

INTUITION AND ITS ROLE IN IBN SĪNĀ'S EPISTEMOLOGY*

Syamsuddin Arif

This paper reexamines Ibn Sīnā's theory of knowledge and discusses the key role he assigns to intuition in solving the epistemological problems of knowing the first principles, the middle terms, the primary concepts, and the self's existence. To reconstruct and give a coherent restatement of his epistemology by means of textual analysis and hermeneusis is certainly a worthwhile task since Ibn Sīnā's own statement of his views about knowledge has come down to us in a very disjointed form, scattered throughout his large philosophical corpus.

I. Terminology and Definition

The term 'intuition' is used here equivocally. Firstly, we use 'intuition' in reference to that cognitive faculty of the human mind or soul with which a person acquires knowledge. Intuition, in this sense, which we may otherwise call "intuitive intellect," naturally operates in close relation with other mental faculties, viz. the sensitive, the retentive, the cogitative, the imaginative

^{*} This is a slightly revised version of the first chapter of my "Ibn Sinā's Theory of Intuition" (Master's thesis, ISTAC, July 1999). I am particularly grateful to Professors Alparslan Açikgenç and Paul Lettinck for their comments and suggestions.

By this is meant the problem of the existence of the self (wujūd al-dhāt)—
"existence" in the sense of "being(ness)" (mawjūdiyyah) and "isness"
(huwiyyah or inniyyah). For an extensive discussion of the term and its logico-ontological implications, see Richard M. Frank, "The Origin of the Arabic Philosophical term «anniyya»," Cahiers de Byrsa 6 (1956): 81–201; and
Marie-Thérèse d'Alverny, "Anniyya—Annitas," in Mélanges offerts à É.
Gilson (Paris and Toronto: Pontifical Institute of Medieval Studies, 1959),
9-81, reprinted in idem, Avicenne en Occident (Paris: Librairie
Philosophique J. Vrin, 1993).

and the estimative powers. Secondly, intuition refers to the mental act of intuiting and contemplating, which represents not only the activity but also the method and skill the human mind exercises when dealing with a problem. Thirdly, the word is also taken to denote that special kind of knowledge produced by the intuitive faculty of the mind, or the result of its intuitive activity. Intuition in this last sense is thus synonymous with intuitive knowledge (cognitio or scientia intuitiva).

Ibn Sīnā employs various Arabic and Persian words for intuition. The most frequently used among them is the Arabic term *ḥads*, the root verb of which means literally "to throw; to cast; to aim at; to shoot [an arrow]; to lay down; to slaughter; to form an opinion; to surmise; to guess; to come into one's mind; to hasten; to be quick in pace or to walk fast." Muslim philosophers, Ibn Sīnā included, have used the word metaphorically to designate a swift movement of the mind from one idea to another, thus denoting a quick grasp and an instantaneous, all-at-once apprehension of the truth of a matter. But this, again we must note, is purely an act of reason or "rational intuition" that has nothing to do with inspiration, revelation, or mystical illumination whatsoever. As a technical term, *ḥads* mostly occurs in the psychology and logic sections of Ibn Sīnā's major works. Let us see how this term is defined by Ibn Sīnā.

All learning, whether autodidactic or through instruction, may vary in degrees. Some people are more capable of forming concepts [while others are

Ibn Manzūr, Lisān al-'Arab (Beirut: Dār Ṣādir, n.d.), s.v. "ḥ-d-s". Cf. Edward W. Lane, An Arabic English Lexicon (Beirut: Librairie du Liban, 1980), s.v. "h-d-s."

Al-Tahānawī in Kashshāf Iṣṭilāḥāt al-Funūn (Cairo: al-Mu'assasah al-Miṣriyyah al-'Āmmah, 1963), s.v. "ḥ-d-s," says "hence its well-known definition ('urrifa fī al-mashhūr)," namely the quick arrival of mind at the quaesitum by hitting the middle term right at once (daf'atan).

Almost all these definitions are given in Dimitri Gutas, Avicenna and the Aristotelian Tradition (Leiden: E. J. Brill, 1988), 160-6, hereafter cited as Gutas. All translations are my mine, unless indicated otherwise.

not], thanks to their mental readiness (*isti'dād*) being stronger than their previous disposition [prior to learning]. Such a state of preparedness of the human [mind] in its strong, i.e., fully developed and perfect state, is termed *ḥads*.⁵

The intelligible truths are acquired only when the middle term of a syllogism is obtained...sometimes through *ḥads*, that is, an act of mind by which reason itself [immediately] perceives the middle term...and sometimes also through instruction; [even] the principles of mathematics (ta'līm) derive from *ḥads*.6

...hads [that is] a mental act by means of which the mind immediately infers or obtains (yastanbit) the middle term all by itself...[and] this power of hads is quickness of apprehension.⁷

Ḥads is a motion [either] with a view to hitting (*iṣābah*) upon the middle term when that is the unknown, or [with a view to] hitting upon the major term once the middle term has been found.⁸

Ḥads is the accurate motion of this faculty [of mind

⁵ Al-Shifā' (al-Ṭabī'iyyāt:al-Nafs), ed. G. C. Anawati and Sa'īd Zāyed (Cairo: Dār al-Kātib al-'Arabī, 1975), 219. Hereafter cited as Shifā':Tabī'iyyāt:Nafs.

Al-Najāt min al-Gharaq fi Baḥr al-Dalālāt, ed. Madjid Fakhry (Beirut: Dār al-Āfāq al-Jadīdah, 1985), 206. Translation is based on Fazlur Rahman, Avicenna's Psychology: An English Translation of Kitāb al-Najāt, Book II, Chapter VI, with Historico-philosophical Notes and Textual Improvements on the Cairo Edition (Oxford: Oxford University Press, 1952; reprint ed., Westport, Connecticut: Hyperion Press, 1981), 36 (page reference is to the reprint edition). Henceforth abbreviated as Najāt and Psychology respectively.

⁷ Shifā': Tabī'iyyāt: Nafs, 219.

⁸ Najāt, 123. Translation from Gutas, 163.

(al-dhihn)] with a view to spontaneously grasping (iqtināṣ) the middle term...[a motion that] takes place in an infinitesimally short period of time.⁹

Hads occurs when the middle term presents itself (yatamaththal) to the mind all at once.¹⁰

Cognition is of two sorts. Firstly through hads, which is the occurrence to the mind $(yakhtur\ bi\ al-b\bar{a}l)$ of the middle term without search, in such a way that it comes along with the conclusion simultaneously. And secondly, [learning] through strategy and research.¹¹

Hads is a divine effluence $(fayd il\bar{a}h\bar{i})$ and an intellectual conjunction or contact $(ittis\bar{a}l 'aql\bar{i})$ taking place without any effort at all.¹²

There might be a person whose soul is so strong, intensely pure, and firmly conjoined with the rational principles that he becomes ablaze with *hads*, i.e., the [state of] receiving inspiration from the Active Intellect concerning everything.¹³

Ḥads of the middle [term] occurs without [discursive] thinking, for it occurs to the mind in one stroke (dafʻah wāḥidah).¹⁴

Al-Shifā' (al-Manṭiq:al-Burhān), ed. A. E. 'Afīfī (Cairo: Dār al-Kātib al-'Arabī, 1955), 259, hereafter referred to as Shifā':Burhān. Translation from Gutas, 163 with slight changes.

Al-Ishārāt wa al-Tanbīhāt, ed. Sulaymān Dunyā (Cairo: Dār al-Ma'ārif, 1966), 2: 369, henceforth abbreviated Ishārāt. Translation from Gutas, 165.

