



# FAKHR AL-DĪN AL-RĀZĪ'S CRITIQUE OF AVICENNIAN PSYCHOLOGY AND THE TRANSCENDENTAL INDIVIDUATION OF HUMAN SOULS



M. Fakhruddin Al – Attar<sup>1</sup>

---

## \*Correspondence :

[m.fariduddin.attar@outlook.com](mailto:m.fariduddin.attar@outlook.com)

---

## Authors Affiliation:

<sup>1</sup>McGill University, Canada

---

## Article History :

Submission : March 21, 2023

Revised : May 08, 2023

Accepted : June 22, 2023

Published: June 30, 2023

---

## Keywords :

Al-Razi, Avicenna, Psychology, Human Souls

---

## Abstract

This article examines the psychological doctrines of the Ash'arite theologian and polymath Fakhr al-Dīn al-Rāzī (d. 606/1210). The starting point of the discussion is his critical reception of Avicenna's (d. ca. 428/1037) psychological theories. I focus on al-Rāzī's early works on philosophy, in particular *al-Mabāḥith al-mashriqiyya* and his famous commentary on Avicenna's *al-Ishārāt wa-l-tanbīhāt*. I show that Rāzī affirms a theory of the human soul that is heavily influenced by his predecessor. However, I also show that offers a distinct perspective on fundamental issues. I offer a detailed discussion of two Rāzian psychological doctrines: that human souls are heterogenous, rather than constituting a single species "rational animal" *pace* Avicenna; and that they are caused by celestial entities called Perfect Natures, a theory that is adopted from the practitioners of talismanic magic. The resulting cosmological theory can be referred to as the transcendental individuation of human souls.

*Artikel ini membahas doktrin psikologis dari teolog dan polymath Asyari', Fakhr al-Dīn al-Rāzī (wafat tahun 606/1210). Titik awal dari pembahasan adalah penerimaan kritisnya terhadap teori-teori psikologis Avicenna (wafat sekitar tahun 428/1037). Fokusnya adalah pada karya-karya awal al-Rāzī tentang filsafat, terutama al-Mabāḥith al-mashriqiyya dan komentarnya yang terkenal tentang al-Ishārāt wa-l-tanbīhāt, karya Avicenna. Penelitian ini menunjukkan bahwa al-Rāzī menegaskan teori jiwa manusia sangat dipengaruhi oleh pendahulunya. Namun, dia menawarkan perspektif yang berbeda tentang isu-isu mendasar. Diskusi ini mengungkap secara terperinci tentang dua doktrin psikologis al-Rāzī: bahwa jiwa manusia adalah heterogen, bukan merupakan satu spesies tunggal "hewan rasional" seperti yang dikemukakan Ibn Sina; dan bahwa jiwa manusia disebabkan oleh entitas-entitas langit yang disebut Perfect Natures, sebuah teori yang diadopsi dari praktisi sihir talismanik. Hasilnya adalah teori kosmologis yang bisa disebut sebagai individuasi transendental jiwa manusia.*



## Background

The *Mabāḥith* is an ideal text to understand the development of al-Rāzī's psychological theory. In the psychology section of this work, al-Rāzī appropriates Avicenna's discussion and arrangement of this science as a template from which he develops his own original positions.<sup>1</sup> This appropriation is not a dialectical technique; it shows that he assents to Avicenna's general approach in classifying and outlining the science of the soul.<sup>2</sup> Yet the contours of a distinctive Rāzian psychology come to light once we examine the critical sections of al-Rāzī's exposition. His critique of two Avicennian theories—the differentiation of psychic faculties and univocity of human souls in species—leads to the formulation of two alternative doctrines, respectively the monadic nature of the human soul and its essential heterogeneity.<sup>3</sup> The third doctrine, its immateriality, is consistent with the standard Avicennian position. These are the three pillars of a systematic psychological theory that al-Rāzī would maintain and refine in later philosophical works.

What is more, we learn from the psychology of the *Mabāḥith* that motivating al-Rāzī's critique is his skepticism regarding the epistemic procedure by which Avicenna asserts his positions. Two principles are subject to scrutiny: the epistemic claims of abstraction (*tajrīd*)—that it yields knowledge of a thing's noumenal reality from systematic observation of its phenomenal properties—and the related function of real definitions (*al-ḥadd al-tāmm*)—that it is an epistemologically basic insight. As an alternative, al-Rāzī develops a method of investigation that aims to accurately describe the human soul's nature based on its phenomenal properties, without having to rely on an Avicennian model of noetics or intellection. The resulting theory is a phenomenalist approach in psychology,

---

<sup>1</sup> On al-Rāzī's reorganization of the traditional division of the Aristotelian sciences, See Heidrun Eichner, "Dissolving the Unity of Metaphysics: From Fakhr Al-Dīn Al-Rāzī to Mulla Sadra Al-Shirāzī," *Medioevo* 32 (2007): 143; In this article, she characterizes this reorganization as 'dissolving the unity of metaphysics' and argues that it is not motivated by a deeper theoretical concern but was Rāzī's standardization of earlier trends in the development of the philosophical compendia. Janssens agrees with Eichner's findings, observing that Rāzī, following Bahmanyār, 'has blurred somewhat the distinction between logic, natural sciences and metaphysics. See Jules Janssens, "Ibn Sina Impact on Fakhr Ad-Dīn Ar-Rāzī's «Mabāḥith al-Masriqiyya», with Particular Regard to the Section Entitled «al-Ilāhiyyat al-Mahda»: An Essay of Critical Evaluation," *Documenti E Studi Sulla Tradizione Filosofica Medievale* 21 (2010): 267; Ibrahim characterizes this in similar terms as 'freeing philosophy from metaphysics.' Unlike Eichner and Janssens, however, he argues that the reorganization of the tradition Avicennian sciences was the necessary result of a logical programme that Rāzī develops in opposition to Avicenna's scientific method. See Bilal Ibrahim, "Freeing Philosophy from Metaphysics: Fakhr Al-Dīn Al-Rāzī's Philosophical Approach to the Study of Natural Phenomena" (McGill University, 2012), 197–99.

<sup>2</sup> On the centrality of psychology in Avicenna's philosophical system, see Dimitri Gutas, *Avicenna and the Avicennan Tradition: Introduction to Reading Avicenna's Philosophical Works Second Edition* (Leiden: E. J. Brill, 2013); O.L. Lizzini, "L'Ōme Chez Avicenna: Quelques Remarques Autour de Son Statut Ōpistēmologique et de Son Fondement Mōtaphysique," *Documenti e Studi Sulla Tradizione Filosofica Medievale* XXI (2010): 223–42.

