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Abstract

This article explores a previously unknown twelfth-century debate surrounding Avicenna’s theory of matter, in particular his views that, being deprived of actuality, prime matter is non-corporeal, and that body is invested with corporeity by a substantial form impressed into matter known as corporeal form. Avicenna’s main proof of prime matter from body’s susceptibility to division was targeted earlier in the century by Abū l-Barakāt al-Baghdādī and Sharaf al-Dīn al-Masʿūdī, but was later reinterpreted and developed by Fakhr al-Dīn al-Rāzī, who brought this particular debate to a close. The problem, however, persisted as a puzzle that exercised later Arabic philosophers.

Keywords


The principal aim of this article is to explore a previously unknown debate surrounding Avicenna’s theory of matter, in particular his views that prime matter is deprived of all actuality, and correspondingly that corporeity is not an
inherent characteristic of prime matter, but is instead invested to matter by a substantial form impressed into it known as corporeal form.\(^1\) The debate, as we shall see, centred on Avicenna’s main proof of prime matter, which was confuted in the 6th/12th century by Abū l-Barakāt al-Baghdādī (d. ca. 560/1165) and in his footsteps Sharaf al-Dīn al-Masʿūdī (fl. Bukhara, 582/1186), before being rethought and developed in the last quarter of the century by Fakhr al-Dīn al-Rāzī (d. 606/1210). Al-Rāzī’s robust and innovative defence brought this particular debate to a close; however the problem persisted as a serious puzzle that continued to exercise later Arabic philosophers. We shall focus here on three key episodes: the different versions of Avicenna’s proof of prime matter; al-Masʿūdī’s criticism of the Ishārāt version of the proof, and its background in Abū l-Barakāt; and al-Rāzī’s response to al-Masʿūdī’s criticism.

As a secondary aim, light will be shed on the broader philosophical setting within which this debate was played out. Above all, we are afforded a glimpse of the genesis of the exegetical tradition on Avicenna’s Ishārāt, represented by our two central sources, which hitherto have remained unstudied. The first is al-Masʿūdī’s al-Mabāḥith wa-l-Shukūk ʿalā l-Ishārāt, consisting of a collection of objections (shakk) on various discussions in the Physics and Metaphysics of the Ishārāt, and as such is the first substantial commentary in the long tradition of commentaries on this Avicennan work. As I showed in a previous study, al-Masʿūdī’s criticism of Avicenna exhibits the influence of both Abū l-Barakāt and al-Ghazālī (d. 505/1111).\(^2\) We shall concentrate here on the first section (or problem, masʾala) in the Shukūk, which targets a ‘pointer’ (ishāra, by which Avicenna means ‘a proof’) from the beginning of the Physics that demonstrates that body consists of the combination of prime matter and corporeal form.\(^3\) Our second main source is a dedicated response, titled Jawābāt al-masāʾil al-bukhāriyya (Response to the [Philosophical] Problems from Bukhara), written by al-Rāzī as a rejoinder to al-Masʿūdī’s work. The two contemporaries were well-acquainted with one another and engaged in face-to-face debates, though this response appears to have been written before the two first met in Bukhara.\(^4\)

\(^1\) The theory of corporeal form was introduced by Simplicius to resolve a contradiction in Aristotle’s views on first matter, namely that in some passages he describes it as corporeal and extended, and in other passages as incorporeal and unextended. On this see Stone, “Simplicius and Avicenna”; Hyman, “Aristotle’s ‘First Matter,’” 335–44; Wolfson, Crescas’ Critique of Aristotle, 99 ff.; 579 ff.

\(^2\) On al-Masʿūdī and his work, see Shihadeh, “From al-Ghazālī to al-Rāzī,” 153 ff.

\(^3\) Al-Masʿūdī, Shukūk, fols. 109b–111a.

In the corresponding first section, al-Rāzī responds to al-Masʿūdī’s criticism, but implicitly recognises the shortcomings of Avicenna’s proof, and accordingly proposes his own new version thereof. The Jawābāt is al-Rāzī’s earliest extant philosophical work, and hence predates his well-known Sharḥ, the first ever full commentary on the Ishārāt; and although the Sharḥ never mentions al-Masʿūdī by name, its commentary on the īshāra in question prominently features both his objection and the author’s response. Through the Sharḥ and al-Rāzī’s other, independent philosophical works, his developed version of Avicenna’s proof was influential on later philosophers, including al-Ṭūsī (d. 672/1274), who also had access to the Jawābāt.

Before turning to Avicenna’s proof and the ensuing debate, we need, first of all, to set the scene by providing an outline of the most relevant aspects of his account of matter and body and of the competing theory expounded by Abū l-Barakāt.

1 Two Theories of Matter: Avicenna versus Abū l-Barakāt

‘Body’ (jism), according to Avicenna, is said of different things. ‘Natural body’ (jism ṭabīʿī) denotes the substance in which we can postulate three dimensions (buʿd, intidād), perpendicular to one another (length, width and depth). These three dimensions need only be postulated; Avicenna is careful to emphasise that body, in this sense of substantive corporeity (jismiyya), need not have actual lines or surfaces, as these would be accidental, rather than essential characteristics of body. For this reason, it seems, the foregoing definition is in one place said to be merely a description (rasm), as opposed to a real definition (ḥadd). A real definition must only consist of characteristics essential to what it defines, yet being actually characterised by, or susceptible to, certain accidents cannot be an essential characteristic of body. In one place, however, Avicenna identifies “true corporeity” as “the form of continuity, which receives the positing of the three dimensions which we have mentioned.” ‘Continuity’ (ittiṣāl) here is intended in the absolute sense of divisibility, as opposed to the

5 Al-Rāzī, Jawābāt, 12–20. The corresponding discussion in al-Rāzī’s full commentary, the Sharḥ al-Ishārāt, is examined in my “Al-Rāzī’s Sharḥ.”

6 Al-Ṭūsī refers to al-Masʿūdī and al-Rāzī’s Jawābāt in three places (Ḥall, 2, 189; 2, 354; 2, 366).

7 Avicenna, Ṭabīʿīyyāt, 1.1.2, 13; Ilāhiyyāt, 11.2, 61–3; Ḥudūd, 22.

8 Avicenna, Ilāhiyyāt, 11.2, 63. On this, see al-Rāzī, Sharḥ, 2, 5–6.

other, relative senses of the expression.10 A thing is said to be continuous in itself if it is possible to posit divisions within it, such that any two posited divisions would share a common boundary.11 Thus defined, substantial corporeity is common to all determinate bodies, no individual body having more or less of it than another.12

Necessarily associated with corporeity are several concomitants (lāzīm, lāḥiq), which are accidental rather than essential to it and do not contribute to the realisation (taḥaqquq) and subsistence (qiwām) thereof, as we may fully conceive of corporeity as such without conceiving of any of its concomitants.13 One such concomitant is finitude, whose concomitance to body owes to the fact that determinate bodies are made up of limited parcels of matter.14 From finitude follow further concomitants, in particular determinate dimensions, boundaries, surface and shape.15 The totality of these accidental concomitants of a given determinate body are accidents of magnitude (kammiyya) that constitute what is known as ‘mathematical body’ (jism taʿlīmī), which is a non-substantial form inhering in a corporeal substance.16 Being accidental, magnitude is never inherently necessary, although some bodies, such as celestial spheres, may have permanent magnitudes due to a nature external to their corporeity and specific dimensions.17

The two principles of natural body, that is to say the proximate causes to which it owes its subsistence, are prime matter and corporeal form (ṣūra jismiyya).18 The principal difference between matter and form, qua principles,
is that the material cause is a passive principle and associated with potentiality (quwwa), whereas the formal cause is an active principle and associated with actuality (fiʿl):

If [the cause of a thing] is included in its constitution and is part of its existence, then either it must be the part where, in terms of its existence alone,\textsuperscript{19} it is not necessary for it to be actual, but only to be in potency, and is termed ‘matter.’ Or [the cause must be] the part whose existence is its being in actuality, namely form.\textsuperscript{20}

Given its passivity, however, the material recipient is a principle only accidently, “because it is first rendered subsistent in act through form, while its essence, considered only in itself, is in potency.”\textsuperscript{21}

Due to its association with potentiality, prime matter does not exist of itself. It can only exist if it is paired with, and actualised by, the active principle of form, to which it serves as a recipient (qābil). It can never be divested of form.\textsuperscript{22} Prime matter of itself is devoid of actuality also with respect to its predisposition:

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.\textsuperscript{23}

Therefore, prime matter lacks any inherent formal preparedness (istiʿdād), or positive characteristics and determination, including three-dimensionality and continuity, divisibility, shape, quantity and position. In other words, actual corporeity is not a characteristic belonging to matter by predisposition, or engendered and contributed to body by it. Matter, rather, only has the potentiality to receive contraries, such as continuity and discontinuity, as well as any accidental shape or quantity.

