mind. But in this context, by “existence” the objector means its existence in external reality, and Avicenna's discussion follows suit (as will mine). This is because it is its existence in external reality that makes the final cause posterior to the other causes, in that in moving towards the end and achieving it, the causes thereby cause the existence of the end in external reality, whether the context is substantial generation or fulfilling

²⁴⁸ *Shifā' Metaphysics* VI 5 (2): 284, 4-6.

²⁴⁹ My interest in Avicenna's treatment of the final cause here is only to highlight points that are relevant to my discussion of causing an effect qua species versus qua individual. For an exhaustive treatment of final causality and its relation to the efficient cause, see Robert Wisnovsky, *Avicenna's Metaphysics in Context* (Ithaca, N.Y.: Cornell University Press, 2003), esp. 181-195. For the context of *shay'iyya* see also Robert Wisnovsky, “Notes on Avicenna's Concept of Thingness,” *Arabic Sciences and Philosophy*, 10 (2000), 181-221.

some desire, for example. But in some other sense the final cause is prior, in that it is a cause of the causes acting (towards it).²⁵⁰ This then seems to entail a contradiction, i.e. the final cause is both prior and posterior. Avicenna's response will turn precisely on distinguishing the different senses in which it is prior and posterior, which he roots in two aspects of the final cause itself: its thingness and its existence.

I take the "thingness" of the final cause here to correspond to what I have taken to be Avicenna's account of the effect qua species, while the "existence" of the final cause in external reality would correspond to the effect qua individual. This is because by "existence" here Avicenna is not invoking the sense in my previous discussion of VI 1-3 in Chapter 1. He is instead using it in the context of the objection that is raised, namely the way in which the final cause is posterior to the other causes. Thus "existence" here means its individual existence in external reality, which would correspond in the relevant sense to the division of the effect qua individual. For present purposes, I am interested in how Avicenna depicts the cause of the thingness of the final cause to see if its causal story is analogous to how I have depicted causes of the effect qua species, and correspondingly with the cause of the existence of the final cause (and my reading of the cause of the effect qua individual). The cause of the individual existence of the final cause in external reality is attributed to causes that it causes to act, the natural causes involved in substantial generation for instance, such as the "efficient and receptive causes" or, importantly, even the "formal cause".²⁵¹ As for the cause of the final cause's thingness, Avicenna explicitly denies that it can be any of the causes of motion *or* that which is *moved* toward it, and is instead "another cause":

²⁵⁰ For a parallel passage dealing with the senses in which the final cause is prior and posterior, see *Shifā' Physics* I 11 (1-2): 71. There he distinguishes between the existence of the final cause and its *quiddity* (*māhiyya*).

²⁵¹ *Shifā' Metaphysics* VI 5 (30): 293.

T3. 10

As for the doubt that follows this one, it is resolved once it is known that the end is posited as a thing and is [also] posited as an existent. There is a difference between a thing and an existent, even though a thing can only be an existent, like the difference between a thing and its concomitant. You have already known and ascertained this. Then resume reflecting on this with respect to the human. For the human has a reality which is his definition and quiddity without the condition of [its having] a particular existence or a general one, in individuals or in the intellect, be any of that in potency or in act.

And every cause insofar as it is that cause has a reality and a thingness. So the final cause in its thingness is a cause of the rest of the causes to exist in actuality as causes, and the final cause in its existence is caused by the existence of the other causes insofar as they are causes in actuality. It is as though the thingness of the final cause is the cause of the cause of its existence, and its existence is the effect of the effect of its thingness. However, its thingness is not a cause unless it obtains as a concept in the soul or what is similar to it. *There is no cause of the final cause in its thingness except another cause that is other than the cause that moves something towards it or that is moved toward it.*²⁵²

Wa-ammā al-shakku alladhī yalīhi fa-yanḥallu bi-an yu^ʿlama anna al-ghāyata tufrāḍu shay^ʿan wa-tufrāḍu mawjūdan. Wa-farqun bayna al-shay^ʿi wa-l-

²⁵² *Shifāʾ Metaphysics* VI 5 (27-28): 292, 1-10 emphasis mine.

mawjūdi wa-in kāna al-shayʿu lā yakūnu illā mawjūdan ka-l-farqi bayna al-amri wa-lāzimihi. Wa-qad ʿalimta hādhā wa-taḥaqqaqtaḥu fa-staʿnif taʿammulahu min al-insāni. Fa-inna li-l-insāni ḥaqīqatan hiya ḥadduhu wa-māhiyyatuhu min ghayri sharṭi wujūdin khāṣṣin aw ʿāmmīn fī al-aʿyāni aw fī al-naḥsi bi-l-quwwati shayʿun min dhālika aw bi-l-fiʿli.

Wa-kullu ʿillatin fa-innahā min ḥaythu hiya tilka al-ʿillatu lahā ḥaqīqatun wa-shayʿiyyatun. Fa-l-ʿillatu al-ghāʿiyyatu hiya fī shayʿiyyatihā sababun li-an takūna sāʾiru al-ʿilali mawjūdatan bi-l-fiʿli ʿilalan wa-l-ʿillatu al-ghāʿiyyatu fī wujūdiḥā musabbabatun li-wujūdi sāʾiri al-ʿilali ʿilalan bi-l-fiʿli. Fa-ka-anna al-shayʿiyyata min al-ʿillati al-ghāʿiyyati ʿillatu ʿillati wujūdiḥā wa-ka-anna wujūdahā maʿlūlu maʿlūli shayʿiyyatihā. Lākinna shayʿiyyataḥā lā takūnu ʿillatan mā lam taḥṣul mutaṣawwiratan fī al-naḥsi aw mā yajrī majrāḥā. Wa-lā ʿillata li-l-ʿillati al-ghāʿiyyati fī shayʿiyyatihā illā ʿillatun ukhrā ghayru al-ʿillati allatī tuḥarriku ilayhā aw tataḥarraku ilayhā.

While such causes of motion, or what is “moved toward it”, can cause the individual existence of the final cause in external reality, Avicenna states these causes *cannot* cause its thingness.²⁵³ Although my focus has been on efficient causation, this accords with my view that causes of the effect qua individual includes not just efficient causes of motion but the other causes discussed in *Physics* as well. But the main point here is that when discussing the final cause, Avicenna follows the bipartite model of causing that I have outlined in *Shifāʾ Metaphysics*

²⁵³ Avicenna earlier cites the formal cause along with the other causes that are said to cause the final cause qua individual, i.e. its existence in external reality, when asserting such causes are in fact posterior to the thingness of the final cause. Also I think he is probably referring to the formal cause in the phrase “or that is moved toward it,” in the way that the form of humanity in the semen is moved toward the (future) child by the efficient cause of motion, the father.

VI 1-3 in Chapter 1. This is important for reasons I mentioned earlier, namely that in contexts other than just efficient causation, Avicenna differentiates between two overarching aspects of which something can be caused— its speciesness [here, thingness (*shay'iyya*)] and its individual existence (here, just 'particular existence' *wujūd khāṣṣ*, which refers to its existence *as a specific particular* in the external world). And importantly, in addition to this he follows the same two-tier model of causing, corresponding with these two aspects of the effect that I have proposed. That is, causing an effect (here, the final cause) qua individual is attributed to efficient causes of motion (as well as any material or other causes), while causing the final cause qua species must be attributed to “another cause” that is “*other than the cause that moves something towards it or that is moved toward it*.”²⁵⁴

Since my interest in final causation has been narrow, my treatment above would be misleading if it suggests that the existence of the final cause in external reality is always caused by the prior causes. It should be noted that the causedness of the final cause in its existence is an aspect to this story that is accidental to the final cause *qua* final cause. And I think Avicenna alludes to this later. He only makes this distinction here, between the final cause qua existent and

²⁵⁴ The passage that follows may be misconstrued to contradict what Avicenna has just said, namely that moving causes do not cause the essence of the final cause, “Know that a thing is caused in its ‘thingness’ and is caused in its existence. That which is caused in its ‘thingness’ is like ‘twoness.’ For, within the definition of its being ‘twoness,’ it is caused by unity. That which is caused in its existence is clear and obvious. Similarly, there may belong to the thing a realized state of affairs existing in its ‘thingness,’ for example, as being numerical belongs to ‘twoness.’ The state of affairs, however, may be additional for a reason additional to its ‘thingness,’ as in the case of squareness in wood or stone. *Natural bodies are the cause of the ‘thingness’ of many forms and accidents*— I mean, those that are only renewed by them— and the cause of the existence of some without their ‘thingness,’ as it is supposed that the state of affairs governing mathematics is of this sort,” (*Shifā' Metaphysics* VI 5 (29): 292-293). The potentially problematic part is italicized. However, it has to be read in the context of the preceding sentences. Avicenna is considering *accidents* of a thing, not the *essence* of a thing, and not just any accident but accidents that are not explicable except by natural body (that is, they are not accidents of an essence, like numerical in twoness). They cannot exist separately, nor attach to the essence of the thing. Instead, Avicenna says their *shay'iyya* must be parasitic upon natural body. He then immediately re-affirms the standard view, which is that natural bodies cause only the existence of other forms and not their thingness (i.e. natural bodies can't cause the thingness of *substantial* forms). Thus I think his statement here is restricted to treating accidental forms, and not even all accidental forms at that.

final cause qua thing, because of the objection that the final cause is not really prior since we perceive that it comes to be in external reality only after the causes that it supposedly causes. Avicenna's response is to clarify, first, that the final cause does not cause the *existence* of other causes, just their causing, and second, that the final cause, *qua* cause, is prior, but *qua* existent, is posterior.²⁵⁵ Thus when we speak of the final cause *as a cause*, it is indeed prior. It's *shay'iyya* is a cause of causing, provided that it exists as a concept in the soul of the agent. But when we speak of the final cause *as an existent in external reality*, that is the result of, say, a process of substantial generation, then it is posterior to the causes that it causes to cause, and that in turn cause it (not *qua* being a final cause, but *qua* existent). Therefore one may say that its external existence is accidental to the final cause qua final cause (but *not* its existence in the soul of the agent, which is essential to the final cause qua final cause). This is important because not all final causes cause the causality of other causes whereby their causing results in the very external existence of the final cause. The First is an important exception in this regard, and Avicenna makes precisely this point.²⁵⁶ Then he concludes, "If, on the other hand, you consider its being a final cause, you will find that it is a cause of the rest of the causes to be causes— for example, to be an efficient cause, a receptive cause, and a formal²⁵⁷ cause— [but] not [a cause] for their having being and existence in themselves. Therefore, what belongs essentially to the final cause

²⁵⁵ "It has thus become easy for you to understand that the final cause in terms of 'thingness' is prior to the efficient and receptive causes, and, similarly, that it is prior to form inasmuch as form is a formal cause leading to it. Likewise, the final cause in its existence in the soul is prior to the other causes. As for its being in the soul of the agent, [this is the case] because it exists [there] first, [and] then— [along] with [the agent]— agency, the demand for a recipient, and the quality of the form are [thereafter] conceived... Thus, in considering 'thingness' and considering existence in the mind, there is no cause that is prior to the final [cause]. Rather, it is a cause of the coming to be of the other causes as causes. But the existence of the other causes as causes in actuality is a cause of its existence. The final cause is not a cause in that it exists, but in that it is a thing. Thus, from the point of view that it is a cause, it is the cause of causes; from the other point of view, it is the effect of the [other] causes," *Shifā' Metaphysics* VI 5 (30): 293.

²⁵⁶ *Shifā' Metaphysics* VI 5 (31): 293-294.

²⁵⁷ Marmura translates "final cause" but this must be a typo.

inasmuch as it is a final cause is that it is the cause of the rest of the causes. *But it will happen to it accidentally, inasmuch as its meaning occurs in [the realm] of kawn,*²⁵⁸ *that it is caused with respect to kawn*²⁵⁹.”²⁶⁰ I think Avicenna’s point here is not just to preserve the First’s absolute uncausedness, but also to qualify that strictly speaking, his prior discussion on causes of the external existence of the final cause is treating something *accidental* to final causes. That is, what makes them final causes is not that sometimes their existence is caused by the causes that they cause to act, but that they serve as the *ends* of such causes and thereby *cause their causing*. Avicenna thereby concludes that, qua final cause, the final cause is indeed prior.

3.3. A passage on God’s knowledge and causation in *Shifā’ Metaphysics VIII 6*

The final texts I will explore come from Avicenna’s discussion of the Necessary Being’s knowledge, where Avicenna is exploring how, if at all, the Necessary Being can know particulars. Avicenna’s famous formula is that He knows particulars by knowing Himself as

²⁵⁸ Marmura takes *kawn* to refer to the entire caused cosmos. I take *kawn*, coming-to-be, to only include things that undergo generation simpliciter, i.e. the sublunar world. That is, strictly speaking it seems like the only cases where the final cause’s existence in external reality, as a substantiated being, is caused by the prior causes is in the sublunar world. In the superlunar world, where intellects are final causes of the motion of the soul of the sphere, the causal activity that was caused by the final cause does not result in the very existence of the final cause in external reality. Rather it is just out of desire for the intellect (or First?) that the celestial spheres try to imitate it as best as possible, i.e. by moving eternally (circularly). This resulting eternal circular motion is in no sense the external reality of the Intellect that caused it. Thus when Avicenna lays out the exceptional case, he could conceivably be referring to not just the First as final cause but the final causes in the celestial realm as well. “Thus, from the point of view that it is a cause, it is the cause of causes; from the other point of view, it is the effect of the other [other] causes. This [is the case] if the final cause belongs to [the realm of] *kawn*. If it is not within [the realm of] *kawn*— as will become clear to you in its proper place— then nothing belonging to the other causes will be a cause of it, *and* [nothing] in the One who is realization and existence,” *Shifā’ Metaphysics VI 5* (30-31): 293. And it seems like the text suggests this through the ‘and’, as if the First is an *additional* entity that is being excluded here, where the referent of the first entity is the superlunar intellects.

²⁵⁹ I.e. with respect to being the kind of final cause that is generated, as a result of the causal process that it causes.

²⁶⁰ *Shifā’ Metaphysics VI 5* (30): 293.

cause. I am only interested in the latter part of this formula, namely how Avicenna depicts the First's causal activity. There we find perhaps the most clear statement that again applies the bipartite causal scheme, specifically that the First, in causing, causes the effect qua species and not qua individual.

T3. 11

Because He is the principle of all existence, He intellects through Himself that which He is a principle of. *He is the principle of the existents that are complete with respect to their individuals (lil-mawjūdāti al-tāmmati bi-a^cyānihā)*²⁶¹ and of the generable and corruptible existents— first in [terms of] their species and, through the mediation of these, in [terms of] their individual instances.²⁶²

Wa-li-annah mabda'u kulli wujūdīn fa-ya^cqīlu min dhātihi mā huwa mabda'un lahu. Wa-huwa mabda'un li-l-mawjūdāti al-tāmmati bi-a^cyānihā wa-l-mawjūdāti al-kā'inati al-fāsidati bi-anwā^cihā awwalan wa-bi-tawassuṭi dhālika bi-ashkhāṣihā.

Here the existents that are complete in their concrete existence is a reference to superlunar entities. When we come to the generable and corruptible world, where there is a multiplicity of individuals to account for (unlike the superlunar world where there is only one individual of each species), Avicenna explicitly states that the First causes their *species*. He is considering what the First is a cause of, and his immediate response is that the First causes species. And it is only *indirectly*, i.e. it is other causes, that cause in terms of their individual existence. That Avicenna

²⁶¹ Marmura, correctly, identifies this as a reference to “the eternal celestial entities, whether intellects, souls, or bodies,” (Marmura, *Metaphysics of the Healing*, 416).

²⁶² *Shifā'* *Metaphysics* VIII 6 (13): 359, 1-2 emphasis mine.

here follows his causal theory developed in VI 1-3 is especially important because if there would be any place that it would be very useful for him to depart from it, it would be here in his discussion on the First's knowledge of particulars. For if he can say that the First directly causes the *individuals* of the sublunar world and not just their species, then it would be easier to see how the First can know them.²⁶³ But Avicenna is yet again consistently and systematically applying the causal distinction that he advanced in VI 1-3 between causing an effect qua individual versus causing an effect qua species, the latter being the kind of causing that is causing existence.

This text is also useful in that, in what follows, it gives a sense of what it means to be an effect qua species versus what it means to be an effect qua individual (and hence what God does *not* intellect).

T3. 12

In another respect, it is not possible that He intellects *these changing things with their changes insofar as they are changing*, in [virtue of] a temporal individuated intellection but rather in another manner we will show...Moreover, when corruptibles are intellected *in terms of the quiddity in itself and what follows it from among that which does not individualize*, they are *not* intellected *inasmuch as they are corruptible*. If apprehended *inasmuch as they are connected with matter, the accidents of matter, a time and individuation*, they would not be intellected but rather *sensed or imagined*...

²⁶³ Still, the bigger beast is reconciling knowledge of particulars with Aristotelian standards of what strictly counts as knowledge. For this see Peter Adamson, "On Knowledge of Particulars," *Proceedings of the Aristotelian Society*, 105 (2005), 257-278. In addition, Avicenna's causal theory might be an unexplored connection to understanding Avicenna's views on the First's knowledge of particulars. That is, the results that Avicenna can derive from his formula of the First knowing particulars by knowing Himself as cause must take into account Avicenna's causal theory, specifically how and what the First causes in the cosmos. I treat the First's causing more fully in the next chapters as I consider the application of this causal theory to Avicenna's proof for the Necessary Being.

Rather, the Necessary Existent intellects every thing only in a universal manner. Yet, despite this, no individual thing escapes Him, “nor does the weight of an atom in the heavens and the earth escape Him”²⁶⁴ ²⁶⁵.

Wa-min wajhin ākhara lā yajūzu an yakūna ʿāqilan li-hādhihi al-mutaghayyirāti maʿa taghayyurihā min ḥaythu hiya mutaghayyiratun ʿaqilan zamāniyyan mushakkhkhaṣan bal ʿalā naḥwin ākhara nubayyinuhu... Thumma al-fāsidātu in ʿuqilat bi-l-māhiyyati al-mujarradati wa-bi-mā yatbaʿuhā mimma lā yatashakkhkhaṣu lam tuqal bi-mā hiya fāsidatun. Wa-in udrikat bi-mā hiya muqārinatun li-māddatin wa-ʿawāriḍi māddatin wa-waqtin wa-tashakkhkhuṣin lam takun maʿqūlatan bal maḥsūsatan aw mutakhayyalatan... Bal wājibu al-wujūdi inna-mā yaʿqilu kulla shayʾin ʿalā naḥwin kulliyyin wa-maʿa dhālika fa-lā yaʿzubu ʿanhu shayʾun shakhsīyyun wa-lā yaʿzubu ʿanhu mithqālu dharratin fī al-samawāti wa-lā fī al-arḍi.

The effect qua individual, which is an object of sense/imagination and not of knowledge, is changeable, temporal, corruptible, and in sum, connected with matter and the accidents of matter. On the other hand, the effect qua species, which is a proper object of knowledge, is the quiddity denuded of matter and the things that attach to the quiddity. This is strictly beyond my aim here, but Avicenna’s discussions on knowledge, namely what counts as a proper object of knowledge and what are the conditions for demonstrative knowledge, is an additional avenue to understand more precisely what counts as an effect qua individual versus an effect qua species. While the passages here touch on this, the discussion here is in turn informed more fundamentally by the

²⁶⁴ This is a quotation from Qur’ān 34:3.

²⁶⁵ *Shifāʾ Metaphysics* VIII 6 (14-15): 359, 3-14 emphasis mine.

Book of Demonstration of the *Logic* of the *Shifā*². I turn now to explore the First's causal role, and my bipartite causal model, in the context of Avicenna's proof for the Necessary Being.

CHAPTER 4

The Proof for the Necessary Being and the Metaphysical Efficient Cause

Avicenna's argument from contingency for a Necessarily Existent being is considered to be one of the most influential contributions in the history of Islamic philosophy. It was a central topic in both the Islamic and medieval Latin philosophical traditions, and invited both vehement criticism and defense. Known to later thinkers as the "proof of the truthful," Avicenna's fullest exposition of the argument is found in the *Najāt* ("The Salvation"), as shown below. There, Avicenna aims to give a proof for a Necessary Existent, or First Principle, that departs from Aristotle's proof from motion. In the following, I argue that the proof should be read as a part of Avicenna's larger reworking of Aristotle's *Metaphysics*, in which Avicenna seeks to reconstruct metaphysics as a demonstrative science on the model of the *Posterior Analytics*.²⁶⁶ That is, beyond simply adding a "metaphysical" proof to a "physical" one, Avicenna is involved in a methodological project expounding metaphysics as a demonstrative science. Here, I focus on the significance of Avicenna's theory of causation, and specifically a central distinction between the cause of generation and the cause of the persistence of a contingent essence. Though the distinction has been largely overlooked, I argue that Avicenna's argument for the Necessary Existent not only fails without proving the need for a cause of persistence, but, more importantly,

²⁶⁶ See Amos Bertolacci, *The Reception of Aristotle's Metaphysics in Avicenna's Kitāb al-Shifā': A Milestone of Western Metaphysical Thought* (Leiden: Brill, 2006), 107-263 (especially 215-263). Bertolacci, "Avicenna regards the *Metaphysics* as the starting-point of a process of mutual integration between metaphysics and demonstration that, according to him, reaches its peak only in his own *Ilāhiyyāt*. By starting to apply demonstration to metaphysics, Aristotle is viewed by Avicenna as the initiator of a new phase of Greek philosophy (1.1); but what he has accomplished in the respect, according to Avicenna, is insufficient: *the method of metaphysics needs to rely on demonstration much more substantially than it does in the Metaphysics*," (p. 226; emphasis mine).

a generalized account of causes of persistence as essential causes is what makes the proof properly metaphysical, according to Avicenna.