<sup>3</sup> I use the term 'monad' in the Corbinian sense, as denoting the transcendental individuation of human souls, rather than individuation through material determinations. See Henry Corbin, "Hermōneutique Spirituelle Comparōe," in *Face de Dieu, Face de l'homme: Hermōneutique et Soufisme* (Paris: Entrelacs, 2008), 78; Henry Corbin, *En Islam Iranien II, Aspects Spirituels et Philosophiques: Sohrawardī et Les Platoniciens de Perse* (Paris: Gallimard, 1971), 135; Henry Corbin, *Avicenna and the Visionary Recital*, trans. Willard R. Trask (New Jersey: Princeton University Press, 1960), 77–93.

whose basic components are the three doctrines mentioned above.<sup>4</sup> In this paper we focus on al-Rāzī's critique of the univocity of the human soul and how he develops the view that human souls or classes thereof are essentially differentiated. This critique is the most important aspect of al-Rāzī's psychological doctrine, since he lays out the major points of contention with Avicenna's philosophical method. This is the key to understanding other aspects of al-Rāzī's psychology.

### The Investigation on the Science of the Soul

A cursory look at the table of contents of the psychology section of the *Mabāḥith* shows how al-Rāzī thoroughly adopted the Avicennian division of this science.<sup>5</sup> Like in *Namaṭ III* of *al-Ishārāt wa al-Tanbīhāt*, he combines the investigation on terrestrial and celestial souls as single line of investigation, which he calls the Science of the Soul (*al-ilm al-nafs*). In the eight chapters of this section al-Rāzī covers the standard Avicennian subjects: the human soul as substance, its various faculties, the external and internal faculties of perception, its immateriality, temporal generation, immanent and transcendental causes, survival after death, the saintly faculties of prophets and holy men (*ʿarīfīn*), etc. He concludes with a relatively short discussion on the nature and movements of celestial souls. As Janssens has shown, al-Rāzī follows closely Avicenna's psychological writings, especially *al-Shifāʾ*.<sup>6</sup> This appropriation was not only at a level of paraphrasing, but was at times close to verbatim restatements of the original discussions.

This fidelity is tempered by the presence of a subject heading that is not originally delineated in Avicenna's psychological writings (though implied, for instance, in Chapter V.1 of the psychology of the *Shifāʾ*).<sup>7</sup> It deals with the question of whether human souls

---

<sup>4</sup> Bilal Ibrahim developed first the idea of al-Rāzī's philosophical project as phenomenalist. This framework has allowed me to discern a distinctive Rāzian expository method and concerns despite his heavy appropriation of Avicennian categories. For a comprehensive discussion of this phenomenalist framework see Bilal Ibrahim, "Fakhr Al-Dīn Al-Rāzī's Philosophical Approach to the Study of Natural Phenomena" (McGill University, 2012); For a latest restatement, see Bilal Ibrahim, "Fahṛ Ad-Dīn Ar-Rāzī, Ibn Al-Haytham and Aristotelian Science: Essentialism versus Phenomenalism in Post-Classical Islamic Thought," *Oriens* 41 (2013): 379–431.

<sup>5</sup> Another source is Abū al-Barakāt al-Baghdādī (d.1164–65), whose importance for al-Rāzī cannot be understated. Much of what the latter advances as criticism against Avicenna was preceded by Abū al-Barakāt's original expository method in his famous *Kitāb al-muʿtabar fī al-ḥikma*. Comparing the psychology section this work (*Muʿtabar II*, 302–444) with that of the *Mabāḥith* shows a direct line of influence. Abū al-Barakāt raised issues that al-Rāzī also takes up against Avicennian psychology: such as the theory of faculty differentiation, the capacity of the intellect to perceive universals as well as particulars. As we shall see this is particularly true of the issue of the human soul's alleged univocity in species and the necessity for a plurality of transcendental causation. In the following we will note which arguments al-Rāzī adapts from Abū al-Barakāt, many of which are duly acknowledged. Shlomo Pines' study on the *Muʿtabar* remains indispensable and farsighted: Shlomo Pines, "Ūtudes Sur Awhad Al-Zamān Abū'l-Barakāt Al-Baghdādī," in *The Collected Works of Shlomo Pines Vol. I* (Jerusalem and Leiden, 1979); For a discussion of Abū al-Barakāt's critique of Avicennian psychology and his own original positions, consult Shlomo Pines, "La Conception de La Conscience de Soi Chez Avicenne et Chez Abu'l-Barakat Al-Baghdadi," in *Archives d'Histoire Doctrinale et Littéraire Du Moyen Age* (Librairie Philosophique J. Vrin, 1954).

<sup>6</sup> Jules Janssens, "Fakhr Al-Dīn Al-Rāzī' on the Soul: A Critical Approach to Avicenna," *The Muslim World* 102, no. 3/4 (2012): 562–79.

<sup>7</sup> Unless otherwise noted, cited translations of Avicenna's Psychology of the *Shifāʾ* are based on the volume of translations of Arabic philosophical texts prepared by Jon McGinnis and David

are homogenous or whether they can be essentially differentiated.<sup>8</sup> The issues discussed under this subject—heading mark a clear departure from the structure of the psychology section of the text so far, which not only follows the traditional order and wording of the psychology of the *Shifā'*, but also refrains from asserting positive claims. In this subchapter, al-Rāzī criticizes the Avicennian theory that human souls share a common nature as rational animals.<sup>9</sup> He then entertains the idea that there are many essential types of human souls. His criticism is deceptively simple: he argues that Avicenna's claims are weak because they are not supported by demonstration (*burhān*). The following is al-Rāzī's reconstruction of three of these supposedly non-demonstrative arguments:

The Master [*i.e.* Avicenna] claims that human souls are all one in species, but said no more regarding this claim. He did not [even] provide an aporia (*shubhat<sup>an</sup>*) to validate [his claim], let alone a proof. The author of the *Mu'tabar* [*i.e.* Abū al-Barakāt al-Baghdādī] denied the unity [384] [of human souls] in species and devoted a long discussion to it.<sup>10</sup> It was acknowledged after this extended [discussion] that no one has [yet] found a demonstrative proof to validate what is sought—after [*i.e.* that human souls are one in species]. We will mention the utmost of what is possible to say regarding this issue.