What invests body with its corporeity—that is, its three-dimensional extension—is corporeal form, which is the first substantial form impressed into

\begin{itemize}
  \item \textsuperscript{19} Reading wahdahu, rather than wa-ḥaddihi (Marmura).
  \item \textsuperscript{20} Avicenna, \textit{Ilāhiyyāt}, vi.1, 258 (Marmura, 195, with modifications); cf. 257. On matter and passivity, see also Belo, \textit{Chance and Determinism}, 57 ff.
  \item \textsuperscript{21} Avicenna, \textit{Ilāhiyyāt}, vi.1, 258 (Marmura, 195).
  \item \textsuperscript{22} Avicenna, \textit{Ilāhiyyāt}, xi.3, 72 ff.; \textit{Najāt}, 502–6; \textit{Ishārāt}, 2, 202 ff.
  \item \textsuperscript{23} Avicenna, \textit{Ḥudūd}, 17.
\end{itemize}
prime matter. The combination of this form and matter constitutes natural body. Since the actual realisation of natural body owes entirely to corporeal form and since matter only serves as a passive substrate devoid of positive characteristics, all that was previously said of natural body holds true of corporeal form. It is three-dimensional continuity abstracted from matter and accidents, and is the same in all concrete bodies.24

Now, according to Abū l-Barakāt, Avicenna’s theory that prime matter of itself lacks corporeity rests on a misinterpretation of ancient philosophical sources, particularly Aristotle, who maintained that prime matter has no inherent magnitude, shape, place, nor any other such characteristics.25 Aristotle, he opines, only intended that matter, of itself, is deprived of determinate, accidental magnitude, but was taken mistakenly by Avicenna to deny that matter was characterised by three-dimensional extendedness altogether.

Disputing Avicenna’s view that prime matter lacks existence of itself and is actualised by form,26 Abū l-Barakāt submits that prime matter (hayūlā ūlā) is none other than body, and as such inherently corporeal and characterised by continuous extension (imtidād ittiṣālī). He reasons that by considering how bodies are analysed (taḥlīl) to their basic constituents both in reality (wujūdī) and in the mind (dhihnī, fi l-naẓar), it becomes evident that there must be an underlying corporeal substrate that is common to all concrete bodies and persists unchanged as they undergo qualitative transmutation:27

Reflection reveals to us things that we call ‘matter’ for other things, such as wood for a bed. Wood too has as its matter things that share its substrate with it, but differ from it with respect to form. For when wood is burnt, ash remains and water and air separate. So earth (which is the ash), water and air are the matter of wood, from which it is composed, and to which it decomposes. Therefore, each of water, earth and air is a matter for things that are composed of them, which vary in that they have a higher proportion of some and a lower proportion of others. Finally, these [elements] share corporeity (jismiyya) among them. Body (jism), hence,

25 Abū l-Barakāt, Muʿtabar, 2, 12–13; 3, 200–1. Avicenna is not mentioned by name here, but is clearly intended.
26 Abū l-Barakāt, Muʿtabar, 2, 16; 2, 123–4.
is the prime matter for all; yet body itself does not have an underlying matter, because we find that it neither is composed of another thing nor becomes decomposed to another thing.\footnote{Abū l-Barakāt, \textit{Muʿtabar}, 3, 195–6.}

The Avicennan thesis that body consists of the combination of an incorporeal prime matter and corporeal form is rejected out of hand on the grounds that it lacks the support of evidence: “We have not discerned this so-called ‘matter’ in body through perception, nor does it result from decomposition, nor are we led to accepting it by [...] a demonstrative argument.”\footnote{Abū l-Barakāt, \textit{Muʿtabar}, 3, 200.} As we shall see a little later, Abū l-Barakāt also confutes Avicenna’s arguments for the existence of such matter.

2  \textit{Shifāʾ} and \textit{Najāt} Arguments

Avicenna has two arguments to prove that body is a complex of prime matter and corporeal form: one only appears in the \textit{Shifāʾ}, and another appears in different versions in several works, including the \textit{Shifāʾ} and the \textit{Najāt}. It is vital that we start by examining these discussions before interpreting the proof set out in the \textit{Ishārāt}, with which we are mainly concerned, to appreciate fully the points of contention raised by our twelfth-century critics. These, as we shall see, turn on the question whether the proof starts from genuinely formal, or merely accidental change.

2.1  \textit{The Shifāʾ, Ilāhiyyāt II.2}

Two arguments are deployed in the section titled “Ascertaining corporeal substance and what it is composed of,”\footnote{Avicenna, \textit{Ilāhiyyāt}, II.2, 61 ff. Not ‘and what is composed from it’, as in Marmura’s translation (48). The section explicitly discusses what body is composed of (\textit{Ilāhiyyāt}, II.2, 67).} in the Metaphysics of the \textit{Shifāʾ}, whose main objective is to demonstrate that body consists of matter and form. In the first argument, Avicenna adapts the traditional Aristotelian proof of prime matter from change, trading qualitative change for change in continuity. Starting from the notion that corporeity is divisible, the argument proves that “the form of body and the dimensions subsist in something (\textit{qāʾima fī shay}).” It goes as follows (\textit{Sh}.1–6).\footnote{Avicenna, \textit{Ilāhiyyāt}, II.2, 66.}
[1] Dimensions are either the same as instances of continuity (ittiṣālāt) or something that occurs to continuity, as we shall establish, rather than a thing to which continuity occurs. [2] For the expression ‘dimensions’ is a name for the continuous magnitudes themselves, not for the things to which continuity occurs. [3] The thing which is continuity itself or which is continuous in itself cannot remain its identical self once continuity ceases to be.32 [4] For every continuity is a dimension33 that, if it becomes discontinuous, will cease to be and two other dimensions will come to be. [5] Likewise, if continuity comes to be—I mean ‘continuity’ in the sense that it is a differentia, not an accident, as I have explained elsewhere34—then a new dimension will come to be and all that had its special characteristic will cease to be.35 [6] Therefore, there is something in bodies that is the subject (mawḍūʿ) for continuity and discontinuity, and for the specific magnitudes that occur accidentally to continuity.36

The argument turns on determinate continuity—that is, an instance of continuity (the plural, ittiṣālāt, is used)—which is inseparably correlated to magnitude (dimension), although, we are told, the exact relation between the two will be explained elsewhere (Sh.1–2). When a body is divided, its original magnitude will pass away and be replaced with two new magnitudes, and (because of the correlation between an instance of continuity and its magnitude) the original instance of continuity will pass away and be replaced with two new instances of continuity (Sh.3–4). Likewise, when two bodies combine into one, their magnitudes will pass away and be replaced with a new magnitude, and the original instances of continuity will pass away and be replaced with a new instance of continuity (Sh.5). Since the body’s original determinate continuity passes away when it undergoes division (Sh.4), there must be something in the body other than its determinate continuity, which serves as the subject for continuity and discontinuity, and for the specific magnitudes associated with continuity (Sh.6). The subject in question appears to be matter: it is the thing in which “the form of body and the dimensions” subsist.37

32 Reading, with Marmura, baṭula, not yaẓallu, as in Anawati and Zāyid’s edition.
33 Reading, with Anawati and Zāyid’s edition, fa-kullu ittiṣālin buʿdun, not fa-kullu ittiṣāli buʿdin (the connection of every dimension), as in Marmura’s edition (53).
34 That is, continuity in sense 3 (see p. 367 above).
35 Reading wa-ka-dhālika ... bi-khāṣṣiyyatihī as a single sentence, without the full stop appearing in the editions.
36 Avicenna, Ilāhiyyāt, ii.2, 66–7.
37 On the sense in which Avicenna sometimes refers to matter as a ‘subject,’ see Stone, “Simplicius and Avicenna,” 77–8.
If this indeed is the conclusion, then the reasoning seems a little suspect. For whether dimension is the same as an instance of continuity or something that occurs to continuity (Sh.1), it is accidental to it. This is confirmed in Ilāhiyyāt i.ii.4, “On that magnitudes are accidents,” which is the discussion referred to in Sh.1. The first magnitude discussed in the section is the continuous quantity of body, “which is the quantity of the continuous [thing] that is body in the sense of form,” i.e. in the sense of the substantial form of corporeity. This accident of magnitude inheres in the complex of matter and corporeal form: it “attaches to matter and to something in matter,” i.e. corporeal form, though it is directly and inseparably associated with the latter, but not with the former, since it can be conceptually separated from matter, but not from corporeity. Magnitude, hence, must not be equated with corporeal form:

This magnitude is the continuous [thing]’s being such that it can be measured (yumsahu) so many times by such-and-such [a measurement unit]. [...] This is different from the thing’s being such that it is susceptible to the positing of the aforementioned dimensions. For one body does not differ from another in this respect. [...] The [former] notion is the quantity of the body, whereas the [latter] is its form.