Avicenna's proof is predicated on a more robust theory of causation than has been acknowledged, one that seeks to explain how necessity and impossibility apply *externally* to an essence while contingency is *internal* to it.²⁶⁷ More specifically, the proof rests on the view that the "true" cause of the existence of things requires one to first distinguish between essential causes and accidental causes, which, in turn, corresponds to the distinction between the cause of an effect qua species (or essence) and the cause of an effect qua individual²⁶⁸. As discussed in Chapter 1, the latter encompasses a broader category than particulars strictly construed (i.e., "Socrates" or "this redness"), and is meant to include causes studied in the "particular" sciences, say, causes of motion and change in physics.²⁶⁹ By contrast, the first category of causes are the

²⁶⁷ Toby Mayer states, "The aetiological framework of the cosmological part of the proof must also be pinpointed. Though no special subtype of causation is necessarily presupposed by the argument (against Fakhr al-Dīn al-Rāzī's claim that efficient causation must be assumed), it does not follow that the argument lacks any aetiological framework at all. On the contrary, an argument based on the principle that anything caused in whatever sense, depends on something else, would seem to have precisely the principle of causality for its framework. An alternative would be the principle of sufficient reason." See "Ibn Sīnā's 'Burhān al-Siddiqīn'", *Journal of Islamic Studies* (2001) 12: 18–39. I disagree with Mayer, and agree to some extent with Rāzī, that it is an efficient causation that is being invoked in the proof—particularly that of existence, though it is a metaphysical efficient cause that is above and beyond the efficient causes of motion identified in physics. Avicenna goes to great length to establish this principle in II 14, and as I will argue in the conclusion, this is motivated by a larger methodological project. See, also, Amos Bertolacci, "Avicenna and Averroes on the Proof of God's Existence and the Subject-Matter of Metaphysics," *Medioevo* (2007) 32: 61–97. Importantly, Bertolacci highlights the fact that the argument in the *Ilāhiyyāt* of *al-Shifā'* is based on Aristotle's *Metaphysics* α 2 and the doctrine of causality therein, rather than the concepts of "necessary" and "contingent". I argue that the doctrine of causality is indeed central, though Avicenna believes it suggests a metaphysical efficient cause of the existence of an essence. Moreover, the arguments in the *Najāt* and the *Shifā'* are similar and tie the doctrine of causality to the concepts of contingency and necessity. Avicenna's generalization of the cause of persistence, it seems, can be applied to Avicenna's version of the proof in the *Ishārāt* as well, where he uses the notion of "particularizer" (*mukhaṣṣis*). I will not, however, aim to show this here. See Omer M. Alper, "Avicenna's Argument for the Existence of God. Was He Really Influenced by the *Mutakallimūn*?" *Interpreting Avicenna: Science and Philosophy in Medieval Islam* (Leiden: Brill, 2004), 129–141. Alper argues that though Avicenna is influenced by the *mutakallimūn* as Averroes claims, the former "generalizes" the earlier *kalām* uses of the concept to apply to his new metaphysical proof.

²⁶⁸ For short, I may also refer to these as the cause of species and cause of individual. To be clear, by this I mean cause of an effect's *being a species* and cause of an effect's *being an individual*. This is important because the cause of species is still an essential cause of the "individual", but just not qua individual.

²⁶⁹ On Avicenna's view of knowledge of particulars, see Adamson, "On Knowledge of Particulars," 257–278. Adamson's conclusion supports the above view. That is, Avicenna denies *any* knowledge of particulars in the proper

metaphysical causes of the existence of a thing, those that give a contingently existent essence its existence and must not only be external to the species-essence but explanatorily external to the order of physical causes. The latter are physical insofar as they explain causes of motion and change. As such, the physical explanation of the existence of the species, “human” -i.e., natural processes, celestial motions, and reproduction - fails to explain *why* the contingent essence, “human”, is instantiated or comes to have existence at all, a point that was discussed in Chapter 1.²⁷⁰ Below, I discuss how aspects of this causal framework inform the proof.

I will first establish what I take to be the full text of the proof in the *Najāt*, along with its central arguments, which is inclusive of *Metaphysics* II 12 and II 13 but also the longer but less discussed II 14. In this latter chapter, Avicenna advances the causal principle necessary for his argument for the Necessary Being to go through: that every *ḥādith* requires not just a cause of generation (*‘illat al-ḥudūth*) but a cause of its persistence (*‘illat al-thabāt*) in existence. The distinction is central to his argument because the proof turns on the premise that a full explanation of the existence of things requires not simply the analysis of the generation of an essence by an agent cause, but the continuity of its existence.²⁷¹ Importantly, the continuity or persistence of an essence or individual requires a metaphysical and not simply a physical explanation.

sense. As such, there can be no cause of particular worth speaking of. However, he speaks of “causes of individuals”, pointing to such things as father being a cause of the son or “this fire being the cause of that fire”.

²⁷⁰ Along with the division of causes of species and causes of individuals, Avicenna distinguishes between the “universal nature” and the “particular nature”. He states, “By ‘particular nature’, I mean the power whose governance is specifically confined to one individual; and by ‘universal nature,’ I mean the power that emanates from the substances of the celestial entities as one thing, it being the one that governs the totality of what is in the world;” Avicenna, *Shifā’ Metaphysics* VI 5 (23): 291. To be more precise, it is not that Avicenna discusses one kind of nature or cause in metaphysics and another in physics, but rather that the significance, status and explanatory distinction between the two is made clear in metaphysics.

²⁷¹ While omitted from modern formulations of the argument, this premise is treated in post-classical texts, such as in the commentaries of Nāṣir al-Dīn al-Tūsī and Fakhr al-Dīn al-Rāzī on parallel arguments in the *‘Ishārāt*, as discussed below.

The role of the cause of persistence has briefly been discussed by Davidson as the “principle of causality”; however, it has yet to be underscored that Avicenna develops this principle in the aim of distinguishing ordinary, non-scientific concepts of cause and a scientific definition. Moreover, a proper interpretation of Avicenna’s proof requires assigning the principle its proper role in the argument. According to Davidson, there is a “redundancy” and “awkwardness” in Avicenna’s approach: “Avicenna has, without quite realizing it, developed a cosmological proof that can dispense with the impossibility of an infinite regress.”²⁷² And so “[Avicenna] uses the preliminary proposition— that all possibly existent beings ultimately depend on a being necessarily existent by virtue of itself— to establish the impossibility of an infinite linear or a circular regress of causes; and he thereupon uses the impossibility of a regress of causes to prove over again what he already had proved in the preliminary proposition.”²⁷³

I argue that role of the principle of causality is to be understood in the context of his basic distinction between a co-existing causal series or regress and eternally successive series. The former can be viewed as a “totality” that can be analyzed as either a contingent or necessary entity. The latter series, however, is a more vexing problem. In my reading, Avicenna need not refute the possibility of an infinite in the case of coexisting contingents (which can be said to exist as a totality) but must do so in the case of the eternally successive series.²⁷⁴ As discussed

²⁷² Herbert Davidson, *Proofs for Eternity, Creation and the Existence of God in Medieval Islamic and Jewish Philosophy* (Oxford: Oxford University Press, 1987), 299. See also pp.304-307.

²⁷³ *Ibid.*, 307.

²⁷⁴ This may seem like an odd claim if one has in mind Avicenna’s claim regarding the two conditions of simultaneity and orderedness that need to be met in order for an infinite to be impossible. This is not the context that I am referring to. Rather, I will argue that Avicenna can *in principle* hold that the coexisting causes can be infinite and his argument of II 12 would work, because the argument does not turn on issues related to the absurdities of infinite series. This is why, for instance, Avicenna states in II 12 that the argument to follow will apply whether the contingents are finite or infinite. However, in the case of the eternally successive series, which he turns to in II 14, Avicenna *is* concerned to refute the infinity of such a series in the sense that he needs to show that that series is not the true, essential causal series of the contingent’s existence. The essential causal series of a contingent must instead be a finite one, beginning with the First. Avicenna arrives at this conclusion by developing his causal principle of *thabāt*. This will all become clear in the discussion to come.

below, Avicenna states near the beginning of his proof in II 12 of the *Najāt Metaphysics* that regardless of whether the series of contingent causes is finite or infinite, the argument that he proceeds to give will prove the necessary existent.²⁷⁵ That is, the impossibility of infinite regresses need not be proven for the proof to hold. Crucially, however, he notes this point after stating that we will “postpone the discussion of the [former] case [i.e., that of the infinite *successive* series].” That is, in the *Najāt*, Avicenna holds that, in the case of the coexisting series, infinite regresses do not render the series self-sufficient. His argument proceeds on the basis that the “totality” of the series, whether finite or infinite, is not a necessary being. It disqualifies itself by being “constituted of contingent parts.” Here, it can be asked: Why does Avicenna not apply the refutation of infinite or circular regresses in II 12 and II 13 to the case of the successive series in II 14?

In the following, I argue that the answer lies in the role of the cause of persistence in the case of a successive series. The argument of the non-necessary nature of the totality of contingent existents does not apply to the successive series because, first, such a series cannot be treated as an existent whole. And second, an infinite regress of causes in the successive series, if construed as proceeding eternally in time from an individual cause to an individual generated effect, could be taken by some to adequately explain the existence of each contingent entity. Here, Avicenna, in II 14, provides several ways of construing the relation of a generated cause to a generated effect in an infinitely successive series, and argues that one must account not only for the cause of the generation of a thing but the cause of the persistence of a thing as well.

²⁷⁵ He states, “then either the totality insofar as it is that totality, whether it is finite or infinite, is either necessary of existence or contingent of existence...”; *Najāt Metaphysics* II 12: 271. For the *Najāt*, I use Fakhry’s edition, along with emendations where noted from Muḥammad al-Isfarāyīnī, *Sharḥ kitāb al-Najāt li-Ibn Sīnā: qism al-Ilāhīyāt / ta’līf Fakhr al-Dīn al-Isfarāyīnī al-Nisābūrī; taqḍīm wa-taḥqīq Ḥāmid Nājī Isfahān* (Tīhrān: Anjuman-i Āṣār va Mafākhir-i Farhangī, 1383 [2004]).

Avicenna's approach here suggests that if one denies the need for a cause of persistence, then the proof does not work, or is, at least, susceptible to the kinds of arguments that the *mutakallimūn* will later raise against it.²⁷⁶ That is, an eternally successive series of causes need not terminate in an uncaused cause.

Notably, Avicenna in II 14 invokes a premise from physics to eliminate a specific conception of the eternally successive series. That is, he states that one might take such a series as not having any effects that persist after generation, so that all generated effects ceases to exist after their cause of generation. That is, effects do not exist for any moment or “now” (*fāṣl zamān*) after its generation. Such a conception he states is absurd or impossible “because it entails the succession of nows, and that has been disproven in physics.”²⁷⁷ If Avicenna believes that this premise is needed for the proof, and that it is strictly a physical premise (i.e., one properly established in physics), it would challenge both the metaphysical nature of the proof as well as its universality (i.e., the proof would only work for one who believes in the continuity of time and matter and not in an atomic conception of time and body).²⁷⁸ However, his real aim

²⁷⁶ As al-Ghazālī would later state, “If, then, it is possible that that which is infinite should enter existence, then it is not unlikely that some [existents] are causes of others, terminating in the final end with an effect that has no effect, *but not terminating in the other direction with a cause that has no cause*—just as past time [according to you] has an end, being the existing 'now,' but [having] no beginning;” al-Ghazālī, *The Incoherence of the Philosophers*, ed. Michael E. Marmura (Provo: Brigham Young University Press, 2000), (10), 80.

²⁷⁷ *Najāt Metaphysics* II 12: 273.

²⁷⁸ Here, though he refers to physics, Avicenna may be interpreted as viewing the premise as properly metaphysical, in the same way that he views the analysis of eternal motion as a metaphysical discussion. On the latter point, and on the “transfer” of physical premises to metaphysics in *Shifāʾ Metaphysics*, see the discussion of Bertolacci, “Avicenna and Averroes,” 76–78. Regarding the eternity of heavenly motion, Bertolacci states, “Since the eternity of heavenly motion is an essential element of the physical proof of God’s existence, Avicenna’s aim in IX, I is apparently to ‘transfer’ this element of the proof from physics to metaphysics...” Regarding successive instants of time, Avicenna certainly does discuss the impossibility of indivisible magnitudes in metaphysics. Alternatively, one can read the proof as not relying on this premise, as I will argue below. That is, Avicenna’s real point, namely, that one must affirm a cause of persistence and not just a cause of generation, avoids the problem raised by the atomistic view, without, first, disproving the existence of indivisible magnitudes. He states following the above point, “Even so, it is not possible to say that all existents are such [i.e., only exist for the time of their generation].” That is, there are generated things that “after generation continue to exist.” As such, he concludes, one must account for a cause of persistence and not just a cause of generation.

here lies with establishing the true causes of the persistence, or continued existence, of a contingent thing. The point he is proving in the proof of the *Najāt* corresponds to his discussion in VI 2 of the *Metaphysics* of the *Shifā'*, where he argues that the true cause coexists with its effect. As such, in both generation and persistence, an explanation is required of the existence and necessitation of a contingent thing for the time that it exists.²⁷⁹ Avicenna views the infinite succession of causes as necessary for the generation of contingent things; however, such a succession only provides the “accidental” and “preparatory” causes. What the successive series does not explain is what necessitates or causes the existence of a contingent effect for the time that it exists.²⁸⁰ As discussed below, in the *Najāt*, Avicenna will draw on his discussion of necessity and contingency in logic to explain how existence, as an external state or condition, of a contingent thing requires explanation.

I begin by setting out the argument structure as it proceeds through the three chapters, drawing on the larger context in the *Metaphysics* of the *Shifā'* and the causal theory developed in Chapter 1 to explicate Avicenna’s arguments in II 14. I conclude by considering implications for our understanding of the proof, especially in the context of Avicenna’s larger project of reworking metaphysics to be a scientific discipline in accordance with the *Posterior Analytics*.

²⁷⁹ He states, “The difficulty here lies in one thing: namely, that those [things] that are infinite are such that each of them must exist either for a “now,” so that there would be a succession of adjoining nows, between which there is no time, which is impossible, or each must endure for a time, in which case it would follow that their necessitation would take place in all that time, not at [one] extreme of it. The meaning (*ma'nā*) necessitating the necessitation of it would also, then, coexist with it in that time, where the discussion of the necessity of their necessitation would be the same that [applies to] the meaning, and an infinity of coexisting causes would ensue. And this is the thing that we are disallowing.” *Shifā' Metaphysics* VI 2 (7): 265.

²⁸⁰ He states, “It has thus become evident and clear that the essential causes of things through which the existence of the essence of that thing comes about in actuality must exist with it, and not prior to it in existence whereby it would cease to exist once the effect comes into being, and that this [latter priority] is *only* possible in nonessential and nonproximate causes. The regress of the causes that are not essential or not proximate does not prevent their proceeding *ad infinitum*; on the contrary, it necessitates [their doing so].” *Shifā' Metaphysics* VI 2 (8): 266.

4.1. Establishing the full text of the proof

Najāt Metaphysics II 12 has served as the locus classicus of the proof in modern treatments of Avicenna's famous proof for the Necessary Being.²⁸¹ In this chapter, I argue that II 12 constitutes only one premise in the larger argument that spans from II 12 to II 14.²⁸² Critically, II 14, the lengthiest section, contains the causal principle I take to be at the heart of the proof, where Avicenna seeks to establish not just a cause of origination (*‘illat al-ḥudūth*) but a cause of persistence (*‘illat al-thabāt*) in existence for every generated thing (*ḥādith*).²⁸³ The

²⁸¹ Below, I refer primarily to Davidson's interpretation of Avicenna's approach in *Proofs for Eternity*. Davidson takes the *Najāt* and *‘Ishārāt* to be a common source for what he calls "the metaphysical proof of the existence of God," distinguishing it from the *Shifā’* and *Dānesh Nāmeḥ* which he takes to establish the existence of God in a different manner, i.e., the impossibility of infinite regress of causes parallel to Aristotle's *Metaphysics* α 2, as Bertolacci states, noted above. Again, Davidson believes a refutation of causal regresses is redundant. Concerning the proof of the *Najāt*, he refers the reader to Hourani's translation of "the most important passages in the *Najāt* and *Shifā’*", which does not include II 13-14. Davidson does correctly identify the cause of persistence or "maintenance" as an operative causal principle in the proof, labelling it the "principle of causality", but he does not discuss the argument of II 14, where Avicenna generalizes the account of the cause of persistence. I depart from Davidson's view of the role of this causal principle and his reading of the structure of the proof, to which I return below. Michael Marmura has argued that the proof in the *Metaphysics* of the *Shifā’* is distinct from the proof in the *Najāt* and *‘Ishārāt*, in that the former is "the most detailed and comprehensive of his versions." Marmura supplies a translation of *Najāt* II 12 as constituting the text of the proof in the *Najāt*, and his summary of the proof closely follows the opening of that chapter, "Broadly speaking, the form or structure of the proof as it appears in these two works [*Najāt* and *‘Ishārāt*] can be summarized as follows. An existent is in itself either necessary or only contingent. If in itself necessary, then this is what we are seeking, God. If in itself only contingent, then we will demonstrate that such a contingent (if it exists) requires the existent that is necessary in itself. In either case, then, there must be an existent that is necessary in itself, the one God," in Michael Marmura, "Avicenna's Proof from Contingency for God's Existence in the *Metaphysics* of the *Shifā’*," *Pontifical Institute of Medieval Studies*, 42 (1980), 340. He understands the argument to be "purely rational and is substantially the same as the one offered in the *‘Ishārāt*" (339). See also Daniel D. De Haan, "Where does Avicenna Demonstrate the Existence of God?," *Arabic Sciences and Philosophy* (2016) 26, 97-128. For a treatment of the argument of II 12, see Jon McGinnis, "The Ultimate Why Question: Avicenna on Why God is Absolutely Necessary" in *The Ultimate Why Question* ed. John F. Wippel Catholic University of America Press (2011) esp. p.72-74; and *Avicenna* Oxford University Press (2010) especially p.165-166 where he gives an outline of the proof and in the context of Avicenna's modal metaphysics. See Amos Bertolacci's "Avicenna and Averroes on the Proof of God's Existence" for the context of the dispute between Avicenna and Averroes on the proper disciplinary home for the proof of God's existence. For a discussion of Avicenna's proof in the context of medieval discussions at the intersection of God and being, see Stephen Menn's "Metaphysics: God and Being" in *Cambridge Companion to Medieval Philosophy* (Cambridge: Cambridge University Press, 2003), especially 147-150 on the relationship between Aristotle's physical proof from motion and Avicenna's metaphysical proof from being and 150-154 for a philosophical outline of the argument and the problems raised by Ghazālī and responses by Averroes, who aims to turn it back into the physical proof for God that Avicenna was trying to go beyond.

²⁸² To my knowledge there is no study of *Najāt Metaphysics* II 14 and its role in the broader argument of the proof.

²⁸³ I am not aware of any modern studies systematically treating the role of the cause of persistence (*‘illat al-thabāt*)

cause of persistence, as I show, is precisely the metaphysical efficient cause that I have explicated in the previous chapters. Before exploring the role of this causal principle in his proof for the Necessary Being, I first explore why the expanded II 12-14 ought to be taken as the full text for Avicenna's famous proof.

There are several textual clues that suggest that Avicenna never intended II 12 to be a stand-alone argument. For instance, Avicenna introduces the argument in the following way,

T4.1

There is no doubt that here [there] is existence (*wujūd*), and every existence is either necessary or contingent. If it is necessary, then the existence of the necessary is affirmed, and this is what is sought after. If it is contingent, we will make clear that the existence of the contingent terminates at the necessary existent. Before that, we will advance [some] premises (*nuqaddimu muqaddamāt*). Among those [the premises]²⁸⁴ is that it is not possible that there be at one time for every contingent in itself causes that are contingent *ad infinitum*. That is because all of them either coexist (*mawjūdan maʿan*) or they do not coexist. If it is not an existent simultaneously, then the infinite does not exist in one time, but rather one before the other, or after the other (and we do not deny this [kind of series]). *Let us postpone discussion of this.*²⁸⁵ As for it

in the proof, apart from Davidson's brief references to it.

²⁸⁴ Here, Avicenna uses *dhālika*, the masculine singular demonstrative pronoun. It seems to be clear that he is referring to the premises, which is feminine. I read this as more generally referring to the act of "introducing" the proof.

²⁸⁵ For this sentence, I use the "Isfarāyīnī edition" cited above, which reads: "*Fa-in lam yakun mawjūdan maʿan, lam yakun al-ghayr al-mutanāhī fī zamānin wāḥidin, wa-lākin wāḥidun qabla al-ākharī aw baʿd al-ākharī, wa-hādhā lā namnaʿuhu, wa-l-nuʾakhhir al-kalāma fī hādhā.*" Fakhry's edition has the following: "*Fa-inna mā lam yakun mawjūdan maʿan ghayr al-mutanāhī fī zamānin wāḥidin, wa-lākin wāḥidun qabla al-ākharī, fa-l-nuʾakhhir*

[i.e., the infinite] being an existent simultaneously [i.e., a co-existent thing], in which there is no necessary existent [part or individual] in it...”²⁸⁶

With regard to the structure of the argument, I highlight a few points. First, the conclusion will be achieved through a series of premises, not all of which is expressed in the first section. In II 12, II 13, and II 14, Avicenna devotes a section to support specific aspects of his argument, as indicated in his introductory remarks or premises. In II 12, he announces he will be concerned with establishing the premise that every contingent cannot have an infinite series of contingent causes existing at one time. But this is far from the entire argument. Second, Avicenna makes clear that he will postpone the analysis of the successive causal series. Crucially, he only returns to the successive series in II 14, indicating that he intends the proof to encompass the entirety of those sections. In his first introductory remark, he states that it is impossible for each contingent thing to have an infinite number of contingent causes *at one time*. He then turns to the division of an infinite series of contingent causes and effects into coexisting series or “existent” versus a temporally successive one. I return to the former point shortly and why it *precedes* the division.