Whoever maintains the unity of the souls in species argues in the following ways. The *first* is that human souls are things that have in common (*mushtaraka*) their being human souls. For if some of them were differentiated from others by means of some essential constituent after their having in common their being human souls, then it would follow that they are composites. [This is] because that through which commonality [occurs] is something distinct than that through which differentiation (*al-imtiyāz*) [occurs]. Now, if [human souls] were composite, they would be corporeal—but this is absurd. The *second* is that when we examined the types of human souls, we find them to be restricted to two species: perceptive and motive; and of perceptive, there are some that are universal and others particular perceptions. Now we find souls to be mutually equivalent in having these attributes apply truly to them: even though human beings differ in intelligence and ignorance, they all have in common [the ability to intellect] first principles (*al-awwaliyyāt*). I mean to say that when you call their attention to this, they come to realize, for instance, that which is finite in respect of ignorance. So, if you acknowledge this, the meaning of your statement, 'things that are equivalent (*musāwiya*) to a single thing are equal to each other (*mutasāwiya*),' would be inevitably understood, even if it takes some time. [Such is also the case] when the reality of the circle is mentioned to him—that it is by its nature in such a shape. For it is necessary that he conceptualizes this, even though [this conceptualization] comes after giving examples (*ḍarb al-amthāl*) and the exertion of thought. When this [*i.e.*, the reality of the sphere] is understood, it is possible to understand the first figure of Euclid. The discussions regarding all the intricacies of the sciences (*jamī' daqā'iq al-'ulūm*) proceed in this way. Thus, it is possible that all human beings have in common the possibility of knowing objects of knowledge (*mushtarikūn fī ṣiḥḥat al-'ilm bi-*

---

Reisman, "Ibn Sina," in *Classical Arabic Philosophy: An Anthology of Sources* (Indianapolis: Hackett Publishing Company, 2007), 204–8. Heretofore, I refer to this work as the *Psychology*.

<sup>8</sup> Fakhr al-Dīn Al-Rāzī, *Al-Mabāḥiṭh Al-Mashriqiyya Fī 'Ilm Al-'Ilāhiyyāt Wa-Al-Ṭabī'iyyāt*, ed. M. Al-Baghdadi, vol. II (Beirut: Dār al-Kitāb al-'Arabī, 1990), 393.

<sup>9</sup> For Avicenna's position, see *Psychology* V.3 McGinnis and Reisman, "Ibn Sina," 223–24; We have produced a complete translation of this section in M.F Attar, "Fakhr Al-Dīn Al-Rāzī on the Human Soul: A Study of the Psychology Section of Al-Mabāḥiṭh Al-Mashriqiyya Al-Fī 'Ilm Al-'Ilāhiyyāt Wa-Al-Ṭabī'iyyāt" (McGill University, 2013), 119–28.

<sup>10</sup> Abū al-Barakāt Al-Baghdādī, *Al-Mu'tabar Fī Al-Ḥikma*, vol. II (Hayderabad, 1939), 379–87. under the subject heading 'On the human soul's univocity, or plurality as individuals or class.'

*ma'lūmāt*) and that they have in common the possibility of being shaped by good morals (*mushtarikūn fī ṣiḥhat al-takhalluq bi-kulli al-akhlāq*). [For in the latter case], if the irascible person is forced to adopt the habits of patience, his irritability will decrease. The same must also be said about all good morals.

[...]

The *third* is that we have proven in the section on knowledge that all separate quiddities must be a thinking subject of the reality of its essence (*'āqilat<sup>an</sup> li-ḥaqīqat dhātihā*). Now our soul is a separate quiddity and is therefore a thinking subject of the reality of its essence. Moreover, we intellect of our souls nothing but the quiddity that is capable of perception and movement. Therefore, the quiddity of my soul is just this [i.e., that which is capable of perception and movement], which is something that is common between my soul and other souls, given the mentioned proofs in explaining [386] that existence is something common. Therefore, the perfection (*tamām*) of the quiddity of my soul is predicable of other souls. Moreover, it is impossible that [there exists] for this common thing a differentia that is constitutive of something other than myself, a differentia that [essentially] distinguishes me from something other than me. There is also no need for a distinguishing differentia in that other thing, since a single nature (*al-ṭabī'iyya al-wāhida*) will not be simultaneously dependent and independent (*muḥtājatan wa-ghaniyyatan ma'an*). Thus, it is established that human souls are uniform in (*muttafiqa fī*) species. This [line of thought] is that which can be taken upon for asserting the unity of the human souls in species. But it is weak.<sup>11</sup>

## The Rejection on Avicenna Theory

The common thread that links these arguments together is the capacity of the human intellect to conceptualize a thing's essential nature. The first and second argument assumes an Avicennian model of intellection, in that it involves the grasping of universals that express the essential attributes of human beings; while the third is an argument that asserts this ability, in that human beings belong to those classes of separable intellects that are capable of self-intellection. In summarizing these arguments, al-Rāzī takes his cue from Chapter V. I of the psychology of the *Shifā'*. In this Chapter, Avicenna investigates the activities and attributes that categorically distinguish human functions from those of animals.<sup>12</sup> He then classifies these differentiating activities into two kinds of basic capacities; namely the ability to perceive universals and to act morally. When narrowed down even further, the human being's most specific attribute is the ability to conceptualize the universal connotational attributes belonging to the intellect that are abstracted completely of all matter.<sup>13</sup> This Chapter thus showcases the process of abstraction (*tajrīd*), through which a philosopher can arrive at universal knowledge of particulars.

Later on, in *Psychology* V.6, Avicenna writes that the role of the intellect in abstraction is to conceptualize (*taṣawwur*) an object of knowledge through the method of division (*tafṣīl*) and combination (*tarkīb*).<sup>14</sup> What he means is that the intellect structures its

<sup>11</sup> Al-Rāzī, *Al-Mabāḥith Al-Mashriqiyya Fī 'Ilm Al-'Ilāhiyyāt Wa-Al-Ṭabī'iyyāt*, II:393–96.

<sup>12</sup> McGinnis and Reisman, "Ibn Sina," 204–8.

<sup>13</sup> McGinnis and Reisman, 206.

<sup>14</sup> McGinnis and Reisman, 241; To be sure, conceptualization, in Avicenna's scientific method, is part of the wider process of abstraction. In this thesis, however, I refer to them separately in order to emphasize the empirical aspects of abstraction and logical aspects of conceptualization, a distinction that is essential in understanding al-Rāzī's critique. For an analysis of this section of the *Psychology* and a discussion on the role of the cogitative faculty in conceptualization see Peter Adamson, "Non-Discursive Thought in Avicenna's Commentary on the Theology of Aristotle," in *Interpreting Avicenna: Science and Philosophy in Medieval Islam: Proceedings of the Second*

knowledge of a thing's attributes in a logical ordering that identifies its necessary and accidental parts. On one side of this ordering, the process of division narrows down the classes of existents under which an entity can be counted as a member until one arrives at a genus that describes most accurately its basic traits. However, since this procedure looks at clusters of generalizable attributes, these basic traits identify many classes of existing things. The process of combination actualizes these universals into specific entities by distinguishing one type of existent from others of the same class. The act of combining should not be too inclusive so as to become mere abstraction, and the act of dividing should not be too exhaustive as to identify mere individuals. Finally, both must pick out essential and not accidental attributes. If one carries out this procedure properly, he will arrive at the definition of a given substance in terms of its proximate genus and differentia, whose combination (as a species) identifies a set of individuals and a corresponding universal simultaneously—the first in the external world, the second in the mind.<sup>15</sup> For Avicenna, the notion that human beings share a common nature, *viz.* 'rational animal,' is thus an epistemologically basic insight, which in turn serves as the first principle for the investigation of other aspects of the human soul.<sup>16</sup>

As a result, al-Rāzī's assessment that Avicenna does not defend the doctrine of the univocity of the human soul through demonstrative proof seems to be accurate. For the Avicennian, however, demonstration in this context is not necessary, since through abstraction the intellect is capable of gaining immediate insight into the very nature of this object.<sup>17</sup> We see then how underlying al-Rāzī's critique is a skeptical attitude regarding the epistemic claims of abstraction (*tajrīd*), that they yield knowledge of a thing's ontological structure.<sup>18</sup> Implicitly, al-Rāzī is arguing that knowledge of essences—in this case human souls—belongs to a class of knowledge that requires demonstration.