Al-Mubāḥathāt, ed. Muḥsin Baydārfār (Qumm: Intishārāt Bīdār, 1993), 107, hereafter Mubāḥathāt.

¹² Ibid., 107. A slightly modified translation from *Gutas*, 165.

¹³ Psychology, 36. Rahman's translation.

¹⁴ Al-Ta'līqāt, ed. 'Abd al-Raḥmān Badawī (Tehran: 'Ālam al-Kutub, 1984), 141, henceforth Ta'līqāt.

In short, [intuition is] quickness of [mental] movement from the known to the unknown.¹⁵

In all these definitions, Ibn Sīnā seems to have in mind 'intuition' both in the second and third sense, namely, intuition as an act of mind or mental skill as well as intuition as a form of cognition or intuitive knowledge resulting from that mental activity. So when he says that one can understand and know something through intuition, or literally by "intuiting" (bi al-ḥads), Ibn Sīnā actually refers to that act of intuitive knowing. In the same way, when he speaks of al-ḥads as involving the immediate presence of a key idea or solution to a problem, he is obviously referring to intuitive knowledge.

Besides hads, Ibn Sīnā also employs several other words in reference to intuition such as experiential knowledge (ma'rifah), 16 reflection $(mul\bar{a}hazah)$, 17 "hitting the target" $(is\bar{a}bah)$, 18 mental keenness, alertness (yaqzah), 19 insight (fahm), 20 truth ascertainment $(tahq\bar{i}q)$, 21 truth attainment

¹⁵ Najāt, 123.

¹⁶ Shifā':Tabī'iyyāt:Nafs, 13 and 236.

¹⁷ Ibid., 13 and *Shifā': Burhān*, 286.

Najāt, 206; al-Shifā' (al-Manţiq:al-Qiyās), ed. Sa'īd Zāyid and Ibrāhīm Madkūr (Cairo: Organisme Générale des Imprimeries Gouvernmentales, 1964), 458, henceforth Shifā': Qiyās. See also 450; Ishārāt, 371.

Aḥwāl al-Nafs, ed. A. Fu'ād al-Ahwānī (Cairo: 'Īsā al-Bāb al-Ḥalabī, 1371/1952), hereafter abbreviated as Aḥwāl, as cited in Gutas, 19 n.15.

Al-Shifā': al-Manţiq:al-Madkhal, ed. G. C. Anawati, M. el-Khodeiri, and A. F. el-Ahwany (Cairo: al-Maţba'ah al-Amīriyyah, 1953), 9; henceforth cited as Shifā':Madkhal. As noted in Gutas, 50 n. 1, although afhām literally means 'acts of discernments' (intelligendi actiones—as in the Latin translation), Ibn Sīnā is referring here to his theory of intuition.

See The Life of Ibn Sīnā, ed. and trans. W. E. Gohlman (Albany: State University of New York Press, 1974); henceforth referred to as Autobiography. Gutas renders taḥqīq as "Verification" and rightly stresses its paramount significance (Gutas, 187–191). See also "Letter to an Anonymous Disciple," translated and cited in Gutas, 57–60.

 $(tah,\bar{s}l)$, ²² catching $(iqtin\bar{a}s)$, ²³ and sagacity $(fat,\bar{a}nah)^{24}$ and/or discernment (fit,nah). ²⁵ As for intuition in the first sense, that is, as a mental faculty of cognition, Ibn Sīnā uses quite familiar terms, namely, intellect or reason ('aql), ²⁶ innate faculty (fit,rah), ²⁷ mind (Persian khirad), ²⁸ and mental aptitude (quwwat al-nafs). ²⁹

II. The Role of Intuition

Having clarified what intuition is and seen Ibn Sīnā's definition and terminology, we are now in a better position to discuss in detail the role intuition plays in Ibn Sīnā's logic, epistemology and metaphysics. It will be shown how intuition is for him the ultimate faculty to which, in the final analysis, the human mind inevitably resorts. The analysis is centered on the problems of knowing the first principles, the middle terms, and the primary concepts, as well as on the problem of the self's existence.

²² Najāt, 24 and 221; Mubāḥathāt, 59.

²³ Shifā': Burhān, 259 and 331; Najāt, 221.

²⁴ Ishārāt, 114. Doubtless the reference is again to intuition. Cf. Gutas, 55, footnote 3; Mubāhathāt, 58.

²⁵ Ibid., 904. Cf. "Letter to Kiyā" in Mubāhathāt, 374.

²⁶ Shifā': Burhān, 333.

²⁷ Ibid., 64 and 75.

Dānish Nāmah-yi 'Alā'ī:Ilāhiyyāt, ed. M. Moein and M. Meshkât (Tehran: Anjoman-e Āthār-e Mellī, 1953; repr. Tehran: Dekhoda, 1975), 8. According to Parviz Morewedge, khirad is an Old Persian term signifying the possession of intuitive knowledge of that which is logically fundamental to experience and is phenomenologically prior to it. Khirad recognizes, among other things, that "being" (hastī) is prior to any other notions. See Parviz Morewedge, "A Study in Philosophy and Mysticism: English Translation with Commentary of Ibn Sīnā's Dānish Nāmah-yi 'Alā'ī" (Ph.D. Diss., University of California at Los Angeles, 1969), 672; henceforth Dānish Nāmah-yi and Morewedge respectively.

^{29 &}quot;Letter to Kiyā" in Mubāḥathāt, 374. English translation of the context is given in Gutas, 60-64. See also Shifā': Burhān, 330 and 331. Cf. Shifā': Tabī'iyyāt: Nafs. 13.

II,A. Intuition of the First Principles

Ibn Sīnā not only holds that knowledge is possible, but he also affirms, in contrast to the skeptics and agnostics, that we can formulate correct conceptions as well as certain, true knowledge of things.³⁰ But every epistemic claim must be substantiated by logical proof in order for it to pass as absolutely certain knowledge ('ilm yaqīnī) that would give us a true picture of reality. Ibn Sīnā calls this rational proof "demonstration" (burhān), which he considers to be the surest way to truth and certainty (ilā kasb al-haqq wa al-yaqīn). 31 Unlike the other kinds of syllogism (qiyās) such as the dialectical (jadalī), sophistical (mughālātī), rhetorical (khitābī) and poetical (shi'rī) reasoning, demonstration is distinguished as much by its starting basis in necessary, certainly true premises as by its yielding necessarily true conclusions.³² That is to say, if the syllogism is the most reliable form of proof as compared to analogy (tamthīl) and induction (istiqrā'), demonstration is the most certain kind of syllogism—not because its conclusion is certain, but because of the certainty of its premises.

The conclusion of demonstration, Ibn Sīnā maintains, is supposed to provide us with knowledge implying not only "that things are so," but "why they are so." Hence we have two kinds of demonstration, namely, the burhān inna and burhān lima, which were known to the medieval scholastics respectively as demonstratio quia and demonstratio propter quid. The former gives us understanding of the fact, whereas the latter informs us the reason for the fact.³³ Following from necessary propositions,

³⁰ Shifā':Burhān, 53 and 54.

³¹ Ibid., 54. In the Ishārāt 1: 460, Ibn Sīnā clearly defines demonstration as a syllogism whose premises "must be accepted" (al-muqaddamāt al-wājib qabūluhā). Cf. Najāt, 102 where burhān is defined as a syllogism that is composed of certain propositions in order to yield certain knowledge (qiyās mu'allaf min yaqīniyyāt li intāj ['ilm] yaqīniyy).

³² Ibid., 78–9.

