

On the First and Second Proofs of the Eighteenth Discussion of *Tahāfut al-Falāsifa**

Edward Omar Moad**

On the First and Second Proofs of the Eighteenth Discussion of *Tahāfut al-Falāsifa*

In the 'first' and 'second' proofs of the eighteenth discussion of his *Tahāfut al-Falāsifa*, Abu Hamid al-Ghazali (1058-1111) raises objections against Ibn Sina's arguments for the immateriality of the soul. Both proofs turn on the premise that a relation between a divisible (material) substratum and an indivisible object of cognition (the intelligible form) is impossible. Ghazali's objection, that this proposition is inconsistent with ibn Sina's theory of perception, and the role therein of the *wahm* ('estimative faculty') is sound. However, this just leaves open the option of resolving the contradiction by modifying the theory of perception to make it coherent with the proof, and Ghazali does not take an explicit position on which side to take. His aim, as he says, is just to show the contradictions in the theories of the philosophers, and not to make positive positions. I will show, however, that underlying this explicit dimension of the discussion, there is a tacit philosophical point which Ghazali intends to indicate for the discerning reader. This is that the real mystery which imposes itself on a theory of the soul is not just the question of how a relation is possible between a divisible, material cognitive faculty and an indivisible object. Rather, it is the more fundamental question of the possibility of any relation between a unity and a multiplicity. This question imposes itself with equal force not only on the theory of an immaterial soul, but also on the *kalam* theory of a material 'atomic' soul. These first sections of the eighteenth discussion are therefore connected to an over-arching theme of the *Tahāfut* in that they call attention to an apparent metaphysical impossibility which is nevertheless a manifest reality.

Key words: al-Ghazali, *Tahāfut al-Falāsifa*, Ibn Sina, the Immateriality of the Soul

The topic of this paper is the eighteenth discussion of the *Tahāfut al-Falāsifa* ('Incoherence of the Philosophers') of Abu Hamid al-Ghazali (1058-1111), in which he raises objections against Ibn Sina's arguments for the immateriality of

* Whoever does not thank the people does not thank Allah. Thanks in this case are due to ISAM (Center for Islamic Studies) for providing the environment, resources and hospitality for carrying out this research and in particular Omer Türker, without whose insightful discussions this paper would not have come to fruition.

** Dr., Qatar University.

the soul. Although there exists a body of literature in the English language on al-Ghazali in general, and *Tahāfut al-Falāsifa* in particular, I have not been able to locate therein any close analysis of the argument of the eighteenth discussion.¹

Here I will focus on the first two sections, on what Ghazali calls the ‘first’ and ‘second’ proofs, respectively. These proofs are very similar in that they both turn on the proposition that a relation between a divisible (material) substratum and an indivisible object of cognition (the intelligible form) is impossible. Ghazali’s objection, that this proposition is inconsistent with Ibn Sina’s theory of perception and the role therein of the *wahm* (‘estimative faculty’), is sound. However, this leaves open the option of resolving the contradiction by modifying the theory of perception to make it coherent with the proof; and Ghazali does not adopt an explicit position about which side to take. His aim, as he says, is just to show the contradictions in the theories of the philosophers, and not to make positive positions.

-
- 1 For some more recent literature relating, wholly or partially, to the *Tahāfut*, see B. Abrahamov, “Al-Ghazālī’s Theory of Causality,” *Studia Islamica* 67 (1988): 75-98; Alparslan Acikgenc, “The Relevance of the Ibn Sina and Ghazali Debate: An Evaluation and a Reassessment,” *Ishraq: Islamic Philosophy Yearbook* 1 (2010): 254-267; I. Alon, “Al-Ghazālī on Causality,” *Journal of the American Oriental Society* 100 (1980): 397-405; R. Bahul, “Miracles and Ghazali’s First Theory of Causation,” *Philosophy and Theology* 5 (1990-91): 137-150; R. Bahul and G. Giacaman, “Ghazali on Miracles and Necessary Connection,” *Medieval Philosophy and Theology* 9 (2000): 39-50; Thérèse-Anne Druart, “Al-Ghazali’s Conception of the Agent in the *Tahāfut* and the *Iqtisād*: Are People Really Agents?” in James A. Montgomery, ed. *Arabic Philosophy, Arabic Theology: Essays in Celebration of Richard M. Frank* (Leuven: Peeters, 2006); Blake D. Dutton, “Al-Ghazali on Possibility and the Critique of Causality,” *Medieval Philosophy and Theology* 10 (2001): 23-46; Richard Frank, *Creation and the Cosmic System: al-Ghazālī and Avicenna* (Heidelberg: Carl Winter Universitätsverlag, 1992); and *Al-Ghazālī and the Ash‘arite School* (Durham: Duke University Press, 1994); Lenn Goodman, “Did al-Ghazālī Deny Causality?” *Studia Islamica* 47 (1978): 83-120; F. Griffel, “Taqlid of the Philosopher’s: Al-Ghazālī’s Initial Accusations in his *Tahāfut*” In Gunther, Sebastian; *Ideas, Images, And Methods of Portrayal: Insights into Classical Arabic Literature and Islam*, (Leiden: Brill, 2005), 273-296; G. F. Hourani, “The Dialogue Between al Ghazali and the Philosophers on the Origin of the World,” *Muslim World* 48 (1958):183-191, 308-314; Jules Janssens, “Al-Ghazzālī’s *Tahāfut*: Is it Really a Rejection of Ibn Sina’s Philosophy?” *Journal of Islamic Studies* 12/1 (2001): 1-17; B. Kogan, “Ghazali and Averroes on Necessary connection and Miracles,” in *Islamic Philosophy and Mysticism*, ed. Parviz Morewedge (Delmar, 1981), 113-132; Taneli Kukkonen, “Possible Worlds in the *Tahāfut al-falāsifa*: al-Ghazālī on Creation and Contingency,” *Journal of the History of Philosophy* 38/4 (2000): 479-502; Oliver Leaman, “Ghazālī and the Ash‘arites,” *Asian Philosophy* 6 (1996): 17-27; Michael Marmura, *Probing In Islamic Philosophy* (Binghamton: Global Academic Publishing, 2005); Jon McGinnis, “Occasionalism, Natural Causation, and Science in al-Ghazali,” in *Arabic Philosophy, Arabic Theology: Essays in Celebration of Richard M. Frank*, ed. James A. Montgomery (Leuven: Peeters, 2006); J. P. Montada, “Ibn Rushd vs. Al-Ghazali a reconsideration of a Polemic,” *Muslim World* 42 (1952): 113-131; G. J. Tomeh, “The Climax of a Philosophical Conflict in Islam,” *Muslim World* 42: 172-189.