---

*Conference of the Avicenna Study Group*, ed. Jon McGinnis and David C. Reisman (Leiden, Boston: Brill, 2004).

<sup>15</sup> This is the central claim of Avicennian realism. For an examination of Avicenna's realism, the 'partial identity' between intellectual concepts and their counterpart in the external world, and the central role of abstraction in Avicennian scientific theory and methodology, consult Jon McGinnis, "Avicenna's Naturalized Epistemology and Scientific Method," in *The Unity of Science in the Arabic Tradition: Science, Logic, Epistemology and Their Interactions*, ed. Shahid Rahman, Tony Street, and Hassan Tahiri (Springer, 2008), 140–44; Jon McGinnis, "Logic and Science: The Role of Genus and Difference in Avicenna's Logic, Science and Natural Philosophy," *Documenti e Studi Sulla Tradizione Filosofica Medievale* 18 (2007); See also Michael Marmura, "Avicenna's Chapter on Universals in the Isagoge of His *Shifa'*," in *Probing Islamic Philosophy: Studies in the Philosophies of Ibn Sīnā, Al-Ghazālī, and Other Major Muslim Thinkers* (Binghamton: Global Academic Pub., Binghamton University, 2005), 34; On Rāzī's criticism of Avicenna's claim of partial identity between conceptual and extramental quiddities, see Ibrahim, "Freeing Philosophy from Metaphysics: Fakhr Al-Dīn Al-Rāzī's Philosophical Approach to the Study of Natural Phenomena," 111–13; For Abū al-Barakāt's response to the same issue, see Al-Baghdādī, *Al-Mu'tabar Fi Al-Hikma*, II:382.

<sup>16</sup> McGinnis, "Avicenna's Naturalized Epistemology and Scientific Method," 140–42.

<sup>17</sup> On the process and role of abstraction in Avicenna's epistemology, consult Das Nikolaus Hasse, "Avicenna on Abstraction," in *Aspects of Avicenna*, ed. Robert Wisnovsky (Princeton, NJ: Markus Wiener Publishers, 2001), 39–72; Jon McGinnis, "Making Abstraction Less Abstract: The Logical, Psychological, and Metaphysical Dimensions of Avicenna's Theory of Abstraction," in *American Catholic Philosophical Association* (Proceeding of the ACPA 80, 2007), 170–83.

<sup>18</sup> By ontological structure, we mean the manner by which the genus contains within itself things that render it a species and things that do not render it a species, *viz.* accidents: Abū 'Alī Ibn Sīnā, *The Metaphysics of the Healing*, trans. Michael M. Marmura (Provo, UT: Brigham Young, 2005), chap. 4,1.

Having identified the method by which Avicenna asserts his theory of the human soul, al-Rāzī focuses again on the issue of abstraction in articulating his critique. Responding to the three Avicennian proofs mentioned above, he writes, regarding the first proof, whether it is necessary to conceive the quiddity of a thing as being composed by constitutive parts (*muqawwimāt*), viz. genus and differentia. For al-Rāzī, it is possible to conceive the ability for rational thought, which is the differentiating attribute of human beings from animals, as a necessary concomitant (*al-lāzima*) rather as a constitutive:

itis possible that all these things are concomitants (*al-lāzima*) of the substance of the soul (*li-jawhar al-nafs*) and are not constitutive (*muqawwima*) of it. To this extent, souls will differ in the perfection of their quiddity. They have in common the extrinsic necessary concomitants (*al-lawāzim al-khārijiyya*) in a similar way that the differentiae that are constitutive of the species of a single genus have this genus in common.<sup>19</sup>

Al-Rāzī's goal here is to show how Avicenna's theory that human souls are univocal in species results from the latter's commitment to a particular logical procedure he employs during conceptualization, one where human beings are constituted by the genus 'animal' and difference 'rational'.<sup>20</sup>

Against the second, al-Rāzī interrogates whether it is possible to infer knowledge of a thing's essence through inductive reasoning. He writes that Avicenna's argument is based on

[ ] a weak induction (*istiqrā'iyya ḍa'īfa*) from two angles. The first is that it is impossible for us to judge that all human beings are receptive to all conceptualizations (*qābilan li-jamī' al-taṣawwurāt*). The second is that it is impossible for us to judge that a soul that we know to have received an attribute (*allatī qubūluhā li-ṣifatin*) is receptive of all attributes. How is this the case, while it is impossible to have knowledge of all [possible] attributes?<sup>21</sup>

Al-Rāzī interprets Avicenna's arguments in Chapter V.1 of the *Psychology* as a form of inductive reasoning. Al-Rāzī questions whether it is valid to infer from the observation that many human beings have attribute *p* that to be a human being is for *p* to be essentially predicated of human. Unless we can catalog the attributes of all members of a given species, we cannot make essential claims regarding the species itself. Without a complete sample, whatever claims we make will apply to the individuals within that incomplete sample only.<sup>22</sup> To be sure, Avicenna would acknowledge that he has not taken

<sup>19</sup> Al-Rāzī, *Al-Mabāḥith Al-Mashriqiyya Fī 'Ilm Al-'Ilāhiyyāt Wa-Al-Ṭabī'iyyāt*, II:396.

<sup>20</sup> For full account of al-Rāzī's critique of Avicenna's notion of quiddity as constituted by these parts, see Ibrahim, "Freeing Philosophy from Metaphysics: Fakhr Al-Dīn Al-Rāzī's Philosophical Approach to the Study of Natural Phenomena," 122–69.

<sup>21</sup> Al-Rāzī, *Al-Mabāḥith Al-Mashriqiyya Fī 'Ilm Al-'Ilāhiyyāt Wa-Al-Ṭabī'iyyāt*, II:396. 'As for the second proof: it is a weak induction (*istiqrā'iyya ḍa'īfa*) from two angles. The first is that it is impossible for us to judge that all human beings are receptive to all conceptualizations (*qābilan li-jamī' al-taṣawwurāt*). The second is that it is impossible for us to judge that a soul that we know to have received an attribute (*allatī qubūluhā li-ṣifatin*) is receptive of all attributes. How is this the case, while it is impossible to have knowledge of all [possible] attributes (*kayfa wa-ḍabt al-ṣifāt*)?'