³³ Ibid., 79. The theory is borrowed from Aristotle who, in his Posterior Analytics (ed. and trans. H. Tredennick, Loeb Classical Library, Harvard

the conclusion of a demonstration consequently describes a permanent state of affairs and depicts the fact which cannot not be. It is this resultant necessary and certain knowledge which constitutes science in its ideal sense.³⁴

It is worth noting that Ibn Sīnā, like Aristotle before him, insists that knowledge is at its best when its contents are universal and necessary.³⁵ Consequently, knowledge is taken to be composed of a set of propositions, for only propositions make truth claims. Universality and necessity of general epistemic claims must be maintained if we were to have a sort of knowledge that allows explanation and prediction, rather than a mere

University Press, 1966) 78a.23ff, distinguishes between knowledge of the fact ($\tau \delta \delta' \delta' \iota \iota \iota \tau \iota \sigma \tau \alpha \sigma \theta \alpha \iota$) and knowledge of the reason ($\tau \delta \delta \iota \delta \tau \iota$) for it. The classic example of factual demonstration is: The planets do not twinkle; what does not twinkle is close to the earth; therefore, the planets are close to the earth. This proof merely affirms the existence of the fact given in the conclusion. The minor premise is not the explanation of the conclusion, for one does not say that the planets are close to the earth because they do not twinkle. In such a demonstration, we start with something more known to us-an observation, and arrive at a conclusion which states a fact previously less known. Compare this with the following example of causal demonstration: The planets are close to the earth; what is close to the earth does not twinkle; therefore, the planets do not twinkle. Here the conclusion is already known, that is, implied by the major premise. That is why we start with the explanation of the conclusion—stating why it is so. This definitely presupposes, in one way or another, foreknowledge of the cause. Subsequent citations of Posterior Analytics will be to this edition. Cf. Pierre Conway, Aristotelian Formal and Material Logic (New York: University Press of America, 1995), 234-5.

³⁴ Shifā':Burhān, 78.

³⁵ Ibid., 153 and 170. In *Posterior Analytics* 86a.12 Aristotle says: "But he who has universal knowledge (τὴν καθόλου ἔχων) knows the particular cause as well, whereas the man who has only particular knowledge does not know universal cause." Moreover in 87a.31–b20 (ibid.): "Knowing simultaneously the fact and the reason for it [the fact], as contrasted with only the former without the latter, is more accurate (ἀκριβεστέρα) and prior....[Indeed] there can be no demonstrative knowledge of what happens by chance (τοῦν δ' ἀπὸ τύχης)."

collection of facts. Now since all reasoning, demonstration included, is based on the process whereby we go from the known to the unknown (*iktisāb majhūl bi ma'lūm*),³⁶ there must exist a few things of which we are immediately aware, *inter alia*: (1) the universal, major premise; (2) the subject of both the minor premise and the conclusion; and (3) the predicate of the subject of the conclusion.

But what is required foremost in any demonstrative reasoning is the primary propositions or first principles.³⁷ According to Ibn Sīnā, primary propositions are those premises that, besides being universal, must have with them the following characteristics: primevality, self-evidentiality and axiomaticity, and necessity with regard to its "truth." In other words, such a proposition must be known beforehand and a priori (a'raf wa aqdam), necessary (darūriyyah) and always true in all possible cases (ghayr mumkinat al-taghayyur), indemonstrably evident in itself (bayyinah li nafsihā),³⁸ and primary in the sense that it needs no intermediary to link its predicate to the subject nor is it inferred from any prior premises. Impossible though they might seem, these conditions are set forth by Ibn Sīnā to make sure that we reach necessarily true and certain conclusions as long as no rule of valid reasoning is violated.

Among the examples of primary propositions which Ibn Sīnā cites are the classic axiomatic Principle of Non-contradiction, i.e., "that the same thing cannot be both affirmed and denied simultaneously" (anna al-salb wa al-ījāb lā yajtami 'āni), 39 and the Law of Excluded Middle (al-thālith al-marfū' or tertium non datur) which teaches that of everything there must be either a true

³⁶ Shifā':Burhān, 57.

Indeed, for Aristotle, "to argue from primary premises $(\pi\rho\omega\tau\omega\nu)$ is to argue from appropriate first principles $(\dot{\alpha}\rho\chi\bar{\omega}\nu)$, for by 'primary premise' and 'first principle' I mean the same thing." See *Posterior Analytics* 72a.6.

³⁸ Ibid., 106, 120, 123, and 150.

Ibid., 190. If symbolized, this would be: $\sim (p \cdot \sim p)$, i.e., it is *not* true to say p and *not* p.

affirmation or negation—that is, either the assertion or the negation of the predicate in a proposition is true (*kullu shay' immā an yuṣaddaq 'alayh al-ījāb aw al-salb*).⁴⁰ Also of this nature are, on Ibn Sīnā's account, propositions such as "things which are equal to the same thing are also equal to one another" (*al-ashyā' al-musāwiyah li shay' wāḥid mutasāwiyah*)⁴¹ and "the whole is greater than the part."⁴² One may of course add to the list the proposition "being is not non-being" and the like. All these are otherwise called the first principles of demonstration. They are called "principles" (*mabādi'*) because without them it is impossible to do reasoning, construct a syllogism, or derive any conclusion.⁴³

Two possible objections might arise, says Ibn Sīnā, concerning this doctrine of demonstrative syllogism. First, since the *quaesitum* of demonstration derives its truth from the primary premises, it follows that the truth of these primary premises must

⁴⁰ Ibid., 155. That is: "either p or ~ p." This fundamental law of thought has been contested by many philosophers and is claimed to fall away in 'many-valued logic' developed by Pierce and Lukasiewicz, where three or more so-called truth values, instead of two (truth and falsity) are recognized. Arguments for and against the law as put forth by Aristotle, Hegel, Mill, Engels, Bradley, and Russel can be read in Irving M. Copi and James A. Gould (eds.), Readings in Logic (New York: Macmillan Company, 1964), 131–86. On Lukasiewicz's invention, see S. McCall, Polish Logic (Oxford: University Press, 1967).

⁴¹ Shifā':Burhān, 155-7. This proposition is known as one of the so-called "common notions" or axioms in Euclidean geometry, the others being: "if equals be added to equals, the wholes are equal"; "if equals be substracted from equals, the remainders are equal"; and "things which coincide with one another are equal to one another." For further details, see Euclid, The Thirteen Books of the Elements, translated from the text of Heiberg with introduction and commentary by Sir Thomas L. Heath, 2nd rev. ed. in 2 vols. (New York: Dover Publications, 1956), 1: 221-32.

⁴² Shifā': Burhān, 64. Likewise, this is the fifth of Euclid's "common notions."

This is exactly parallel with Aristotle's doctrine of "common principles" (τὰ κοινὰ ἀξιώματα), i.e., the indemonstrable first principles of demonstration that must be grasped immediately if knowledge is to be acquired. See Posterior Analytics 72a.17 and 76b.14.

have been based on certain other prior premises whose truth is clearer, and so on. That is to say, if every claim of knowledge has to be proved by demonstration, would it not follow that the first principles of demonstration too have to be demonstrated? If it did, then we would go on reasoning endlessly (iqāmah barāhīn bilā nihāyah) in which case demonstration would become impossible. In the second objection, a critic may charge demonstration with being circular (dawr) and question-begging (muṣādarah 'alā al-maṭlūb or petitio principii), on the ground that demonstrative syllogism proceeds from certain principles or premises that are themselves subject to another demonstration (yakūn al-burhān minhā 'alayhā ba'ḍuhā 'alā ba'ḍ).⁴⁴

Ibn Sīnā refutes both objections by bringing to surface the false assumptions underlying them. First, such a critic has mistakenly held that all knowledge comes about through demonstration and, worse, was of the opinion that knowledge is not possible except by means of demonstration alone. According to Ibn Sīnā, the truth is this: either everything is unknown, or something is known. Now if something is ever known, then it is known either through itself (self-evident) or else by means of demonstration. As a matter of fact, not everything is unknown, for if such were the case, then our very assertion that "everything is unknown" would be unknown also. Nor should everything, nevertheless, be known via demonstration; for if that were the case, it would necessarily follow that each demonstration is to be known through another and so forth ad infinitum; but this is impossible.