I will show, however, that underlying this explicit dimension of the discussion, there is a tacit philosophical point which Ghazali intends to indicate for the discerning reader. This is that the real mystery which imposes itself on a theory of the soul is not just the question of how a relation is possible between a divisible, material cognitive faculty and an indivisible object. Rather, it is the more fundamental question of the possibility of any relation between a unity and a multiplicity. This question imposes itself with equal force not only on the theory of an immaterial soul, but also on the *kalam* theory of a material ‘atomic’ soul. These first sections of the eighteenth discussion are therefore connected to an over-arching theme of the *Tahāfut* in that they call attention to an apparent metaphysical impossibility which is nevertheless a manifest reality.

The ‘First Proof’, the Atom, and the Metaphysics of the Estimation

The ‘first proof’ of the immateriality of the soul is as follows: “If the substratum of knowledge is a divisible body, then the knowledge which is inherent in it must also be divisible; but inherent knowledge is not divisible, therefore, the substratum is not a body.”² This argument turns on the distinction, in Ibn Sina’s system, between the sensible and intelligible form, the latter of which is indivisible and constitutes the knowledge that is being referred to here. The soul in question is the human rational soul, which receives – either actually or potentially – intelligible forms from the Active Intellect. These are, primarily, the basic concepts and logical axioms – first principles – and, secondarily, all that is derivable through rational deduction. Such forms are not ultimately divisible, as they are not material.

As Ibn Sina explains, division is either quantitative or qualitative. Now, while matter is infinitely divisible in the quantitative sense, immaterial forms, if ‘divisible,’ can only be divisible through the division of the parts of the definition. For example, the intelligible form of ‘human’ (as opposed to the individual, material human) – that is, ‘rational animal’ – is divisible only by separating the genus ‘animal’ from the specific difference ‘rational’. Ultimately, however, all these are derived from basic, unanalyzable (and therefore qualitatively indivisible) concepts. Therefore, since matter is infinitely divisible, intelligible forms cannot subsist in a material, bodily substrate (for example, some part of the brain) because the

2 Abu Hamid al-Ghazali, *Tahafut al-Falasifa*, trans. Michael Marmura (Brigham Young University Press, 2002), 186/ *Tahafut al-Tahafut*, trans. Simon Van Den Bergh (EJW Gibb Memorial Trust, 1954), 337. In this paper, I have used both the Marmura and Van Den Bergh translations of *Tahafut al-Falasifa*. From here on I will cite both, e.g. ‘186/337’ meaning p. 186 in the Marmura translation and p. 337 in the Van Den Bergh translation.

divisibility of the substrate entails the divisibility of the inherent form. So, even with the odd hypothesis that each qualitatively different individual part of the definition inheres in a quantitatively distinct part of the material substrate, one ultimately arrives at a point where an absolutely indivisible form is hypothesized as inhering a divisible substrate, which is impossible. Sensible, material forms, by contrast, are essentially representations of sensible material objects, which are imprinted on the matter of bodily organs somewhat like a picture of an object is imprinted on a canvas. As such, they are infinitely divisible in the quantitative sense, exactly like the material substrate in which they inhere.