So, although magnitude and substantive continuity are concomitant, it is not entirely clear why the passing away of magnitude must be accompanied by the passing away of substantive continuity. For it is arguable, as we shall see, that division only results in change in the accident of magnitude, which inheres in continuous substance, and consequently that the thing “that is the subject for continuity and discontinuity, and for the specific magnitudes that occur accidentally to continuity” (Sh.6) can only be corporeal substance, rather than prime matter.

Avicenna’s second argument, of little relevance to the present study, goes as follows. With respect to its corporeity, body is a thing in actuality. Body also has preparedness (mustaʿidd) to receive: “whatever preparedness you wish for it (ayy istiʿdād shiʾta), it is [a thing] in potentiality.” This, it appears, refers to body’s preparedness to receive substantial forms (other than corporeity) and

38 Avicenna, Ilāhiyyāt, i.ii.4, 111.
39 Reading, with Anawati and Zāyid’s edition, bi-kadhā kadhā marra, as opposed to Marmura’s bi-kadhā wa-kadhā marra. The first kadhā refers to the measurement unit, and the second to the number of times.
40 Avicenna, Ilāhiyyāt, i.ii.4, 111–12.
41 Avicenna, Ilāhiyyāt, ii.2, 67.
accidents.\textsuperscript{42} The same simple being, however, cannot be, in one and the same respect, one thing in actuality and a different thing in potentiality. Therefore, body must consist of the combination of two components: one that makes it something in actuality, and another by virtue of which body has the potentiality to receive different substantial forms and accidents. These, respectively, are corporeal form and matter. This argument is an application of the principle that an absolutely simple being cannot serve as two causes: since body cannot be both a formal cause for its corporeity and a material cause for the other substantial forms and accidents it receives, it cannot be simple and non-composite.

2.2 \textit{The Najāt}

Avicenna appears to become aware of the shortcomings of his first argument in the \textit{Shifā′}. So in his later work, the \textit{Najāt}, the argument is developed into two separate arguments. The section titled, “On proving matter and explaining the essence of corporeal form,” proceeds by defining ‘body’ and then making a clear-cut distinction between corporeity and magnitude.\textsuperscript{43} Avicenna explains that corporeal form and magnitude are analogous in that they do not subsist in themselves, but must subsist (\textit{yaqūmu}) in another. Accidents of magnitude must inhere in a subject, whereas corporeity, as a substantial form, must exist in the substrate of matter. These two points are substantiated in turn.

The first point, he writes, is obvious. For specific dimensions come into existence and pass away (\textit{tūjadu wa-tuʿdamu}) when the shape of the body undergoes change, yet the subject (\textit{mawḍūʿ}) remains constant.\textsuperscript{44} This indicates the existence of a subject that in itself is not characterised by any specific magnitude, but in which multiple accidental specific magnitudes may inhere. The subject in question is, of course, body. As such, this argument is a much tidier reinterpretation of the first argument in the \textit{Shifā′}. However, one commentator on the \textit{Najāt}, a certain Fakhr al-Dīn al-Isfarāʾīnī (6th/12th c.) who is a traditional Avicennist, remarks that since this point contributes nothing to proving the existence of matter, but only reiterates the accidental nature of magnitude which had already been explained earlier in the section, it is a superfluous interpolation that serves no purpose (\textit{ḥashw lā fāʾida fīhi}).\textsuperscript{45}

For the second point, that corporeal form must inhere in matter, Avicenna argues as follows (hereafter, I will refer to this simply as ‘the \textit{Najāt} argument’).

\textsuperscript{42} As the argument is explained by al-Rāzī (\textit{Maṭālib}, 6, 201–2; cf. \textit{Mabāḥith}, 2, 44). Avicenna’s student Bahmanyār gives the reception of colours or motion as examples (\textit{Taḥṣīl}, 316).
\textsuperscript{43} Avicenna, \textit{Najāt}, 498–500.
\textsuperscript{44} Avicenna, \textit{Najāt}, 500.
\textsuperscript{45} Fakhr al-Dīn al-Isfarāʾīnī, \textit{Sharḥ al-Najāt}, 33.
Corporeal form is either the same as continuity, or a nature to which continuity is concomitant—either way, and by the same reasoning, continuity will require a substrate. Assuming corporeity is the same as continuity (N.1–5),

... [1] body may be continuous and then be divided. [2] So there must be something that is potentially both [continuous and discontinuous]. [3] Continuity itself, qua continuity, cannot receive discontinuity, [4] for the recipient of discontinuity must not cease to be when discontinuity occurs, whereas continuity ceases to be when discontinuity occurs. [5] Therefore, there must be something other than continuity which receives discontinuity and is itself the recipient of continuity.

This argument is a developed version of the first Shifāʾ argument, but in contrast makes no reference to accidents of magnitude passing away or coming to be. What matter receives here are not different instances of quantitative continuity, but simply continuity and discontinuity simpliciter, and the occurrence of this substantial change in body indicates the presence of a receptive substrate.

2.3 ‘Uyūn al-ḥikma
In this other Avicennan work, we find a rather puzzling version of this proof, which suggests that discontinuity is an existent thing that comes to be:

Corporeal continuity exists in matter. This is so because it is susceptible to discontinuity; and its susceptibility to discontinuity must be due either to its continuity [or to something else]. However, continuity cannot receive discontinuity, which is its opposite (ḍidd). For it is inconceivable for the opposite [of a thing] to possess the potentiality to receive its opposite, given that the recipient of a thing can only receive it while [the recipient] exists; for it is inconceivable that a non-existent thing receive an existent thing (shay’ mawjūd), and the opposite [of a thing] will cease to be when its opposite comes to be [...]. Therefore, the potentiality to receive discontinuity belongs to something that receives both discontinuity and continuity. Therefore, corporeal continuity exists in matter [...].

46 Avicenna, Najāṭ, 500; cf. Bahmanyār, Tahṣīl, 314; Fakhr al-Dīn al-Isfarāʾīnī, Sharḥ al-Najāṭ, 32. The doubt that Avicenna expresses in this passage has already been discussed by Stone (“Simplicius and Avicenna,” 101–6) and will not be pursued here.

47 Avicenna, Najāṭ, 500.

How discontinuity can be an “existent thing” is left unexplained. Otherwise, the argument is basically the same as the Najāt argument.

3 The Ishārāt Argument

We now turn to the passage targeted by al-Masʿūdi, which appears early in the first chapter (namat) of the Physics and Metaphysics of the Ishārāt, titled “On the reality of bodies” (tajawhur al-ajsām). The discussion leading to the ishāra proceeds as follows:

1. First, Avicenna refutes the theory that bodies consist of minimal, indivisible parts (juz′), which was current in classical kalām.
2. He then refutes another version of kalām atomism, namely the theory that bodies consist of infinitely-divisible parts, propounded by al-Naẓẓām (d. 220–230/835–845).
3. From 1 and 2, it follows that bodies consist, not of indivisible parts, but of a continuum, which is divisible either actually or in thought.
4. From 3, it follows that bodies are infinitely divisible, at least in thought.
5. Avicenna then states that he will argue later in the book that motion and time are likewise continuous and not atomistic, contra classical kalām theologians.

Having proved that body is continuous and infinitely divisible, Avicenna proceeds to argue from continuity to establish the central thesis of hylomorphism, which is that body consists of the complex of matter and form. Here is a translation of the ishāra in question (1.1–7):

You have come to know [1] that a body has a continuous, three-dimensional magnitude (miqdār thakhīn muttaṣil), and [2] that it is susceptible to discontinuity (infiṣāl) and fragmentation (infikāk). You also know [3] that what is continuous in itself (al-muttaṣil bi-dhātihi) is different from

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49 On rendering ‘tajawhur’ as ‘reality’ (ḥaqīqa), as opposed to ‘substantiality,’ see al-Rāzī, Sharḥ, 2, 3–4.
50 Avicenna, Ishārāt, 2, 152–7.
51 Avicenna, Ishārāt, 2, 158–62.
52 Avicenna, Ishārāt, 2, 163–5.
53 Avicenna, Ishārāt, 2, 166.
54 Avicenna, Ishārāt, 2, 167.
the recipient (qābil) of continuity and discontinuity, whose receptivity is itself attributed by both [i.e. as receptivity to continuity and discontinuity]. [4] Therefore, the potentiality for this reception is different from the existence in actuality of that which is received (maqbūl), and different from its shape and form (hayʾatuhu wa-ṣūratuhu). [5] This potentiality belongs to [something] other than what is the same as what is continuous in itself, [6] which at the occurrence of discontinuity passes away, and a different [thing] comes to be (yūjadu), and [7] the like (mithl) of which then comes to be anew at the restoration of continuity.55

The conclusion is that body consists of the combination of two distinct things: one that is continuous in itself, and one that has the potentiality to receive both continuity and discontinuity. In the ensuing discussion, Avicenna refers to these, respectively, as ‘corporeal form’ and ‘matter’; and in a slightly later ishāra, he confirms this conclusion by cross-referencing this passage as his proof that body consists of these two principles combined.56

The ishāra is rather abstruse, and needs to be unpacked. It seems, in some respects, to resonate with the first Shifāʾ argument, and in other respects with the Najāt version of the argument. Here is an interpretation.