With respect to the division of series of things contingent in themselves, in his second introductory point, Avicenna states that there are two possible models of infinite causal series of

al-kalāma fī hādihā.” In the edition by Fakhry, the sentence begins, “*Fa-inna mā lam yakun mawjūdān...*”. Here, the clause reads as a nominal sentence functioning as the protasis of the conditional statement, where the main clause or apodosis is “then we will delay discussion of this.” The protasis would translate as, “For what is not an existent simultaneously, an infinite in one time, but one after the other...” There are several problems with Fakhry’s text. First, the protasis of the conditional should be a verbal sentence. As well, without an explicit conjunction (*wa*), the relation between “existent simultaneously” and “infinite” is unclear. Infinite could be a “substitute” (*badal*) but that would make an odd sentence. In the Isfarāyīnī edition, the clause reads as a verbal sentence, which is the standard for the main clause in a conditional statement. In any case, as the following sentence and as the topic of II 14 show, the distinction between the two series is that the first is an infinite series that coexists *in one time* and second is a *successive series* of infinite causes. Avicenna, *Najāt Metaphysics* II 12: 271. Translations and page references are from *Kitāb al-Najāt*, ed. Majid Fakhry (Beirut: Dār al-Āfāq, 1985), along with emendations where noted from the Isfarāyīnī edition.

²⁸⁶ *Najāt Metaphysics* II 12: 271, 18-25 (see alternate text in al-Isfarāyīnī, *Sharḥ al-Najāt*, 225). Due to the many emendations, I omit full transliterations of the block passages in this chapter but instead note and discuss all departures from the Fakhry edition and alternates from the Isfarāyīnī edition.

contingents to account for: one whose members exist all at one time, and another whose members succeed one another *temporally*. Though both comprise an infinite series of contingent things, the division between the two cases centers on time; one series obtains or is (an) existent *at one time* whereas the other contains contingent members that exist, *not together at one time*, but successively. Here, if we take this division to be a *fundamental* one in the proof, then we can understand why the proof *should* encompass all three sections noted above. That is, in contrast to received readings of the proof, the subsequent sections, especially II 14, are not redundant or supplemental but must address points or premises specific to that series.²⁸⁷ After the division of contingent series into coexisting ones and temporally successive ones, he states that he “will delay discussion of the latter” and proceeds in the remainder of the chapter to prove that the former, i.e. the coexisting series, requires a cause that is Necessary Existent in Itself. In the rest of II 12, he makes no mention of the successive infinite series over time.

Here, in terms of the structure of argument, II 12 and II 13 are of the same type, that is, a coexisting series. While II 12 concerns an *infinite* series of contingent causes and effects existing at once, II 13 concerns a circular regress of *finite* contingent causes and effects that exist at once. As we will see, II 13 requires a further, *specific* premise that will be addressed. However, in contrast to both II 12 and II 13, II 14 is a fundamentally different case that cannot be addressed with the same line of argument that Avicenna takes in the cases of II 12 and II 13. Here, it should be noted that Avicenna’s first introductory remark is: “it is not possible that there be at one time for every contingent in itself causes that are contingent *ad infinitum*.” He then divides the infinite contingent series into a coexisting and a successive series. His first point or premise to be proven seems to address only the coexisting series; that is, an infinite series of contingent causes

²⁸⁷ See sources discussed below.

existing at once is impossible. Here, it would be more natural to begin with a division of a causal series into the coexisting and successive types, and then discuss premises specific to each division, which, as we will see, is what he does in II 13 and II 14. However, I argue that Avicenna states this point prior to the division because it is *the* fundamental premise of his proof, without which the argument fails to succeed. Notably, as I argue below, the point must be proven in the case of II 14 with further premises, specifically, those that address the requirement of a “cause of persistence.” That is, a successive series posits only a succession of causes and effects, which moves backward in time from t_1 to t_2 to t_3 ad infinitum. It does not *ab initio* posit that each existing thing at t_1 has a cause or a regress of causes at t_1 . As we will see, Avicenna will provide several ways of conceiving how a preceding cause relates to its effect temporally. Here, Avicenna’s account of the successive series is open to the problem pointed out by Ghazālī that an infinite successive series of causes in time is rendered a self-sustaining series: “Hence, that which has no beginning has been rendered subsistent by those things that have beginnings, and what is true of those that have beginnings is applicable to the individual units but not true of the totality.”²⁸⁸ As I argue, Avicenna anticipates this problem, but not in the way it has normally been construed. That is, Avicenna’s response is not the one provided in II 12, which states that the “totality” of the coexisting series of contingent individuals is a contingent thing. Rather, he acknowledges that the case of the successive series is different precisely because the series of causes and effects stretch over time or are successive. As such, the series cannot properly be viewed as an “existent” totality. It is crucial to note that, in II 14, Avicenna never states that the successive series is a “totality” or “existent” and, accordingly, he does not conclude that there is

²⁸⁸ He states, “Hence, it has become evident that whoever allows the possibility of events that have no beginning—namely, the forms of the four elements and of [all] the things that undergo change— is unable to deny causes that are infinite. From this it comes about that they have no way of reaching [the point] of affirming the First Principle, for this [very] difficulty.” See Ghazālī, *Incoherence*, 82.

a necessary existent because the successive series is a contingent totality, as he does in II 12.²⁸⁹ Rather, in II 14, Avicenna will have to provide a further argument as to why a *successive* series is contingent. His strategy is to argue that, though the series does not *ab initio* posit a coexisting series of contingent causes of each effect at one time, it must, on closer analysis, affirm the need of a cause coexisting with each generated effect. In other words, there are no points in time where a generated effect exists without a coexisting cause. Here, Avicenna argues for the necessity of, not simply a cause of generation, but a cause of the persistence of the effect. The cause of persistence then is what ties II 14 to his introductory remark that an infinite series of contingent things cannot coexist *at one time*. That is, the case of the successive series of contingent causes does not lead to a Necessary Existent because an infinite successive regress must terminate, nor is it that the successive series as a totality is contingent. Rather, a successive series on closer analysis requires both a cause of generation as well as a cause of persistence and, as such, the series is not simply a temporally successive series, but one that affirms a coexisting series of causes *at one time*. As he states, towards his conclusion in II 14, “After these premises have been clarified, it is necessary that there is a necessary existent, and that is because if the contingents exist (*wujidat*), and their existence persists, then there are causes of their persistence in existence. And it is possible that the causes be the causes of generation themselves, if they remain with the generated thing, and it is possible that they be other causes, but [coexisting] with the generated things. And they terminate necessarily at the necessary existent.”²⁹⁰

I return to the structure of Avicenna’s argument, and specifically that each chapter contains further arguments that are necessary for a complete proof for a necessary existent. In II

²⁸⁹ I discuss below precisely why the series assessed in II 12 and II 13 are existent totalities, whereas the successive series in II 14 cannot be treated as such.

²⁹⁰ *Najāt Metaphysics* II 12: 275.

13, entitled “On the Impossibility of Contingents in Existence Being Causes of Each Other, in a Circular Fashion at One Time Even If They are a Finite Number,” Avicenna will argue for a second premise: that contingents cannot have a finite number of contingent causes that regress circularly. He states,

T4.2

And we say also that it is not possible (*lā yajūz*) that causes have a finite number, and each of them is contingently existent in itself but necessary through another, such that it terminates unto itself circularly. *Let us advance another premise*, and so we say, positing a finite number of contingent existents one of which is a cause to another in a circle, is also impossible and this premise is proven in the way that the first question was proven. But [the following point] is *specific* to it [i.e., the circular series] that each one of it will be a cause of the existence of itself and the effect of the existence of itself.²⁹¹

Here, Avicenna advances “another premise” that builds on the earlier argument against the infinite linear coexisting series. He proceeds to show how precisely this additional point applies to a circular regress of causes, as discussed below. Of course, the additional point is not required to prove the necessary existent in the case of II 12. However, it is unclear whether the additional point is *necessary* to disprove the circular regress. That is, if the argument in II 12 is correct, it seems that the circular regress will entail a necessary existent irrespective of the problem of a thing being the cause of itself, a point I return to below.

By contrast, the additional points he raises for II 14 are necessary for the case of the

²⁹¹ *Najāt Metaphysics* II 13: 272, 15-19.

successive series, and for the entire argument, since, as noted, the latter series differs from the former and requires an approach that addresses the temporal nature of successive series. In II 14 Avicenna continues, stating “after these two [i.e., sets of arguments, premises or series],” and concludes his argument for a Necessary Being. Here, he develops further distinctions and premises. In contrast to the static view of contingent things in II 12 and II 13, he discusses specifically the generated thing (*ḥādith*) and generation (*ḥudūth*). He then discusses three possibilities in terms of the generated thing: (1) a generated item that ceases immediately upon generation, such that it does “not endure for a time” (*lā yabqā zamānan*); (2) the generated item ceases to exist after generation without (passing) a segment of time (*bi-lā faṣli zamānin*); and (3) the generated thing continues to exist after generation and “endures” (*yabqā*). Here, the language is evidently colored by *kalām* ontology, and contrasts with his discussions in II 12 and II 13. After rejecting (1) as impossible (*muḥāl*), he states regarding (2): “The second category is also false because instants of time do not follow successively and the generation of entities (*a‘yān*) one after another, which are numerically distinct, not in the manner of an existing continuity (*al-ittiṣāl al-mawjūd*) in something like ‘motion’ entails the succession of time-instants. And that has been disproven in physics.” As we will see, he will not need this physical premise. Turning next to the enduring generated item (3), he outlines an additional premise in the larger argument of II 14,

T4.3

It is not permissible that the generated thing persists in existence (*thābit al-wujūd*) by itself after its generation, such that if it has come to be, then it is necessary that it exists, and it persists without a cause of existence or persistence (*al-thabāt*). We turn to showing that for every generated thing, its

persistence is by a cause, so that it will be a *premise specified* for the
aforementioned aim.²⁹²

The aim he is referring to appears to be that mentioned in the opening of the chapter and, perhaps, specifically to his introductory point that a coexisting infinite series is impossible. That is, the premise will be “specified” as a general premise for the proof. This remains unclear, but below I will discuss direct reasons for why the premise plays a more general role in the proof. The title of the chapter indicates a more general aim: “Another chapter with respect to proving the Necessary Existent and showing that generated existents come to be with motion, but need causes that persist, and showing that the proximate moving causes are all changing.” Here, the title indicates that causes of motion, which include not simply the efficient causes of the *mutakallimūn* but those used by the natural philosophers, are explanatorily inadequate. Towards the end of II 14, he concludes the proof by bringing together all the premises in support of the conclusion that there is a Necessary Being,

T4.4

If these premises have become clear, then a Necessary Existent must exist.
Since if the contingents exist, and their existence persists, then they have causes of their persistence in existence. And it is possible that the causes be the causes of generation themselves, if they persist alongside the generated object, and it is possible that they be other causes, but [persisting] along with the generated objects. And [the causes] end inevitably at the necessary existent, for we have shown that causes do not infinitely regress [linearly], nor circularly

²⁹² *Najāt Metaphysics* II 14: 273, 22-25.

regress. And with respect to the possible existents that are not considered to be generated, this [i.e., that causes end at the necessary existent] is more befitting and manifest.²⁹³

Here, Avicenna restates the premise that was just shown in II 14 that every contingent has a cause of persistence. It is notable that he states, in the last sentence above, in the case of the non-generated or eternal things (e.g., intellects), the termination of causes at the necessarily existent is more “befitting” and “manifest.”²⁹⁴ That is, in accordance with his division of generated things at the beginning of II 14, views of how generation can happen leave open whether there are some effects that persist (*yabqā*) *after* the time of their generation. That is, generated things can be viewed as being caused by an efficient cause and, then, continue to exist without a coexisting cause, since all that needs explanation is how generated things came into being. With the case of eternal things, the question is not a matter of its coming to be in time. Rather, the case of non-generated, eternal things is similar to that of II 12 or II 13. That is, eternal things do not have a cause of generation in time but require a cause of their contingent existence. The question of an eternal thing’s existing *after* a cause of generation or without a persisting cause cannot apply and

²⁹³ *Najāt Metaphysics* II 14: 275, 22-27.

²⁹⁴ Here, the antecedent of “this” can refer to the immediately preceding point that “causes terminate at the necessary existent” or it could refer to the previous, more general point that all contingents or effects have a cause coexisting alongside it. In both cases the case of the non-generated, eternal thing is “more manifest.” First, the regress of causes of a non-generated thing involves a coexisting series and not a successive series. Presumably, Avicenna thinks that his refutation of the coexisting series in II 12 and II 13 is a clearer proof than his refutation of the successive series in II 14. Second, eternal things do not have a cause of generation, and so that they have a coexisting cause seems to be a clearer case to make, for the very same reason noted next. By contrast, his point that the case of the non-generated thing is “more befitting” is clear if we take the antecedent to be “that all effects have a coexisting cause”. That is, in accordance with his division of generated things at the beginning of II 14, conceptions of how generation happens leave open whether there are some effects that persist or exist *after* the cause of generation and, thus, exist without a coexisting cause. However, it is not so clear that this is “more befitting” if we take the antecedent to be “that all causes terminated at the necessary existent.” That is, it seems that the non-generated or eternal thing is the category of contingent things whose contingency needs proving (as Averroes would argue). Perhaps, Avicenna is saying that the eternal things must have a coexisting series of causes, and not a successive series of generating causes, and, as such, their termination is “more befitting” in some sense. It is not clear whether contingency has graded strengths in Avicenna but one would think that generated contingent things are “more befitting” of having a cause and terminating at the necessary existent than, say, the eternal intellects.

is thus more manifest in terminating at the necessary existent (or in requiring a coexisting cause). Moreover, in this conclusion, Avicenna also affirms the requirement of the impossibility of an infinite causal regress; that is, the approach he takes to the coexisting infinite or circular series in II 12 and II 13 does not apply to the successive series. This is a final textual note that seems to indicate that these chapters are meant to work together as part of a larger argument for the existence of the Necessary Being. Moreover, the proof in the *Najāt* draws on Avicenna's argument against causal regresses established earlier in II 12. Thus, I understand Avicenna's famous argument for the existence of a Necessary Being in the *Najāt* to be a more complicated argument, spanning II 12-14. Its larger argumentative structure and how these chapters are meant to fit together, especially the argument of II 14, remains to be explored.

As mentioned, Avicenna opens the proof in II 12 with the claim, "There is no doubt that here (there) is existence (*hunā wujūdān*).” This opening has sparked much debate in the modern literature as to whether Avicenna's argument for the Necessary Being is ontological or cosmological.²⁹⁵ There is much value in placing Avicenna's proof within a longer history of proofs for the existence of God. However, how Avicenna envisioned the metaphysical nature of the proof significantly complicates such categorizations,²⁹⁶ in part, because Avicenna was

²⁹⁵ Deciding on the nature of the proof has largely turned on how to interpret Avicenna's introductory statement: What does "there is existence" means, if Avicenna is making a purely ontological argument in the sense that it does not rely on sense experience or an empirical datum; or if the argument is ontological in the sense that it is not an argument for effect to a cause but from the very nature of the cause or God? See Parvez Morewedge, "A Third Version of the Ontological Argument in Ibn Sina's Metaphysics," *Islamic Philosophical Theology*, ed. P. Morewedge (Albany: State University of New York Press, 1979), 188–222; cf. Mayer, "Ibn Sina's," 18–21 and McGinnis, "The Ultimate Why Question", 74, for a summary of the various positions. See Norman Malcolm, "Anselm's Ontological Arguments," *The Philosophical Review* 49 (1960), 41–62. Toby Mayer, for example, argues that Avicenna's proof in fact contains two different proofs within it, the opening representing an ontological argument, and the remaining representing a cosmological argument, thereby showing "an awareness that this aspect of his proof had to be distanced from the sheer apriority of the ontological part."

²⁹⁶ Mayer, "Ibn Sina's," 27. He writes, "Next in the *faṣl*, existence is mentally subjected to a dichotomy. Either it is necessary, or it is not necessary. On the basis of the first division, Ibn Sina seems immediately to proceed to infer

involved in redefining the very nature of metaphysics and what premises and proofs were properly a part of metaphysics.²⁹⁷ For Avicenna, a metaphysical, as opposed to a physical, argument for the existence of God would argue from the most general facts or “attributes” of the existent – i.e., the existent qua existent - rather than proceeding from any further qualified facts about the existent, e.g., the existent qua changing or moving.²⁹⁸ Crucially, the distinction between metaphysical and physical (or even mathematical) does not correspond to the distinction

the actual, *extra-mental*, reality of God. As he says, the first division will amount to ‘God’ (*al-Haqq*) in Himself, the Necessarily Existent in Itself— namely, ‘the Self-Subsistent’ (*al-Qayyūm*). In this, the *shaykh* makes the crucial ontological move from the idea of a ‘necessary’ division in the dichotomy of existence (expressed by the technical term *wājib al-wujūd*), to the affirmation of a particular instance of it in reality, a divinity (expressed by the scriptural terms *al-Haqq* and *al-Qayyūm*. Again, the *Najāt* is of assistance to us in weighing this. For when this proposition (‘If [its existence] is necessary then it is God in Himself, the Necessarily Existent in Itself— namely, “the Self-Subsistent” ’) is co-ordinated with the version of the proof in the *Najāt*, the statement given at exactly the same point after existence has been dichotomized, is ‘and if [existence] is necessary, then the existence of the Necessary proves true (*ṣahḥa*), and that is the [conclusion] aimed for.’ This better brings out the ontological character of Ibn Sīnā’s reasoning in this part of the proof,” (23-24). Mayer divides the proof into two arguments: first, an ontological one that infers from the very concept of necessity of existence the actual existence of a Necessary Being, “on pain of contradiction,” (37) as it were; and then sensing that this is insufficient, Avicenna goes on to provide a cosmological argument whereby he draws on the actual existence of contingent things to infer the need of a cause that is necessary. In my view, Avicenna is not arguing for the Necessary Existent based on strictly *a priori* concepts of necessity, existence, or contingency. These concepts are primary only in that their denial entails contradiction or a *reductio ad absurdum*, as he discusses in the *Ilāhiyyāt* and the *Burhān*. Moreover, his initial division of existence into that which is necessary and that which is possible, and his stating in the *Ishārāt* (and the *Najāt*) that “If [its existence] is necessary then it is the Truth in Himself, the Necessarily Existent in Itself”, does not mean that he thinks he has proven that the Necessary exists. He still thinks he has to give an argument for this, which is why he goes on to give a causal argument for the existence of a Necessary Existent. The opening is just a reference to his previously established distinction between necessary and possible existence in order to go on and consider whether a contingent could be the cause of the totality of contingents. The proof proceeds by consideration of the concept of existence and its attributes, namely contingency and necessity, and argues causally from contingent existence to a Necessary Existent. This is different from arguing conceptually from a definition in the way Anselm’s ontological argument proceeds. In his commentary on *Ishārāt Metaphysics* IV 29, Ṭūsī describes such a proof in the context of other kinds of proof, “I say: the *mutakallimūn* prove from the coming-to-be of bodies and accidents the existence of the Creator; and from the examination of the states of creation (*aḥwāl al-khalīqa*), [they prove] His attributes one by one. And the *hukamā’* and *ṭabī’iyyūn* also prove a mover through the existence of motion, and the existence of a first mover that is unmoved from the impossibility of infinite continuous motion. Then they show from this the existence of a first principle. As for the *‘ilāhiyyūn* they prove by consideration of existence, and whether it is necessary or contingent, the existence of the Necessary, then by consideration of what necessarily follows from (*yalzam*) the necessary and the contingent, His attributes, then through His attributes, [they show] how His acts follow from Him, one after another,” *Ishārāt Metaphysics* IV 29: 54-55.

²⁹⁷ See Bertolacci, “Avicenna and Averroes on the Proof.”

²⁹⁸ See McGinnis, “The Ultimate Why Question,” and De Haan, “Where does Avicenna Demonstrate the Existence of God?”. De Haan shows that in I.6-7, Avicenna does the preliminary work to establish the properties that belong to necessary existence and possible existence, “which are the first principles of metaphysics.” De Haas analysis of the *Ilāhiyyāt* strongly suggests that it parallels the proof of the *Najāt*, as discussed below.

between *a priori* and empirical claims. In metaphysics, Avicenna states, “The primary subject matter of this science is, hence, the existent inasmuch as it is an existent; and the things sought after in [this science] are those that accompany [the existent] inasmuch as it is an existent, without qualification (*bi-lā shart*).”²⁹⁹ It is not a threat to its metaphysical status if such a proof invokes an empirical datum as long as Avicenna’s argument does not proceed on the basis of x’s *coming-to-be*, or more broadly, any kind of motion. If it does, i.e. if Avicenna’s proof begins by examining x’s *coming-to-be* (or, more broadly, *motion*) and thereby infers a first cause of coming-to-be (a first cause of motion), then this would make it a physical proof. Like his predecessor Farabi, Avicenna aims to break from the physical mold of the Aristotelian proof.³⁰⁰ Avicenna states,

T4.5

Reflect on how our proof for the existence and oneness of the First and His being free from attributes did not require reflection on anything except existence itself and how it did not require any consideration of His creation and action, even though the latter [provides] proof (*dalīl*) of Him. This mode, however, is more reliable and noble, that is, if we consider the state of existence, existence inasmuch as it is existence bears witness to Him, and then He bears witness to all that comes after Him in existence.³⁰¹

Avicenna’s argument, as I show, is a causal one: from contingent existence, or effect, to a first cause of existence that possesses existence necessarily. Moreover, his view of the proof as falling

²⁹⁹ *Shifāʾ Metaphysics* I 2 (12): 13.

³⁰⁰ See Menn, “Metaphysics,” 147-150, on the relationship between Aristotle’s physical proof from motion and Avicenna’s metaphysical proof from being.

³⁰¹ *Ishārāt Metaphysics* IV 29: 54, 3-8.

properly within metaphysics does not exclude various principles regarding the nature of contingent causes and effects. As indicated above, Avicenna believes that the distinction between the cause of generation and the cause of the persistence of a thing is one that needs addressing for the proof to work. I turn now to the argument of the proof.