Now, an essential premise of all this is, of course, that matter is infinitely divisible, and in the argument as expressed by Ibn Sina, an extensive effort is made to rule out the possibility of an indivisible material part. Ghazali, having expressed the argument in this simplified form, that is, in terms of the divisible body alone, responds by asking, "How will you refute those who say that the substratum of knowledge is an indivisible atom, as stated in the theory of the theologians?"³ He introduces this as the first of 'two points' on which his objection rests. But if this is the case, then what follows reads like utter self-defeat. The only thing the philosophers can do, he says at first, is to question the plausibility of this theory by asking how all intellectual cognition could exist in one atom to the exclusion of neighboring atoms. To this, he says, the theologians can respond by asking how the soul can be one thing that is neither located in space, nor connected to nor separate from the body, etc. And after this unproductive exchange, he writes:

However, we should not stress the first point, for the discussion of the problem of the atom is lengthy, and the philosophers have geometrical proofs against it whose discussion is intricate, and one of their many arguments is to ask: 'Does one of the sides of an atom between two atoms touch the identical spot the other side touches or not?' The former is impossible, because its consequence would be that the two sides coincided, whereas a thing that is in contact with another is in contact, and the latter implies the affirmation of plurality and divisibility, and the solution of this difficulty is long and we need not go deeper into it and will now turn to another point.⁴

The most decisive thing Ghazali wrote here was in refutation of the very point which he said was one of two on which his objection was based. Thus, the question I mentioned above: what was the point of all this? Why mention the atomist position at all? Why not rest the objection solely on the second point and skip this discussion altogether? As I indicated at the beginning, pursuit of this

3 Ghazali, *Tahafut al-Falasifa*, 186/337.

4 Ibid.

question, I believe, will lead us to an implicit conversation in which Ghazali is engaged and in which the atom plays a more evident role.

To get there, however, it is necessary first to review and analyze the explicit, surface discussion. That begins here with the ‘second’ point of objection. “Your affirmation that everything which inheres in a body must be divisible is contradicted by what you say of the estimative faculty of the sheep where the hostility of the wolf is concerned,” Ghazali writes, “for in the judgment of one single thing no division can be imagined, since hostility has no part, so that one part of it might be perceived and another neglected.”⁵

To get a clear view of what lies behind this statement, it is necessary to review some aspects of Ibn Sina’s theory of the perceptive faculties. “It is probable,” he writes, “that all perception is but the abstraction by the percipient subject of the form of the perceived object in some manner.”⁶ This applies in principle to both the external faculties of perception – vision, hearing, touch, etc. – and the internal faculties. But they differ in function, and since the former cannot themselves fully account for the nature of perceptual experience, the latter are also necessary. These include common sense, which “receives all the forms which are imprinted on the five senses and transmitted to it from them,” and the faculty of representation, “which preserves what the common sense has received from the individual five senses in the absence of the sensed objects.” Since the power of reception is distinct from that of retention, they constitute two distinct faculties.⁷ Next is the imagination, whose “function is to combine certain things with others in the faculty of representation, and to separate some things from others as it chooses.”⁸

In the beginning of his discussion of the internal faculties in *Kitab al-Najat*, Ibn Sina points out that, while some faculties receive the forms of the objects of sense, others also receive the “intentions” thereof. The difference, he says, is that the forms of the sensed objects are perceived by both the external and internal senses, while the intentions are perceived only by the internal senses. Specifically, intentions are perceived by the internal sense which he calls *wahm*, or the ‘estimative faculty’, which, being a faculty of the animal soul, has its seat in a material substrate located “in the far end of the middle ventricle of the brain.”⁹

5 Ibid.

6 Ibn Sina, *Kitab al-Najat*, Book II, Chapter VI, in *Avicenna’s Psychology*, trans. Fazlur Rahman (Oxford University Press, 1952), 38.

7 Ibn Sina, *Kitab al-Najat*, 31.

8 Ibid.

9 Ibid.

The estimative faculty, Ibn Sina tells us, “perceives the non-sensible intentions that exist in the individual sensible objects, like the faculty which judges that the wolf is to be avoided and the child is to be loved.”¹⁰ When the sheep, for example, perceives the wolf with its other senses, it also perceives, by way of estimation, the danger which the wolf poses, thereby judging the wolf as something to be avoided. Now, although estimation does play a role in what we might call behavioral conditioning – the association of distinct things that have accompanied each other in past experience – its function is not limited to that. Otherwise, the only sheep capable of sensing the danger of a wolf would be those that have already been attacked. Very few now living would then have this capability.

Nor should estimation be understood simply as instinct, if this is to be taken as a sort of direct connection between senses and the motive faculty, causing the animal to flee, or to pursue food (for the wolf undoubtedly also estimates the sheep’s ‘nutritional value’ so to speak). After all, the very reason that Ibn Sina hypothesizes estimation as a faculty of the animal soul is that between the bare information of the senses and the motive faculty there must be the capability of a judgment linking the sensed object to the appropriate response, and this judgment must be connected to something that is in fact true of the sensed object, though it may not itself be a sensible feature of that object. In fact, as a faculty of the human being, and under the influence of reason in some manner, estimation is capable of certain judgments that, although not thoroughly intellectual in nature, are far more sophisticated than that of a wolf’s being dangerous.