Body is continuous (i.1), and at the same time divisible (i.2). Avicenna introduces the former point by, “You have come to know,” since the notion of corporeity being a continuum is not self-evident, but has just been demonstrated in the preceding discussion in the same chapter. By contrast, three-dimensionality and magnitude, the two other characteristics of body mentioned, are self-evident and need no proof.57

Being essentially continuous and being susceptible to both continuity and discontinuity are two different characteristics of body (i.3).58 Body is susceptible to continuity and discontinuity on account of its possessing the potentiality to receive either; and it is continuous on account of its possessing actual continuity (i.4).59 Thus far, the argument turns on indeterminate continuity: the

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56 Avicenna, Ishārāt, 2, 182–3.
57 Cf. al-Ṭūsī’s commentary, Ḥall, 2, 169.
58 Al-Taḥtānī remarks, convincingly, that 1.3 is superfluous, since it is repeated in 1.4 (Muhākmāt, 45).
59 Although body is susceptible to receiving either continuity or discontinuity, the argument only pursues the dichotomy between this susceptibility and body’s actual continuity. Actual discontinuity is not an essential characteristic of body. So “the existence in actuality of that which is received” (i.3) refers to continuity alone. After all, having “existence in
expression ‘what is continuous in itself’ (*I*.3), as al-Ṭūsī notes, refers to corporeal form.\(^{60}\) So the references that the passage makes to the body’s magnitude (*I*.1) and to its shape and mathematical form (*I*.4), which belong to accidental, quantitative continuity, appear superfluous. Al-Taḥtānī remarks that *I*.4 makes three distinct statements—that the potentiality for continuity and discontinuity is different from continuity, that it is different from the body’s shape, and that it is different from its magnitude—and that the last two statements have no business being in the passage at all.\(^{61}\)

So, do these two characteristics of body—its actual continuity, and its potentiality for continuity and discontinuity—belong to one and the same simple substance, or do they belong to two different things, which constitute body? In the *Najāt* argument, the former alternative is eliminated on the grounds that (indeterminate) continuity, which is the essential characteristic of corporeity, passes away at the occurrence of discontinuity, and hence cannot itself have the potentiality for, and be the recipient to, discontinuity (*N*.3–4). By contrast, however, the argument in *I*.5–7 shifts to hinge on determinate continuity.

This shift from indeterminate to determinate continuity is signalled, in the first instance, by the curious phrasing of *I*.5, “Potentiality belongs to something other than what is the same as what is continuous in itself” (*ghayr mā huwa dhāt al-muttaṣil bi-dhātihi*), as opposed to the more natural, “Potentiality belongs to something other than what is continuous in itself” (*ghayr al-muttaṣil bi-dhātihi*). The phrasing resonates with the phrasing of the first *Shifāʾ* argument, and seems to suggest that determinate continuity is the same as indeterminate continuity, which is ‘what is continuous in itself,’ to the extent that the former is particular and the latter universal (cf. *Sh*.3). Accordingly, the notion that body could be a simple being is eliminated in *I*.5–7 as follows: The thing that is susceptible to, and that receives, both continuity and discontinuity cannot be (determinate) continuity itself, because determinate continuity passes away at the occurrence of discontinuity, and is replaced with different determinate continuities, which ‘come to be’ (*yūjadu*). Likewise, if these resultant bodies are recombined into one body, their determinate continuities pass away

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61 Al-Taḥtānī, *Muḥākamāt*, 45. He expresses astonishment at al-Rāzī and al-Ṭūsī’s failure to comment on the last two statements. Al-Rāzī remarks on Avicenna’s reference to magnitude, but does not object to it in his main commentary on the *Ishārāt*, since it accords with his own version of the proof, as we shall see (*Sharḥ*, 2, 31).
and a new determinate continuity comes to be. Therefore, body is made up of two different things: actual continuity belongs to one, and is subject to generation and corruption, and the potentiality for continuity and discontinuity belongs to the other, which is the substrate for the generation and corruption of continuity (I.5).62

That I.5–7 turns on determinate continuity, rather than indeterminate continuity as in the Najāt argument, is confirmed in two further features. First, I.6 asserts that when discontinuity occurs something passes away and a different thing ‘comes to be’ (yūjadu). This corresponds to the first Shifā’ argument, in which, as we have seen, it is stated that when a body is divided its original determinate continuity passes away and two new determinate continuities come to be, and when two bodies combine into one their determinate continuities pass away and a new one comes to be (Sh.3–5). In the Najāt argument, by contrast, when continuity is lost at the occurrence of discontinuity, nothing, strictly speaking, ‘comes to be’ in its place (N.3–4). Second, I.7 states that if after a body undergoes division, its parts recombine into one body, the resultant continuity will be ‘like’ (mithl)—hence, not the same as (nafs)—the original continuity; and again this indicates that the original and resultant are instances of continuity (cf. Sh.5).63

4 Al-Masʿūdi’s Criticism

In the first of the fifteen sections of the Shukūk, titled “On proving prime matter” al-Masʿūdi initiates the discussion by citing the ishāra in full and then referring to the slightly later ishāra in which Avicenna cross-references this passage spelling out precisely its intended, but otherwise unstated, conclusion (gharaḍ), namely that body consists of a complex of matter and corporeal form.64 Without further ado, he proceeds to confute the argument on the grounds that it falls short of achieving its intended goal (lā yafī bi-hādhā l-gharaḍ). He argues that it is insufficient for proving, as Avicenna claims it does, that body consists of matter and corporeal form, since it only establishes a

62 The relative clause pronoun, “which” (alladhī), introducing I.6 should be interpreted as meaning ‘because’. So I.6–7 substantiate I.5. Cf. Avicenna, Najāt (500) and ‘Uyūn al-hikma (48), which have “because” (li-anna).

63 This observation is made by al-Rāzī (Sharḥ, 2, 31; Jawābāt, 14; cf. Avicenna, Ilāhiyyāt, i.5, 36).

64 Al-Masʿūdi, Shukūk, fols. 109b–110a. See n. 56 above.
much more general point, which is the incontrovertible fact that continuity and the recipient (qābil) of continuity are not one and the same thing.\footnote{Al-Masʿūdī, Shukūk, fols. 110a–b.}

Al-Masʿūdī goes on to argue that, upon further examination, it turns out that the continuity-and-recipient dichotomy evinced in the argument is not one of substantial form and prime matter, but merely the dichotomy of magnitude and body. For the continuity that passes away at the occurrence of discontinuity in a body, and that comes to be at the restoration of continuity, is not corporeal form, but rather continuity as an accident in the category of continuous quantity (ʿaraḍ min bāb al-kammiyya al-muttaṣila), in other words, magnitude. For when a particular body is divided, what it loses will only be its unity (wahda) and magnitude, which are both entirely accidental to it. As to non-accidental continuity, which is essential to its corporeity, it remains unaltered by such accidental change, neither coming to be nor passing away. If a given lump of wax is divided into parts, its unity and magnitude will pass away, and so will the continuity that had existed between its would-be parts, as new magnitudes come to be. Yet each part will be no less a lump of wax, and ipso facto no less three-dimensional and continuous, than the original body, indicating that the reality (ḥaqīqa) of the body, qua body, has remained unaltered. Accordingly, the subject (mawḍūʿ) that serves as the recipient of accidental continuity and hence undergoes accidental change is not prime matter, but in fact body itself.