<sup>22</sup> Suhrawardī in the *Ḥikmat al-Ishrāq* also notably used this line of reasoning when criticizing the Peripatetic theory of definition. Criticizing the idea that a correct definition must include a genus and a the most essential attribute of a given thing, viz. the differentia, he writes: 'Even if someone enumerates the essential he knows, he cannot be sure that he has not overlooked the existence of some other essential. Thus an inquirer or an opponent may challenge the person who constructs a definition, and that person will be unable to reply, 'were there another attribute, I would have known about it,' for there are more attributes that are not evident [...] Thus, if the

account of all members of the human species. This is practically impossible. But he would argue that through the process of abstraction the human mind can obtain knowledge of the species' essence, even though the procedure begins with empirical observations that are not exhaustive in the way al-Rāzī envisions.

Against the third, al-Rāzī anticipates a syllogistic inference that Avicenna might have constructed to avoid the second objection. This inference consists of two arguments. The first is: all separable quiddities intellect their essence<sup>23</sup>; the human soul is a separable quiddity<sup>24</sup>; therefore, it intellects its essence. The second is the argument that, since human souls intellect their essence and this intellection consists in the conception that human beings are capable of rational perception and movement, their essence belongs to the class of things that are capable of rational perception and movement. But al-Rāzī is skeptical that we are capable of knowing in the first place whether all separable quiddities are common in species.<sup>25</sup> These kinds of questions belong to a class of knowledge 'for which there is no way [to knowing] (*wa-dhālika mim mā lā sabīl ilayh*).'<sup>26</sup> Though he does not elaborate further on this claim, the first and second objections above could be marshaled once again with the relevant terms, since in principle the epistemic claims involved in conceptualizing the univocity of separable quiddities is the same as that of human souls.

These objections show how al-Rāzī's critique reveals a concern he has with fundamental aspects of Avicenna's philosophical method. In both his outline of Avicenna's arguments and his criticism against them, the issue at stake is no less than the epistemic status of abstraction as the means of gaining knowledge of a thing's ontological structure. Al-Rāzī's central concern has less to do with the empirical aspects involved in the process of abstraction, *i.e.* those that include careful study of natural phenomena, as with essentialist claims inherent in the Avicennian logical system, through which conceptualization is structured.<sup>27</sup>

## The Razi's Alternative Theory on the Science of the Soul

---

possibility exists that another essential has not been apprehended, there can be no certainty about the knowledge of the reality of the thing' Shihāb al-Dīn Suhrawardī, *Hikmat Al-Ishrāq (The Philosophy of Illumination)*, trans. John Walbridge and Hossein Ziai (Brigham Young University, 1992), vols. 10. 28 – 11. 1–5; For a discussion of this passage in the context of Suhrawardī's critique of Avicenna's epistemology, consult Hossein Ziai, *Knowledge and Illumination: A Study of Suhrawardī's Hikmat Al-Ishrāq* (Atlanta: Scholar's Press, 1990), vols. 120 – 122.

<sup>23</sup> *Namaṭ III* Abū 'Alī Ibn Sīnā, *Al-Isharāt Wa Al-Tanbihāt*, n.d., 250.

<sup>24</sup> Ibn Sīnā, 234 & 247.

<sup>25</sup> As we shall see below it is clear that he believes that each Celestial Intellect is essentially unique.

<sup>26</sup> Al-Rāzī, *Al-Mabāhith Al-Mashriqiyya Fī 'Ilm Al-'Ilāhiyyāt Wa-Al-Ṭabī'iyyāt*, II:396.

<sup>27</sup> The ontological basis of essential predication is established, for instance, in Book V of the *Metaphysics of the Healing*, specifically chapters 4–9. Regarding defining actually existing things, Avicenna writes that 'inasmuch as genera and differentiae are natures that arise as [one] nature, as you have known, they are predicated of the thing defined. Indeed, we say: Definition in reality yields the meaning of one nature. For example, if you say, 'rational animal,' from this is realized the meaning of one thing which is the very animal which [in the definition] is that very animal that is rational [ ] [T]he consideration that necessitates that the definition itself is the thing defined does not render 'rational' and 'anima' the two parts of the definition; but rather, [it renders them] predicates of it in that it itself is [one thing], not that they are two things of a reality that are different from each other and each different from the composite. Rather, by it, in our example, we mean the thing which is itself animal, being that animal whose animality is perfected and realized through rationality'. Ibn Sīnā, *The Metaphysics of the Healing*, vols. 7, 11–12.

Having outlined his objections against the univocity of human souls in species, al-Rāzī turns to consider the possible alternative theories. He begins his discussion in his customary detached style, taking distance from the partisan positions he is about to outline. He writes that those 'who maintain the difference of souls in species' begin their arguments with the observation that

[they] find in humanity persons who are knowledgeable, ignorant, strong, weak, noble, mean, good, evil, irascible, and indolent. This difference (*ikhṭilāf*) is either 1) on account of the difference of the souls in respect of their substances or 2) because of the difference of the bodily organs, as is the case when it is said that the person whose temperament has more heat has more anger and is more intelligent in comprehension, while the person whose temperament is colder is the opposite.

The second division [i.e. the difference is because of the difference of the bodily organs] is false from two angles. The first is that we find two individuals who are equivalent in temperament and in external upbringing (*al-ta'dībāt al-ḥārīḡiyya*) but different in character (*al-aḥlāq*).<sup>28</sup> Similarly, we find two individuals who are equivalent in character, but different in temperament and external upbringing. This refutes this division. Now two things that are identical in temperament and external upbringing could differ in character, since we see two individuals who are very close in temperament to the utmost degree (*ḡāyat al-muqāraba*), but who are different to the utmost degree (*ḡāyat al-tabāyin*) in mercy, severity, generosity, stinginess, chastity and debauchery. This is also not due to the teachings of a teacher or the supervision of parents. Therefore, it may be the case that the combination of all extrinsic factors hastens [to produce] (*ittafaqa ijtīmā' al-asbāb al-ḥārīḡiyya*) chastity, yet the person through his natural disposition inclines towards debauchery. Perhaps too the opposite should come to pass. It may also be the case that the parents are vulgar and ruinous to the utmost degree, yet their child is the utmost in nobility and dignity. Such is the argument regarding other moral traits. Therefore, we know that this is due to nothing other than the substance of souls.

Now two things that differ in temperament might be equivalent identical in these things [i.e. in these moral traits]. The fact is, we see intelligence and cleverness from the heat, coldness, humidity and dryness of the temperament, yet the temperament of a single person could become very hot and then cool down, depending on the make-up of his soul and his primary natural disposition (*al-ḥilqihī al-nafsānī wa-ḡarīzatihī*). If this [intelligence] were on account of the temperament, then his character would have varied.<sup>29</sup>

For the partisans of differentiation, we can account for these differences only if they are determined either by the essential difference that pertains to the individual soul, or by

<sup>28</sup> By this latter term, al-Rāzī is thinking of wider socio-cultural influences on the individual.