Consequently, Ibn Sīnā concludes, the primary premises or first principles of demonstration need neither go on infinitely nor stop at a certain point without clear justification. Rather, demon-

⁴⁴ Shifā':Burhān, 117.

⁴⁵ Ibid., 118. Cf. Aristotle's statement in Posterior Analytics 71b.17: "Our contention now is that we do at any rate obtain knowledge by demonstration (δι' ἀποδείξεως εἰδένοι)."

⁴⁶ Shifā':Burhān, 118.

stration must ultimately end up with the unmediated, self-evident propositions (*muqaddamāt bilā wāsiṭah*, *bayyinah bi nafsihā*).⁴⁷ However, this brings another problem. If the first principles are to be taken for granted and not supposed to be demonstrated, how can we be sure of their truth? Broadly formulated, this is exactly the perennial question philosophers have always asked: how did we get our first [universal] knowledge?—a problem otherwise known in the Aristotelian tradition as "the problem of knowing the first principles." For Aristotle, as Victor Kal points out, is very much aware of the fact that "at a certain point, thinking reaches its limits," in which case we have to search outside the sphere of logic to resolve the problem.⁴⁸

It is to this problem of primary cognition that Ibn Sīnā proposes "intuition" as *the* solution. This he puts forth upon demonstrating the inadequacy of other cognitive means, particularly the sensory faculty upon which induction is based. The term Ibn Sīnā uses for "intuition" as a mental faculty of cognition is 'aql or *fitrah*, both of which he contrasts with sensation (al-hiss). He explicitly asserts that "the proposition serving as the principle of demonstration...is not acquired except by intuition." Although

Ibid., 118. In Posterior Analytics 71b.20ff. Aristotle argues: "Now if knowledge is such as we have assumed [i.e, as unqualified belief that we know the cause of a certain fact and that the fact cannot be otherwise], demonstrative science $(\dot{\alpha}\pi o\delta \epsilon \iota \kappa \tau \iota \kappa \dot{\eta} \nu \dot{\epsilon}\pi \iota \sigma \tau \dot{\eta} \mu \eta \nu)$ must proceed from premises that are true $(\dot{\epsilon} \xi \dot{\alpha} \lambda \eta \theta \bar{\omega} \nu)$, primary $(\pi \rho \dot{\omega} \tau \omega \nu)$, immediate $(\dot{\alpha} \mu \dot{\epsilon} \sigma \omega \nu)$, better known than $(\gamma \nu \omega \rho \iota \mu \omega \tau \dot{\epsilon} \rho \omega \nu)$ as well as prior to $(\pi \rho \sigma \tau \dot{\epsilon} \rho \omega \nu)$, and causative $(\alpha \dot{\iota} \tau \dot{\iota} \omega \nu)$ of the conclusion."

See Victor Kal, Intuition and Discursive Reasoning in Aristotle (Leiden: E. J. Brill, 1988), 44–5. The contention is found in Posterior Analytics 99b.20ff., where the Stagirite states: "It is impossible to reach scientific knowledge (ἐπίστασθαι) through demonstration unless one apprehends first the immediate first principles (τὰς πρώτας ἀρχας τὰς ἀμέσους)."

Shifā': Burhān, 110. Cf. Aristotle's remark in the closing paragraph of Posterior Analytics 100b.10ff.: "Also [since] the first principles are more knowable (γωριμωτεραι) than demonstrations, and [since] scientific knowledge involves reason, it follows that there can be no scientific knowledge of the first principles. Yet since nothing can be more infallible than scientific knowledge except intuition, so it must be intuition (νους) that

fitrah actually means sound natural intelligence, in this context it may be taken as signifying innate or intuitive power—that is, the inborn cognitive disposition which, being operative in terms of the rational faculty, rather than the estimative, is capable of arriving non-inferentially at basic rational truths. 50

Being axiomatic or primary (fi awwal al-'aql or badīhī), the first principles are, therefore, unquestionably true (wājib qabūluha).⁵¹ The truth of such propositions are so evident that whoever rejects them or fails to apprehend them a priori, Ibn Sīnā argues, does so either because of his imperfect nature (li naqṣ fī fiṭratih), disability, and old age, or due to the mental confusion with contrary views and misconceptions that his natural faculty has suffered from. Ibn Sīnā calls propositions of this kind natural-rational or intuitional (muqaddimah fiṭriyyah) simply because they are innate (mawjūd bi al-fiṭrah) and present in the mind a priori (hāḍir li al-dhihn).⁵² It is with respect to the sensation-intuition distinction that Ibn Sīnā consequently makes a distinction between knowledge (ma'rifah) and science ('ilm), the former the product and data of the sensory faculty, whereas the latter of intuition.⁵³

To illustrate, Ibn Sīnā gives an example from geometry of an a priori, necessarily true proposition that could also serve as a primary premise: "straight lines drawn from the centre of a circle to its circumference are always equal." He then asks several questions. "Whether circle is?" and—supposing that it does exist—"How is it that a geometrical tool proves the rational truth of such a statement?" According to Ibn Sīnā, it is indeed the intu-

apprehends the first principles...[that is] because the starting-point of demonstration is not itself demonstration just as the starting-point of scientific knowledge is not itself scientific knowledge. Hence, since we possess no other infallible faculty besides scientific knowledge, the source from which such knowledge starts must be *intuition*." (Emphasis mine)

⁵⁰ See *Najāt*, 62–3; *Shifā':Burhān*, 64–5.

⁵¹ Shifā':Burhān, 112.

⁵² Ibid., 111.

⁵³ Ibid., 73 and 69.

itional compass ($firj\bar{a}r$ ' $aql\bar{\imath}$), rather than the material instrument, that operates in the demonstration and a priorily "intuits" the truth of the proposition in question.⁵⁴ The rendering of 'aql as the faculty of intuition is supported by the passage located towards the end of $Kit\bar{a}b$ al- $Burh\bar{a}n$, where Ibn $S\bar{\imath}n\bar{a}$ writes:

Just as the [first] principles of demonstration are not obtained by means of demonstration, so is the case with the axioms of science [which are] not acquired except through a scientific faculty (quwwat al-'ilm) that is nothing other than "intuitive intellect" (al-'aql). To be specific, this is the [mental or intellectual] faculty of intuition inherent within ourselves as the true natural capacity.⁵⁵

That the problem of knowing the first principles of demonstration can only be resolved, according to Ibn Sīnā, by introducing the theory of intuition is evident in many instances. One may object to the translation of 'aql as intuition. But the entry in Ibn Sīnā's philosophical lexicon on 'aql lends explicit support to the interpretation herein proposed. There Ibn Sīnā, citing Aristotle, explains that in contradistinction to science ('ilm for Greek $\dot{\epsilon}\pi\iota\sigma\tau\dot{\eta}\mu\eta$), intuition or 'aql ($vov\varsigma$) consists in conceptions and assents that come to the soul naturally, that is, intuitively (bi alfitrah). In addition to fitrah and 'aql, Ibn Sīnā also employs a much simpler word for intuition: "quwwah."