4.2. *The argument of Najāt Metaphysics II 12*

The chapter, entitled “On Proving the Necessary Existent”, opens,

T4.6

There is no doubt that here [there] is existence (*wujūd*), and every existence is either necessary or contingent. If it is necessary, then the existence of the necessary is affirmed, and this is what is sought after. If it is contingent, we will make clear that the existence of the contingent terminates at the necessary existent. Before that, we will advance [some] premises (*nuqaddimu muqaddimāt*). Among those [i.e., the premises]³⁰² is that it is not possible that there be at one time for every contingent in itself causes that are contingent *ad infinitum*. That is because all of them either coexist (*mawjūdan maʿan*) or they do not coexist. If it is not an existent simultaneously, then the infinite does not

³⁰² See fn.284.

exist in one time, but rather one before the other, or after the other (and we do not deny this [kind of series]). *Let us delay discussion of this.*³⁰³

Avicenna states that if the existence that is “here” is necessary, then we have arrived at the aim of the argument, namely establishing a Necessary Existent. If not, it is contingent. And so he embarks on showing that the existence of the contingent entails the existence of a Necessary Being causally responsible for the contingent’s existence.³⁰⁴ As noted, he also makes clear to the reader to expect the argument to proceed by a series of premises, and that the first premise that he will argue for is that there cannot be an infinite series of coexisting contingent causes that account for the existence of contingent(s). It turns out that the entire chapter will be dedicated to just this premise. But this limited focus of the chapter is also indicated by his delay of the discussion of one of the two kinds of infinite series he posits. Avicenna states that it is not possible for there to be an infinite series of contingent causes of the contingent, be it existing all at once or spread out over time. He delays discussion of the latter kind of infinite series, so we should expect him to return to this, since without dismissing it as a possibility, he cannot be said to have completed his proof for the Necessary Being. However, he returns to the latter two chapters from now in II 14, which I will return to then as well. For now, it is clear that his overall strategy is to argue against competing explanations to account for the contingent, which he outlines here as A) it has infinite contingent causes, that all exist at the same time, or B) it has infinite contingent causes that do not all exist at the same time. Regarding (A), Avicenna continues,

³⁰³ *Najāt Metaphysics* II 12: 271, 18-24. See fn. 285 above on my emendations to Fakhry’s text with the Isfarāyīnī edition.

³⁰⁴ As discussed, Mayer reads this as an argument in itself.

T4.7

As for it existing simultaneously together, and there is no necessary existent in it,³⁰⁵ then either that totality (*al-jumla*) insofar as it is that totality, whether finite or infinite,³⁰⁶ is necessarily existent in itself or contingently existent in itself.³⁰⁷

If it is necessarily existent in itself (*wājibat al-wujūd bi-dhātihā*), and each one of it is contingent, then the necessarily existent (*al-wājib al-wujūd*) would be constituted (*mutaqawwiman*) of contingent existents. This is impossible (*muḥāl*).³⁰⁸

And if it is contingently existent in itself, then the totality is in need for existence of [an] endower (*mufīd*) of existence. Then, [the latter] is either external to it [i.e., the totality] or internal to it. If it is internal to it, then either one of [the members] is necessarily existent, [but] every one was [posited as] contingently existent. This is a contradiction (*khulf*).

Or it [i.e., the endower of existence internal to the totality] is contingently existent, so it would be the cause of the existence of the totality (*li-wujūd al-jumla*).³⁰⁹ The cause of the totality is a cause firstly of the existence of its parts,

³⁰⁵ In the Isfarāyīnī edition, the pronoun is feminine, that is, *fihā* instead of *fihī* as in the Fakhry edition. The former can be read as Avicenna referring to the “totality” (*jumla*), which he first mentions in the next conditional.

³⁰⁶ I have relied on the variant in the Isfarāyīnī edition that provides *wujīdat* instead of *wajabat*, as in the Fakhry edition.

³⁰⁷ “in itself” (*fī dhātihā*) is provided in the Isfarāyīnī edition.

³⁰⁸ The Isfarāyīnī edition has impossible (*muḥāl*) for contradiction (*khulf*). The latter is found in Fakhry. Contradiction does not make sense *here*, as opposed to the following argument, in my reading, as discussed below.

³⁰⁹ The Isfarāyīnī edition has *‘illa li-wujūd al-jumla* instead of Fakhry’s *‘illat al-wujūd al-jumla*, which is grammatically awkward.

of which it is one. Hence, it is a cause of its own existence. And this, notwithstanding its impossibility, if possible (*in ṣaḥḥa*), is in a certain respect what is precisely sought. Because every thing that is sufficient to existentiate its own essence (*an yūjida dhātahu*) is necessarily existent. However, it [i.e., the member endowing existence] was [posited] to be not necessarily existent. This is a contradiction.

The remaining [option] is that [the provider of existence] is external to it [the totality], and it cannot possibly be a contingent cause since we collected every contingently existent cause in this totality. Then, it is external to it and necessarily existent in itself. Hence, the contingent existents have terminated at a cause that is necessarily existent, so there is not for every contingent a contingent cause *ad infinitum*.³¹⁰

Here Avicenna is treating the first kind of infinite causal series of contingents, one whose members all coexist in time. He takes the totality of these contingent causes and considers whether this totality is necessary or contingent. Here, a few points can be highlighted. First, he refers to “totality” in this passage of the proof and does not use the term in II 14 or II 13. It is notable he refers to it as “*that* totality insofar as it is *that* totality.” Avicenna treats the series of coexisting contingent causes or entities as a “concrete” existent, i.e. one that exists at a time and place. This distinguishes the coexisting series from the successive series, which as he states he

³¹⁰ *Najāt Metaphysics* II 12: 271,24 – 272,12. He must be speaking loosely here when he concludes generally, that there is not for every contingent a contingent cause *ad infinitum*, and not specifically— i.e. at one time. That is all he has shown in this chapter at least, since he has delayed discussion of the other kind of infinite series. McGinnis and Reisman add additional phrases to the text in their translation, emphasizing the kind of infinite causal series at issue: “Thus, things existing possibly terminate in a cause existing necessarily, in which case not every [effect] that exists as something possible will have simultaneously with it a cause that exists as something possible, and so an infinite number of causes existing at a single time is impossible,” (215).

does not “reject”. The latter series does not exist as a concrete (*this* or *that*) entity. Moreover, the argument in II 12 seems to work precisely because he treats the series as a concrete object subject to predications, such as, “The totality is contingently existent” and “The totality is dependent for existence on an endower of existence.” As his language suggests, the proof applies his approach to existence as an external attribute that applies to a contingent essence or thing, which in this case is the totality of contingent existents that will require a “bestower of existence” to gain its own existence. Avicenna says that the provider of existence will either be inside the totality or outside of it. If it is inside, and necessary, then this entails a contradiction (*khulf*), since it was posited that every member of the totality is contingent.

Avicenna’s view of the totality of coexisting contingents results in a dichotomy in his argumentative strategy. That is, the arguments constructed in II 12 apply only to the totality as an existing whole. If the kind of predications noted above could be applied to a “totality” whose members are spread out over time, Avicenna could simply treat the successive series of II 14 as a totality and apply the precise arguments trotted out in II 12. That is, the argument need not go further than II 12, which is how many have read it. But as discussed above, Avicenna confirms further premises and parts to the argument. In this context, his first argument that the totality cannot be the necessarily existent has been misread. That is, his argument is *not* that the *series* of contingent things fails to possess any items – necessary or contingent - that would make it a necessary existent; rather, his argument is that *this* totality or entity, being constituted of contingent things, disqualifies itself and cannot possibly be *a* necessary existent, because the latter, as we know from earlier chapters, is an entity that cannot be constituted of such parts.³¹¹

³¹¹ See, for example, *Najāt Metaphysics* II 5: 264, “It is not possible for the [necessary existent] to have in its essence [*li-dhāt*] principles that come together (*tajtami*”), then constitute from them the necessary existent.” It might be noted that Avicenna need simply say that it has parts and not that it has contingent parts, but this may confuse the fundamental distinction between contingent and necessary things, with which the proof begins. In the *Physics*,

As such, the argument is “impossible” from what has already been proven, rather than being a “contradiction” of what has been assumed in the proof, i.e., that the series was assumed to be a series of contingents.³¹² The latter hypothesis however will be central to the next steps of the proof. By treating the “totality” as a potential whole distinct from the natures of its individual “parts,” Avicenna allows for the whole to be more than its parts or to possess properties distinct from its members, a point that Davidson believes Avicenna had overlooked. To be sure, even after refuting the view that the totality is a necessary existent, Avicenna goes on to examine whether a contingently existent totality can exist without an external cause. That is, the totality of constituted parts could be a self-sufficient entity with respect to some internal contingent cause. Crucially, in this case, Avicenna explicitly uses the language of parts to wholes: “The cause of the totality is *a fortiori* the cause of the existence of its parts (*ajzā'*).” Here, the argument assumes that this internal contingent cause must be the cause of *all* of the parts of the totality, which includes itself. It seems to me that Avicenna is not entitled to view that “the cause of the totality is first the cause of the existence of its parts” in any absolute manner in the context of his mereology.³¹³ Rather, the point only works if he means that the cause under consideration is the efficient cause of the existence of a whole entity, essence, or unity.³¹⁴ He manages to refute the latter possibility only with reference to his very definition of a necessary entity, that is, such an internal cause, by being “sufficient” for its own existence, is a necessary existent, which is

Avicenna treats the “principles” of the Presocratics, neither as contingent nor necessary, but forces on them a clarification of how existence applies to essences. Here, De Haan’s argument, regarding the *Shifā'*, that the order of the work is significant applies to the *Najāt*. Implicit premises are established *prior* in the physical order of the book.

³¹² Note, his use of *muḥāl* seems to parallel the use of *muḥāl al-wujūd*, i.e., “impossible of existence”, in II 13, as noted below.

³¹³ Formal, efficient and material causes need not be the cause of the existence of all the parts of an effect.

³¹⁴ I will return to his arguments in the *Shifā'* Metaphysics VIII 1-2, which treats the finitude of efficient causes. I return to Ghazālī’s objections to the proof below, which focus on the status of an eternally successive series.

contrary to what was assumed in this leg of the proof.³¹⁵ Finally, regarding the totality, Avicenna distinguishes, again, between the finitude and infinitude of individuals from the totality, which he states may be finite or infinite, suggesting a distinction between the nature of the contingent individuals and the nature of the whole.

To sum up, the totality of contingent causes cannot be a necessary existent by definition of what a necessary being is, and so must be contingent. But the totality, as a contingent thing, will be in need of a bestower of existence. This latter, again, proceeds by definition of the very nature of a contingent essence, as discussed previously in I 10 and elsewhere. The provider of existence will either be inside the totality or outside of it. It cannot be inside *and* a necessary thing as that contradicts the assumption that all the parts of the totality are contingent. If it is

³¹⁵ Although Ghazālī's summary of Avicenna's proof is usually interpreted along the lines taken by modern interpreters, where the case of the coexisting, infinite totality is not distinguished from the case of a successive totality, on closer look, he interprets the proof as implying a division between a self-sustaining totality and an infinite regress of causes. He states, "The world (with its existents) either has a cause or does not have a cause. If it has a cause, then [the question arises]: 'Does this cause have a cause or is it without a cause?' [If it has a cause,] the same [question] applies to the cause of the cause. This would either regress infinitely, which would be impossible, or terminate with a limit. The latter, then, is a first cause that has no cause of its existence. We call this the First Principle. *If [on the other hand it is maintained that] the world exists by itself, having no cause, the First Principle would become evident.* For we did not mean by it anything other than an uncaused existent. This is established necessarily. Yes, it is not permissible for the First Principle to be the heavens, because they constitute a number [of things], *and the proof of divine oneness prohibits this. Its falsity is thus known by examining the attribute of the [First] Principle.* Nor can it be said that it is one heaven, one body, one sun, or some other thing. For [such a thing] would be a body, and body is composed of form and matter, whereas the First Principle cannot be composite. *This is known through another theoretical investigation.* What is intended is that an existent that has no cause of its existence is affirmed necessarily and by agreement. The disagreement, however, pertains only to the attributes [of the Principle];" Ghazālī, *Incoherence*, (5-6), 79. Here, he does not seem to make a strict division between an infinite totality and temporally successive infinite series. However, his interpretation of the proof can be read as dealing with two cases: First, a self-sustaining totality (be it finite or infinite?), which corresponds to II 12 and II 13 in the *Najāt*. And, second, the case of an infinite regress of causes. The latter seems to correspond to II 14, since, as he states, it must terminate. Crucially, regarding the former, he notes that the proof against the self-sustaining totality relies on "another investigation" and on the attributes of the First Principle. That is, he does not argue that the totality is contingent because its parts are contingent. Rather, the totality is contingent because it has been proven elsewhere that the uncaused cause is not a "number" of anything or does not have parts in the manner of body, for if it were to have parts, it would be contingent. That is, though the parts have been posited to be contingent, the case does not, ab initio, rule out the possibility of the totality being uncaused or necessary. Regardless, Ghazālī does not seem to underscore, in this passage, the significance of *temporal* succession, which is evident in the *Najāt*. However, he does, of course, highlight the importance of temporal succession subsequently, as discussed below. Perhaps, his full interpretation of the proof is fleshed out in the course of his discussion in Discussion 4, a point I leave for a later study.

inside and is a contingent thing, it would ultimately be a cause of itself. This is because the cause would need to be the cause of the totality, which includes all its parts including the cause-part itself. But if the cause-part is a cause of itself, it would be a necessary existent and we assumed that *no* parts of the totality are necessarily existent. He concludes that the provider of the existence of the totality of contingents must be outside of the totality, and hence by definition necessary. Here, it is clear that he has only shown this result to be true of the series of contingent causes that all exist at one time.

It might be noted here that there is a central premise in the argument that seems problematic. Recall that Davidson notes that Avicenna's "dichotomy" between the necessary existent and the contingent existent leads him to overlook a third category of "necessarily existent by virtue of itself in the weaker sense of having no external cause, although it might have internal causes...It remains to be shown that a series of possibly existent beings cannot add up to a being necessarily existent in the sense of having no external causes, although it does have internal causes—more specifically, although it has all its components as internal causes."³¹⁶ As Davidson notes, this is the gist of Ghazālī's refutation of Avicenna's proof. The above has argued that Avicenna considers a totality of infinite contingent existents as a potentially self-sustaining whole. It seems that Avicenna anticipates the problem, and argues against such a self-sustaining totality on the basis of an external argument; that is, such a totality cannot by definition be the uncaused cause, i.e., the necessary existent.

³¹⁶ Davidson, *Proofs for Eternity*, 307.

4.3. *The argument of Najāt Metaphysics II 13*

The next chapter, II 13, is titled, “That it is not [the case that] contingents in existence [are such that] some are causes of others in a circular manner, at one time, even if they are finite in number.”³¹⁷ Here Avicenna considers a different kind of regress whose members exist all at one time, the main differences being that they regress in a circular fashion and there are a finite number of individuals. He takes arguing against this to be “another premise” that he advances and devotes the chapter to showing such a possibility is “also impossible, and it [this premise] becomes apparent in a manner similar to how the first premise was shown.”³¹⁸ Avicenna seems to say here that a circular regress of contingent causes can be disproven in a manner similar to how a linear regress of contingent causes was disproven in II 12 (*tubayyanu bi-mithl bayān al-mas’ala al-ūlā*). However, he notes a point “specific to” (*yakhuṣṣuhā*) the circular regress, namely, that each existent is the cause of its own existence *and* the effect of its own existence. But “that which is dependent for its existence on the existence of what [can] only exist posterior

³¹⁷ A translation of the full text appears in McGinnis & Reisman, *Classical Arabic Philosophy*, 215-216: “II.13: That Possibly Existents Cannot Be Causes of One Another in a Circular Fashion at One and the Same Time If They Are Finite 1. [568] Furthermore, the causes cannot be finite in number when [569] each of them exists possibly in itself but is necessary through another to the point that one reaches the other circularly. 2. So let us advance another premise. To set down a finite number of possible existents, each one of which is a cause of the others in a circle, is as absurd and obvious as the first problem. Particular to it, however, is that each one of them would be a cause and an effect of its own existence, where *x* comes into existence from *y* only after *y* itself comes into existence, but anything whose existence depends on the existence of what exists only after its own later existence cannot exist. 3. Any case of two *relata*, however, is not like this. For the two exist simultaneously, and the existence of one of them is not dependent such that it must be after the existence of the other. Rather, the cause productive of them and necessitating them produces them both simultaneously. If one of them has a priority and the other a posteriority, like father and son, and if its priority is not with respect to the relation, then its priority is with respect to existence itself. [570] However, the two are simultaneous with respect to the relation that is present after the occurrence of the thing. If the father’s existence were to depend on the son’s existence, and the son’s existence were to depend on the father’s existence, and moreover the two were not simultaneous, but one of them is essentially after, then neither one of them would exist. The absurdity is not that the existence of what is simultaneous with a thing is a condition for the thing’s existence; rather, the absurdity is that it is an existence from and after that thing.”

³¹⁸ McGinnis and Reisman instead translate this as “is as absurd and obvious as the first problem.” It seems to me Avicenna might be suggesting something a little stronger here.

to its own existence in the manner of an essential posteriority (*ba^cdiyya dhātiyya*) is impossible to exist (*muḥāl al-wujūd*).”³¹⁹ Here, it seems that since the circular regress is coexisting and finite, the priority of a cause to effect must not be temporal, but essential.³²⁰ Hence it is impossible, since it entails contingents would be essentially prior to themselves, in contrast to the internal contingent element in the infinite coexisting series that becomes a necessary existent, in virtue of being sufficient for its own existence. Here, it can be noted that Avicenna describes the series thus, “It is not possible for causes to have a finite number, each one of it being a contingent existent in itself, but is necessary through another until it terminates at it [itself?] circularly.” Again, the question can be raised that this division ought to be applied to the infinite coexisting series, where each one of its members is contingent in itself, but necessary through another without, however, terminating. As noted, Avicenna does not flesh this out because his more general approach in II 14 applies to all cases. I turn now to II 14.

4.4. *The argument of Najāt Metaphysics II 14*

Najāt Metaphysics II 14 moves on to the final, and the most critical, premise in arguing for the existence of a Necessary Being. It is the most critical premise because Avicenna’s proof is most prone to attack with respect to an infinite series of contingent causes that do not all exist at the same time or exists successively, which as he noted in the introduction he will postpone.³²¹

³¹⁹ *Najāt Metaphysics*, 272.

³²⁰ Avicenna discusses essential versus temporal priority in the *Najāt Metaphysics* I 19: 259.

³²¹ It is also possible that one understands II 13 as the place where Avicenna addresses the other kind of infinite causal series, one whose members do not all exist at one time. It is conceivable that a circular regress of contingent causes of existence would have members who do not all exist at once, whereby one member causes the existence of another which causes the existence of another until ultimately the chain regresses unto itself and causes the “first”

That is, Avicenna knows that his general arguments against infinite and circular regresses do not apply to the case of successive infinite series, and it is here that he will have to draw on a deeper view of what it means to cause.³²² To be sure, Avicenna, in this section, advances a distinction between causes of “generation” (*hudūth*) and causes of continuous existence or “persistence” (*thabāt*), and it is the latter kind of causing that he will focus on here and which I take to be his general account of efficient causation, specific to the science of metaphysics, that Avicenna develops in *Shifā’ Metaphysics* VI 1-3. He also refers to this causing as a “bestower of existence” (*mufīd al-wujūd*) in the argument in II 12. That is, in my view all three of these – i.e., the *‘illat al-thabāt* of II 14, the *mufīd al-wujūd* of II 12, and *al-‘illat al-fā‘iliyya* of metaphysics in *Shifā’ Metaphysics* VI 1-3 [which I took Avicenna to ultimately reduce to the cause of the effect qua species (*al-naw‘*)], are all referring to the same kind or metaphysical level of causing, which is the causing of existence by the Necessary Being and the intermediary superlunary intellects. In my view, it is Avicenna’s theory of metaphysical efficient causation in *Shifā’ Metaphysics* VI 1-3 (and VIII 1-2) that provides the full context for understanding what an *‘illat*

we began with, after some passing of time. Insofar as this is a possible understanding of a circular causal regress, then it could be what Avicenna had in mind when he delayed discussion of a non-coexisting infinite causal regress in II 12. However, it seems two considerations make this interpretation less plausible: 1) In the title of II 13, Avicenna indicates that these causes in the circular regress are existing *at one time* (*fī zamān wāḥid*); and 2) Avicenna says the circular regress of contingent causes can be dismissed in a manner similar to how the premise of II 12 was shown. This would seem to suggest that a circular regress of causes is subject to the same argument that Avicenna uses to dismiss a regress of contingent causes that all exist at one time, which might be further support for the idea that Avicenna understands the circular regress of contingent causes to be one whose members all exist at one time (assuming that the argument of II 12 is indeed one that works *because* the members exist at once), and hence *not* where he returns to address the kind of infinite regress whose members do not exist all at one time. With these considerations in mind, it seems it is more likely that II 14 is where Avicenna returns to address this kind of infinite series. That is, an infinite series of contingent causes whose members do not exist all at one time would be a reference to the infinite series of causes of generation. His point here in II 14 is not to deny that causes of generation are indeed a kind of cause, but that they cannot possibly account for the contingent—not because it is impossible for these causes to regress infinitely, but because such a series does not account for what really needs to be accounted for here—the *existence* of contingent existents.

³²² In the conclusion to II 14, Avicenna concedes that this kind of series undermines the proof were it not for the fact that generated causes persist with their cause in a continuous, rather than discrete, temporal series. I return to the concluding text below.

al-thabāt is for Avicenna.³²³

The title of II 14 is, “Another chapter devoted to proving the Necessary Existent and showing that generated things come to be through motion, but need causes that persist (*bāqiya*), and showing that the proximate moving causes are all changing.”³²⁴ He begins the section by stating:

T4.8

After these two [problems],³²⁵ we will prove that there must be something Necessarily Existent, because if every existent is contingent, then in addition to its contingency it is either generated (*ḥādith*) or not generated. If it is not generated, then the persistence of its existence is either by a cause or through itself. If [the persistence of its existence] is through itself, then it is necessary and not contingent. If it is by a cause, then its cause [coexists] with it [without exception],³²⁶ and the discussion of it [i.e., the cause] is the same as the discussion of the first.³²⁷

After dividing contingent things into generated and ungenerated things, Avicenna focuses on the latter. Clearly, the latter refers to such things as the eternal intellects and the celestial bodies, whose form and matter are eternal, ungenerated, and, in his view, contingent. With respect to the latter, they have no cause of generation by definition, but their cause of persistence requires explanation. Since it is not necessarily existent in itself, nor generated, its cause is “with it”

³²³ In the *Najāt*, the equivalent discussions seem to be dispersed throughout. In fact, I could not find a direct reference to his reinterpretation of Aristotle’s analysis of causal regresses in *Shifā’ Metaphysics*, VIII 2.