The upshot of al-Masʿūdī’s criticism is that Avicenna’s proof in fact turns on quantitative accidental change in body, when it needs instead to hinge on change in substantial form, as it is indeed purported to do. The proof, consequently, fails to demonstrate that body consists of the combination of form and matter. For the fact that the corporeity of body is not lost when it undergoes accidental change of quantity, by the occurrence of discontinuity therein, indicates that the subsistence of corporeity is engendered by a form that endures this change. And one may postulate, for the sake of argument, that the form in question is none other than the species form (ṣūra nawʿīyya) of any given body (for instance, the wax form [ṣūrat al-shamʿīyya] of a lump of wax), and that species form is the reality of body and is a simple, non-composite and self-subsisting substance, though in actual particular bodies it is inseparably characterised by accidents of quantity. So the occurrence of division in a given body would only involve multiplication, change in dimension, and loss of continuity between would-be parts—all accidental types of change—but no change in the reality of body. This alternative hypothesis, of course, is not
one that al-Masʿūdī wishes to advocate, but is meant only to corroborate his point that Avicenna’s argument fails to prove that body consists of matter and form.

Al-Masʿūdī’s criticism may have been inspired by a reading of the first Shīfā’ argument, where Avicenna argues along similar lines but explicitly from accidents of dimension, alongside the Najāt discussion, where Avicenna writes that change in magnitude only attests the presence of a subject in which accidents of continuous quantity inhere. However, as al-Rāzī points out in his response, al-Masʿūdī’s counterargument is more likely co-opted from his older contemporary Abū l-Barakāt.66 In his criticism of Avicenna’s theory of corporeal form included in the section on matter and form in the Metaphysics of the Muʿtabar, Abū l-Barakāt argues at length against the first Shīfā’ argument and the second Najāt argument. He refers to Avicenna as “an eminent individual” (baʿd al-fuḍalāʾ), without identifying him by name.67 He confutes the former argument on the grounds that it starts from change in the accident of magnitude, rather than in corporeity.68 He then turns to the latter, ‘subtle’ argument (ḥujja daqīqa), targeting the claim that continuity passes away at the occurrence of discontinuity, which makes no reference to determinate continuity or magnitude.69 This claim, he argues, can have two interpretations. First, that the continuity of the body’s extension (al-ittiṣāl al-imtidādī) passes away completely; however, this continuity is not lost with division, and even if the body is divided ad infinitum continuous parts will survive each instance of division. Second, that only the continuity between the different would-be parts of the original body is lost; however, this continuity is only relational, and hence accidental, since its subject—namely, the would-be parts which become actually separate parts—remains unchanged with respect to its corporeity, and undergoes neither generation nor corruption by division:

If [a body] is divided, discontinuity will not make its continuity cease to be in the way that the form of air makes the form of water cease to be, so that [the existence of] a thing common to both of them can be established. Rather, it multiplies it. Yet multiplication is not the same as passing away.70

66 Al-Rāzī, Jawābāt, 19.
67 Abū l-Barakāt, Muʿtabar, 3, 201.
69 Abū l-Barakāt, Muʿtabar, 3, 201–2.
70 Abū l-Barakāt, Muʿtabar, 3, 202.
Abû l-Barakât concludes that ‘continuity’ is an equivocal term that can refer to either extension or an accidental relation between bodies, and that the Najât argument fails since it assumes, mistakenly, that the passing away of continuity in the latter sense amounts to the passing away of continuity in the former sense.

The influence of Abû l-Barakât on al-Masʿūdī is further attested in the remainder of the latter’s commentary on the ishāra. This borrowing, again, is observed by al-Rāzī.71 Having established both that Avicenna’s theory of corporeal form is baseless and that Avicenna fails to prove that body consists of form and matter, he defends the competing hylomorphism propounded by Abû l-Barakât, advancing an alternative proof of matter. He introduces this thesis as the result of investigation (mā intahā ilayhi l-baḥth). Some bodies, he reasons, undergo change in their species form (ṣūra nawʿiyya), such that one essence passes away and is replaced by a different essence that comes to be. Yet, before and after the change, something remains unchanged in body, neither passing away nor coming to be. For instance, an egg becomes altered into a bird, and sperm into an animal. Wheat, when prepared for consumption and then ingested and digested, is altered into flour, dough, bread, chyle, blood and finally flesh and bones. In each case, something in body changes, and another thing, conjoined to it, remains unaltered. The latter is matter. The former is either form, if the species, i.e. the essence, of the thing is altered, or an accident, if the species is not altered.72

5 Al-Rāzī’s Defence of Avicenna

Al-Rāzī provides valuable clues as to the nature of what appears to be a heated and quite partisan debate among his contemporaries (ʿaẓuma taʿaṣṣub al-nās) over Avicenna’s proof of prime matter and Abû l-Barakât and al-Masʿūdī’s objection.73 The argument from body’s susceptibility to continuity and discontinuity, he points out, was the standard proof (al-burhān al-mashhūr) of prime matter among the philosophers of his time.74 It is the proof on which hylomorphists “rely and with which they stride around (bi-hā yaṣūlūna)!75 Indeed, the same proof is used, unsurprisingly, in Bahmanyār’s (d. 459/1066)

71 Al-Rāzī, Jawābāt, 19.
72 Al-Masʿūdī, Shukūk, fols. 110b–111a.
73 Al-Rāzī, Sharḥ ʿUyūn al-ḥikma, 3, 21.
74 Al-Rāzī, Jawābāt, 12.
75 Al-Rāzī, Maṭālib, 6, 201.
Tahṣīl and al-Lawkārī’s (d. ca. 517/1123) Bayān al-haqq, and is reproduced in al-Ghazālī’s (d. 505/1111) Maqāṣid al-falāsifa and al-Shahrastānī’s (d. 548/1153) Milal. Al-Rāzī also remarks that Abū l-Barakāt and al-Masʿūdī’s counterargument (iʿtirād) had become widely influential. Some may have used it to promulgate the alternative theory of matter proposed by Abū l-Barakāt. Yet the counterargument was also conveniently adapted by some kalām theologians in their defence of atomism, such as Ibn Ghaylān al-Balkhī (d. ca. 590/1194) — a critic of Avicenna, colleague of al-Masʿūdī and admirer of his Shukūk—who borrowed it explicitly from Abū l-Barakāt’s Muʿtabar. It is also reproduced by al-Shahrastānī, who draws on Abū l-Barakāt without naming him.

This influential line of criticism, however, was brought to an abrupt end by al-Rāzī, who, despite tending to suspend judgement on the nature of matter and body, nonetheless works out a robust defence of Avicenna’s proof effectively salvaging it along with the broader theory of corporeal form. He does this, firstly, in his dedicated response to al-Masʿūdī’s Shukūk, which shall be our main focus in the present section, but then in other philosophical works, most notably his commentary on the Iḥṣārāt. The proof is developed and defended along exclusively Avicennan lines. So at one point in the discussion in Sharḥ al-Iḥṣārāt, al-Rāzī confirms his rejection of one Avicennan view, but explains that “we must interpret his text in accordance with his own principles (yajibu ʿalaynā tafsīr kalāmihi ʿalā mā yuṭābiqu uṣūlahu), rather than the principles of others,” including, that is, the commentator’s views.

76 Bahmanyār, Tahṣīl, 312–18; al-Lawkārī, Bayān, 50–4; al-Ghazālī, Maqāṣid, 2, 16–17; al-Shahrastānī, Milal, 366; cf. idem, Nihāyat al-aqdām, 164.
77 Al-Rāzī, Sharḥ ʿUyūn al-ḥikma, 3, 21.
78 Ibn Ghaylān al-Balkhī, Hudūth al-ʿālam, 123. See also 11; 111; 114, where al-Masʿūdī is praised and the Shukūk cited. On Ibn Ghaylān, see Shihadeh, “A Post-Ghazālian Critic of Avicenna.”
79 Al-Shahrastānī, Nihāyat al-aqdām, 165. This, he remarks in characteristic fashion, is a philosopher’s response to another philosopher (as opposed to a mutakallim’s response).
80 Al-Rāzī’s suspension of judgement on this question stems from his view that the essence of body is unknowable (on this view and its background, see Ibrahim, “Essentialism versus Phenomenalism,” 394 ff.; 411–14). In Risālat dhamm ladhāhāt al-dunyā, which he wrote in the year of his death, al-Rāzī suggests that this problem is insoluble, since each of atomism and hylomorphism is supported by compelling proofs (see the edition in my The Teleological Ethics of Fakhr al-Dīn al-Rāzī, 255). However, in some works, he appears inclined towards atomism on the grounds that even when certainty is absent in metaphysical questions, one may still affirm the most compelling (awlā, akhlaq) view as a probable belief (on this, see Shihadeh, Teleological Ethics, 181 ff.).
81 Al-Rāzī, Sharḥ, 2, 31.
Notwithstanding his own commitments, al-Rāzī's elaborate defence is such an original interpretation of Avicenna's proof that it may be considered a new argument. Al-Rāzī himself confirms that the interpretation he sets out is unattested in Avicenna, but is his own original contribution, designed to support (taqrīr, taṣḥīḥ, nuṣra) Avicenna's otherwise defective proof. In his commentary on 'Uyūn al-ḥikma—one of his later works—he summarises al-Masʿūdī's objection, and then gives his own defence of the proof, describing it as a method he “devised so as to substantiate the Shaykh's proof” (istakhrajtuhi li-taṣḥīḥ dalīl al-shaykh), in order to “respond to this objection” (yudfaʿu bi-hi hādhā l-suʾāl).82 Yet it is in his last major work, the Maṭālib, that al-Rāzī provides his fullest recollection of the sequence of events, so to speak: (1) he cites Avicenna's argument from body's susceptibility to continuity and discontinuity, and (2) Abū l-Barakāt and al-Masʿūdī's objection (without naming them), (3) he remarks that the objection is sound, (4) he reportedly confronted certain philosophers (i.e. traditional Avicennists) with the objection, but received no satisfactory response, (5) he cites two responses attempted by the philosophers, both of which he finds “weak,” and (6) he advances his own response on the philosophers' behalf (lakhkhaṣa li-l-qawm), in the form of a developed version of Avicenna's argument.83 Apart from this developed proof, al-Rāzī devises three other proofs for prime matter on behalf of hylomorphists (takallafnāhā li-l-qawm), two of which he considers to be superior to the two proofs put forth by Avicenna (aḥsan min kull mā dhakarūhu). These, however, go well beyond our present purview and shall not be pursued here.84