Thus the truth is that we are simply unaware $(gh\bar{a}fil\bar{u}n)$ of the principles of demonstration in the first place, but then we [soon] "hit" and acquire

⁵⁴ Ibid., 114.

⁵⁵ Ibid., 332.

See Kıtāb al-Ḥudūd, ed. Amélie-Marie Goichon, reprinted in Rasā'il Ibn Sīnā (Qumm: Intishārāt Bīdār, n.d.), 88. Unfortunately, Ibn Sīnā does not specify his citation. The reference is probably to a passage in Posterior Analytics 100b.5ff (cf. vide supra note 47).

them. Yet how did we arrive at the unknown without logical proof? If we did it through demonstration, we would have needed some other principles prior to the primary premises of demonstration, which is impossible. Therefore, [I see] no possible solution to this problem [of breaking the endless chain of proofs] unless we [recognize that] we are possessed of an intuitive power the function of which is to know things without learning nor instruction (quwwah ta'lam ashyā' mā bilā ta'allum [wa lā] ta'līm).⁵⁷

Needless to say, the above passage still leaves much to be desired. Ibn Sīnā has not yet elaborated how such intuitional cognition takes place. Nor has he specifically explained therein whether, when speaking of intuitive capacity, he means by the pronoun "we" every human being or rather a limited number of select individuals. We shall return to this and other related questions later.

II.B. Intuition of the Middle Terms

In every syllogism, the middle term is that which links the minor term (the subject) with the major term (the predicate) in the conclusion. It forms the basis from which the conclusion proceeds. Ibn Sīnā defines the middle term as the cause that gives reason to our 'belief' or to why we hold a certain statement and that justifies our assertion of its truth ('illah li i'tiqād al-qawl wa al-taṣdīq bihi).⁵⁸ Take, for instance, the following syllogism: every composite being is not eternal; a human being is composed of bodily elements; therefore, a human being is not eternal. In this syllogism, "being composite" (mu'allaf) is the middle term that, occuring twice in both premises, connects the minor term

⁵⁷ Shifā':Burhān, 330; cf. 331.

⁵⁸ Ibid., 68.

"human being" with the major term "not eternal." In other words, it is because of their compositeness that human beings are not eternal in that they can neither resist change and corruption nor survive death.

Now just as demonstrative science seeks to establish, from what was previously known, a concluding statement of an unknown fact, it becomes the task of demonstrative syllogism to show the cause of that fact and provide the reason why it is so. This tells us why the middle term is so central to demonstration that all scientific researches are in effect nothing but attempts to find what the causes or middle terms are.

Accordingly, since the *quaesitum* (matlub) of demonstration depends on the middle term, suffice it that we grasp the middle term in order to arrive at the conclusion. For Ibn Sīnā, however, the significance of knowing the middle term is extended to the capability of solving problems and providing answers to questions about the essence and ultimate causes underlying all phenomena.

Indeed, by regarding the middle term as the cause to be investigated and the key to demonstrative science, Ibn Sīnā has transformed this "logical" problem into a problem of epistemology. Indeed, for Ibn Sīnā, the middle term is both the essential, quidditative definition (māhiyyah) of a thing as well as its essential cause ('illah dhātiyyah).⁵⁹ He gives the following example. Suppose one was wondering why the moon was being eclipsed. To ask such a question is but another way of asking just what an eclipse is all about, that is, to ask for its definition. When one discovers, that the reason for this phenomenon of the moon growing dark for a period of time is the interposition of the earth between the sun and the moon and that the moon is falling in its shadow, one has by that time established what an eclipse is and thus is able to define it as the fading away of light produced by the pas-

⁵⁹ Ibid., 267. Cf. *Posterior Analytics* 90a.7: "For the middle term is the cause (τὸ αίτιον), and that is what we are trying to find out."

sage of the earth between the imaginary line from the moon to the sun.⁶⁰

At this point it would be useful to digress and put the issue in a wider context. All scientific inquiries consist ultimately in the attempt to find out and know the middle term. The reason is that once the middle term is discovered, the problems would dissolve and the four questions basic to any scientific research need not arise. Ibn Sīnā is referring here to the questions (1) whether a thing is or si est question (matlab hal al-basīt), (2) whether it is so or quia question (matlab hal al-murakkab), (3) what the thing is or quid est question (matlab $m\bar{a}$), and (4) why it is so or propter quid question (maţlab lima).61 All these questions are not only related to but are ultimately reducible to the question of the middle term. Thus, for example, if an observer in space could actually see the cause of the eclipse of the moon—i.e., the earth passing between it and the sun—he would immediately know (i) that there is something called an eclipse, (ii) that the eclipse has occurred, (iii) what an eclipse is, and (iv) why the eclipse occurred.62

Now this middle term, which gives the cause and the perfect definition (al-ḥadd al-tāmm) as well, is not itself to be demonstrated (al-ḥadd lā yuktasab bi al-burhān).⁶³ The reason is

⁶⁰ Ibid., 285. This illustration is also in *Posterior Analytics* 90a.1–23.

Shifā':Burhān, 68 and 284. Cf. Nicholas Rescher, "Avicenna on the Logic of Questions," in Essays in the History of Philosophy (Brookfield: Avebury Ashgate Publishing Limited, 1995), 71–76. Relying though upon his "principal sources," Rescher has, however, mistakenly included the what-sort question among the "four basic questions" of scientific investigation. The truth is that maṭlab ayyu, as Ibn Sīnā explicitly says in the Burhān cited above, is subsumed under the quidditative question. The discussion of the four questions corresponds to that in Posterior Analytics 89b.23-35, where Aristotle speaks of what humans can know, namely the questions of fact (τὸ ὅτι), of reason or cause (τὸ διότι), of existence (εἰ ἔστι), and that of essence or quiddity (τί ἐστιν).

⁶² Cf. Posterior Analytics 89b.23-6. Further in Posterior Analytics 94a.20 Aristotle says: "We maintain that we have knowledge of a thing only when we know its cause."

⁵³ Shifā':Burhān, 270.

that the conclusion, which was previously unknown, must proceed from that which is initially known. And the middle term, which is the fulcrum of that known, must, therefore, be something known immediately. For if middle terms as such were to be demonstrated, then their middle terms would need further demonstrations too, and so there could be no starting point and consequently no demonstration at all, because then we would end up either with begging the question or arguing on and on.⁶⁴ However, since demonstration *is*, it follows that the middle term is not demonstrated, but rather it is known "abruptly" (*qad uqtuḍiba iqtidāban*).⁶⁵

Still, this middle term as a definition cannot be obtained through "division" either. By division (qismah) Ibn Sīnā means quasi-syllogistic reasoning that uses disjunctive propositions. For example, to arrive at the essential definition of man, it is untenable to reason as follows: man is either a living or a non-living being; and granted that man is not inanimate, therefore man is animate. Ibn Sīnā rejects this method of division because it involves several difficulties. First, he contends, unlike demonstration, the conclusion of this quasi-syllogism depends upon an acceptance by the one to whom the premise is proposed of either alternative, just as it relies upon a premise which is often taken simply for granted (muṣādaratan wa taslīman). Secondly, unless one is willing to admit that logical qismah embraces all

⁶⁴ Ibid., 273.

⁶⁵ Ibid., 273.