³²⁴ The title seems to be a later interpolation. But its interpretation of the purpose of the chapter I find insightful.

³²⁵ That is, the problem of an infinite series of co-existing causes and effects and that of a circular causal series.

³²⁶ The Isfarāyīnī edition adds *lā maḥāla*.

³²⁷ *Najāt Metaphysics* II 14: 273, 8-12.

(*ma^cahu*). Without much ado, he then says that this cause would then be subject to the same analysis as the “first” and ends this leg of the argument. Here, the “first” could refer to the contingency of the first ungenerated item, implying an infinite and coexisting regress of contingent causes. The “first” could also refer to the first argument in II 12, which refutes the infinite coexisting series of causes. In any case, he seems to assume that the cause of the ungenerated contingent thing must necessarily terminate at a necessary existent, as he turns immediately to the generated contingent existent. Avicenna states:

T4.9

And if it is generated, and every generated thing has a cause of its generation, then either [1] it is generated and³²⁸ corrupted simultaneously with its generation such that it does not persist [for any duration of] time (*lā yabqā zamānan*); or [2] it is corrupted only after generation with no division of time (*bi-lā faṣli zamānin*);³²⁹ or [3] after generation it persists (*bāqiyan*). The first division is absurd, the absurdity of which is obvious. And the second division is also absurd because nows (*al-ānāt*)³³⁰ do not succeed one another, and the generation of entities (*a^cyān*) one after another distinct in number, not as in the

³²⁸ The Isfaraʿīnī edition provides “and” (*wa*) between *ḥādith bāṭil*, the latter is in Fakhry’s edition.

³²⁹ Avicenna states, “We maintain that we [come to] know the instant from knowing time. [That] is because time is continuous, it inevitably has a certain division (*faṣl*), which is a product of the estimative faculty and is called the *instant*. Now, the instant does not at all exist as actual in relation to time itself; otherwise the continuity of time would be severed,” *Shifāʾ Physics* II 12 (1): 237, I read this to mean that the generated item exists for a (imagined) moment in time in contrast to the first option, where the item cannot be said to exist in time at all, i.e., it is generated and corrupted in the same moment. In the second case, it exists but does not exist for any moment *past* the moment of generation, i.e. there is no separation or division (*faṣl*) of time that it exists after generation. The point he is highlighting in this case is that the effect does not exist after its generation and, as such, is not existing without its generating cause.

³³⁰ See source cited above.

manner of the continuity (*al-ittiṣāl*) existing in the case, for example, of motion, necessitates the succession of nows, and this was disproven in the science of physics. And even so [i.e., even if the succession of nows is granted], it is not possible for it to be said that every existent is like that, because there are among existents those that persist individually (*bāqiya bi a^cyāniḥā*).³³¹

Here, his chief task is to establish the existence of a generated thing (*ḥādith*) that persists in existence. He begins by delineating three possibilities: (1) the generated comes to be and is corrupted without persisting for any time. The effect in this case comes to be and is corrupted precisely in the moment of generation, so that the effect cannot be said to persist or exist for a moment of time whatsoever. Avicenna is quick to dismiss this as an obvious impossibility. The next possibility, (2), is where the generated thing “is corrupted after generation” but with no division of time (*bi-lā faṣli zamānin*). Though the point seems rather obscure, given the preceding and following points, Avicenna’s aim in the second division is clear. That is, he provides a case that is distinct from (1), where the generated effect cannot be said to exist for a moment (even though it has been caused or generated). And he provides a case that is also distinct from (3), where the effect persists *after* its generation. As such, case (2) is where the generated effect *can* be said to exist for a moment in time but not *after* its (moment of) generation. Here, again, he dismisses this possibility also on the grounds of absurdity; but in this case he provides an explanation. Notably, he states that it is absurd because nows do not “succeed one another”, a point that, as he states, was disproven in physics. In physics, Avicenna

³³¹ *Najāṭ Metaphysics* II 14: 273, 12-19.

states that time is continuous and that nows are a “division” (*faṣl*) of time that is only a product of the estimative faculty.³³² That is, nows are not actual instants of time and between every two nows there is time. Moreover, Avicenna suggests why case (2) implies a succession of nows: “the generation of entities (*a‘yān*) one after another distinct in number, not as in the manner of the continuity (*al-ittiṣāl*) existing in the case, for example, of motion, necessitates the succession of nows.” Again, the point is somewhat obscure; I have not found a discussion specifically of how the generation of entities, differing numerically, necessitates nows.³³³ However, Avicenna’s meaning in this context seems clear. First, in the case of (2), there are *only* instants of generation and there is no instant or duration in which a thing exists outside of its moment of generation. Second, there are succeeding generation-instants or nows in which the cause and effect are coupled. Presumably, like a row of dominoes, the cause-effect series is divided into moments

³³² See note above. According to Avicenna, between every two nows, there is time.

³³³ The point loosely corresponds to Aristotle’s point in *Physics* VI 6, 237a12-17: “Again, since a thing that changes continuously and has not perished or ceased from its change must either be changing or have changed in any part of the time of its change, and since it cannot be changing in a now, it follows that it must have changed at every now in the time: consequently, since the nows are infinite in number, everything that is changing must have completed an infinite number of changes.” In *Physics* VI 5, Aristotle says that in qualitative change there can be an indivisible. Avicenna’s position is difficult: He provides an argument against time being divided into nows or segments in *Physics* II 12. He states, “This now does not exist at all in actuality in relation to time itself; otherwise the continuity of time would be severed.” He provides an argument as to why time cannot be severed; the argument is not connected to the above point concerning the absurdity of the generation of numerically distinct entities in succession. But he holds that substantial “change” occurs instantaneously *in time*, i.e. not in an imagined now (see *Shifā’ Physics* II 2-3). Here, he views change or motion as applying to substance figuratively. Regarding the process of the generation of a human being, from sperm to embryo to fetus to bones and flesh, he states, “Someone superficially observing transformations imagines that this is a single process from one substantial form to another and therefore supposes that there is a motion with respect to the substance, when that is not the case and, instead, there are numerous motions and rests.” However, *Shifā’ Physics* II 12 (2), Avicenna states, “You will learn that the things undergoing motion, rest, generation, and corruption also do not have a first instance in which they undergo motion, rest, generation, and corruption, since time is potentially divisible infinitely.” In *Shifā’ Physics* III 6, Avicenna discusses the position of “the Peripatetics” that the indivisible thing cannot undergo motion. Dissatisfied with the received arguments for this view, Avicenna provides an alternate argument, which does not seem to be directly relevant. However, here he states that growth and alteration are divisible but “generation and corruption *alone are indivisible*,” *Shifā’ Physics* III 6 (9). It is unclear what Avicenna’s view of generation and the continuity of time is. It seems that in the case of generation and corruption, one must assume a continuous series of cause and effect with respect to time and motion. Perhaps what is indivisible and instantaneous is the metaphysical efficient causing of forms. In any case, the above proof seems to rely, at least in the case of generated things, a view that denies a discontinuous view of time and motion.

where one block, as the cause, knocks over a following block, which is its effect. This latter block is, in the following moment of causation or generation, the cause of knocking down a third block or effect. Here, it seems that Avicenna wants to say that dividing up such a causal series involves an abstraction from the actual, continuous causal event in the same way we abstract nows from our experience of continuous time. Both are abstracted, and do not correspond to what the underlying reality is regarding the process of generation. In the case of time, why Avicenna wants to deny the existence of nows is clear, and accords with an Aristotelian view of time as continuous. However, what does Avicenna mean with regard to this conception of generation? Here, it seems to me that case (2) is a view of generation that can undermine Avicenna's argument for the necessary existent. That is, if the world as a causal series is similar to an infinitely successive row of dominoes, one cannot disprove its self-sufficiency. One simply needs to point to each instant of one domino hitting a succeeding domino. Moreover, it is not a proper totality because its parts do not exist "together all at once" and, as such, his approach in II 12 and II 13 do not apply. As such, in the subsequent discussion of II 14, Avicenna must show that case (2) does not work because it does not properly account for causal phenomena.

Here, he states that case (2) is impossible because it has been disproven in physics. The point is important because, if taken at face value, it suggests that his proof relies on a physical premise, namely, that the generation and corruption of things do not involve a succession of instants. As well, the proof would also seem to rely on the premise that time and motion are continuous, which would certainly exclude atomistic views of generation and causation. However, I suggest that he will not need to disprove the view that generation happens in nows or in instants of time. This is indicated in his subsequent point. When he turns to the last possibility, (3), which holds that something comes to be and persists in existence, he states, "And even so

[i.e., even if generation in nows is granted], it is not possible for it to be said that every existent is like that, because there are among existents those that persist individually (*bāqiya bi a‘yānihā*).”

It seems Avicenna is not entirely comfortable invoking premises about the nature of time and continuity. He states that *even* if one believes there are entities of the second category, i.e. that exist only in the moment of generation, there are still existents that are not like that, that persist in time. Here, he turns to the simple empirical observation, that we are surrounded by entities that seem to persist through time, as one and the same entity.³³⁴ Entities that persist in time are essential to the causal principle that he will go on to develop, because if there is no enduring existent, being one and the same, through time, he cannot invoke a cause of its persistence in existence through time. At best he would have only causes of generation, for there would only exist that which is generated and immediately is corrupted.

Having established the existence of the subject of his attention here, the contingent that persists in existence, Avicenna now turns to its causes.

T4.10

Let us speak about them [i.e., the *ḥawādith* that persist], so we say: every generated thing has a cause of its generation and a cause of its persistence (*thabātihi*). It is possible that it be one [and the same] thing, such as the receptacle in its imparting shape to water (*al-qālib fī tashkīlihi al-māʾ*). And it is possible that these be two [distinct] things, such as the statue (*al-ṣūra al-ṣanamiyya*), where its cause of generation is the sculptor, and its cause of

³³⁴ It seems both interpretations may have interesting implications on what kind of proof for the Necessary Being Avicenna is advancing. His invocation of the physics, and of a particular conception of time, suggests a more complicated understanding than it being a proof that argues only “from the fact of existence,” as Davidson notes.

persistence is the dryness of the substance of the material (*jawhar al-^cunşur*)
from which it is made.³³⁵

He applies to this persisting contingent the same two causes he opened the chapter with: causes of generation and causes of persistence. He says these two causes might be one and the same entity, or they might be two different entities. With respect to the former, he gives the example of some kind of receptacle (*qālib*) holding water. The receptacle does not simply shape the water into a particular shape after being formless. It also maintains its shape so that, if it were not for the receptacle, the shape of the water would not persist. Importantly, the cause here is described not just as the receptacle but the receptacle *in its imparting shape* to the water. This is important, since the effect is not the water simpliciter, in which case we would expect the cause of generation and of persistence to be identified differently-- the cause of the generation of water would be, say, the agent that chilled the air (until the point that it could no longer retain its airy form), and the cause of persistence, that which causes the water to continue to persist in existence or to continue to *be* water, would be that which causes the nature of the water (the Active Intellect).³³⁶ This would not then work as an example in which the cause of generation and of persistence are one and the same entity. Since here Avicenna is specifying that the example is of the receptacle *insofar as* it is causing the shape of the water, then the example works, since the cause of generation (or of the water coming-to-be in the shape that it is) would

³³⁵ *Najāt Metaphysics* II 14: 273, 19-22.

³³⁶ Here I follow the account Avicenna gives in *Shifāʾ Metaphysics* VI 2 of the causes of fire, in the context of arguing that causes must coexist with their effects and that the true cause of the effect, fire, is that which causes its nature, "Likewise, fire is the cause of heating the element of water. Heating is a cause of annulling in actuality the water's disposition to receive or sustain the watery form. This is because some other thing is a cause of bringing about the complete preparation in such a circumstance for the reception of its opposite— namely, the fiery form. The cause of the fiery form consists of the causes that clothe the elements with their forms, [these causes] being separable.... The cause of the fire is the cause that bestows forms and the total ceasing of the complete disposition opposed to those forms, both together. *We thus find that the causes coexist with [their] effects,*" *Shifāʾ Metaphysics* VI 2 (4-5): 201-202.

be the receptacle, and the cause of persistence (or of the water continuing to be in the shape that it is) would be the receptacle as well. Granted, this is a somewhat contrived example since it would be more difficult to conceive of the cause of generation and of persistence being the same outside of the world of artifacts and in the context of nature. So his point must not be that it is a *common* occurrence, or one that ever occurs in the context of nature, but only that it would be an example of a case in which these two causal functions may be fulfilled by one and the same agent.

The second example he gives is also of an artifact and represents the case in which the cause of generation and cause of persistence are two different things. This example applies more immediately to the standard cases, despite it being an artifact, of how causes of generation and of persistence play out in the natural context. The example is that of a statue (*al-ṣūra al-ṣanamiyya*), where he says the cause of generation is the sculptor and the cause of persistence is the dryness of the substance of the material that it is made of, say, clay. Here Avicenna invokes the very nature of the material as a cause of the statue's continuing to exist, and of course more specifically continuing to exist *as a statue*. Of course, the examples do not correspond to what the true causes of persistence actually are.³³⁷ Avicenna will go on to trace the causes of natures to the Active Intellect, and then ultimately on to an efficient cause of existence.³³⁸

³³⁷ This occurs for instance in the passages from *Shifā' Metaphysics* VI 2 that were treated in Chapter 1. Here, he clarifies the distinctions between artifact, material causes, and the true efficient causes: "[T]he cause of the building's shape is combination (*al-ijtimā'*), the cause of that [the combination] being the natures of the components (*mujtami'āt*) [of the building] and their [the components] remaining (*thabāt*) in the way they are composed, the cause of that (*dhālika*) being the separable cause that is the efficient cause of the natures," *Shifā' Metaphysics* VI 2: 202. I understand the last *dhālika* to refer to the *thabāt* of the components in the way they are composed.

³³⁸ In his brief account of the cause of persistence, Davidson refers to this example of the statue, but instead takes the example to show that the "cause of maintenance" can be "a component within the total object" (*Proofs for Eternity*, 300). I do not think Avicenna means to point to a material cause here, as noted above. As discussed in Chapter 1, in Avicenna's fuller discussions of the cause of persistence, or of causes of existence, he refers to the metaphysical efficient causes, and causes of species. As will become clear in the chapter, Avicenna is certainly not viewing the cause of persistence as a component of the thing, but is rather a much higher, ultimate cause of the continued existence of the thing.

Having provided this initial introduction to causes of persistence, Avicenna says he will turn to proving that every contingent existent requires a cause of persistence, and that it cannot persist in itself,

T4.11

It is not permissible that the generated thing persists in existence by itself after its generation, such that if it comes to be, then it is necessary that it exists, and it persists without a cause of existence or persistence. We turn to showing that for every generated thing, its persistence is by a cause, *so that it will be a premise specified for the aforementioned aim*. For we know that the persistence of its existence is not necessary in itself, so it is impossible for that which is not necessary in itself, nor persistent in itself, to become necessary through generation. And the necessity of its persistence through the cause of generation would only be possible if the cause remains (*bāqiya*) alongside it, and if it perishes then what follows it perishes; otherwise, its existence or nonexistence makes no difference to the existence of what follows it, so then it is not [truly] a cause.³³⁹

Here, Avicenna has to prove a not so insignificant claim: that a generated thing's continued existence needs explanation. Avicenna here equates a contingent persisting in itself with being necessary in itself (or *becoming* necessary in itself after generation). He says that the contingent cannot become necessary through generation, since generation is not necessary in itself. This is a much shorter statement of something he argues for at more length, and with a wider scope, in

³³⁹ *Najāṭ Metaphysics* II 14: 273,22 - 274,4.

Shifāʾ Metaphysics VI 1.³⁴⁰ In the following, Avicenna will parse the finer senses of necessity and contingency used here. The cause of persistence must be external to the contingent and must remain with it. He says if it does not, that is if the cause of persistence is corrupted but the contingent remains, then it is not truly a cause—since its corruption should entail the corruption of the effect.

Avicenna aims to clarify or prove this premise, that every contingent requires a cause of its persistence in existence as described above, by drawing on his logical analysis of the concepts of necessity, impossibility, and contingency:

T4.12

Let us expand on this by way of commentary. So we say: This essence before generation was neither impossible nor necessary, but contingent. So its contingency is either with no condition (*lā bi-sharṭ*),³⁴¹ or its contingency is with the condition of it being nonexistent (*maʿdūma*), or its contingency is in the state (*ḥāl*) of it being existent.³⁴² It is impossible that its contingency be conditional on its nonexistence, because it is impossible for it to exist as long as it is nonexistent and nonexistence is made a condition of it; just as while it is existent, i.e. with the condition that it is existent, it is necessarily existent.

Then, one of the two cases remain: either [it is contingent] because

³⁴⁰ See p.198-199 paragraphs 11-13

³⁴¹ The Isfarāʾīnī edition provides “with the condition of its essence and in virtue of its essence” (*bi-sharṭ dhātiḥā wa li-dhātiḥā*). I argue that both will lead to the same meaning.

³⁴² Or, if he is using *ḥāl* here to convey a similar meaning as *sharṭ*, then it would translate roughly as, “or its contingency is [with the condition that it be] in the state of existence”, which when he returns to this case a few lines below, he does refer to it as “*bi sharṭ annahā mawjūda*”.

contingency is a thing (*amr*) in its nature (*fī ṭabīʿatihā*) and in its very substance (*nafs jawharihā*), so this reality [i.e. the contingency] does not separate from it in any state, or [it is contingent] in the state of existence with the condition of existence. And this [latter] – even though impossible because if we place the condition of existence, it becomes necessary – does not affect our aim. Since you know that every generated thing, rather every effect, is with respect to its essence (*bi-ṭibārī dhātihi*) contingent in existence.

But the reality is that its essence is contingent in itself, even if with the condition of its nonexistence it is impossibly existent, and with the condition of its existence [it is] necessarily existent. There is a difference between saying that ‘the existence of Zayd the existent is necessary’, and saying that ‘the existence of Zayd while he exists is necessary’. And this has been shown in logic. And likewise there is a difference between saying that the persistence of a generated thing is necessary in itself, and saying that it [i.e., the persistence of the generated thing] is necessary as long as it exists, for the first is false and the second is true, as we have shown. And if we do not take into account this condition, then the persistence of an existent would not be necessary. Whatever gives [a thing] existence necessarily, also gives it nonexistence impossibly;³⁴³

³⁴³ The Arabic is difficult here—I understand the sentence to be a conditional, where *wujūd* is the agent and the *mā* and the pronoun that serves as the object of the verb to refer to that which existence imparts, namely the being and concomitants of the thing. I take him to be making the same point that he makes in the preceding and following sentences—that it is not the thing itself that is necessary or impossible but that when a thing is in the state of existence or of non-existence, it acquires necessity or impossibility. For instance, this sentence parallels his point in the example of Zayd—that it is not Zayd himself that is necessary, but rather “the existence of Zayd while he exists”. That is, it is only when one applies the condition of existence that Zayd becomes necessary. It is as an odd way of saying it, but I take Avicenna here to be speaking of existence as if it is an agent, to make the point that whatever existence gives (existence to a thing, the necessary concomitants of existence, etc.), i.e. when the condition of existence occurs, it makes the thing necessary. There might be an alternative reading, based on a manuscript

and it is absurd that in the state of nonexistence it is possible, then in the state of existence it is necessary. But, rather, the thing in itself is contingent, and it ceases to exist and [then] exists. Whichever of the two conditions [i.e., existence or nonexistence] is imposed on it in its persistence, its persistence is necessary by judgment (*ḍarūrī al-ḥukm*), not contingent, and that does not contradict each other [i.e., the fact of it being contingent in itself and necessary of existence/nonexistence by condition]. For the contingency applies with respect to its essence, and the necessity and impossibility apply with respect to a condition that is attached to it. So if the case is such, then the contingent with respect to itself has no necessary existence (*wujūd wājib*) without any stipulation of a condition, but rather as long as its essence is that essence, it is not necessary of existence in itself, but rather through another and through a condition, so it remains dependent in existence on another. And everything for which another or a condition is needed, is in need of a cause. So it has become clear that the persistence of a generated thing and its existence after generation is due to a cause that extends its existence, and it is in itself not necessary, and no logician can object to us and say...³⁴⁴

Here, I argue that Avicenna is providing a *metaphysical* analysis of the concept of a contingent essence which parallels his analysis of quiddities in terms of its tri-partite status (the quiddity simpliciter versus its existence mentally and externally), as conducted in *Najāt Metaphysics* I 17,

variant cited in the modern edition of Isfarāyīnī's commentary on the *Najāt* that reads *iktasabahu* (241). This would make the sentence translate roughly as: "Whatever existence acquires necessarily, nonexistence acquires impossibly." But the point here does not seem to be about the modality of existence's or nonexistence's acquisition, but rather the modality of a thing with the condition of existence or of nonexistence. The first reading seems more true to the context.

³⁴⁴ *Najāt Metaphysics* II 14: 274,5 – 275,3.

and most famously, *al-Shifāʾ Metaphysics* V 1.³⁴⁵ That is, his argument examines the grounds of contingency and locates it in the very essence or “nature” or “substance” of the contingent thing, i.e., contingency is constitutive of the essence of the contingent *without condition*, whereas necessity and impossibility apply externally with the condition of existence or nonexistence, respectively. Avicenna here analyzes the contingent in existence, with respect to delineating its various modalities. He outlines three possible grounds of contingency: (1) its contingency is without any condition (*shart*), neither the stipulation of it being existent nor of it being nonexistent. In an alternate text, its contingency is “by” and “in virtue” of its essence. He will characterize the ground of contingency as contingency being part of the very nature and substance of the thing. This latter seems to be odd language as he is applying “substance” and “nature” – terms that apply to things that fall under the categories – to the more general concepts of contingency, necessity and existence. Here, he seems to be embarking on a “scientific” analysis of the grounds of contingency, necessity and existence, on which he will have more to say. As he states, “For contingency is with respect to its essence, and necessity and impossibility are with respect to a condition that is attached to it.”