That al-Rāzī should defend, with such remarkable conscientiousness, a proof for a view that he himself rejects must come as no surprise, as it is perfectly in keeping with his unique modus operandi. He writes in the introduction of Nihāyat al-ʿuqūl, his theological magnum opus, that he has committed himself, when treating any given problem, to following the difficult path of exhaustive and in-depth investigation (istiqṣāʾ wa-taʿammuq), which starts by taking full account of all relevant views and the most cogent arguments adduced by their exponents, and counterarguments adduced by opponents, and then supporting these views, to the maximum extent possible, with arguments that

82 Al-Rāzī, Sharḥ 'Uyūn al-ḥikma, 3, 21. He says the same of a different interpretation he gives for the same proof: takallaftuhi fī nuṣrat dalīl al-shaykh (Sharḥ 'Uyūn al-ḥikma, 3, 22).

83 Al-Rāzī, Maṭālib, 6, 201; 205–9. In most occurrences in al-Rāzī's works, 'lakhkhaṣa' should be rendered as 'to set out,' or 'to expound,' rather than 'to abridge,' or 'to summarise.' Cf. Mabāḥith, 2, 42, where 'lakhkhaṣa' is replaced with 'ḥarrara.'

84 Al-Rāzī, Maṭālib, 6, 202–4; 209–10; Mabāḥith, 2, 50–3.
he himself devises on their exponents’ behalf, before proceeding to subject all views and arguments to systematic criticism. Some exponents, he boasts, may even find his exposition of their own teachings of greater benefit than their own school sources. The objective of this procedure is simply to arrive at knowledge soundly through systematic, critical and, in principle, unbiased enquiry.

Al-Rāzī initiates his response to al-Masʿūdī’s counterargument by establishing two key premises. First, corporeity is different from continuous quantity; for if a body is reshaped, its magnitudes change but its corporeity remains unaltered. Second, if a thing loses its ipseity (ḥuwīyā), or its haecceity (khusūṣiyā), which underpins an individual thing’s (shakhṣ) determinate existence (taʿayyun) and its differentiation (imtiyāz) from other individual things, the thing will pass away. For our conception of an individual human being, Zayd, consists of the combination (majmūʿ) of the abstract conception ‘human being’—i.e. the thing’s quiddity (māhiyya)—and additional, individuating specificities (qayd) by which Zayd is configured, and which make him this individual human being. So if an individual thing loses some of the individuating specificities particular to it, it will cease to exist as the individual thing it is, even if the new thing that subsequently comes to be still has the same species as the original thing.

On the basis of this second premise, al-Rāzī goes on to identify the thing’s determinate existence and haecceity with its unity (waḥda). To say that a thing x has concrete, determinate existence implies that it has haecceity on account of which ‘x’ cannot be said of multiple things. It follows that when body x is divided into two things and loses its unity, it will also lose its individual existence—x will cease to exist—as two other bodies come to be. Or, as al-Rāzī also writes, the original determinate corporeity (al-jismiyya al-muʿayyana, al-jismiyya al-wāḥida) will pass away, to be succeeded by two newly-generated determinate corporeities (jismiyyatān).

The key conceptual shift that al-Rāzī introduces here is that he trades ‘continuity,’ which is associated with magnitude, for ‘corporeity’ (jismiyā), and that he uses ‘jismiyā’ in a particular, rather than a universal, sense. For Avicenna, this term—often combined with ‘form,’ either as ‘ṣūrat al-jismiyā’ or

86 Al-Rāzī, Jawābāt, 12–13.
87 Al-Rāzī, Jawābāt, 13; Sharḥ, 2, 25–32. On individuation, see idem, Mabāḥith, 1, 74–8. On the term ‘ḥuwīyā,’ see Bertolacci, “Some Texts,” 27 ff., where references to other treatments are provided.
'al-ṣūra al-jismiyya’—denotes indeterminate formal ‘corporeity,’ that is, the three-dimensional continuity that is the characteristic form of body. So it is an unquantifiable noun: Avicenna does not speak of multiple ‘corporeities.’

This is exactly the sense in which al-Masʿūdī uses the term. For al-Rāzī, however, ‘jismiyya,’ rendered here as ‘determinate corporeity,’ can also denote an instance of corporeity, in other words, a concrete and determinate individual thing qua body: this concrete corporeal entity. This sense, which is unattested in Avicenna, enables al-Rāzī to speak of one, two or more concrete ‘determinate corporeities’ (jismīyya muʿayyana).

Now, the original determinate corporeity (the body-entity) and subsequent determinate corporeities are all possible (mumkin). Before the body is divided, the former will exist but be susceptible to passing away, whereas the latter will be nonexistent but possible of existence. It follows that these possibilities—the possibility of passing away of one determinate corporeity and the possibility of coming to be of another determinate corporeity—require a substrate (mahall).

(The last view—that possibility must inhere in a substrate—is an Avicennan doctrine that al-Rāzī himself rejects, as he confirms in Sharḥ al-Ishārāt.)

This substrate cannot be continuity itself; for what has the potentiality for the passing away of one thing and the coming to be of another must continue to exist after the former has passed away and the latter has come to be, whereas continuity ceases to be with the passing away of the original determinate corporeity. Therefore, the substrate—matter—must be other than continuity itself, and must exist before and after the body is divided.

Having set out his defence, al-Rāzī remarks that the proof hinges on one key principle, namely that a determinate corporeity is susceptible to passing away, and all that is susceptible to passing away must be enmattered. (This same principle, he adds, is applied to demonstrate the indestructibility of the rational soul on the grounds that it is immaterial.) Accordingly, the central point of contention lies in al-Masʿūdī’s claim that the change that body undergoes with division is purely accidental:

The esteemed objector (al-fāḍil al-muʿtariḍ) asserts: “What passes away is an accident in the category of continuous quantity, and its recipient subject is body.” If he means by this that magnitude passes away, then this

89 There is, however, one place where he gets very close to that: Avicenna, Ṭabīʿīyyāt, 1.1.3, 28; cf. pp. 388–9 below.

90 Al-Rāzī, Jawābāt, 14; cf. Sharḥ, 2, 31. This Avicennan view is refuted in Sharḥ, 2, 405–8. On this view, see McGinnis, Avicenna, 182 ff.
is correct. If, however, he means that magnitude is *what* passes away, then this is not the case.\(^91\)

Although al-Rāzī is satisfied that his own version of the proof is immune to al-Masʿūdī’s criticism, he proceeds with a detailed rebuttal starting with this last contention, to show where his contemporary has gone awry.