<sup>29</sup> Al-Rāzī, *Al-Mabāḥith Al-Mashriqiyya Fī 'Ilm Al-'Ilāhiyyāt Wa-Al-Ṭabī'iyyāt*, II:396–97; This passage seems to be a summary of Abū al-Barakāt's discussion Chapter 16 of *Al-Baḡhdādī, Al-Mu'tabar Fī Al-Ḥikma*, II:423–327. 'On the Original and Acquired States of the Human Soul.' This Chapter begins with a similar observation: 'According to the opinion of those who have direct vision, the human soul possesses different states in their dispositions (*isti'dādihā*), perfections (*kamālātihā*), activities (*af'ālihā*) and proper affinities (*munāsibuhā*). You will find among human beings a person who is strong, weak, noble, ignoble, knowledgeable, ignorant, chaste, vile, high-minded, lowly, just, unjust, generous, stingy, patient, hot-tempered, frivolous, indolent, compassionate, severe, courageous, cowardly, keen of mind, and slow-witted. Now you will find that some of these states are the result of habits and instruction (*al-'ādāt wa-l-ta'līm*), others the result of the bodily temperaments, others the result of accidents (*al-ḥawādith*) that occur upon the souls with respect to that which undergoes and that with which it is afflicted (*fī mā talqāhu wa-ta'āniyahu*), and others the result of primary natures and essential accidents (*al-gharā'iz al-awwaliyya wa-l-a'rāḍ*).'

the varying determinations of the bodily organs. The preponderant cause is either internal or external to the essence.<sup>30</sup> Yet the varying determinations of the bodily organs do not seem account for the differences in character – traits between one individual from another. There is no consistent causal link between the purported cause (*i.e.* the varying temperaments) and the effects (*i.e.* the traits of character). Individuals identical in temperament and upbringing often end up different in character. This indicates that external influences—whether bodily or in terms of pedagogy—exert no preponderating cause upon a person's behavior. Furthermore, the partisans of difference observe that the temperaments of human beings change over time and under different physical environments. If heat in the body causes intelligence in character, a person's character should also vary in accordance to the change of the temperaments. But this is not the case. A person's character – traits seem to persist through illness or other states that induce physiological changes.<sup>31</sup>

We could extend this line of thought to include socio – cultural influences. Though society determines much of our attitude and outlook in life, a great deal of our personality or idiosyncratic faults and virtues is formed and often persists in spite of common or sanctioned practices. Or, at the very least, they cannot be explained solely in terms of those sources. An individual's distinctive character – traits seem irreducibly unique to him; and the totality of these traits combined with the socio – cultural context in which he lives identifies Zayd of Marāgha, for instance, simply as Zayd of Marāgha. The partisans of difference therefore argue that if external determinations exercise no preponderant effect upon a person's behavior, then the contradictory proposition must be true; namely that a certain combination of character – traits in an individual is an irreducible and predetermined state and is therefore the result of intrinsic causes. They identify these intrinsic causes as the 'make – up of [a person's] soul and his primary natural disposition' (*khiḷqihī al-nafsānī wa-gharīzatihī*).

In the next argument, al – Rāzī makes use of a line of reasoning by Avicenna in the *Psychology*, but for a different purpose from which it was originally intended:

[I]t is known that the soul's capacity in making use (*taṣarruf*) of the prime matter of this world—*viz.* the transformation of water into fire, earth into air, and the staff into the snake—[occurs] not on account of the power of its temperament. As such this division [*i.e.* this second division aforementioned] is false. The Master acknowledges this when he said that the temperament that is predisposed to receiving the soul is that whose existence harmonizes [with the soul] only rarely. This division is false. Thus, it is established that the difference of the souls during these moments [occurs] on account of the difference of their substance only.<sup>32</sup>

Still reproducing the position of those who argue for the soul's difference in species, al – Rāzī deploys the argument that matter *qua* matter does not account for the transformations it undergoes. Separate active principles must account for the actuality of the material substrate. In Avicenna's cosmology this cause is the Active Intellect. Al – Rāzī in the *Maṭālib* assigns the same role to each Celestial Intellects, following the doctrine

<sup>30</sup> In al – Rāzī's account, the partisans of difference set up the two propositions as contradictories (*naqīḍayn*). As we shall see below, he denies this procedure, arguing that they are just contraries (*diḍḍayn*) and that a third option is possible.

<sup>31</sup> As Abū al – Barakāt puts it, heat does not cause courage in lions; it is the lion's courage that causes the excess of heat in their temperaments, Al – Baghdādī, *Al-Mu'tabar Fī Al-Ḥikma*, II:384.

<sup>32</sup> Al – Rāzī, *Al-Mabāḥith Al-Mashriqiyya Fī 'Ilm Al-'Ilāhiyyāt Wa-Al- Ṭabī'iyāt*, II:397.

of the Talisman Specialists. In the psychology section *Mabāḥith*, however, he does not discuss the idea of transcendental causes. Admittedly, his appropriation of Avicenna's argument—attributed to Abū al-Barakāt in the *Mu'tabar*—is not worked out in detail.<sup>33</sup> But the gist of the idea is clear. The argument has already taken as a premise the idea that human beings have differentiated essences. The separate principle that determines this state therefore cannot be some other external cause like the Active Intellect, which in Avicennian metaphysics is responsible for the causation of universal entities, rather than particulars; the individuation (*ta'ayyun*) of human souls occurs on account of the material substrate that receives the emanations.<sup>34</sup> We thus see a single-minded effort to ignore the theoretical possibility of the role of the Active Intellect, because of the metaphysical commitments it entails. Al-Rāzī opts instead for what seems to be another causal explanation for substantial change; namely the existence of a human essence that is ontologically separate from its material substrate, essentially differentiated, and is an active principle of change. That this proposition presumes the existence of a transcendental cause is not a line of thought he follows up in the present section of the *Mabāḥith*.