Avicenna then turns to the next two options for the grounds of contingency: (2) its contingency is due to the condition of it being non-existent; and (3) its contingency is due to the condition of it being existent. He turns first to (2) and quickly rules it out, saying it is impossible that the contingency of a thing be due to it being nonexistent, because it is impossible, not contingent, of existence *as long as* or *on condition of* nonexistence. With the condition of nonexistence stipulated of it, it is “impossible that it exist”. The distinction that he seems to be

³⁴⁵ I will not provide an analysis comparing both chapters here. For a treatment of this tri-partite status of the quiddity in Avicenna, see Stephen Menn, “Avicenna's Metaphysics,” *Interpreting Avicenna: Critical Essays* (Cambridge University Press, 2013), 143–69.

drawing here, as the passage will show, is between the constitutive property of a thing with respect to itself (i.e., contingency) and its modality given a certain condition or stipulation. Avicenna's point here is that placing a condition of nonexistence would make something impossible to exist but only in virtue of the condition and not in virtue of the nature or essence of a thing. He dismisses model (3) as well on similar grounds.

He then turns his attention to examining more closely *how* necessity is predicated of the existence or persistence of contingent things, like, Zayd. To do this he distinguishes a thing's modality in itself from a thing's modality given an external condition that is stipulated of it. He illustrates this with two sets of propositions:

- (i) The existence of Zayd the existent is necessary.
- (ii) The existence of Zayd while he exists is necessary.

And, in parallel fashion:

- (i) The persistence of a generated thing is necessary in itself.
- (ii) The persistence of a generated thing is necessary as long as it exists.

He states the distinction has been made clear to one in logic.³⁴⁶ He says the first formulation of each is false, and the second is true. It is not that Zayd in himself, or the existence of a *ḥādith* in itself, is necessarily existent, which is suggested in the pair of the first statements. But rather, if existence is conditioned of Zayd or of the generated thing, then they are necessarily existent through that external condition. Avicenna's point is that a *ḥādith* is contingent with respect to

³⁴⁶ See, for instance, his discussion of absolute versus conditional necessity sentences in *Najāt Logic* I 22: 58-59. For a discussion of this in Avicenna and Ṭūsī, see Henrik Lagerlund, "Avicenna and Ṭūsī on Modal Logic," *History and Philosophy of Logic* 30: 3 (2009), 227-239, esp. 233-234. See also Tony Street, "Arabic and Islamic Philosophy of Language and Logic," *The Stanford Encyclopedia of Philosophy* November 2013. In his discussion of this passage, Street clarifies that although Avicenna's examples are of necessity propositions, the same conditions apply to propositions of all modalities. Also, Street treats a parallel passage in the *Logic* of the *Ishārāt*, in the context of discussing the *waṣfī* / *dhātī* distinction of Avicenna. See Street, "Logic," *The Cambridge Companion to Arabic Philosophy*, ed. Peter Adamson and Richard Taylor (Cambridge University Press, 2005), 247-265, esp. 259-261.

itself, and the only way it can become necessarily existent is *given* some external condition. But this still does not change what the *ḥādith* is in itself, and that is contingent. He states, “For contingency is with respect to itself, and necessity and impossibility are with respect to a condition that is attached to it.” Avicenna wants to conclude that for any moment that it does exist, the *ḥādith* is dependent in its existence on another, since with respect to itself it is only contingent, and necessary as long as it exists.

Avicenna seems to be applying a kind of the “through itself” (*bi dhātihi*) and “through another” (*bi ghayrihi*) distinction, such that he is able to explicate existents that, with respect to themselves, are contingently existent, and with respect to another, are necessarily existent.³⁴⁷ But a complete analysis of his argument here, and his return to it in the next passage, must take into account his analysis of “real contingency”, which moves beyond logic. Avicenna continues in the next passage,

T4.13

No logician should then object to us and say³⁴⁸: *real contingency* (*al-inkān al-ḥaqīqī*) is the [contingency]³⁴⁹ occurring (*kāʾin*) in the state of the nonexistence of the thing, and the existence of everything that exists is necessary (*ḍarūrī*). So if this [i.e., the existent contingent] is called contingent, it is [only called so] homonymously.

³⁴⁷ For an analysis of the sources and motivations of this distinction, see Robert Wisnovsky, *Avicenna’s Metaphysics in Context*.

³⁴⁸ I am departing here from Fakhry’s edition of the Arabic, which makes “no logician should then object to us” the end of the last sentence of the prior paragraph, and begins this paragraph with “*fa-naqūlu*”. This does not make sense, because what follows is a position that is the opposite of what Avicenna has been arguing for. So I take it that he is here instead stating an objection on behalf of a logician, and that it should read “*fa-yaqūlu*”. This is further supported by the fact he proceeds to give a response a few lines below.

³⁴⁹ The Isfarāyīnī edition provides *inkān*, whereas Fakhry’s edition omits it.

For it can be said to him: We have shown in our logic books that imposing the condition of (*ishtirāt*) nonexistence on a real contingent in a way that it becomes a part of the definition of the contingent is not a correct stipulation (*ishtirāt*), rather it [nonexistence] is a thing (*amr*) that happens accidentally (*muttafiq*) [to it] and attaches to the contingent in [certain] states. And we have shown that the existent is not necessary (*darūriyyan*) because it is existent, but rather [the existent is necessary] in that a condition is imposed on it, and [the condition] is either³⁵⁰ positing the subject or the predicate or the cause and the explanation, not [the condition of] existence itself. For you must consider what we have said in the books of logic, so you will know that this condition is not necessary (*ghayr lāzim*), for our concern (*naẓarana*) here is with respect to the necessary in its essence and the possible in its essence, and our concern in logic is other than that. It becomes apparent from this that effects are in need of a cause in order to persist in their existence, and how [they need a cause].³⁵¹ And we have shown that the cause possesses no influence on [there being] prior nonexistence, because the cause [of nonexistence] is the nonexistence of the cause, nor [does it influence] the fact of existence being after nonexistence, because it is impossible for this to be otherwise, since it is not possible by nature for generated things to have existence except after nonexistence. Hence, that which depends on a cause is the existence which is contingent in itself, rather than its being after nonexistence, or anything else like that.³⁵² And it is

³⁵⁰ Following the variant °*immā* instead of Fakhry's °*ammā*.

³⁵¹ I am departing from Fakhry's punctuation that makes "how" be the first word of the next sentence.

³⁵² Or perhaps just "how this is so".

necessary that this dependence [on the cause] continues (*yadūm*), so it is necessary that the causes of the existence of the contingent in itself, inasmuch as its existence is as has been described³⁵³, ³⁵⁴ exist alongside the effect. If these premises have become clear, then a Necessary Existent must exist. Since if the contingents exist (*wujidat*), and their existence persists, then they have causes of their persistence in existence. And it is possible that the causes be the causes of generation themselves, if they persist alongside the generated object, and it is possible that they be other causes, but [persisting] along with the generated objects.³⁵⁵

Avicenna clearly sees himself as advancing an argument for the grounds of contingency, necessity and existence as moving beyond the analysis in logic.³⁵⁶ It remains to explore what the role of his logical texts are in the context of this argument. Here, he explicitly refers to several points and concepts that strongly indicate that this is part of a scientific or demonstrative project of developing concepts in metaphysics. First, he labels the kind of contingent thing he is analyzing a “real contingent”, to set it off from the formal modal uses of the term in logic. That is, he is examining the nature of “things” or essences in this context and not just the formal structure of statements and arguments. As he states, “For our concern here is with respect to the necessary in itself and the possible in itself, and our concern in logic is other than that.” As well, he objects to the logician’s approach by referring to the “definition” of the contingent. He states,

³⁵³ I take his point here to be a general one referring back to how he has characterized the contingent—that with respect to itself it is utterly contingent, and that its utter contingency with respect to itself does not change if it happens to exist. The existence of a contingent is only through another, its cause.

³⁵⁴ Inserting a comma here in the Arabic.

³⁵⁵ *Najāt Metaphysics* II 14: 275, 2-25.

³⁵⁶ For instance above, with respect to his analysis of the propositions, he says, “And this has been shown in the *Logic*.”

“We have shown in our logic books that imposing the condition of (*ishtirāṭ*) nonexistence on a real contingent in a way that it becomes a part of the definition of the contingent is not a correct stipulation (*ishtirāṭ*).”³⁵⁷ That is, this is a “scientific” definition of the concept of the contingent that Avicenna uses to build his argument for a cause of persistence, and to fend off opposing viewpoints.

What is clear is that he sees his analysis of the essential relation of contingency and necessity to the “nature” or essence of generated things as differing from how logical treatises treat the modalities of contingency and necessity. The latter, he suggests, deals only with conditions (as indicated by the terms *sharṭ* and *mā dāma*) that are stipulated but are external to the nature of contingent essences. However, by analyzing the inner nature of persisting and generated quiddities, Avicenna is able to draw out metaphysical results that are central to his proof. Most importantly, he can show why the existence of contingent things will always need explanation at every point of their existence. This, as he suggests in his conclusion, avoids the problem of the apparent self-sufficiency of a successively generated, infinite series of contingent existents. As he suggests, all the premises elucidated are required for the proof. Finally, as discussed below, Avicenna’s approach to ground contingency in the nature of generated essences, in contrast to external conditions that apply to its modality of existence to make it necessary (or impossible), accords with his methodological project of reworking metaphysics as a demonstrative science.

³⁵⁷ One place Avicenna discusses this is *Najāt Logic* II 21: 56-58.

4.5. *Explanatory adequacy and the proof*

At the heart of Avicenna's approach to the proof is the Aristotelian worry over explanatory adequacy. As such, he generalizes the case of II 14, where he argues that though generation *can* regress infinitely through successive individuals, this would not be a sufficient account of the *existence* of the contingent. As he states above in conclusion, "If these premises have become clear, then a Necessary Existent must exist. Since if the contingents exist (*wujidat*), and their existence persists, then they have causes of their persistence in existence. And it is possible that the causes be the causes of generation themselves, if they persist alongside the generated object, and it is possible that they be other causes, but [persisting] along with the generated objects." Here, the case of the successive as well as the coexisting series is addressed by the argument for a cause of persistence. That is, even an ungenerated thing needs a cause of persistence. As such, the coexisting series of contingent individuals in II 12 is covered by II 14 in that the former does not fulfill the requirement of explanatory adequacy with regard to its causes.

The point is fleshed out in more detail in the *Shifā' Metaphysics*, to which I now turn. In I 6, Avicenna states,

T4.14

So we say: [The contingent in itself] must become necessary through a cause and with respect to it. For, if it were not necessary, then during the existence of the cause and with respect to it, it would still be contingent. It would then be possible for it to exist or not to exist, neither of the two states being determined

for it.³⁵⁸ Yet again this would be in need of the existence of a third thing through which existence as opposed to nonexistence or nonexistence as opposed to existence would be determined for it despite the fact that its cause exists. This [third thing] would be another cause, and the discussion would extend to an infinite regress. And if it regresses infinitely, the existence of the contingent, even given this, would not have been specified. So its existence would not have been realized. *This is impossible, not only because this leads to an infinity of causes—for this is something far-fetched,*³⁵⁹ *the impossibility of which is still open to doubt in this place—but because no dimension has been arrived at through which its existence is determined, when it has been supposed to be existing.*³⁶⁰

Here Avicenna states that if the regress of causes extends infinitely, then the existence of the contingent would never be “determined”—that is, the fact that it has existence would not have been accounted for. This seems to be another way of distinguishing what is internal to the nature of the contingent from what is external, i.e., existence and necessity. The point recalls the passage from his *Najāṭ*, as well as the *Ishārāt*, which distinguishes contingency, which is internal to the nature of the contingent, from necessary existence and impossibility, which require further analysis. This is because if each cause is contingent, then no matter whether there is a finite or infinite number of them, none of them adequately explain existence since they each rely on

³⁵⁸ The point here is that there would not be a sufficient reason to determine it to be existent or non-existent.

³⁵⁹ It is difficult to make sense of *bu^cdun* (which Marmura translates as “dimension”) in this context, which is what appears in the Cairo edition. *Bu^cd* can also convey remoteness or farness or distance, which might perhaps be evoking the farness or great distance of an infinite regress. However, if we read it as *ba^cīd* instead of *bu^cd*, then it would make better sense in this context—*ba^cīd* sometimes being used to indicate “far-fetched” in Arabic philosophical texts. Bertolacci lists *ba^cda* as a correction of Anawati’s. See Bertolacci, *The Reception of Aristotle’s Metaphysics in Avicenna’s Kitāb al-Shifā’*, 493.

³⁶⁰ *Shifā’ Metaphysics I 6 (6): 39, 6-15 emphasis mine.*

another to attain it. He states here an infinity of causes is “still open to doubt,” which is consistent with his approach in the *Najāt*. However, he views an infinite regress to be a philosophical option and yet goes on to dismiss the infinite series of contingents as impossible on the grounds of having not given an adequate causal explanation.³⁶¹ Here, like in the proof, he implies that whether the causes are finite or infinite does not affect the argument that he is giving.³⁶²

On the other hand, the infinite series of causes of generation poses no such problem for Avicenna, since such a series is accidental with respect to the explanandum in question, namely the current *existence* of a contingent—from time t_1 and on for as long as it exists. That is, Avicenna distinguishes between essential and accidental causes in *Shifā’ Metaphysics* VI 2 and aligns the former with terminating causal regresses and the latter with those that may regress infinitely,

T4.15

Thus, *the true*³⁶³ *causes coexist with the effect*. As for those that are prior, these are causes, either accidentally or as helpers. For this reason, it must be believed

³⁶¹ The point here is that the infinite regress of causes is dismissed not *because* it is infinite—it is not due to absurdities related to the infinite or anything of that sort. Rather, if it is an infinite series that is also an essential causal series, then one would never arrive at a cause of its existence. The contingent’s existence would not have been properly accounted for. One may suppose that he can entertain the possibility of an infinite series of contingents that is caused by a necessary being, in which case they are properly accounted for but need not terminate. But it seems, insofar as the necessary being is the essential cause, then that series *would* terminate at a first cause—at least if tracing the essential, “vertical” series up.

³⁶² This is also clear in the version of the argument in the *Metaphysics* of the *Ishārāt*, where Avicenna concludes in IV 15, “It has become clear that every series composed of causes and effects—be it finite or infinite-- if there is nothing but what is caused in it, it needs a cause external to it.” What terminates the series is the need for a cause that is not itself caused.

³⁶³ I use “true” to distinguish the use of *ḥaqīqiyya* here from his other use of *dhātiyya*. Avicenna seems to be using the former in this chapter to make the point that, for those who think the effect can persist on its own without a cause once the effect is brought into existence, they are not understanding what the “true” cause is. If they did, they would see that the “true” cause of the existence of the building and the son is not the builder and father but rather its essential cause, the metaphysical efficient cause of existence. This “true” cause must exist alongside its effect.

that the cause of the building's shape is the combination, the cause of this [the combination] being the natures of the things being combined and their persisting in the way they are composed, the cause of this [the persistence] being the separate cause that is the efficient cause of the natures. The cause of the son is the combination of his form with his matter through the cause that gives forms. The cause of the fire is the cause that gives forms and the cessation of the complete³⁶⁴ disposition for the contrary of these forms, both together. We thus find that the causes exist alongside the effects.

If we have completed what is related to our discussion that causes are finite, then we refer only to these [true] causes, and we do not disallow that there are helper and preparatory causes that are infinite, some preceding others. Rather, that must necessarily be the case, because every generated thing becomes necessary after not having been necessary due to its cause becoming necessary at that moment, as we have shown, and its cause being that which had also become necessary. *Hence, it is necessary with respect to particular things that the antecedent things by which they [the particular things] become necessary*

³⁶⁴ There is a question of whether *al-tāmm* modifies *al-isti'dād* or *zawāl*. If it modifies *zawāl*, then the clause would instead read, "...and the complete cessation of the disposition opposed to those forms..." I am not sure if it is possible to interrupt the *nisba* in this way, and it is not clear why he would need to add "complete" to cessation, which seems complete on its own. It is most likely modifying *al-isti'dād*. Avicenna discusses *al-isti'dād al-tāmm* in *Shifā' Metaphysics* VI 3 in the context of his discussion of the cause of the effect's individual existence, i.e. the cause of the effect qua individual. There he proceeds to discuss two divisions, one in which the cause and effect share in the *isti'dād* of matter, like fire causing fire, and the other in which the cause and effect do not share in the disposition of matter, like the light of the sun and the light of the moon. The former is further divided into cases in which there is an *isti'dād tāmm* versus those in which there is an *isti'dād nāqish* in the recipient. The former refers to the absence in the nature of a thing of an opposing impediment to what it is potentially, while the latter refers to the presence in the nature of a thing of this said opposing impediment. An example of the former is the disposition of heated water to cool, and an example of the latter is the disposition of water to become warm. That is, in the latter case there is in the nature of water a power that impedes the heating that occurs to it from the outside, and that impediment continues to exist alongside the external cause of its heating. See *Shifā' Metaphysics* VI 3 (11-15): 271-272.

are among causes that exist in act, so that their causes become infinitely many things in act. And for this reason, the question “Why?” never comes to a stop in them.³⁶⁵

The above explains the difference between the “scientific” analysis of II 14 and the more general approach of II 12 in the *Najāt*. This passage is precisely the causal framework that informs Avicenna’s approach in II 14 of the proof of the *Najāt*, which he then generalizes. Avicenna makes a fundamental distinction between causing natures or essences, which require a coexisting, finite series of causes (i.e., the “true” causes), from causing particulars that may involve an infinite series of preparatory and assisting causes. This latter cannot be explained scientifically, in the sense of having a *metaphysically* adequate explanation, i.e., ontologically fundamental- though they may have a physical analysis. As he states, “Because of this, the question ‘Why?’ does not pertain to [these things] at all.” Here, the distinction between true causes that must be finite and coexistent with their effects and causes of individuals is highlighted. As I show in Chapter 1, Avicenna means by this, ultimately, the division of causes as cause of species versus the cause of individuals. Here, Avicenna takes the metaphysical efficient cause or essential cause to be the most primary causing of a thing. Avicenna suggests here that the causes of a thing (causes of motion, such as the father and builder), taken to be real causes in physics, are not the real causes of a thing’s existence since they precede the said effect, nor moreover *can* they be causes of a thing’s existence even if they did coexist. Moreover, Avicenna states these accidental causes (vis-à-vis the *existence* of the contingent³⁶⁶) can regress

³⁶⁵ *Shifāʾ Metaphysics* VI 2 (5-6): 265, 1-11 emphasis mine.

³⁶⁶ But *essential* vis-à-vis their “true” effect—the preceding motions.

infinitely with no problem, and in this context I understand this to be because these causes are not the true causes of the explanandum in question, the existence of the contingent. As he states, “It follows necessarily in particular matters that the antecedent things—through which [the particulars] are rendered necessary in [terms] of causes that actually exist [so that these antecedent things] become, for [the particulars], causes in actuality—are infinite things.” So if they are not doing real explanatory work in metaphysics, then we no longer run into the problem of continuing (in vain) to seek an explanation of the given phenomenon *ad infinitum*, and so it is not a problem for them to regress infinitely.³⁶⁷ Here, Avicenna resolves the problem of Aristotle’s original argument from motion, which involves an infinite regress of causes but which are, in Avicenna’s definition, causes of the effect qua individual vis-à-vis true metaphysical causes of existence. It is this issue of explanatory adequacy, here expressed in terms of essential and accidental or preparatory causes, that allows Avicenna to consistently distinguish between valid and invalid infinite causal regresses. The distinction between cause of species and cause of individuals was discussed in Chapter 1 and it is now clear that the proof in the *Najāt* fundamentally depends upon that causal framework.

Still, I do not take Avicenna to hold that there are *true* causal series that can regress infinitely as long as they are not causes of existence. That is, in the classic case of a hand holding a stick moving a ball, there must still be a first cause to explain the motion of the ball. If the hand is in turn moved by some other agent, *ad infinitum*, none of whom are unmoved movers and rely on another agent to move them, then the motion has yet to be accounted for. Rather, I take it that Avicenna holds that the eternal process of generation and corruption is just that—a *process* that has been going on forever, but the true causal series ascends vertically and begins with a first

³⁶⁷ Assuming it is not absurd for some other reason—like constituting an actual infinite, which it is not.

cause (be it of motion or of existence). The copulation of the parents causes, eventually, the child's birth, but it is not the grandfather that causes the copulation of the father. Instead the true cause of that motion would ultimately be some heavenly mover, terminating at a first cause of motion. The grandfather, and great grandparents, and so on, in some loose sense play a preparatory role in that the son would not have come about without them, but are not the true causes of the *motions* that cause the coming-to-be of a new offspring from the son. In this sense the eternal process of generation and corruption is *a* series but not a true *causal* series, which would be a vertical essential causal chain beginning with the First and ending at the given motion or existence that is being explained.³⁶⁸ I take what Avicenna has in mind to be encapsulated in this passage from St. Thomas Aquinas,³⁶⁹ in the distinction between *per se* and *per accidens* causes:

T4.16

In efficient causes it is impossible to proceed to infinity *per se*. Thus, there cannot be an infinite number of causes that are *per se* required for a certain effect; for instance, that a stone be moved by a stick, the stick by the hand, and so on to infinity. But it is not impossible to proceed to infinity accidentally as regards efficient causes; for instance, if all the causes thus infinitely multiplied should have the order of only one cause, while their multiplication is accidentally: e.g., as an artificer acts by means of many hammers accidentally,

³⁶⁸ For a discussion of infinite regress arguments in the medieval context, especially Aquinas and Scotus with references to Avicenna, Averroes, and Maimonides, see Patterson Brown, "Infinite Causal Regression" *The Philosophical Review* 75 (1966), 510-525.