This method is traceable to Plato's διαίρεσις, which paved the way for, and was developed further by Aristotle, resulting in the latter's theory of definition per genus et differentiam. Proposed by Plato to solve the problem of definition, the logical method of division involves the analysis or breaking up of a genus into its constituent species, starting with the summum genus and stops with infimae species—between the two extremes are the subaltern genera. The division of a genus into species is effected by means of differentiae which make the species definite. Plato offers ample illustrations of this method in his The Statesman 263ff., Phaedrus 265Dff., and Philebus 23Cff..

⁶⁷ Shifā':Burhān, 275.

possibilities—which is not the case—one is prone to hasty generalization (khaṭa' fī jam'i al-mutafarriq). The same is true of induction (istiqrā'), which Ibn Sīnā equally discards as unreliable since it is valid only on the condition that the particulars taken be accepted as representative of the whole species.⁶⁸ The third reason is that even when by means of division one accepts its conclusion as being universally true, this still does not mean that it is essentially a definition, unless so indicated. For it may be the accident rather than the essence of the definiendum that is stated.⁶⁹

Now since the perfect, essential definition that functions as the middle term of a demonstration cannot itself be proven by means of demonstration, nor through division or by induction, it is then natural to ask how and whence the middle term should be derived. Ibn Sīnā's answer to this question marks the transition of his discourse from logic to epistemology. For he is thereby compelled, time and again, to search for a solution to the problem of 'knowing' non-inferentially, which is definitely outside the domain of logic. Thus we read:

That a thing is known actually and potentially or almost actually [knowable] is due to mental inattention (ghaflah) which simply needs some mnemic recall (tanbīh). While demonstration shows the middle-term-as-definition via memory revival, the middle-term-as-definition itself is indemonstrable (lā yubarhan 'alayhi). Thus [it must have come about] as if one had already known the fact that [for instance] the moon is exposed to [a certain amount of] light from the sun, but then one became unaware of it. Yet once the person heard it, his mind would notice (laḥaza dhihnuhu) these particular conceptions out of which he could readily know the

⁶⁸ Ibid., 276. Cf. 279ff.

⁶⁹ Ibid., 276.

[essence or] definition [of lunar eclipse] [as the middle term]. 70

It is tempting to read *laḥaṣa dhihnuhu* as "his mind intuits" thereby implying that Ibn Sīnā takes "intuition" to be the solution to the problem of arriving at definition and acquiring the middle term of demonstration. Indeed, we may contend that the phrase "his mind intuits" corresponds to the verb *ḥadasa* which Ibn Sīnā also uses to refer to the mental act of intuiting.⁷¹ This reading is corroborated by the fact that in another work he says:

Cognition is of two kinds; (1) through intuition (hads) whereby the middle term occurs to the mind without effort (bi ghayr talab) in such a way that it is acquired along with the conclusion simultaneously, or else (2) it comes about following mental effort and research (bi hīlah wa talab).⁷²

Elsewhere Ibn Sīnā gives an example from arithmetic of how one could grasp the truth of a proposition a priori through the middle term. Consider the proposition "four is an even number." According to Ibn Sīnā, once the minor term "four," and the major term "even" are understood, the middle term "divisible into two equal parts" immediately presents itself to the mind.⁷³ This he refers to as *muqaddamah fiṭriyyat al-qiyās*, that is, the premise whose syllogism establishing it is in the "intuitive faculty of reason" or the premises which carry with them the syllogisms that prove them (*muqaddamāt qiyāsātuhā maʻahā*).⁷⁴

⁷⁰ Ibid., 285.

⁷¹ Ibid., 284.

⁷² Mubāḥathāt, 107.

⁷³ Shifā': Burhān, 64. Syllogistically:

All even numbers are divisible into two equal parts
Now, since four is divisible into two equal parts
So, four is an even number.

⁷⁴ Ishārāt, 394. See also al-Tūsī's comment.

II.C. Intuition of Primary Concepts

Like his predecessors, Ibn Sīnā takes knowledge to be either "conception" (taṣawwur) or "judgement" (taṣdīq).⁷⁵ This doctrine leads to the view that human knowledge can actually be expressed in truth-claim making propositions and is, therefore, subject to logical analysis. Seen in this perspective, all science, that is, any systematic body of knowledge becomes nothing but a collection of generally accepted theories that rest upon certain axioms and hypotheses. In other words, it is a set of propositions, which are either indemonstrable like geometrical axioms or simply assumed to be true, that provides the starting-point for all scientific researches and investigations.

Now since all propositions consist of concepts, every epistemic claim and inquiry ought to begin with some basic concepts which must not only be ready at hand but are themselves evidently clear in the first place. Ibn Sīnā calls such concepts "primary ideas" (ma'ānī awwaliyyāt) or basic notions. 76 Just as a student of carpentry must, before anything, begin with understanding clearly the meaning of such concepts as "wood" and "hammer," for example, so also must scientists and philosophers make themselves clear about every basic concept used in their respective fields. 77

To make a comparison, notions like "body," "space," "motion," and "energy" are considered basic to physical science in the same way that the concepts "being," "existence," "substance," and others are primary and fundamental to metaphysics.

Najāt, 43. For a historical exposition of this theory, see Harry A. Wolfson, "The terms taṣawwur and taṣdīq in Arabic Philosophy and their Greek, Latin, and Hebrew Equivalents," in The Muslim World XXXIII (1943): 114–28. Wolfson refers to al-Fārābī's 'Uyūn al-Masā'il in Alfārābis philosophische Abhandlungen. ed. and trans. F. Dieterici (Leiden, 1890-2), 56 and 92–3. Cf. I. Madkour, L'Organon d'Aristote dans le monde arabe, 2nd. ed. (Paris: Librairie philosophique J. Vrin, 1969), 53–6.

⁷⁶ Shifā':Burhān, 111.

⁷⁷ Ibid., 58.

Although each science may have its specific basic concepts, still there are primary notions common to all sciences and knowledge in order for each to start with. These primary concepts, according to Ibn Sīnā, are not only the most general, but are epistemologically prior to the less general, empirically acquired concepts. Among such concepts are "a being," "a thing," "it," "this [thing]," and "that [thing]." They are, Ibn Sīnā continues, intuitional not only by the fact that they are grasped a priori, but in the sense that they do not require for their apprehension prior sensory perception of the material world.

The concepts of "the existent" (al-mawjūd), "the thing" (al-shay'), and the "necessary" (al-ḍarūrī), are impressed in the soul in a primary way; this impression does not require better known things to bring it about....In conceptual matters, there are things which are principles for conception and which are conceived in themselves....[For] if every conception requires a prior conception, then such a state of affairs would lead either to infinite regression or to circularity.⁷⁸

Primary concepts, therefore, are characterized by being apprehended foremostly (awwaliyyan), a priori or self-conceivable ($mutaṣawwarah\ li\ anfusih\bar{a}$), indefinable, and common to all things or universal (kulliyyah). They are not arrived at through

Shifā':Ilāhiyyāt, 29-30. Translation is adopted, with slight changes, from Michael Marmura, "Avicenna on Primary Concepts in the Metaphysics of his al-Shifā'," in Roger M. Savory and D. A. Agius (eds.), Logos Islamikos (Stvdia Islamica in Honorem Georgii Michaelis Wickens) (Toronto: Pontifical Institute of Medieval Studies, 1984), 222-3. In contemporary linguistics, basic notions like these are known as "semantic primitives," which function as the very basis of the whole structure of human linguistic expression and discourse. For detailed elaboration on this, see Anna Wierzbicka, Semantics: Primes and Universals (Oxford: Oxford University Press, 1996), 9-12 and 35-43.