Al-Rāzī concludes his presentation of the arguments for the difference of human essences by showing a guarded preference for that position:

[i]f we accept the difference of the dispositions of souls, the truth emerges that either the soul of each human being differs in species from other human souls, or it is possible that souls identical in quiddity exist. However, this is among that which a proof cannot be given based upon one of two contraries [*viz.* the two possibilities above remain indeterminate]. However, it is impossible to infer (*al-istidlāl*) the equivalence (*tasāwī*) of two souls from their equivalence in the totality of actions (*tasāwīhimā fī jumlat al-af'āl*). Therefore, you know that inferring the equivalence of something that possesses certain necessary concomitants, given the identity of these necessary concomitants, is false.<sup>35</sup>

The central premise that al-Rāzī is willing to accept in order to arrive at the correct view of the soul's quiddity is the difference of the soul's native dispositions, the causes of which can be either each soul's essential difference that acts as a determining principle, or, in the case that the soul is essentially uniform, accidental determinations, *e.g.*, physiological factors or pedagogy. Though al-Rāzī, in outlining the views of the partisans of difference, initially set up these two propositions here as contradictory he warns us that they are in fact contraries. This means that that the possible explanations that can corroborate the truth of the initial premise—*viz.* that the soul has native dispositions—remain indeterminate. The third possibility seems to be that there are *classes* of essentially differentiated human beings rather than individually differentiated human beings.<sup>36</sup> As a result, the problematic does not lend itself to the demonstrative procedure whereby we

---

<sup>33</sup> Al-Baghdādī, *Al-Mu'tabar Fī Al-Ḥikma*, II:388–93. under the subject heading 'On knowing the actual cause and causes of human souls.' Here he develops the same argument that matter is not a principle of change and that human souls, being incorporeal, require transcendental causes. As we shall see al-Rāzī in the *Maṭālib* follows Abū al-Barakāt in adopting the doctrine that human souls are caused by the Celestial Intellects.

<sup>34</sup> McGinnis and Reisman, "Ibn Sina," V. 3, 223–227.

<sup>35</sup> Al-Rāzī, *Al-Mabāḥith Al-Mashriqiyya Fī 'Ilm Al-'Ilāhiyyāt Wa-Al-Ṭabī'iyyāt*, II:388.

<sup>36</sup> The argument can be translated into the following propositions: 1) all human beings are essentially differentiated or 2) no human being is essentially differentiated. But since these are contraries, they can both be false due to the possibility of a third position, namely that some human beings are essentially differentiated. Abū al-Barakāt's outline of these three positions in Al-Baghdādī, *Al-Mu'tabar Fī Al-Ḥikma*, II:381.

establish the truth of one proposition by proving the falsity of its contradictory. In al – Rāzī's assessment, even the partisan of difference falls short of demonstration.

What is clear is that for al – Rāzī the second proposition—that the soul is essentially uniform—is based on a weak inference. He does not think that you can infer that two souls are identical in essence simply because they appear to possess identical attributes. Rather, empirical observation seems to suggest an irreducible quality to human traits. Positing the existence of differentiated essences seems a more justifiable inference.<sup>37</sup> Despite this assessment, al – Rāzī neither denies this proposition categorically, nor does he affirm either of the two alternatives.

We can only speculate why al – Rāzī hesitates from adopting a definitive position in the *Mabāḥith*. It may be that he has not yet worked out the details of this incipient theory. What is clear is that in the *Mabāḥith* he adheres to a consistent philosophical method in both his critique of Avicennian abstraction and defense of Abū al – Barakāt's alternative.

## Conclusion

We have seen how he argues that Avicenna's theory that individual human souls share the same quiddity is weak because it is not supported by demonstration. He does not think that knowledge of a thing's essence can be obtained by the Avicennian procedure of abstraction, which purports to bypass syllogistic reasoning. Since al – Rāzī is skeptical of the reliability of this procedure, we should expect that claims regarding the ontological structure of things must be secured syllogistically by premises that consist of analytic propositions.<sup>38</sup>

Al – Rāzī attempts to work out this procedure in his defense of Abū al – Barakāt's position that human souls are essentially differentiated. The argument is based on inductive reasoning: systematic empirical observation shows that the character – traits of individual human beings are unchanging, despite the external circumstances of an individual's life, whether these are his physiological make – up or socio – cultural upbringing. The causal story involved in explaining a person's level of intelligence, courage, or generosity tilts in favor of positing the existence of an internal mechanism, encoded indivisibly by the various properties it expresses. True to his method, al – Rāzī does not claim that this argument is demonstrative. All he claims is that it is based on a stronger inference from the available empirical observations.

One of the advantages of Avicennian theory of definitions and abstraction is that it allows for a clear distinction between a substance's necessary and accidental attributes. This distinction is crucial in scientific investigation. Al – Rāzī's alternative model collapses this distinction; Zayd's particular mannerism in speaking, writing, or laughing are no longer accidental to his being 'rational animal,' but may form the essential determinants of his being Zayd. However, for al – Rāzī, what we deem as necessary and accidental comes after the primary fact of their concrete expression in the outside world. The fact that a group of related accidents can be generalized into the universal 'rational,' is simply a mental

---

<sup>37</sup> Al – Rāzī, *Al-Mabāḥith Al-Mashriqiyya Fī 'Ilm Al-'Ilāhiyyāt Wa-Al- Ṭabī'iyyāt*, II:397 – 98.

<sup>38</sup> Ibrahim, "Freeing Philosophy from Metaphysics: Fakhr Al – Dīn Al – Rāzī's Philosophical Approach to the Study of Natural Phenomena," 129 dan 178. ; real definitions that form the premises for Avicennian demonstrative science are non – analytic in that they identify no less the indivisible essence of a thing. On the other hand, Ibrahim identifies al – Rāzī's method as 'analytic,' in that it examines the attributes belonging to a thing's phenomenal unity without judging how the internal structure of the essence necessitates its attributes.

construct. Though human beings seem to be capable of rational thought, the primary observation to which we have unmediated access remains that each individual expresses unique variations and intensities of this attribute, e.g., the intelligence of a mathematician or a physicist. The secondary, mental construction is that these variations nonetheless fall under a certain kind of conceptual category; namely the genus of rational activities.<sup>39</sup> In other words, 'rational' is equivocally not univocally predicated of human beings.

To convey how this approach works out conceptually in a way that can account for accidental and necessary attributes, al-Rāzī argues that it is possible to conceive 'rational' as an external necessary concomitant (*al-lawāzim al-khārijīyya*).<sup>40</sup> This is in opposition to Avicenna's theory where 'rational' is a constitutive (*muqawwima*) of the quiddity.<sup>41</sup> The observation that to be human is to be capable of rational activity does not necessarily lead to the conclusion that rational is predicated of the very essence of humanity as a constitutive part of the substance. Rather it is possible to account for the necessity, or rather the appearance of necessity, as a concomitant of the essence. Thus, he appropriates the Avicennian technical sense of 'concomitant' that is supposed to denote an attribute that is external to the constituted essence but is necessitated by it.<sup>42</sup> This allows al-Rāzī to avoid Avicennian ontology, while making the necessary scientific observation that a human soul is capable of rational actions.