Al-Rāzī first argues that when a body is divided, it loses its unity and continuous quantity. Now, either the unity of the body’s continuous quantity is the same as its continuous quantity, or it is other than continuous quantity, but is such that its passing away causes the passing away of the body’s continuous quantity. However, unity cannot be the same as continuous quantity, since oneness does not fall under the category of quantity, as indeed is evident in the fact that oneness is said of separate, immaterial things that are entirely free from magnitudes.\(^92\) It follows that the unity of the body’s continuous quantity is entirely distinct from the continuous quantity itself. This shows that, besides continuous quantity, the body also loses unity with division. Al-Rāzī goes on to argue that al-Masʿūdī must accordingly concede that the loss of the unity of continuous quantity causes the loss of continuous quantity itself; yet he gainsays this by his denial that the loss of the unity of a determinate corporeity causes the passing away of the determinate corporeity itself.\(^93\)

Against the same claim that only magnitude, to the exclusion of corporeity, is lost when body is divided, al-Rāzī deploys the following *ad hominem* (*ex concessis*) argument (*ilzām*). He argues that if it is conceded, for the sake of argument, that the *jismiyya* (by which he clearly intends a determinate corporeity, rather than indeterminate corporeity) does not pass away with division, then we must concede that magnitude likewise does not pass away with division, but merely becomes distributed among the different resulting parts of the body. What is lost when a body is divided, accordingly, would be its unity, rather than magnitude. Therefore, since al-Masʿūdī accepts that when the body loses its unity it consequently loses its magnitude, he must correspondingly concede the general principle that when a thing loses its unity the thing itself passes away, and *ergo* that when the body loses its unity the determinate corporeity passes away.\(^94\)


\(^92\) On this, see Avicenna, *Shifāʾ*, *Mantiq*, 11.II.4, 70 ff. Al-Rāzī writes that oneness is not a quantity by essence. On the distinction between quantity by essence and quantity by accident, see *Shifāʾ*, *Mantiq*, 11.IV.1, 127 ff.

\(^93\) Al-Rāzī, *Jawābāt*, 15.

\(^94\) Al-Rāzī, *Jawābāt*, 15.
As mentioned, al-Rāzī’s argument rests on the shift he introduces in the central term ‘\textit{jismiyya}.’ To some extent, the underlying dichotomy between indeterminate and determinate corporeity parallels the dichotomy we encounter in Avicenna’s discussions, examined above, between indeterminate and determinate continuity. The advantage that al-Rāzī’s proof offers is that it turns on the concept of unity; determinate corporeity is inseparably tied to the body’s unity, such that if the body is divided, the original determinate corporeity passes away and new ones come to be. Yet, unlike determinate continuity, determinate corporeity is independent of magnitude, and hence unambiguously non-accidental. So when body is divided, the original determinate corporeity (not merely determinate continuity) passes away, and real and non-accidental things, namely new determinate corporeities (not merely discontinuity and new magnitudes) come to be.

As mentioned earlier, al-Rāzī acknowledges the fact that Avicenna’s proof is deficient, not merely in its manner of presentation, but more substantively in that it fails to hinge on the most pertinent type of change that body undergoes when it is divided. So, as pointed out already, he highlights the originality of his interpretation of the proof. Nonetheless, he is also careful, as any good commentator would be, to emphasise its overall faithfulness by underscoring its Avicennan credentials, “so that no one would claim that what I have set out is not a view of” Avicenna himself. Al-Rāzī opines that although Avicenna does not explicitly formulate his proof such that it turns on the notion of determinate corporeity, he strongly implies that. For in the \textit{Ishārāt} proof (1.7), he states that if a body is divided, and if the parts then become conjoined, the resultant will be similar to (\textit{mithl}), and by implication not the same as, the original: this suggests that he intends the original and resultant determinate corporeities, rather than mere indeterminate continuity. Al-Rāzī supports his reading by more explicit evidence attested, as he says, in Bahmanyār’s \textit{Taḥṣīl} and in several places in Avicenna’s \textit{Mubāḥathāt}. He cites one discussion from the latter source, in which Bahmanyār writes, in the course of a question sent to his teacher Avicenna, that a body possesses unity as a concrete individual thing (\textit{waḥda shakhṣiyya}), by which it is differentiated (\textit{mutamayyīz}) from all

\footnotetext{95}{Al-Rāzī, \textit{Jawābāt}, 14–15.}
\footnotetext{96}{Bahmanyār reportedly maintains that if a body is divided, and if the parts are then recombined into one body, the resultant body will not be the same as the original body itself, but a replica (\textit{mithl}) of it. I have not found this particular point in the \textit{Taḥṣīl}, though admittedly I did not look through the entire work and the point may be found in a less obvious place. The more general notion that a thing that passes away cannot ‘return’ into existence is already made by Avicenna (see n. 63 above; cf. Bahmanyār, \textit{Taḥṣīl}, 290).}
other concrete things in the world (fi l-ʿālam), including things of the same genus, and that dividing a body will make this unity cease to be. A case in point given by Bahmanyār is a still body of water contained in a vessel, which is a concrete individual thing (shakhṣ). When it is divided into different vessels, the original concrete individual thing will pass away and multiple concrete individual things will come to be. When these separate bodies of water are then recombined into one vessel, the resultant body of water will be a new concrete individual thing, different from (ghayr) both the original body of water and the divided bodies of water (again, cf. 1.7). Al-Rāzī remarks that Avicenna’s response betrays an implicit acceptance of Bahmanyār’s point, and hence confirms that to his mind, “the determinate corporeity that exists prior to division passes away at the occurrence of division.” The same example of a body of water being divided and recombined appears (without reference to Bahmanyār or the Mubāḥathāt) in Sharḥ al-Ishārāt, but with the term “unity as a concrete individual thing” (waḥda shakhṣiyya) replaced with “individual determinate corporeity” (jismiyya wāḥida).

There is, however, a further discussion that may have inspired al-Rāzī to develop his new argument, and that may confirm his interpretation. In the Physics of the Shifāʾ, Avicenna briefly raises the question of whether or not the corporeal form, common to all natural things, is subject to generation and corruption. When a body undergoes substantial change (as, for instance, when water is altered into air), does the corporeal form that existed in the body before this alteration remain unchanged after it, or is the corporeal form corrupted and replaced with “some other corporeity different in number but

97 Bahmanyār writes “division or reshaping” (reading tashkīl instead of tashkāk [Mubāḥathāt, 165, l. 7]). Al-Rāzī’s direct quotation omits ‘or reshaping,’ since the alteration of a body’s shape does not affect its unity (Jawābāt, 15). And indeed the one example given by Bahmanyār involves division, and not simply reshaping.

98 Omitting mujtamiʿ (Mubāḥathāt, 165, l. 10), in accordance with some manuscript copies and al-Rāzī’s Jawābāt.

99 Al-Rāzī, Jawābāt, 15; Avicenna, Mubāḥathāt, 165. Bahmanyār’s point is actually that a thing’s individual unity, in one respect (min jiha), passes away as a consequence of division, but in another respect does not pass away with division, since the body of water divided and then combined remains, in one respect, the same body of water. Al-Rāzī is only interested here in the former observation.

100 Al-Rāzī, Sharḥ, 2, 31.

101 Reading fa-yakūnu li-l-ajsām mabdaʾ šūrī ..., in the singular and without baʿd (hence, bodies will have one formal principle that is common to them all, and over and above that different formal principles that are specific to each of them); cf. Ṭabīʿyyāt, 1.1.3, 28, ll. 9–10 (22, ll. 14–15, in Saʿīd Zāyid’s [Cairo] edition).
similar in kind"? Avicenna refers us to another, unspecified place for an answer, but appears to be of the latter view—this problem, in any case, goes beyond our present scope. If we disregard the qualitative alteration that the body is posited to undergo, it is noteworthy that Avicenna here proposes that when a body undergoes division its original corporeal form may be corrupted and replaced with multiple corporeal forms. This would certainly tally with al-Rāzī’s interpretation of Avicenna’s theory of corporeal form, as we have seen.

Following his interpretation of Avicenna’s proof, al-Rāzī addresses al-Masʿūdī’s aforementioned hypothesis, postulated for the sake of argument, that the reality of body is its species form, and that species form is a non-composite and self-subsisting substance. This, he replies, raises an entirely different and unrelated problem, namely whether or not body must possess species form over and above corporeal form, which is addressed elsewhere in the Ishārāt. Nonetheless, he goes on to offer a detailed response, which goes beyond our present scope.