logical inference nor explicable in terms of other notions. Ibn Sīnā also adds that they are to conception (taṣawwur) like the first principles are to assent (taṣdīq). For no demonstration is possible unless we assent to the primary premises which must not only be axiomatically true but also indemonstrable. Similarly, there could be no definition if there were no basic ideas that are as simple and indefinable as they are intuitively known. Such primary concepts are the starting points of all our thought and talk. That is to say that unless we have comprehension of those basic ideas to start with, we cannot discourse about anything. He says:

The first things conceivable in themselves are [concepts that are] common to all entities, such as [the notions of] "the existent," "a certain thing," and so on. That is why none of these [general concepts] can be proved without begging the question, nor can they be explained through better known concepts. And hence they cannot be defined either. Consider someone's assertion that the reality of being, i.e., the existent, is either to be active or passive. This saying, true though it is, does [not yet define "being"] but merely points out the division of "being," since the concept "existent/being" is better known than the [meaning of] "active" and "passive." "79

That is because one can conceive the meaning of 'being' or 'existent' without any other notions, such as 'active' or 'passive,' whereas it is by no means possible to detach the latter from the former. Moreover, Ibn Sīnā argues, although admittedly the concept "thing" is that about which an informative statement is correct, this cannot be the definition of "the thing." The reason is that in this case the *definiendum* is not only better known than the *definiens*, but it is the very concept used in defining what a "correct and informative statement" is. Indeed, so runs the argument,

⁷⁹ Shifā':Ilāhiyyāt, 30.

the meaning of yasihhu and khabar can only be understood through the use of such words as "thing," "matter," "whatever," or "that which," all of which are synonymous with "the existent."80 Not only are these primary concepts epistemologically prior to our ideas about concretely existent objects, but more importantly, they also precede abstract metaphysical concepts. For instance, if someone asks what "essence" is, the answer would likely be "that by which a thing is what it is" or "that which makes a being as such." In both definitions the very meaning of the word "that," which designates something, must have already been clear to the speaker as well as the audience and its truth value presupposed. For otherwise, neither the whole expression nor its constituent phrases and terms would make any sense In short, not only is the concept "thing" unknowable except through itself, but also one inevitably has to include such a primary concept in the definition of anything.

So much for the meaning and significance of primary ideas. One may well then ask how and whence such basic ideas come about. Ibn Sīnā explicitly says in the opening paragraph of the chapter that primary notions are "impressed in the mind or soul from the beginning" (*irtisāman awwaliyyan*). This means that those concepts are the first things which the human mind acquired soon after it was created and brought into existence. This "impression," we are told, was made by the Active Intellect, which is the last of the series of intelligences emanating from God.⁸¹

It is interesting to ask further why Ibn Sīnā uses the word "soul" (nafs) rather than dhihn or 'aql. In spite of its generality, the term nafs without doubt refers to the rational soul (nafs nāṭiqah). Encompassing the practical and the theoretical faculties, this rational soul, along with its subdivisions, is often equivocally called "intellect" ('aql).82 There is good reason to take

⁸⁰ Ibid., 30.

See Fī Ithbāt al-Nubuwwah, ed. with intro. Michael E. Marmura (Beirut: Dār al-Nahār, 1968), 44 and Shifā': Tabī'iyyāt' Nafs, 235.

⁸² Najāt, 202 and Psychology, 32.

"intellect" here as synonymous with that cognitive faculty of the human mind whose function is "intuition." To substantiate this claim, let us return to the example Ibn Sīnā has given of primary concepts and focus our examination on the most fundamental one, namely, the concept "being" or "the existent." In the metaphysics part of his *Dānish Nāmah*, Ibn Sīnā tells us that:

Being (hastī) is known [only] through intuitive intellect (khirad) without the aid of definition or description. Since it has no definition (hadd), it has neither genus nor differentia, because nothing is more general ('ammtar) than it. [And] "being" does not have a description (rasm) either, since nothing is better known (ma'rūf) than it. 83

Again we see in this passage not only Ibn Sīnā's clear emphasis on the primacy of the conception of "being" and its being prior to analysis, but also his remark that among the several faculties our mind has, intuition alone is cognizant of "being." Of course we mean by intuition the rational rather than the mystical. Indeed, it is curious that Morewedge later rendered the Persian term *khirad* as reason and wisdom instead of "intuition," which he has rightly chosen in an earlier translation. Horewedge does, however, recognize that *khirad* is "an Old Persian term signifying the possession of intuitive knowledge of that which is logically fundamental to experience and phenomenologically prior to it" and that in Ibn Sīnā *khirad* stands for a certain mental faculty which knows intuitively that "being" is prior to all other notions. Ho

Dānish Nāmah-yi:Ilāhiyyāt, 8-9. English translation with slight modification is based on Parviz Morewedge, The Metaphysica of Avicenna (London: Routledge and Kegan Paul, 1973), 15; henceforth cited as Metaphysica. Cf. French translation in Le Livre de Science, ed. M. Achena and H. Massé (Paris: Les Belles Lettres/Unesco, 1986), 136.

⁸⁴ See Metaphysica, 15, 20, and 312. Compare this with Morewedge, 672.

⁸⁵ Metaphysica, 312.

⁸⁶ Ibid., 312

That *khirad* refers to intuitive reason is confirmed by the fact that Ibn Sīnā's refutation of the doctrine that a body is a composite of simple parts not divisible either mentally or actually rests on intuitional proof. For when he says that "*khirad* knows, however, that it is possible to bring these two [elements] together," Ibn Sīnā obviously alludes to none other than a priori, immediate knowledge and cognition unpreceded by inference. Similar conclusion is reached by Morewedge who, upon examining the Shaykh's arguments closely, remarks that "on the points mentioned, Ibn Sīnā's doctrine of extensionality resembles Kant's doctrine of the Axioms of Intuition."

Equally important to consider are the three interrelated concepts of metaphysics, i.e., "the necessary," "the possible," and "the impossible." Ibn Sīnā regards all these three concepts as logically and epistemologically primary and prior to any other concepts. The reason is that they are *inexplicable* by any better known notion of wider generality and hence are immune to definition. He argues at length to maintain this thesis. Consider, he says, two ostensible definitions of the concept "necessary" (darūrī): (1) "[it is] that which is not possible or cannot be assumed to be non-existent" or it is (2) "that which is such that an impossibility would result were it assumed to be other than it is." As can be seen, the first definition employs the term "possible" (yumkin), whereas the second uses the term "impossible" (muhāl).89

Now, Ibn Sīnā observes, when we consider ostensible definitions of the "possible" we find that they in turn inevitably employ either the term "necessary" or "impossible," since "possible" is defined as that which is not necessary or that which is not but is such that its existence is not impossible should it be assumed to occur in the future. Finally, ostensible definitions of "impossible" too include either the concepts "necessary" or "pos-

⁸⁷ Ibid., 19-20.

⁸⁸ Ibid., 199.