An example of this has just been seen above in the argument against the possibility of an indivisible corporeal part. Such judgments of estimation, while not reliable in purely theoretical matters, are useful when limited to their own domain - that of the corporeal. The problem emerges when one attempts to represent estimation corporeally in the imagination, that which is essentially intelligible, in order to draw theoretical conclusions. Nevertheless, when the human makes such an estimative judgment in matters proper to its domain (the corporeal), the judgment ultimately arrived at can be, properly speaking, intelligible, since it can be conceived in reason as a universal judgment about the corporeal as such (as in ‘every corporeal body is divisible’). Of itself, however, separate from the act of reason, the judgment of estimation is always particular.

10 Ibid.

Ghazali's Objection to the 'First Proof' and the Explicit Discussion

It is important to note here that the target of Ghazali's critique is not Ibn Sina's hypothesis of the estimative faculty. Rather, it is the premise that if intellectual cognitions were to inhere in a divisible bodily organ, they would themselves be divisible. Of these two propositions, which Ghazali contends are in contradiction, it is the latter rather than the former that he proposes to discard. The entire issue rests, then on the question whether the estimative intention is indeed indivisible, such that the estimative faculty, as hypothesized, does entail a relation between a divisible faculty and an indivisible object in such a way so as to constitute a contradiction to the argument from indivisibility. This would require a clear grasp of the metaphysical nature of the object in question.

In Chapter 7 of Ibn Sina's *Kitab al-Najat*, the psychological faculties are arranged hierarchically according to the degree of abstraction with which each perceives the form of the sensed object. The materiality of a sensed object endows the object with a range of material accidents that are external to the substantial form. Since matter is the dimension or principle of the particularity of a substance, all the features of the object that differentiate it from other individuals of the same species will thus fall under this category. Since the animal soul is the first perfection of an organism, inasmuch as it perceives particulars, the faculties thereof which receive the form of the sensed object must naturally do so by means of those material accidents of the object in which its particularity consists, including multiplicity, divisibility, quantity, place, and position, as well as the material relationship that is maintained between the faculty and the sensed object and which makes possible the transmission of its form.

Thus, explains Ibn Sina, since the external faculties can only receive the forms of the sensed objects when those objects are appropriately placed in relation to the organ of sense - "it cannot affect a complete detachment of form from matter, but needs the presence of matter if the form is to remain in it."¹¹ The internal faculty of representation, in contrast, is able to retain the representation of the sensed object even in its physical absence, because "it purifies the abstracted form to a higher degree."¹² Representation, however, does not abstract the form from all the accidents of matter, "since the forms in representation are, in this respect, the same as the sensed forms and they possess a certain quantity and position."¹³ They are 'remembered' in their material particularity which, we should note, includes the material accident of divisibility.

11 Ibid.

12 Ibid.

13 Ibid.

Here, the *wahm* is explained in more detail. “The faculty of estimation goes a little farther than this in abstraction,” Ibn Sina writes, “for it receives the intentions which in themselves are immaterial, although they accidentally happen to be in matter.”¹⁴ The examples he offers here are good, evil, agreeable, and disagreeable. Such attributes - as opposed to those like shape, color, and position, which are necessarily bodily - are “in themselves non-material entities and their presence in matter is accidental.”

The proof of their being non-material is this: If it were of their essence to be material, then good and evil, agreeable and disagreeable would be inconceivable except as accidents in a physical body. But sometimes they are conceived in themselves apart from matter. It is clear that in themselves they are non-material and their being in matter is entirely by accident. It is such entities which the faculty of estimation perceives; and thus it perceives non-material objects which it abstracts from matter...¹⁵

In the sheep example, as we saw before, the danger is not a sensible feature of the wolf, such as its shape, size, or color, in the sense that, as noted above, the danger is perceived by the estimation alone, and not the external senses. Here, we learn that it is not essentially material, in the sense that it can be conceived to exist other than in some matter, although it can be present in matter accidentally, as it is in the wolf. If the intention is immaterial, then it must be indivisible, and the case would seem to be settled in Ghazali’s favor. But it is not that simple. “For all this, however, it [estimation] does not abstract the form from all accidents of matter,” Ibn Sina writes, “because it apprehends it in its individuality and according to its particular matter and its attachments to sensible images conditioned by material accidents with the cooperation of representation.”¹⁶

Danger as an object of estimation is, therefore, not universal. The estimation does not conceive danger as such. Only the faculty of reason is capable of that. Rather, it perceives this instance of danger posed by the wolf, here and now. This is the basis of the rebuttal that Ghazali considers when he writes, “Absolute hostility, abstracted from matter, is not perceived by the sheep, but only the hostility of the definite individual wolf connected with its bodily individuality and shape, and only the rational faculty perceives universal realities abstracted from matter.”¹⁷ But this is just to point out, again, that the estimative intention is not a

14 Ibid.

15 Ibid.

16 Ibid.

17 Ghazali, *Tahafut al Falasifa*, 188/338.

universal, intelligible form. It is merely a distraction from the pivotal issue, which is not the particularity of the intention, but its divisibility.