³⁶⁹ I cannot pursue a full treatment of Aquinas and Scotus here, but I draw on them simply to bring out Avicenna's position.

because one after the other is broken. It is accidental, therefore, that one particular hammer should act after the action of another, and it is likewise accidental to this particular man as generator to be generated by another man; for he generates as a man, and not as the son of another man. For all men generating hold one grade in the order of efficient cause, viz. the grade of a particular generator. Hence it is not impossible for a man to be generated by man to infinity; but such a thing would be impossible if the generation of this man depended upon this man, and on an elementary body, and on the sun, and so on to infinity.³⁷⁰

On a similar note, Scotus distinguishes between essentially and accidentally ordered causes, where an essentially ordered causal series is one in which the effect depends on the cause in its *causing*

T4.17

...I say that the philosophers do not assume the possibility of an infinity in causes essentially ordered, but only in causes accidentally ordered, as is evident from Avicenna's *Metaphysics*, BK. VI, C. V, where he speaks of an infinity of individuals in a species...

³⁷⁰ St. Thomas Aquinas, *ST I*, Q. 46, Art. 2, ad. 7, in *Philosophy in the Middle Ages: The Christian, Islamic, and Jewish Traditions*, edited with introduction by Arthur Hyman, James J. Walsh, & Thomas Williams (Hackett Pub. Company, 2010), 493.

Per se or essentially ordered causes differ from accidentally ordered causes in three respects. The first difference is that in essentially ordered causes, the second depends upon the first precisely in its act of causation. In accidentally ordered causes this is not the case, although the second may depend upon the first for its existence, or in some other way. Thus a son depends upon his father for existence but is not dependent upon him in exercising his own causality [that is, in himself begetting a son], since he can act just as well whether his father be living or dead.³⁷¹

In his distinction between accidental and essential causes, Avicenna does not speak of causes of *causing* in the way Scotus does, nor of the distinction between essential and accidental causes and essentially *ordered* and accidentally *ordered* causes.³⁷² But Avicenna would share the point that the cause of the son's causing (begetting another son) is not the father, but rather ultimately some unmoved mover. Thus the series of ancestors is not a true *causal* series for Avicenna, and I believe this is ultimately why it can "regress" infinitely without cause for concern. But the same cannot be said for the true causal series of movers that caused the coming-to-be of the grandson, nor can it be said for the true causal series of causes of existence of the contingent.

³⁷¹ Duns Scotus, John, *Opus Oxoniense*, I, Dist. II, Q., in *Philosophical Writings: A Selection*, translated with introduction and notes by Allan Wolter; with a foreword by Marilyn McCord Adams (Indianapolis: Hackett Pub. Co., 1987), 40-41.

³⁷² At least not as far as I am aware of. Scotus explains the distinction as such, "Here it should be noted that it is one thing to speak of incidental causes (*causae per accidens*) as contrasted with those which are intended by their nature to produce a given effect (*causae per se*). It is quite another to speak of causes which are ordered to one another essentially or of themselves (*per se*) and those which are ordered only accidentally (*per accidens*). For in the first instance we have merely a comparison one-to-one, namely of the cause to that which is caused. A *per se* cause is one which causes a given effect by reason of its very nature and not by reason of something incidental to it. For instance, the subject is a *per se* cause of its proper attributes. Other such instances are 'white dilating' or 'a builder building'. On the contrary, 'Polycletus building' would be an incidental cause. In the second instance, two causes are compared with each other in so far as they are causes of the same thing," *Opus Oxoniense*, I, Dist. II, Q. in Wolter, *Philosophical Writings*, 40.

To recap, I have explained how explanatory adequacy motivates Avicenna's proof, particularly in that he eliminates an infinite regress of contingent causes because it would not properly account for the existence of the contingent. This is the case with essential causes, which coexist with their effect, while the series of accidental or helper "causes" can regress infinitely for him.

I turn now to what I take to be another aspect of explanatory adequacy that motivates and determines the proof. It is perhaps best illustrated by way of a challenge to Avicenna's proof that I think stands, even after advancing the above distinction between essential and accidental causes and their implications vis-à-vis infinite regresses. A *mutakallim* may agree with Avicenna that when there is an effect, there has to be at least one cause that it is in need of and which coexists with it- say sources of nourishment or protection from the elements. But this opponent need not agree that this coexisting, essential cause is a cause of the effect's continued *existence*, in the way that that Avicenna proposes through his metaphysical efficient cause.³⁷³ It does not follow from what Avicenna has advanced thus far that the contingent needs anything more than to be *brought into* existence by a generator. In other words, one may agree that this contingent, qua effect, is still in need of some cause, but just not Avicenna's cause of existence.³⁷⁴ Avicenna needs to explain why the cause of generation is not sufficient to account for the contingent's existence. Why would existence be a continuous explanandum even after one has explained what caused the contingent to come-to-be? As was seen in chapter 1, this is a central disagreement with those *mutakallimūn* who take *ḥudūth* to be what makes something in need of a cause. This is why, for instance, Ghazālī insists that Avicenna has no basis to invoke causes of eternal things

³⁷³ In a future project, it would be interesting to explore the spectrum of views among the *mutakallimūn* regarding *baqā'* and *fanā'*: whether *baqā'* needs a cause, or whether an accident of *baqā'* is even the way that a substance is sustained (assuming the accident of *baqā'* exists at all).

³⁷⁴ But rather for instance sources of nourishment, protection from causes of destruction, etc.

or processes, since for Ghazālī their eternality precludes their being caused.³⁷⁵ As Ghazālī states,

T4.18

The act attaches to the agent in terms of its temporal origination, not in terms of its previous nonexistence, nor in terms of its being an existent only. For, according to us, it does not attach to it in the subsequent state after origination when it [already] exists, but attaches to it at the moment of its temporal origination, inasmuch as [this] is temporal origination... If the meaning of temporal existence is denied it, then neither its being an act nor its being attached to an agent would be intelligible. Your statement that its being temporally originated reduces to its being preceded by nonexistence and [that] its being preceded by nonexistence is not the act of the agent and the deed of the maker [expresses what, in fact,] is the case. But its being preceded by nonexistence is a condition for existence to be the act of the agent. Thus, existence which is not preceded by nonexistence, but is perpetual, is not fit to be the act of the agent.³⁷⁶

Avicenna must give some account of why causes of generation are not enough to account for the existence of the contingent.

His causal principle of cause of persistence (*‘illat al-thabāt*) developed in II 14 constitutes the second layer of his pursuit of explanatory adequacy. That is, we know that the causal account of the contingent must be a terminating series in order to adequately account for

³⁷⁵ In addition to his critique of the meaning of the terms possibly existent and necessarily existent. See Davidson, *Proof for Eternity*, 366-375 and Menn, “God and Existence,” 150-157.

³⁷⁶ Ghazālī, *Incoherence*, 3, 62.

the effect in question. But we have yet to learn what precisely needs causal explanation. Avicenna is not interested in tracing just any kind of causing, or even any kind of efficient causation, but it is clear he is seeking an essential account of efficient causation—one that identifies what *truly* makes an effect in need of a cause in some most fundamental sense. This then determines the kind of causing he traces in the proof. II 12 is not meant to be filled in by just any kind of cause, nor just any kind of efficient cause, but by the precise account of causation that he develops in II 14 and at greater length in other passages. This program is also evident in Avicenna’s account of causation in *Ishārāt* Metaphysics V. He begins in V 1 outlining what he takes to be the mistaken view of what makes something in need of a cause, which he later describes as an accidental feature that should be set aside in favor for his account of causation,

T4.19

Most people (*al-‘amma*) think that the dependence of a thing they call effect (*maḥḥūl*) on the thing they call agent (*ḥā’il*) is with respect to what they (*al-‘amma*) think makes an effect to be an effect and an agent to be an agent. And that is that [the cause] existentiates (*awjada*), creates (*ṣana‘a*) and makes (*fa‘ala*) and this [the effect] is existentiated, created, and caused. And all that amounts to the fact that something obtains from another existence after it was non-existent. And they sometimes say: once [the thing] comes into existence, then the need for an agent ceases (*zālat*), so that if the agent were absent (*fuqida*)³⁷⁷ then it would be possible that the effect continues to exist, just as

³⁷⁷ *fuqida*: *faqada* being the opposite of *wajada*, so ‘lost’ would be closer to the meaning but less idiomatic. I use ‘absent’ here only to distinguish it from the use of *zālat* earlier in the same sentence.

they observe in [the case of] the absence (*fiqdān*) of the builder but the subsistence (*qiwām*) of the building.³⁷⁸ Many of them go to the extent of not being weary of saying: if it were possible for the Exalted Creator to be nonexistent, His nonexistence would not affect the [continued] existence of the world.³⁷⁹ [This is] because to them³⁸⁰ the world was in need of the Exalted Creator only in that He had existentiated it, i.e. He had brought it out of nonexistence into existence, so that He is an agent through this, so if it has been made and existence was obtained for it over nonexistence, then how can it, after that, come into existence from nonexistence such that it would need the cause?³⁸¹

Avicenna here outlines the view that he will critique, namely that what makes something in need of a cause is only that it comes to be after not having been.³⁸² As Ṭūsī explains in his commentary on V 3, “The principle of disagreement is in what does the effect depend on a cause. The philosophers (*ḥukamāʾ*) say that it depends on it in its existence, regardless of whether the

³⁷⁸ Here I depart from the punctuation of the edition, which has ‘builder’ as the end of the sentence and ‘persistence of the building’ as starting the new sentence.

³⁷⁹ It is difficult to imagine an opponent actually thinking this, even though Avicenna states that they do. If they do, it is possible that this point is just made to explicate and emphasize their view that what makes something in need of a cause is origination, i.e. *if* it were possible for God to be nonexistent (which they obviously do not think it is), *then* in principle things can still continue to exist. What is clear at least is that Avicenna is drawing out an absurdity of the opponent’s position that an effect can persist on its own without a cause.

³⁸⁰ I am reading *kathīran minhum* to be the antecedent of the pronoun *hu* of ‘*indahu*’ here. Even though the former is plural, this reading might be justified by the singular *yaqūla*. Still, this would entail that the antecedent comes some way beforehand, and I must translate the singular *hu* of ‘*indahu*’ as ‘to them’ as opposed to ‘to him,’ in order to be idiomatic in English.

³⁸¹ *Ishārāt Metaphysics* V 1: 57,5 – 58,8.

³⁸² In his commentary, Ṭūsī adds three points given in support of this view: 1) the observation that many effects remain (*baqāʾ*) after the ceasing their cause, such as the building that remains after the builder; 2) the existence of the cause to the effect during the latter’s existence is *taḥṣīl al-ḥāṣil*. I understand this to mean that, if you take causing to be a matter of bringing x into existence from non-existence, then to say that the cause is still active towards the effect during the latter’s persistence is to say that it is somehow (again) bringing it into existence from non-existence, which is impossible; and 3) if the effect after its generation is in need of a cause of existence, then the cause would need a cause of existence as well, *ad infinitum*.

dependent is generated (*hādith*) or not. The majority (*jumhūr*) say that it depends on it in its generation (*hudūth*).” Avicenna here raises the challenge that, if generation is what makes something in need of a cause, then theoretically the Creator may cease to exist with no effect on the world since causedness is only tied to bringing a thing into existence from nonexistence. Such an account of causation is to include what Avicenna later refers to as accidental features (*ma^cānī ^caraḍiyya*) that should not be included in the definition of effect, or in the account of what makes an effect an effect. Again, he pursues a scientific program. *Ishārāt* V 2 in particular helps illustrate Avicenna’s program in seeking an explanatorily proper account of causation. He states,

T4.20

[1] It is necessary for us to resolve the meaning of our saying, [a thing] is created (*ṣuni^ca*), made (*fu^cila*), and brought into existence (*ūjida*),³⁸³ into the simple parts of its meaning, and remove from it whatever enters³⁸⁴ only accidentally into our aim.

[2] So we say: If a thing was nonexistent, then it is existent after non-existence because of some thing, then we call it [i.e., the existent thing] the effect (*maf^cūl*). And we do not consider here whether one of them is said of the other, in a coextensive, broader, or narrower manner, such that it is necessary, for example, that it be added, such that we say [that it is] existent after non-

³⁸³ I am reading these as passive. However they can also be read as *ṣana^ca* , *fa^cala* , and *awjada* , i.e. he [God] has created, made, and brought into existence. I lean towards the passive reading, since in what follows Avicenna seems to be concerned with the status of the *thing* being caused in these different ways. In his commentary on the passage, Rāzī also treats it passively, i.e. he speaks of the *thing being caused*.

³⁸⁴ I.e. whatever is only accidentally related to our aim.

existence due to that [latter] thing, due to the motion of that thing, and contact, and by means of an instrument, and by willful choice or otherwise, or by nature or generated power (*tawallud*) or otherwise, or by some contrary of these things. We do not look at this now, since the truth is that these things are extraneous to what makes a thing an effect. And that which is correlative to it³⁸⁵, and because of which it is, we call (it) agent.

And the proof for this indifference³⁸⁶ is that if someone says: he made (*fa^cala*) by means of an instrument, or by a motion, or by intention, or by nature, he would not have said something that contradicts what makes the action (*fi^cl*) an action, nor would there be redundancy in the concept. As for contradiction: for example if what is understood by ‘action (*fi^cl*)’ excludes it from being by nature, and if someone said: he acted by nature, it is as if he said: he acted, he did not act. As for redundancy: for example if what is understood by ‘action’ includes choice, and if someone said: he acted by choice, it is as if he said: an animal human³⁸⁷.

[3] So if the meaning of action is this, or part of the meaning of action, then it does not affect us in our aim. For in the meaning of the action is existence and non-existence, and [the fact that] this existence is after nonexistence, is as it

³⁸⁵ *yuqābiluhu*, here translated as ‘correlative to’ instead of ‘opposite to’, since there are four kinds of opposition in Aristotle, “This are said to be opposed to one another in four ways: as correlatives or as contraries or as privation and possession or as affirmation and negation,” (*Categories* 11b17-18) in *The Complete Works of Aristotle*, ed. Jonathan Barnes (Princeton, New Jersey: Princeton University Press: 1984).

³⁸⁶ I.e. the notion of cause is indifferent to whether or not it causes ‘by means of an instrument’ or ‘by choice’ or ‘by nature’ and so on; such qualifications are not part of the very definition of cause.

³⁸⁷ Reading *ḥayawān* here not as a predicate but attributively, in order for it to properly be the redundancy Avicenna is speaking of here.

were an attribute of this existence predicated of it. As for nonexistence, it will never depend on the agent of the existence of the effect. As for this existence being qualified as being after nonexistence, it is not by the action of an agent, nor the creation of a creator; since the existence of something like this which is capable of nonexistence cannot be except after nonexistence.³⁸⁸

Here Avicenna is not seeking just any account of cause, but rather, one driven by the *Posterior Analytics*' method for scientific inquiry. Avicenna is here seeking the proper definition of cause and of effect, just as when seeking the definition of a *substance* and stripping away accidental features and concomitants from the essence. To seek this scientific definition of cause and effect, he must first strip away aspects of the cause and effect that are accidental vis-à-vis causeness and effectness. In particular, in metaphysics he is not interested in accidental aspects of the “existence” of essences (the existent qua motion, for example). In metaphysics he seeks to account for the essence qua existent, and in seeking causes, he must seek causes of the essence qua existent and not qua moving or any other accidental feature of essences. In the end, Avicenna defines the effect as that which is not necessary in itself but through another, regardless of whether it is generated or an eternal contingent.³⁸⁹

Returning to *Najāt* II 14, Avicenna's point is that it is not simply insufficient to account only for a contingent's coming-to-be, but that such an account leaves out, explanatorily, what most fundamentally must be explained: the proper grounds of contingency and that existence is only necessary through another. He forges this distinction at the outset of II 14, where he

³⁸⁸ *Ishārāt Metaphysics* V 2: 59,8 – 64,4.

³⁸⁹ Tūsī states, in his commentary on *Ishārāt* V 3 and in response to Rāzī, that it is actually necessity through another that makes something in need of a cause, not contingency, since something can be contingent and non-existent in which case it has no cause.

distinguishes between a contingent's cause of generation (*‘illat al-ḥudūth*) and its cause of persistence (*‘illat al-thabāt*). He is not interested in the former, more than just acknowledging that such causes exist, and sets it aside to devote his attention in the chapter to establishing the second principle, that every generated thing (*ḥādith*) and, indeed, every contingent thing, has a cause of persistence (*thabāt*) and not simply a cause of generation. Over the course of the argument, Avicenna makes clear that to truly account for a contingent, we must account for its existence, and to do so is to invoke a cause of its existence for as long as it exists. Being *essentially* and *by nature* contingent, he argues, it has no means of persisting in existence through itself, and so this causal dependency remains even after it has been brought into existence. Avicenna is drawing out what he takes to be the fundamental yet unaccounted “effectness” of caused phenomenon: that contingency is the very “nature” of essences that modes of existence apply through an external cause.

The proof drew the interest of *mutakallimūn* in the vast commentary tradition on the *Ishārāt*.³⁹⁰ Interestingly, in his commentary on V 1, Rāzī, unlike Ghazālī, does not critique the explanandum that Avicenna has carved out, the persistence of the contingent, but suggests that *mutakallimūn* would actually recognize a similar explanandum but identify it differently due to a differing ontology,

T4.21

He [Avicenna] said, “They *may* say”, and he didn’t say, “They say”, precisely because most of the *mutakallimūn* do not say that. That is because, although they do not render the substance in its state of persistence (*baqāʾ*) in need of an agent, they do make it in need of accidents that do not persist, and the agent

³⁹⁰ I hope to explore this more fully in a future work.

existentiates them [the accidents] in it [the substance], such as the accident called persistence (*baqāʾ*) by those who posit it, or some other [accident] from among the rest of the accidents for those that do not posit it [the accident of persistence]. So they, even if they do not make it in need of the agent for its existence, nonetheless they make it in need of the agent for that which it needs for its existence [namely, these accidents]. So they are not asserting the cessation of the need [for an agent] after generation. As for whoever opposes them, they are the ones who assert this.³⁹¹

I set aside an analysis of the reception of Avicenna's proof here.

4.6. *Infinite regress and the proof*

Avicenna's proof has been read as an argument that establishes a Necessary Being based chiefly on the impossibility of an infinite regress of causes. Davidson identifies three central premises as constituting Avicenna's proof: a) principle of causality, b) impossibility of an infinite linear regress of causes, and c) impossibility of a circular regress of causes.³⁹² Then he explains, "Significantly, the second and third principles are not genuinely needed for his proof; Avicenna has, without quite realizing it, developed a cosmological proof that can dispense with the impossibility of an infinite regress."³⁹³ Davidson refers to this as "a certain awkwardness" that is "circuitous and redundant" because, in his view, Avicenna's argument begins by showing

³⁹¹ *Sharḥ al-Ishārāt* 58,11 – 59,4.

³⁹² For b) and c), Davidson would be referring to an *essential* causal series, which is, for instance, Avicenna's argument in *Najāt Metaphysics* II 13 against the possibility of an infinite circular regress of essential causes.

³⁹³ Davidson, *Proofs for Eternity*, 299.

what he calls the “preliminary proposition” that the totality of contingents must depend on a being necessarily existent in itself and then infers as a corollary the impossibility of a linear or circular regress of causes. In Davidson’s view, Avicenna rather needlessly uses his arguments for the impossibility of infinite regress to establish the view that the series of “maintaining” causes must terminate at a necessarily existent being.³⁹⁴ Davidson takes this to be something Avicenna has already shown through the preliminary proposition, with no need for using the newly proven principles b) and c) to prove that the maintaining causes terminate (again).³⁹⁵ He takes Avicenna to have pursued this redundant route because he was swayed to make his proof fit the more common mold of proving the Necessary Being through the impossibility of an infinite regress, wanting “an explicit statement of the impossibility of an infinite regress of causes.”³⁹⁶ This

³⁹⁴ It seems this must be a reference to the argument of II 14, since this is where Avicenna discusses the *‘illat al-thabāt*.

³⁹⁵ Davidson writes, “A certain awkwardness in Avicenna’s argumentation was mentioned earlier. In the course of establishing the second principle required for his proof, the impossibility of an infinite linear regress of causes, Avicenna demonstrates the critical preliminary proposition that the totality of possibly existent beings must depend for its existence on a being that is necessarily existent by virtue of itself; and then, as a corollary, he infers herefrom the impossibility of an infinite linear regress of causes. Avicenna employs the same preliminary proposition when establishing his third principle, the impossibility of a circular regress of causes. After establishing the principles, he goes on to reason that the series of causes maintaining a given possibly existent being in existence cannot regress indefinitely either linearly or circularly but must terminate at, what he had already demonstrated in the preliminary proposition, a being that is necessarily existent by virtue of itself. He uses the preliminary proposition— that all possibly existent beings ultimately depend on a being necessarily existent by virtue of itself— to establish the impossibility of an infinite linear or a circular regress of causes; and he thereupon uses the impossibility of a regress of causes to prove over again what he already had proved in the preliminary proposition,” (302).