## References

### Book

- Adamson, Peter. "Non-Discursive Thought in Avicenna's Commentary on the Theology of Aristotle." In *Interpreting Avicenna: Science and Philosophy in Medieval Islam: Proceedings of the Second Conference of the Avicenna Study Group*, edited by Jon McGinnis and David C. Reisman. Leiden, Boston: Brill, 2004.
- Al-Baghdādī, Abū al-Barakāt. *Al-Mu'tabar Fī Al-Ḥikma*. Vol. II. Hyderabad, 1939.
- Al-Rāzī, Fakhr al-Dīn. *Al-Mabāḥith Al-Mashriqiyya Fī 'Ilm Al-'Ilāhiyyāt Wa-Al-Ṭabī'iyyāt*. Edited by M. Al-Baghdadi. Vol. II. Beirut: Dār al-Kitāb al-'Arabī, 1990.
- Corbin, Henry. *Avicenna and the Visionary Recital*. Translated by Willard R. Trask. New Jersey: Princeton University Press, 1960.
- . *En Islam Iranien II, Aspects Spirituels et Philosophiques: Sohrawardī et Les Platoniciens de Perse*. Paris: Gallimard, 1971.
- . "Herméneutique Spirituelle Comparée." In *Face de Dieu, Face de l'homme: Herméneutique et Soufisme*. Paris: Entrelacs, 2008.
- Gutas, Dimitri. *Avicenna and the Avicennan Tradition: Introduction to Reading Avicenna's Philosophical Works Second Edition*. Leiden: E. J. Brill, 2013.
- Hasse, Das Nikolaus. "Avicenna on Abstraction." In *Aspects of Avicenna*, edited by Robert

<sup>39</sup> It is in this sense that al-Rāzī speaks of practical and theoretical perfection, as in the case of the prophets. Frank Griffel, "Al-Ghazali's Concept of Prophecy: The Introduction of Avicennan Psychology into Ash'arite Theology," *Arabic Sciences and Philosophy* 14 (2004): 101–44.

<sup>40</sup> Al-Rāzī, *Al-Mabāḥith Al-Mashriqiyya Fī 'Ilm Al-'Ilāhiyyāt Wa-Al-Ṭabī'iyyāt*, II:396.

<sup>41</sup> Ibn Sīnā, *The Metaphysics of the Healing*, vols. 4, 13.

<sup>42</sup> As was the case above with al-Rāzī's use of the word 'perfection' to denote individual souls' natural disposition, the use of the word 'concomitant' is also contextual to his direct engagement with Avicenna.

- Wisnovsky. Princeton, NJ: Markus Wiener Publishers, 2001.
- Ibn Sīnā, Abū 'Alī. *Al-Isharāt Wa Al-Tanbīhāt*, n.d.
- . *The Metaphysics of the Healing*. Translated by Michael M. Marmura. Provo, UT: Brigham Young, 2005.
- Marmura, Michael. "Avicenna's Chapter on Universals in the Isagoge of His Shifa'." In *Probing Islamic Philosophy: Studies in the Philosophies of Ibn Sīnā, Al-Ghazālī, and Other Major Muslim Thinkers*. Binghamton: Global Academic Pub., Binghamton University, 2005.
- McGinnis, Jon. "Avicenna's Naturalized Epistemology and Scientific Method." In *The Unity of Science in the Arabic Tradition: Science, Logic, Epistemology and Their Interactions*, edited by Shahid Rahman, Tony Street, and Hassan Tahiri. Springer, 2008.
- McGinnis, Jon, and David Reisman. "Ibn Sina." In *Classical Arabic Philosophy: An Anthology of Sources*, 146–237. Indianapolis: Hackett Publishing Company, 2007.
- Pines, Shlomo. "Ūtudes Sur Awhad Al – Zamān Abū'l – Barakāt Al – Baghdādī." In *The Collected Works of Shlomo Pines Vol. I*. Jerusalem and Leiden, 1979.
- . "La Conception de La Conscience de Soi Chez Avicenne et Chez Abu'l – Barakat Al – Baghdadi." In *Archives d'Histoire Doctrinale et Littéraire Du Moyen Age*. Librairie Philosophique J. Vrin, 1954.
- Suhrawardī, Shihāb al – Dīn. *Ḥikmat Al-Ishrāq (The Philosophy of Illumination)*. Translated by John Walbridge and Hossein Ziai. Provo, UT: Brigham Young University, 1992.
- Ziai, Hossein. *Knowledge and Illumination: A Study of Suhraward's Ḥikmat Al-Ishrāq*. Atlanta: Scholar's Press, 1990.

### Journal

- Eichner, Heidrun. "Dissolving the Unity of Metaphysics: From Fakhr Al – Din Al – Razi to Mulla Sadra Al Shirazi." *Medioevo* 32 (2007): 139 – 97.
- Griffel, Frank. "Al – Ghazali's Concept of Prophecy: The Introduction of Avicennan Psychology into Ash'arite Theology." *Arabic Sciences and Philosophy* 14 (2004): 101 – 44.
- Ibrahim, Bilal. "Fahr Ad – Dīn Ar – Rāzī, Ibn Al – Haytham and Aristotelian Science: Essentialism versus Phenomenalism in Post – Classical Islamic Thought." *Oriens* 41 (2013): 379 – 431.
- Janssens, Jules. "Fakhr Al – Dīn Al – Rāzī' on the Soul: A Critical Approach to Avicenna." *The Muslim World* 102, no. 3/4 (2012): 562 – 79.
- . "Ibn Sina Impact on Fahr Ad – Din Ar Razi's «Mabahit Al – Masriqiyya», with Particular Regard to the Section Entitled «al – Ilahiyyat Al – Mahda»: An Essay of Critical Evaluation." *Documenti E Studi Sulla Tradizione Filosofica Medievale* 21 (2010).
- Lizzini, O.L. "L'Bme Chez Avicenna: Quelques Remarques Autour de Son Statut Ūpistīmologique et de Son Fondement Mītaphysique." *Documenti e Studi Sulla Tradizione Filosofica Medievale* XXI (2010): 223 – 42.

### Thesis

Attar, M.F. "Fahṛ Al – Dīn Al – Rāzī on the Human Soul: A Study of the Psychology Section of Al – Mabāḥiṭ Al – Mašriqiyya Al – Fī ‘Ilm Al – Ilāhiyyāṭ Wa Al – Tabī’iyyāt." McGill University, 2013.

Ibrahim, Bilal. "Fakhr Al – Dīn Al – Rāzī's Philosophical Approach to the Study of Natural Phenomena." McGill University, 2012.

———. "Freeing Philosophy from Metaphysics: Fakhr Al – Dīn Al – Rāzī's Philosophical Approach to the Study of Natural Phenomena." McGill University, 2012.

McGinnis, Jon. "Logic and Science: The Role of Genus and Difference in Avicenna's Logic, Science and Natural Philosophy." *Documenti e Studi Sulla Tradizione Filosofica Medievale* 18 (2007).

### ***Proceeding Article***

McGinnis, Jon. "Making Abstraction Less Abstract: The Logical, Psychological, and Metaphysical Dimensions of Avicenna's Theory of Abstraction." In *American Catholic Philosophical Association*, 170 – 83. Proceeding of the ACPA 80, 2007.