Ghazali argues that the sheep apprehends the sensible material accidents of the wolf via its bodily external senses, as well as through the reception of representative, corporeal forms that are themselves divisible. In addition to this, the sheep apprehends the danger. If it is also apprehended by a bodily faculty, then this danger should be divisible. “But, by my word, what would be the state of that apprehension if it is divisible, and how would part of it be?” Ghazali asks, “Would this apprehension be ‘some’ of that enmity? If so, how would it have a part?”¹⁸

Ibn Rushd’s response to this is that Ghazali has failed to distinguish between two different manners in which attributes inherent in divisible bodies are divided by the division of those bodies, depending on the nature of the attribute; that is, whether the attribute is attached to the body with or without a “specific shape.” In the first case, each divisible part of the attribute that inheres in a respective part of the body is identical to every other part of the attribute. In the second case, each divisible part of the attribute is not identical to every other part. But, since in both cases the attributes are such as to be “divided by quantity and not by quality,” the difference between one part and another in the second category is only by “degree of intensity.”¹⁹

The example given of the first category is color; “for instance the white inhering in the white body, for every part of whiteness which inheres in the individual body has one and the same definition as the whole of whiteness in this body.”²⁰ The example given in the second category is sight, which “is subject to a difference in intensity according to the greater or lesser receptivity of its substratum.”²¹ With the division of the eye – for example, the removal of some parts of the physical organ due to age or illness – the power of sight inhering therein will decrease in intensity. Of course, attributes of this category cannot be “divided into any individual part whatever,” since, with some types or degrees of division in the organ, the attribute will vanish.

The idea here seems to be that estimative intentions are of this second category, and thus divisible in the same manner. But, even if this were correct, it does not appear to solve the problem since, according to the argument in question, the infinite divisibility of the body entails the infinite divisibility of the inherent

18 Ibid.

19 Ibn Rushd, *Tahafut al-Tahafut*, trans. Simon Van Den Bergh (EJW Gibb Memorial Trust, 1954), 339.

20 Ibid.

21 Ibid.

attribute. To postulate a certain minimal degree of divisibility even in the intensity of the attribute, at which point it vanishes, is simply to deny the infinite divisibility of that attribute. Of course, not to postulate such a limit would entail, for example, that *each molecule* of the wolf is by itself *dangerous* (albeit at a very low level of intensity which, when combined with other wolf-parts increases to whole-wolf-level danger), and that would be silly. In any case, Ibn Rushd does not accept Ibn Sina's view that the estimative faculty is distinct from the other internal senses. For him, the perception of 'intentions', like danger, can be fully explained in terms of the sensible material objects perceivable by the external senses, although no such explanation is offered here.

The only way this could be resolved in Ibn Sina's favor, then, would be to make some sense of the divisibility of the intention, which cannot be done by reference to its particularity alone. But materiality, as noted above, entails divisibility, and a thing is particularized only through materiality. So, the motivation for making reference to the particularity of the intention in answering Ghazali's objection would be to deduce from that its divisibility. After all, according to Ibn Sina, intentions are only non-material in themselves, but they can be in matter accidentally.

This has led a more recent scholar to conclude that Ghazali has confused the intention in itself with the intention as an object of estimation when arguing the basis of its divisibility.²² The intention itself, it is claimed, is like a quiddity in Ibn Sina's system - neither material nor immaterial. Thus, it can be material (and particular), in its extra-mental existence, or immaterial (and universal) in its existence in the mind. As an object of estimation, in its particular, material existence, it is divisible, and so Ghazali's claim of a contradiction simply overlooks this.

This position, however, seems to confuse the intention and the quiddity. That is, while quiddities (for example, danger inasmuch as it is danger) are in themselves, apart from mental or extra-mental existence, neither particular nor universal, material nor immaterial, where the quiddity is realized in extra-mental, material existence, the particular substance is itself material. The wolf is a quiddity, for example, and as such, it is neither material nor immaterial. It can be realized intellectually as the universal idea of wolf, or it can be realized materially as a particular wolf, with all its material accidents. But this wolf is not an intention. It is a sensible object, as are its material accidents. And this wolf is in itself material. It is easy to see that to understand the intention on the pattern of quiddity in this

22 Deborah Black, "Estimation (*Wahm*) in Avicenna: The Logical and Psychological Dimensions," *Dialogue* 32 (1993), 219-258.

way, in order to arrive at the conclusion that the intention in its particularization is in itself material, is to simply collapse the two concepts, rendering every quiddity an intention.