³⁹⁶ Davidson offers a summary of how Avicenna *ought* to have argued. In my analysis, Davidson’s re-rendering of the argument does not work and Avicenna knows this as it does not account for the infinite regress of successive causes, as well as the holes in the argument in II 12. To render the latter a contingent series that is still requiring a cause, he assesses whether effects always coexist with the cause or whether some require an additional cause of persistence, which he then generalizes as a framework for assessing causal series. Davidson states, “The circuitous and redundant route followed by Avicenna must have been due to the influence upon him of other proofs of the existence of God; he illogically forced his own proof into the mold of familiar cosmological proofs that do explicitly reject an infinite regress of causes. The proof is obviously simpler and more logical when the issue of an infinite regress is set aside. The argument will then run: A totality of possibly existent beings, whether infinite or finite, and whether arranged in a linear or circular series or in any other manner, must depend on a being necessarily existent by virtue of itself; something actually exists; that thing either must be necessarily existent by virtue of itself or must ultimately depend on something necessarily existent by virtue of itself; therefore, a being necessarily existent by virtue of itself must exist. In this form the proof is not merely simpler and more logical; it also reveals its originality, vis-a-vis Aristotelian proofs of the existence of God, in dispensing with the device of tracing a chain of causes back link by link to a first cause.” Davidson goes on to say that this “more straightforward formulation” appears in Shahrastānī’s restatement of the proof and in Crescas.

interpretation is found in other modern accounts of the proof as well.³⁹⁷

In my reading, Avicenna need not refute the impossibility of infinite regress in the case of the coexisting series but must do so in the case of the successive series. Moreover, as noted, his arguments against the coexisting series in II 12 is less than watertight. Avicenna states near the beginning of his proof in II 12 that regardless of whether the series of contingent causes is finite or infinite,³⁹⁸ the argument that he proceeds to give will apply. Crucially, he states this after stating that we will “postpone the discussion of that case [i.e., the infinite successive series]”. That is, in the *Najāt*, Avicenna holds that, in the case of the coexisting series, the infinite regresses do not render the series self-sufficient. His arguments proceed on the basis that the “totality” of the series, whether finite or infinite, is not a necessary being. The same argument does not apply to the successive series, especially if the successive series is viewed as proceeding discretely in time from an individual cause to an individual effect. In such a case, a series of contingent causes cannot be viewed as a totality because it does not exist at once. As such, it cannot be analyzed along the lines of a coexisting linear or circular series, since its totality does

³⁹⁷ For instance, Toby Mayer also takes the proof in the *Najāt* to depend on an argument against infinite regress in “Ibn Sīnā’s *Burhān al-Šiddiqīn*,” 18–39. He echoes Davidson’s sentiments in his own remarks on the proof, saying Avicenna “feels obliged” to use the impossibility of infinite regress in his proof, despite not needing to do so. In this regard, he contrasts the proof in the *Najāt* with that of the *Ishārāt*, “In the cosmological part of the argument (tersely covered by Rāzī’s phrase, ‘if it is contingent, it is dependent on the necessary’), Ibn Sīnā has tried to explain at considerable length exactly *how* contingent existence must ultimately depend on God, notwithstanding its potential infinitude. In this part of the argument—in the naked form in which Ibn Sīnā presents it in the *Ishārāt*—while there is clearly a concern to end an infinite regress of explanations, the principle *infinitum actu non datur* appears to have been dispensable, and the regress is terminated purely on the basis of the causal irreflexiveness of contingency. This is in contrast to how Ibn Sīnā sets up the argument in more conventional contexts than the *Ishārāt*. For instance, though the proof in the *Najāt* runs parallel to the proof in the *Ishārāt* in many respects, it is noteworthy that in it Ibn Sīnā feels obliged to give *infinitum actu non datur* prominence as a premise, though the need for it as the *Najāt* proof runs its course is unclear. In the *Ishārāt*, instead, Ibn Sīnā seems not even to nod at the principle in question. The deep intuition that the contingent, though potentially unlimited quantitatively, is intrinsically *self-limitative* explanatorily, is sufficient for him,” (36–37). Here Mayer explains that Avicenna uses the impossibility of an actual infinite to prove the Necessary Being—that is, he reads II 12 as invoking this principle and thereby terminating the causal chain at a Necessary Being. Earlier, he explains that because the series that Avicenna is considering has members who all exist at one time, then it would constitute an actual infinite, which is impossible, and so Avicenna instead infers the existence of the Necessary Being.

³⁹⁸ “then either the totality insofar as it is that totality, whether it is finite or infinite...” *Najāt Metaphysics* II 12.

not exist as an entity. Avicenna's argument in II 12 established that the series of contingents existing at one time must terminate at a Necessary Being *because* otherwise the contingent would not be causally accounted for (recalling that Avicenna considered various options and dismissed them each for different reasons, none of which were the impossibility of infinite regress). When Avicenna returns to the argument in II 14, he is not redundantly using this corollary to prove over again what he has already shown (that contingents terminate at a Necessary Being). Rather, he is arguing afresh for a new premise: every contingent requires a cause of its *thabāt* for as long as it exists. This premise is the causal principle that is at the heart of the proof. And again, as was seen, the arguments for this principle are not based on the impossibility of infinite regress (which seems irrelevant for this purpose anyway) but again turn on giving an adequate causal explanation for the contingent.

Some other considerations raise further problems for reading the proof as being based on an argument against the possibility of infinite regresses. First, it would be unclear why Avicenna would be so concerned to offer this kind of argument (and to the extent that he would be willing to smudge the proof here to make it fit into this mold), since elsewhere he does already offer a different argument more closely based on the impossibility of an infinite regress of causes, following α 2, in the *Metaphysics* of the *Shifā'*, where he argues that a series of each of the four kinds of cause must terminate at a first cause which is the true cause in any causal series.³⁹⁹ Second, if Avicenna wanted to give an argument based on the impossibility of an actual

³⁹⁹ This is not to say that *Metaphysics* α 2 is not in Avicenna's background here in the proof, for that argument can be seen to also be motivated by explanatory adequacy which is what I take to be informing the proof here as well. But it is just to raise a problem with the view that Avicenna is, as readers have suggested, bent on offering an argument against infinite regress to the extent that he will circuitously force the proof into that mold. The point is he need not do so, since he has already elsewhere offered an argument that more closely fits that mold.

infinite,⁴⁰⁰ he certainly could have done so, at least for the infinite whose members coexist, since for him series whose members are both simultaneous and ordered cannot regress infinitely, while those that fail to meet one or both conditions can regress infinitely.⁴⁰¹ This reasoning appears in some of Avicenna's discussions on the infinite.⁴⁰² Series that meet both of these conditions could be subjected to Avicenna's mapping argument, which draws out absurdities that follow from juxtaposing different infinite series.⁴⁰³ However, as has been seen, Avicenna does not take this route to dismiss such a series. Perhaps one reason why he does not is that he is developing the most general or universal proof, which may account for views of an infinite world.

⁴⁰⁰ As Mayer (2001) states (p.33), namely that an infinite series of coexisting contingent causes would constitute an actual infinite, which is impossible for Avicenna.

⁴⁰¹ See *Shifā' Metaphysics* VI 2: 202 for a discussion that relates essential causes to series that coexist in time, and accidental or helping causes to series that do not coexist.

⁴⁰² See for example *Shifā' Physics* III 8: 212.

⁴⁰³ Avicenna gives an argument drawing out absurdities of essentially ordered infinite series that involves mapping one infinite magnitude on another. I borrow the name "mapping argument" from McGinnis to refer to it. Avicenna asks one to imagine two infinitely extended lines (*miqdār*) that are finite at one end (say they start at point S) and infinite in the other. He then imagines that a segment of one of the lines is removed, namely the segment from S to some finite point down the line. Now there is a line with a segment removed (call this new line N), so imagine N is pulled back to S and then extends infinitely in the other direction. There are now two lines starting at S and extending out infinitely: the new line (N) and the original one (O). Avicenna now draws out a contradiction: on the one hand, one may think the two lines exactly map onto each other in that they start at S and extend out infinitely in the other direction, but this would entail that the posited "longer" line O is equal to the "shorter" line N. This is a contradiction, since it was posited that N is shorter than O, namely by the distance of the segment that was removed. On the other hand, one may think N does not extend out as far as O. The point in space where it falls short of O would constitute a limit, and so now N is limited on both of its sides and hence finite. And since the segment that was removed from N is also finite, then the composite of N and the removed segment would also be finite. But it was posited to be infinite. Avicenna thinks this argument applies to any essentially ordered infinite series whose members coexist, presumably because if it is not essentially ordered, then it would not form an infinite line, and if it is not coexisting, then one does not have the infinite line at any given time to then proceed to juxtapose the two infinities and draw out the absurdities. For this and more on the infinite in Avicenna, see *Najāt Physics* II 13: 161-164, esp. 161-162 for the mapping argument. For a discussion of this argument and others in Avicenna, and in historical context including Kindī's argument that Avicenna is building on here, see Jon McGinnis, "Avicennan Infinity: A Select History of the Infinite through Avicenna," *Documenti E Studi Sulla Tradizione Filosofica Medievale*, 21 (2010), 199-222, esp. 215-220.

CONCLUSION

This study has examined aspects of Avicenna's theory of efficient causation that are central to his approach to a range of problems in metaphysics, from the proof of the Necessary Existent to his approach to the demonstrative nature of the science of metaphysics. In metaphysics, Avicenna attempts to provide a more precise and systematic account of efficient causation and related concepts. A full analysis of Avicenna's predecessors has not been pursued in this study. Rather, the aim has been to identify concepts and arguments that Avicenna takes to be clarifications of received views and advances on the Aristotelian theory. The study provides a first step for a fuller historical analysis of efficient causation in the Aristotelian tradition.

Avicenna's approach, I argue, provides an internally coherent *metaphysical* account of efficient causation. What makes the account metaphysical concerns, first, the explananda of efficient causation. In particular, the efficient cause provides or bestows existence to contingent essences. Here, a full explanation of the cause of the existence of the essence moves beyond the four causes of natural change and motion, which are investigated in physics. That is, a metaphysical account of efficient cause explains the *existence* of the effect or essence in a way that is not explained by the causes of motion. Avicenna aims to clarify what the explanatory division of labor is between the account of the natural philosopher and that of the metaphysician. As he states in the *Metaphysics* of the *Shifā'*, "This is because the metaphysicians do not mean by efficient cause only the principle of motion, as the physicists (*al-ṭabī'īyyūn*) mean, but the principle and giver of existence."⁴⁰⁴ Avicenna, as I have argued, develops a theory of causation

⁴⁰⁴ *Shifā'* *Metaphysics* VI 1 (2): 195.

that ties his innovative concepts of the contingent in itself and necessary in itself to the concepts of efficient causation.

In developing a metaphysical account of efficient causation, I argue that a central distinction that Avicenna advances is that between the cause of the effect qua species (*nawʿ*) and the cause of the effect qua individual (*shakhs*). Avicenna views the cause of the effect qua species as explanatorily and ontologically distinct from the cause of the effect qua individual. Moreover, by “individual,” Avicenna in this context does not mean a particular as standardly understood, i.e. Socrates or this black item. Rather, in Avicenna’s analysis of efficient causation, “individual” refers to the entire domain of explananda in physics, that is, accounts of natural motion and change. There are certainly universals studied in physics, but they are specific to the domain of motion and change, in contrast to the explanandum that he is accounting for in metaphysics. The explanatory domain of physics includes how things attain their species form, as in the case of the humanity of a son from the father, in addition to other explananda of the existent qua moving (e.g. growth, alteration, etc.). However, the physical causes of motion, as examined by the Aristotelian natural philosopher, explain at most the continuity of the species but not the very existence of essences that are utterly contingent with respect to themselves and yet nonetheless existent. According to Avicenna, the efficient cause, as defined in metaphysics, gives a contingently existent *essence* its existence and must not only be external to the species but external to the natural causes of motion and change.

Avicenna’s aim in metaphysics is to establish an explanatory framework for the efficient cause that moves beyond the role of the efficient causes of motion in physics. Avicenna’s approach is significant in the context of Aristotle’s original project. In Avicenna’s view, the causes of motion in physics, including substantial change in the domain of generation and

corruption, only go so far in explaining the existence of an essence. Metaphysics studies the ultimate and essential causes of an effect, which, in turn, must explain the specificity of the effect. That is, the ultimate efficient cause – i.e., that which provides a full account of the existence of a contingent essence – explains, not simply the continued generation of individuals of a kind, but the very existence of the ultimate kinds of things, or species, that populate the cosmos. That is, the efficient cause explains why contingent kinds – i.e., species that are essentially contingent – exist insofar as they are instantiated in individuals.

Avicenna's approach to efficient causation in metaphysics (and, in contrast, causes of the effect qua individual) provides a framework for interpreting his biological account of the generation of individuals of a species, and of the generation of the rational soul, in *Shifā' Kitāb al-Ḥayawān* and *Shifā' Kitāb al-Nafs*. Regarding the generation of the human soul from the Active Intellect, Avicenna discusses the various aspects of the generation of the human soul, as discussed in Chapter 2. Avicenna follows an Aristotelian account of the generation of a new individual of a species, whereby the form of humanity in the father serves as a source of the motion of embryonic matter by means of the instrument of semen. *Shifā' Kitāb al-Ḥayawān* treats the development of the embryo, from its attainment of the nutritive soul, to the sensitive soul, and finally the rational soul. Here, Avicenna famously invokes an external, incorporeal cause of the human rational soul, namely, the Active Intellect. The cause of the individual soul, and individuation more generally, is to be ascribed to a range of causes, including the father and the role of celestial movers. The Active Intellect is not properly the cause in this process of natural generation. Rather, the Active Intellect is the cause of the human rational soul qua species. That the Active Intellect is not one of the causes in the causal chain of the generation of an individual human qua individual is supported by Avicenna's example of the boy. In

transitioning from a state of the first perfection to the second, to actually intellecting, Avicenna argues against the view that the boy would thereby “become human” – it is not the case that “he would change in species to [another] species” upon actualizing his intellect. Rather, he was already human, but to actually intellect, the Active Intellect is invoked as a cause. In so doing the boy is not changing species but actualizing a potentiality. Avicenna invokes only natural efficient causes, i.e. causes of motion, to explain the coming-to-be of a new individual of a species, including becoming the species that they are. Avicenna argues that it is impossible for the Intellect to be a cause of multiplicity *qua* multiplicity within a species. The Intellects would have to have multiple *ma‘ānī* in them that are the same in species to cause a multiplicity that is the same in species. But the Active Intellect only has multiple *ma‘ānī* that are different in essence, which cause a multiplicity of different species. As Avicenna states elsewhere, “It is not possible that from [the intellect] occurs a multiplicity that is the same in species.”⁴⁰⁵ Individuation is an accidental feature of nature attributed to material and intermediary causes, such as the heavenly motions. As such, individuation is external to the Active Intellect’s essential role of causing the species, i.e., existentiating a contingent essence. (To be clear, this is not to suggest that the Active Intellect is therefore not a cause of individuals simpliciter, but rather that it is not and cannot be a cause of them *qua* individual, *qua* differentiated.) In his biological account of generation, in the other places he invokes an external cause, Avicenna gives it the causal role of a cause of natures, as a “governor” (*musakhkhir*) of these natures and their causal patterns: 1) God as a cause of the nature of the baby (particularly of the fact that its nature is such that its bones become disjointed for birth and then quickly fuse back together); 2) God as a *muṣakhkhir* of the nature of the semen, which is in turn a cause of the semen’s motion toward generating the

⁴⁰⁵ *Shifā’ Metaphysics* IX 4 (18): 409.

fetus. It has yet to be explored how these discussions relate to Avicenna's view of the universal nature, and more broadly of divine providence.

Avicenna's theory of efficient causation in metaphysics is further applied in the context of Avicenna's discussions of divine and superlunary causation in his emanative cosmology and the nature of their role in the explanatory structure of the cosmos, as discussed in Chapter 3. In contrast to the unchanging celestial realm, where the individual and the essence are both one and eternal, the account of causing in the realm of generation and corruption must distinguish between causing the instantiation of a species (the causal purview of the Active Intellect) and causing the coming-to-be and corruption of multiple individuals that possess a singular essence (the causal purview of natural sublunar and superlunar agents). In this respect, applying his distinction between *ibdā'* and *iḥdāth*, Avicenna distinguishes between the way in which existence is caused in the superlunar versus sublunar worlds. This is further illustrated in Avicenna's distinction between the particular end and the universal end in his discussion of final causation. There, his treatment of the universal end points to an additional explanandum. That is, he seems to apply discussion of the universal nature in the late antique tradition, as developed in Philoponus and earlier sources, to highlight an additional explanandum in the cosmos: namely, the particular and contingent orders that permeate the world, in the way that a ruler's rule permeates the city and governs all that is in it. Here there could possibly be a connection between the universal nature and the causal role of the metaphysical efficient cause. In several passages, ranging from contexts in metaphysics, physics, and psychology, Avicenna speaks of the First as being responsible for the "management" *tadbīr* and "order" *niẓām* of the cosmos, and he might in part be referring to this explanandum in his discussion of the "universal nature," which offers a way of making concrete an effect that is pervasive and yet not immediately demanding

explanation in the way that a discrete existent would. That is, Avicenna might not only be wanting to account for the contingent species that populate the cosmos, but for the larger contingent ways in which the cosmos operates. However, whether and how this explanandum relates to Avicenna's account of the metaphysical efficient cause remains to be explored, which would in turn depend on a careful study of Avicenna's uses and applications of the universal nature as well as his account of divine providence. In addition, Avicenna's treatment of God's knowledge of particulars could provide a parallel, and additional, avenue to further explicate the effect qua individual versus the effect qua species. The effect qua species, which is the proper object of knowledge, is the existence of the quiddity denuded of matter and the things that attach to the quiddity. Avicenna's treatment of knowledge, namely what counts as a proper object of knowledge and what the conditions for demonstrative knowledge are, and the ways in which he applies this to, and which limit, God's knowledge of particulars, remains to be explored.

Finally, Avicenna's famous proof for the necessary existent is predicated on the metaphysical theory of efficient causation described above. His proof relies on the principle that essential causes coexist with their effects. He states that every generated thing (*ḥādith*) requires not just a cause of generation (*‘illat al-ḥudūth*) but a cause of its persistence (*‘illat al-thabāt*) in existence. The distinction is central to his argument because the proof turns on the premise that a full explanation of the existence of things requires not simply the analysis of the generation of an essence by an agent cause, but the continuity of its existence. A proper interpretation of Avicenna's proof requires assigning the principle its proper role in the argument. I argue that the role of the principle of causality in the proof is to be understood in the context of his basic distinction between a coexisting causal series or regress and an eternally successive series. The former can be viewed as a "totality" that can be analyzed as either a contingent or necessary

entity. The latter series, however, is a more vexing problem. In my reading, Avicenna is not concerned to refute the possibility of an infinite in the case of coexisting contingents that exist as a totality (i.e. the subject of *Najāt Metaphysics* II 12), since the argument that he gives in II 12 would apply regardless of whether the coexisting contingents are finite or infinite. This is why he explicitly opens the argument by taking the totality of coexisting contingents *whether finite or infinite*, and only then proceeds to argue for the claim that the totality cannot be necessary in itself. His argument here does not turn on concerns or absurdities related to infinities as such.⁴⁰⁶ However, he cannot use the totality argument for an infinite series of contingents that do *not* exist simultaneously, because, first, such a series cannot be treated as an existent whole. And second, an infinite regress of causes in the successive series, if construed as proceeding eternally in time from an individual cause to an individual generated effect, *could* be taken to adequately explain the existence of each contingent entity (and hence Avicenna would not have the grounds to infer a Creator). To be clear, Avicenna does not *actually* think such a series would adequately account for the existence of the contingent—as long as each of the causes are contingent, he would think the explanation of the existence of a given contingent would keep getting deferred infinitely through causes none of which are necessary in themselves. However, Avicenna’s infinite successive series is subject to the objection from an opponent that allowing the possibility of a non-terminating series would prevent one from proving a first cause. The opponent would hold that the only way one can arrive at a first cause is to posit a non-eternal world—the standard *kalām* procedure for proving the existence of God is to infer a Creator from creation on the grounds that what comes into existence must have a cause. Thus, allowing for an

⁴⁰⁶ Nonetheless, if his argument works-- that the totality of contingents cannot be necessary, then it would also entail that there *is* a “first” cause necessitating the totality.

eternal world, i.e. a series of existents where each might appear to explain the next *ad infinitum*, makes Avicenna susceptible to this kind of objection. For instance, Ghazālī objects that if one were to allow such infinite series to exist, where some existents are causes of other existents *ad infinitum*, then one could in principle hold that the series has no need for a first cause. In response, Avicenna’s aim is to show that although he allows for the eternality of the world, this does not mean it is self-sufficient. He advances his causal principle of *thabāt* to demonstrate this. Using this principle, he can argue that members of his posited successive infinite series, namely the eternal process of generation and corruption, are not in reality causes of the existence of the effect. Instead, if one accepts his argument for an *‘illat al-thabāt*, then one would see that these are not the true causes of the thing’s existence, and that a need for a first cause of existence still remains. The essential causal series would then in fact not proceed back infinitely through time, but rather ascend vertically up to a first cause of existence. In so doing, Avicenna is also now able to address a related objection from a *kalām* opponent: how is it that Avicenna can consistently hold *both* that the world is eternal, that there is an infinite successive series, and yet also hold that there must be a first cause. To make a principled distinction, he does not rely so much on absurdities related to infinities (i.e. that the successive series can proceed infinitely because it does not meet *both* conditions of simultaneity and orderedness, while the coexisting series of causes *cannot* proceed infinitely since it *does* meet both of these conditions.⁴⁰⁷) Rather, he draws out a deeper, more metaphysical principle—that the essential cause is the *‘illat al-thabāt* and that if one is tracing such an *essential* causal series then it must terminate because otherwise the explanandum remains unaccounted for. Here Avicenna is drawing on the rationale

⁴⁰⁷ This is not to say that these are not important considerations for Avicenna, but that there is something deeper motivating his allowing some infinite series and disallowing others.

behind Aristotle's argument against the possibility of an infinite causal chain in *Metaphysics* II 2—that the true cause in a causal series is the first cause. The eternal series of generation and corruption is not an essential causal series of existence (because he has argued that the members of such a series are only causes of generation and not causes of persistence). As such, one is not futilely chasing an adequate explanation *ad infinitum*. It is through Avicenna's causal principle of *'illat al-thabāt* that he is able to make these advances. In *Najāt Metaphysics* II 14, Avicenna provides several ways of construing the relation of a generated cause to a generated effect in an infinitely successive series, and argues that one must account not only for a cause of the generation of a thing but the cause of the persistence of a thing as well. Avicenna's approach here suggests that if one denies the need for a cause of persistence, then the proof does not work, or is, at least, susceptible to the kinds of arguments that the *mutakallimūn* will later raise against it. The reception of Avicenna's approach to efficient causation in the later philosophical tradition remains to be explored.

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