Al-Rāzī also contests the alternative theory of prime matter adopted by al-Masʿūdī from Abū l-Barakāt, with which he expostulates by making a standard Aristotelian point. The cases attested by al-Masʿūdī are all composite bodies turning into different composite bodies: an egg turns into a bird, sperm turns into an animal, and wheat turns into bread and ultimately flesh and bones. None of these cases of qualitative change, however, can evidence the view that body consists of the combination of prime matter, which is of itself corporeal,

102 Avicenna, Ṭabīʿyyāt, 1.1.3, 28 (McGinnis’s translation, with a slight adjustment).
103 Avicenna, Manṭiq, v.1.10, 99–102; cf. Stone, “Simplicius and Avicenna,” 99–101. Bahmanyār’s position is stated clearly: “It becomes clear that the corporeal form of bodies on which natural forms alternate cannot remain one. Otherwise, natural forms would be accidents. Likewise, matter cannot be made subsistent [first] by the corporeal form singly, and [second] by the natural form singly; for we will show that one simple matter cannot be made subsistent by two forms. Rather, the corporeal form is first made subsistent by the natural form, so that the corporeal form acquires a specific species (tatanawwaʿu); and it will then make matter subsistent. Body is a third thing that is combined of these three components to become one in act, and not only hypothetically” (Taḥṣīl, 337–8).
104 Avicenna does not explain how multiple bodies occur when water turns into air. One reading is that while a body of water is turning into air, it is partly still water, and partly altered into air. The wording of Avicenna’s text seems to lend some credence to this reading: “the corporeal form that is in water, for example, when it undergoes alteration into air, remains itself in the water” (Ṭabīʿyyāt, 1.1.3, 28; my translation). That said, I wonder whether this should be, “… remains itself in the air” (al-hawāʾ, rather than al-māʾ).
105 Al-Rāzī, Jawābāt, 16; cf. Avicenna, Ishārāt, 2, 208ff.
106 Al-Rāzī, Jawābāt, 16–17.
and species form, unless a further proposition is demonstrated, namely that the elements are essentially distinct from, and additional to (ma’nā zā’ūd ‘alā), matter as the underlying ingredients of the composite things that are generated and corrupted. Yet to prove this proposition, one must first refute the theory of mixture (khalīṭ) proposed by the Pre-Socratic philosopher Anaxagoras. This is the theory that bodies do not consist of combinations of a small number of primitive elements, but rather of a great number of essentially-distinct parts, qualitatively corresponding to perceptible bodies and irreducible to more primitive ingredients, such as parts of flesh, bone and bread. These are not susceptible in themselves to genuine qualitative transmutation: parts of one kind are never generated from, or corrupted into, a different kind. Perceptible qualitative change undergone by bodies is explained rather by the notion that every body consists of a mixture of all these types of basic ingredients, which lie in latency (kumūn) therein, and that a body appears to change qualitatively when the proportion of one ingredient increases to the extent that it becomes apparent (ẓuhūr). Al-Rāzī’s reference to Anaxagoras should be read as a broader allusion to the strain of physical theories, including those that sprang in early Muʿtazilism, according to which matter is inhomogeneous and qualitative difference among bodies is explained, either in part or full, in terms of qualitatively-different primitive classes of matter, rather than in terms of accidents.

Al-Masʿūdī neither refutes Anaxagoras’s theory nor comments on the relation between the elements and matter, and hence, al-Rāzī argues, is not entitled to maintain that the composite things that come to be and pass away consist of four underlying elements that exist in a substrate of prime matter. Nor does he rule out the standard kalām theory that the things that come to be and pass away are accidents that inhere in a self-subsisting material substrate, as opposed to forms that contribute to rendering their substrate subsistent (taqwīm). Al-Rāzī concludes his brief response to al-Masʿūdī’s alternative theory and proof of prime matter, and the section as a whole, by stating that “it is clear that this line of reasoning needs to be bolstered by numerous things

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108 For al-Rāzī’s own brief report of Anaxagoras’s theory, see his Muḥaṣṣal, 278–9. For an overview of the Arabic reception of Anaxagoras, with references to relevant primary and secondary sources, see Baffioni, “Anaximène, Anaximandre, Anaxagore et Démocrite dans la tradition arabe.”
109 The prime example in early Muʿtazilism is al-Naẓẓām (d. 230/845), on whose theory see van Ess, Theologie und Gesellschaft, 3, 331 ff.
before it yields any of the views that we mentioned.” Al-Rāzī presents this objection briefly in the Jawābāt and remarks, “This is a difficult problem; and it can only be resolved by means of a subtle principle, which we are unable to discuss in this epistle” (because it goes beyond the scope of the work, which is to evaluate the objections raised by al-Masʿūdī). What this principle is remains a mystery, since in later works, including the Mabāḥith, the Mulakhkhaṣ and Sharḥ al-Ishārāt, al-Rāzī presents this objection as his final word, which shows that, despite his best efforts, Avicenna’s proof is unsalvageable. He even goes further and deals a further blow to the proof by arguing that a body does not pass away when divided, for otherwise when a mosquito sips with the tip of its “needle” a miniscule quantity of water from the surface of an ocean, the entire ocean will pass away and a new ocean will come to be, which is an absurd notion! This objection, however, does not feature in the Jawābāt, where al-Rāzī appears to treat his new version of Avicenna’s proof as defensible, albeit with considerable difficulty. Alongside this developed version, he proposes a completely new proof for prime matter, one that he describes as a “conclusive demonstration” (burhān qāṭiʿ) and as the “most reliable” proof (al-muʿtamad). This proof, which in later works he considers unsound since it starts from a false (Avicennan) premise, goes beyond the scope of our present study.

110 Al-Rāzī, Jawābāt, 20.
111 Al-Rāzī, Jawābāt, 17. For a more detailed presentation of this objection, on the basis of the discussion in Sharḥ al-Ishārāt, see Shihadeh, “Al-Rāzī’s Sharḥ.”
112 Al-Rāzī, Mabāḥith, 2, 43–4; Mulakhkhaṣ, fol. 178a; Sharḥ al-Ishārāt, 2, 26–7; cf. Shihadeh, “Al-Rāzī’s Sharḥ.”
113 Al-Rāzī, Mulakhkhaṣ, fols. 176a; 178a; cf. Sharḥ ʿUyūn al-ḥikma, 3, 21–2; Maṭālib, 6, 206–7.
114 Al-Rāzī, Jawābāt, 17–19; cf. Mabāḥith, 2, 45–7; Mulakhkhaṣ, fol. 177b; Maṭālib, 6, 203; 210.
115 This is one of the three aforementioned new proofs that al-Rāzī develops (see p. 383 above).
This early debate surrounding corporeal form and the soundness of Avicenna’s proof promptly found its way into the philosophical canon, most notably in the long tradition of commentaries on the *Ishārāt* but also in non-commentarial texts. The figure of al-Masʿūdī lapses into obscurity and is most likely never identified by name in post-Rāzian treatments of this problem. In his influential *Sharḥ al-Ishārāt*, al-Rāzī begins by giving a faithful and concise exposition (*tafsīr*) of Avicenna’s original proof, before mentioning an objection (*shakk*), namely that the change that body undergoes with division is purely accidental.\(^{116}\) He introduces his response as follows:

Know that this objection can only be solved if the demonstration is explained in its better-formulated version (*al-wajh al-mulakhkhas*),\(^ {117}\) which is to say: When body undergoes division, the determinate corporeity that exists therein passes away, and two other determinate corporeities come to be; since this is the case, a determinate corporeity must exist in a substrate.\(^ {118}\)

He then substantiates each premise and defends his version of the argument in the vein of what he does in the *Jawābāt*,\(^ {119}\) before turning to a sentence-by-sentence exposition of Avicenna’s text.\(^ {120}\) This exposition, however, reflects al-Rāzī’s own version of the proof, rather than Avicenna’s.

Sayf al-Dīn al-Āmidī’s (d. 631/1233) *Kashf al-tamwīḥāt*, the earliest super-commentary on al-Rāzī’s *Sharḥ*, mentions the objection cited but ignores al-Rāzī’s solution, and instead defends Avicenna’s original version of the proof.\(^ {121}\) However, al-Ṭūsī, who had access to al-Rāzī’s response to al-Masʿūdī, tries to steer close to Avicenna’s original proof, but nonetheless exhibits a palpable Rāzian influence. Although he does not incorporate al-Rāzī’s sense of ‘*jismiyya*’, he subtly shifts the proof so that it hinges on the individuation (*taʿayyun, tashakhkhuss*) of the body *qua* continuous object,\(^ {122}\) and he appeals to the term “ipseity *qua* continuous object” (*huwiyya ittiṣāliyya, huwiyya imtidādiyya*).\(^ {123}\) By


\(^{117}\) On the sense of ‘*mulakhkhas*’ here, see n. 83 above.

\(^{118}\) Al-Rāzī, *Sharḥ*, 2, 25.


\(^{122}\) Al-Ṭūsī, *Hall*, 2, 172.

\(^{123}\) Al-Ṭūsī, *Hall*, 2, 174; 2, 171.
the time of later commentators on the *Ishārāt*, such as Quṭb al-Dīn al-Taḥtānī (d. 766/1364) and Mīrzā Jān al-Bāghnawī (d. 995/1587), al-Rāzī’s version had become the standard way of interpreting Avicenna’s proof, despite the fact that, in the final analysis, al-Rāzī himself considers it unsound. A case in point is that commenting on 1.1–2, al-Taḥtānī writes that if body undergoes division, its ipseity *qua* continuous object will pass away and be replaced by two such ipseities, and on 1.3–4 that “when division occurs what is received is not discontinuity itself, since it is nonexistent and what is nonexistent cannot be received; what is received in reality, rather, are the two newly-generated determinate corporeities.”

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