On the contrary, the distinctive feature of an intention is not that it is, like a quiddity, neither universal nor particular, material nor immaterial, etc. It is that, while particular and as an object of estimation this intention (this danger, not danger as such) is insensible and in itself immaterial, although in matter accidentally. What this means is that while the wolf is particularized through material accidents which are its own, and is thereby material in itself, the material accidents through which the danger is particularized do not belong, properly speaking, to the danger. They belong to the wolf. It because of the wolf's size, its sharp teeth, its hunger, and its appetite for mutton that this danger exists here and now. But the sharp teeth do not belong to the danger; they belong to the wolf. When these sensible material accidents which belong to the wolf are perceived by the external senses and transferred through the common sense to the faculty of representation, the estimation perceives the danger, which in itself is non-sensible and immaterial, although particularized through the material accidents of the wolf. Thus, Ghazali's question as to what a 'part' of danger would be is not misguided. In the end, so long as one admits objective, insensible, abstract attributes that are perceptible to a bodily organ of cognition, it seems one must accept the possibility of the apprehension, by a divisible faculty, of an indivisible object.

But is proving this possibility Ghazali's only real aim in presenting this objection? He considers a potential response from his imagined interlocutor as, "this is a contradiction you bring into that which is rationally intelligible, and the rationally intelligible cannot be contradicted." Given the validity of the argument, he cannot deny the conclusion so long as he cannot call into question the premises. But Ghazali does not respond by denying the premise that the indivisible cannot inhere in a divisible body. Instead, he answers: "We have only written this book to show the incoherence and contradictions in the doctrine of the philosophers, and such a contradiction arises over the question, since through it either your theory about the rational soul is refuted or your theory about the estimative faculty."²³

On the other hand, he suggests that the source of the problem is the way in which the relation of knowledge to its substratum has been understood analogically to that which exists between color and a colored object. This arises from the use of the term 'impression' (*anṭabaa'*) for that relation, giving the sense

23 Ghazali, *Tahāfut al-Falāsifa*, 188/338.

of knowledge “being spread over” its substratum, “being diffused over its sides and divisible with it.”²⁴ And this, in fact, is how Ibn Sina’s theory of perception presents the case (although not, of course in the case of the intellect), inasmuch as it is a sensory representation of the perceived object that is understood to be produced in the material substrate of the sensory faculty. “Knowledge might well be related to its substratum in another way which would not allow its divisibility with the divisibility of its substratum,” Ghazali suggests, “Rather, its relation may well be similar to the relation of enmity to the body.”²⁵ This seems to indicate Ghazali’s siding positively with the theory of the estimative faculty, and a denial of the premise that knowledge is divided with the division of its substratum.

The ‘Second Proof’ and the Implicit Discussion

In relation to this, Ibn Rushd makes an interesting statement. “And when Ghazali denied one of the two divisions he said it was not impossible that there might be another form of relation between the intellect and the body than this,” he writes, “but it is quite clear that if the intellect is related to the body there can exist only two kinds of relation, either to a divisible or to an indivisible substratum.”²⁶ This seems to imply that the relation Ghazali suggested was to a substratum which is neither divisible nor indivisible, while it is clear that the relation he in fact suggested was to a divisible substratum, but one which does not entail the divisibility of the related knowledge. This would be a gross misrepresentation, unless, that is, there is an implicit premise at work to the effect that any idea of a relation to knowledge which does not entail its divisibility logically entails the indivisibility of the substratum. In this case, Ghazali would be represented not as directly proposing a logical contradiction, but advancing a proposition that, logically speaking, amounts to such a contradiction. Is this the case?

As the ‘second proof’ of the immateriality of the soul, Ghazali presents a much more extensive argument –replacing the term ‘impression’ (*anṭabaa*) with ‘relation’ (*nisbah*) - and which is an exact rendition of an argument that appears in Ibn Sina’s *Kitab al-Naja*²⁷

If an indivisible intellectual cognition is related to a divisible substratum, then either it will be: a) related to none of the parts of the substratum, b) related to

24 Ibid.

25 Ibid.

26 Ibn Rushd, *Tahafut al-Tahafut*, 340.

27 Ibn Sina, *Kitab al-Naja*, 49.

some parts of the substratum, but not others, or c) related to all the parts of the substratum.

1. If (a) it were related to none of the parts of the substratum, then there would be no relation whatsoever.
2. If (b) it were related only to some of the parts, but not to others, then those 'parts' to which it is not related would not actually be parts of the substratum at all (lacking the necessary relation), in which case (b) leads to (c).
3. If (c) it is related to all the parts of the substratum, then either:
 - d) each part of the substratum has the same relation to the cognition, or
 - e) each part of the substratum has a different relation to the cognition
4. If d) then the cognition is wholly related to each part of the substratum, and since the substratum is infinitely divisible, it will be actually known an infinite number of times at once, which is impossible.
5. If e) then each part of the substratum would be related to a different part of the cognition, which entails its divisibility, when it has been supposed to be indivisible.

In the case of sensible forms, the argument continues, the case is different, because what is imprinted on the bodily faculty in this case are only representations of divisible material forms, and "each part of the representation would then have a relation to a part of the bodily organ."²⁸ Or, in Ibn Sina's words, "every part of the former is actually or potentially related to every part of the latter."²⁹

Ghazali's response is the same. "For replacing the term 'impression' by 'relation' does not resolve *the difficulty* [emphasis mine] which arises over the question what of the hostility of the wolf is impressed on the estimative faculty of the sheep...for the sheep perceives something else as well as the shape, namely the adversity, opposition, and hostility," he argues, "and this hostility...has no magnitude, and still the sheep perceives it through a body having magnitude..."³⁰ But what is the difficulty, here? It is more than it appears, for when Ghazali has his imaginary interlocutor ask (or we should say, he asks himself) why he did not respond by arguing that intellectual knowledge inheres in the indivisible atom, his answer is also that "this does not resolve the difficulty."

28 Ghazali *Tahāfut al-Falāsifa*, 190/341-42.

29 Ibn Sina, *Kitāb al-Najāt*, 50.

30 Ghazali, *Tahāfut al-Falāsifa*, 190/342.

For it would follow that power and will would have to exist in this atom. The human has action, and this is inconceivable without power and will, and will is conceivable only with knowledge. [Now,] the power to write exists in the hand and the fingers, whereas knowledge of [writing] is not in the hand, since it does not cease with the severing of the hand. Nor is the will [to write] in the hand. For a person may will [to write] after a hand's paralysis, but it is inaccessible to him, not for lack of will, but for lack of power.³¹

This passage explains the incapability of the atomist hypothesis to resolve a difficulty. But the difficulty here is not how the indivisible estimative intention can be related to a divisible bodily organ of perception. Instead, it is how the indivisible 'atomic soul' can be related to human action, this latter being necessarily a complex process involving the manifestly distinct attributes of knowledge, will, and power, along with a divisible human body. Yet, for Ghazali, it is an explanation of why the atomist hypothesis fails to resolve the difficulty. So, the difficulty he has in mind is neither specifically the relation of the intention to a bodily organ, nor of the atomic soul to the complex of action, but a more fundamental philosophical problem underlying both.

The real significance of replacing the word 'impression' with 'relation' in the second argument becomes evident by applying that argument to the atomic soul hypothesis. In this case, the relation in question is between the indivisible atom and the divisible action. If they are related, then either no part of the action is related to the atom, only some parts are related to it, or all the parts are related to it. As above, it is clear that all the parts must be related to it. If none are related, then this thing is not the action of this atom at all. If only some parts are related, then those that are not are not part of the action. Perhaps the atomic soul knows how to write, and wills to write, but has no power, since that resides in the hand. Then the power and enacting the power to actually carry out the writing is not part of the action assigned to the atomic soul, which we are taking to constitute the very self of the human being. In this case, it follows that there are two 'actions' and two actors – a human who only knows and wills, and a separate hand which carries out writing without knowledge or will. But clearly, action is a unity of knowledge, will, and power which is assigned to a single actor.

So, the atomic soul should be related to all parts of the action. But in this case, the relation of each part of the action to the soul is either the same as that of all other parts of the action to the soul, or it is different. If the relation is the same for all parts (that is, there is no difference between what the soul does when it knows, wills, or initiates motion), then the relation of the soul to each part of the

31 Ghazali, *Tahafut al-Falasifa*, 191/342.

action will be equivalent to its relation to the entire action. So, instead of one action with multiple parts, there would be multiple instances of the same action. On the other hand, if the relation of the soul to each part of the action is different from its relation to the other parts, then the soul, which has been supposed an indivisible atom, is rendered divisible in content – knowledge, will, and power (at least power over the hand, so long as it is healthy) are all in this atom.

This is an indicator of the deeper purpose of the preceding course of this discussion. Ghazali has not focused on the problem of the estimative faculty merely as a dialectical move against the argument from indivisibility. On the contrary, in the form of the ‘second argument’, which resembles much more closely the argument as Ibn Sina advanced it for the immateriality of the soul, Ghazali takes the argument very seriously. He sees that it goes against both the philosophers and the theologians, but it does so precisely because its relevance is not limited only to the relation between intelligible forms and their substrates. Certainly, if he thought the argument could be dispensed with simply by reference to the theory of estimation, he would not have considered it to pose any difficulty for the hypothesis of the atomic soul. His deeper aim, it seems, is to indicate to the careful reader the real nature of the difficulty this argument poses. Because, valid as it appears to be, it runs up against much that is also equally taken to be rationally undeniable.

Action, for example, has not been postulated as infinitely divisible, so the real force of the second argument is not only against the relation between the indivisible and the infinitely divisible, but against its relation to the divisible as such. In the case of the infinitely divisible, however, the problems it poses multiply, one might say, *infinitely*. To see how this is so, we can apply this argument to a feature of the theory of *sensible* perception discussed above. Recall (as Ghazali specified for no *immediately* obvious reason at the conclusion of the ‘second proof’), that since in the case of sensible perception, the perceived form differs from the intellectual form in that it is not divisible, then the relation between the image of this sensible form and the divisible bodily organ to which it is related in perception is such that each part of the former is related to a part of the latter.

But what is perceived is a single image. This raises the question of the relation between each part of the image to the single perception, on the one hand, and to each part of the bodily organ, on the other hand. These relations will be the same, or they will be different. If they are the same, then we are faced with an actual infinity of copies of the entire image; and if they are different, an actual infinity of different images. Between the divisibility of the organ, the image, and the object, and given the force of the second argument, there is simply no place for - while

we are self-evidently capable of - unified perceptions of individual objects. This cannot be solved simply by reference to the function of common sense, since it has been postulated as bodily and, hence, divisible.

Again, given the hypothesis of the infinite divisibility of matter, what sense is there in speaking of relations between 'a part' of the bodily organ, and 'a part' of the sensible image? Each single part is supposed to consist of a potential infinity of parts. So, either each single part is not related to any of its parts, or to only some of its parts, or to all of its parts; the answer must definitely be to all. Is the relation to each part the same or different? If the same, then the single part is fully constituted by each of its 'constituent' parts, rendering an infinity of copies of the original whole, rather than an infinity of its parts. If different, then the 'single' part is divided when it has been supposed single. It is therefore non-existent, since we have eliminated the ontological basis of its singularity. It is of no avail, in this case, to point out that by the infinite divisibility of matter what is meant is not the actual division into an infinity of parts, but only the potential division. The same could be said of a bodily substratum in its relation to an intelligible form. In addition, the potentially infinite division entails at least the logical possibility thereof, and that has been ruled out by the second argument.

This argument, then, actually gives rise to the second horn of a sort of Kantian 'antinomy of reason' that is formed in combination with the argument raised, in the beginning of the discussion, against the hypothesis of the individual atom. There, on the one hand, we had an apparently valid argument showing that the proposition of the indivisible material part essentially entails the non-existence of the same in any material sense. Here, on the other hand, we have another apparently valid argument leading from the proposition of the indivisibility of matter to the same consequence.

There, Ghazali juxtaposed two rhetorical questions: How can all that is known exist in one atom? And, how can the soul be one thing that is both connected to the body and separate from it? The argument presented against the atomist theory began by asking, of an atom in between two atoms, do the other two touch each other or not? If the answer is no, then the atom cannot be indivisible. If yes, then all three atoms occupy the same place.

The juxtaposition of these rhetorical questions invites us to ask: of the individual soul, between the body and the intelligible forms, does the intelligible 'touch' the body or not? If no, then the soul cannot be indivisible. If yes, then the intelligible 'touches' the material. In some sense they occupy the same 'place', which is supposed to be impossible. But, was not the primary purpose of postulating the metaphysics of form and matter just that, through their unity, the possibility of

intelligible individual existence should be explained? The full logical force of the ‘second proof’ – which was advanced by Ibn Sina only to prove the immateriality of the soul, but which has been found to do so much more – runs against this possibility. In its fundamental form, it is precisely the problem that Parmenides, in the Platonic dialogue of that name, poses to Socrates. What is sought is a principle of unity among multiplicity, as the ontological ground of individual existence. The philosophers and the theologians each located this principle differently: the latter in the indivisible atom and the former in the immaterial form.

Yet, in neither case can they escape the entailment of a certain relation which is necessary for the success of either of these principles in rendering individual existence ultimately intelligible. This is not just the relation that Ghazali explicitly proposed, one between knowledge and a divisible substratum which does not entail the divisibility of knowledge. Indeed, it is clear that he had more than this in mind (perhaps the issue of the Divine Attributes was on the horizon). This is a relation between the one and the many which does not entail the multiplicity of the one. Perhaps such a relation “brings contradictions into the rationally intelligible,” or as Ibn Rushd might have put it, entails that which is neither divisible nor indivisible. But for all that, there is no doubt that such a relation exists, for as Ibn Sina’s famous first premise states: no doubt, there is being.

In summation, we have seen that both the ‘first’ and ‘second’ proofs of the immateriality of the soul turn on the premise that it is impossible for a divisible material organ to bear a relation to an indivisible, abstract object of cognition. Secondly, we have seen that Ghazali was indeed correct to point out that this premise stands in contradiction to the role of the estimative faculty in Ibn Sina’s theory of perception, which itself entails such a relation. Finally, however, and most importantly, we have shown that posing this dialectical argument is not Ghazali’s ultimate purpose here. As his elliptical remarks regarding the ‘atomic soul’ hypothesis, along with his restatement of the ‘first’ argument in the formulation of the ‘second’ indicate, the deeper objective of this portion of the discussion is to clarify that the root philosophical problem involved in a metaphysics of the soul – of either the materialist or immaterialist sort – is not just the question of how a divisible material cognitive faculty could be related to an indivisible object of cognition, but the more fundamental question of the possibility of any relation between a multiplicity and a unity *as such*.