⁸⁹ Shifā':Ilāhiyyāt, 35.

sible." Hence, attempts to define the triad lead to a vicious circle. 90

On the basis of his analysis, Ibn Sīnā also concludes that, although all three are primary and basic, of these modal concepts, the "necessary" above all has the foremost claim to logical priority (awlā an yutaṣawwar awwalan). This is because, according to him, the concept "necessary" signifies certainty of existence (ta'akkud al-wujūd), since existence is better known than non-existence and is known in itself, whereas non-existence, in a way or another, is known only through existence.⁹¹

II.D. Intuition of the Self's Existence

We have hinted in passing that for Ibn Sīna, the most fundamentally prior of the primary notions, i.e., "the necessary" reveals the unshakeable certainty of existence. The term certainty (ta'akkud) is of special interest to be highlighted here for its epistemological as well as psychological imports. As we shall shortly see, Ibn Sīnā argues for the unity of our self-consciousness. For him, our very awareness of ourselves is constantly present, intuitively clear, completely indubitable, and would remain so even in the absence of any sensory input. The contention, known widely as "Avicenna's 'Flying Man' argument," runs as follows:

One of us must suppose [in order to ascertain the very existence of his self] that one was just created all at once and perfectly formed, but with his vision shrouded from seeing all external objects—created falling in the air or in the void where he would neither feel nor encounter any resistance from the air

⁹⁰ Ibid., 35. See also Herbert A. Davidson, "Avicenna's Proof of the Existence of God as a Necessarily Existent Being," in *Islamic Philosophical Theology*, ed. Parviz Morewedge (Albany, New York: State University of New York Press, 1979), 165–87.

⁹¹ Shifā':Ilāhiyyāt, 35.

current, his limbs separated from and kept out of contact with one another. Then, let him consider whether [or not] he would affirm the existence of his self (wujūd dhātihi) and cast no doubt over his affirming his self being existent. With this, however, he would not concurrently affirm [the reality of] any of his limbs or any of his inner organs, be it heart, brain or any external object. Surely he would affirm the existence of his self [even] without affirming any length, breadth or depth for it. Still were it possible for him to imagine a hand or any other organ, he would not imagine it to be a part of himself or a condition (sharṭan) of his self's existence (wa lā sharṭan fī dhātihi).92

This passage is obviously meant to remind us of the concrete reality of our self-consciousness—an awareness that is always ours even if we are not always thinking about the fact that we have it and are rarely paying close attention to it. At the bottom of Ibn Sīnā's argument lies his contention that the self is "that which I essentially perceive as I' (al-shay' al-ladhī ash'uru bihi annahū anā bi al-dhāt). While Marmura rightly calls cognition of this nature "the experiential knowledge of our immaterial selves," it may also be referred to as intuition of one's own self and, subsequently, as "intuition of one's very existence." Indeed, upon closer inspection, the argument appears to be parallel with Ibn Sīnā's assertion that our existence is a fundamentally given, primary concept that we grasp a priori and intuitively.

Shifā': Tabī'iyyāt: Nafs, 13; compare with 225, where Ibn Sīnā substitutes inniyyah for dhāt. The above English translation is adopted, with slight modifications, from Michael E Marmura, "Avicenna's 'Flying Man' in Context," Monist 69 (1986), 387 and that of Lenn E. Goodman, Avicenna (London: Routledge, 1992), 155. Further citations of these works will be just abbreviated as Flying Man and Avicenna.

⁹³ Shifā': Ṭabī'iyyāt: Nafs, 226.

⁹⁴ Marmura, Flying Man, 393.

It is of course not difficult to appreciate Ibn Sīnā's contention. Self-knowledge can not be mediated through one's actions (af'āl) simply because, according to Ibn Sīnā, the supposition (fard) has in the first place excluded any action. Moreover, action as a concept may be taken either generally or specifically; and if action in general were said to lead to self-knowledge, then the action would also have to be particular such as my individual act. However, Ibn Sīnā continues, when I state that I am performing an act, my "I" has already been mentally established prior to my act (muthbat fi al-'agl gablahu). That is to say, my "act" presupposes the existence of my self, for otherwise I would not refer to it as "my" act.95 In short, just as one can never prove his very existence, it is equally impossible, both logically and verbally, to demonstrate one's knowledge of one's self. Underlying this analysis of Ibn Sīnā is not only his noticeable conviction that experiential knowledge of ourselves is the most basic and primary of all cognitions, but that the real object of such knowledge is a non-corporeal, immaterial unique being (shay' wāhid), an "I" that is totally independent of, and characteristically other than the body (ghayr jism). 96 We call this non-mediated or direct, experiential, a priori and primary knowledge "intuition"indeed, a special kind of cognition.

Note that the words used by Ibn Sīnā to refer to intuitive cognition in this case are ma'rifah (Latin cognitio, scientia) and fiṭrah (Latin ingenium). These agree with the medieval scholastic ingenium and homines ingeniosi which have been used to render hads and arbāb al-ḥads respectively. Further, this shows not only the equivocality of the term "intuition" and the univocality of semantic correlation of such terms as ma'rifah, fiṭnah, iṣābah, mulāḥazah, but also the synonymity of the terms 'aql, khirad, ḥads, dhihn, and fiṭrah as well.

To relate Ibn Sīnā's Flying Man argument to intuitive cog-

⁹⁵ Shifā': Tabī'iyyāt: Nafs, 347ff.

⁹⁶ Ibid., 13 and 226.

⁹⁷ Ibid., 219-20.

nition may seem at first sight to be a problematic interpretation. One wonders, for instance, how the two verbs "imagine" (takhayyal) and "suppose" (tawahham) which Ibn Sīnā employs at the beginning of the passage could justifiably be taken as hinting at intuition. True, the hypothetical situation described leads to the conclusion that in such a state of complete non-bodily awareness, one would still affirm one's existence, and that the self whose existence is being affirmed is other than the body and anything physical. In other words, the argument is a demonstration of the fact that the self is immaterial, and no more. But this, as Ibn Sīnā indicates, is only a means to an end. The thought experiment that includes such an argument is a way to awaken the self to the knowledge it already and always has, namely, the direct awareness of the "I", just as it serves to alert the self to the fact that it is immediately acquainted with that consciousness—that "I know that I know I am."

Equally troublesome is the problem whether such intuitive cognition of the existence of one's self is sensical $(shu'\bar{u}r\bar{\iota})$ or rational $('aql\bar{\iota})$, given the fact that Ibn Sīnā expresses the idea using the phrase "ash'ur bih" and "mustash'ir lah" in one version of the argument. We may resolve this apparent difficulty either through semantic comparison or by closer textual examination. Medieval latin translators rendered the abstract noun of both verbs as cognoscere and percipere respectively. These two words are sufficient to express the original meaning of the Arabic: "comprehensive knowing." Therefore, the Arabic "shu' $\bar{u}r$ " has more to do with intellectual perception and rational cognition than with sensory impression, much less with sheer feeling. This

⁹⁸ Ibid., 13 and 226.

Avicenna Latinus, Liber de Anima seu Sextus de Naturalibus, I-III, ed. S. van Riet (Louvain: E. Peeters; Leiden: E. J. Brill, 1972), 65; and Ibid., IV-V (Louvain: Editions Orientalistes; Leiden: E. J. Brill, 1968), 125; also cited in the glossary of Shifā': Tabī'iyyāt: Nafs, 251. Cf. Avicenna Latinus, Liber de Philosophia Prima sive Scientia Divina (Louvain: E. Peeters; Leiden: E. J. Brill, 1980), 509 where istish'ār is translated as perceptio; see Shifā': Ilāhiyyāt, 425.

is further confirmed by the fact that later Muslim peripatetic philosophers such as Mulla Sadra also understood and used the word in that sense. Hence, the title of his well-known treatise "al-Mashā'ir" actually signifies, and should be taken as "intuitions" instead of pénétrations métaphysiques or "prehensions" as Corbin and Morewedge suggested. 100

Indeed, in discussing the activities of the theoretical faculty of the mind, Ibn Sīnā uses both terms in the sense suggested above. He writes: "By the primary intelligibles I mean those propositions which are assented to without acquisitive effort and those which the person knows they can never escape his cognition (lā bi iktisāb wa lā bi an yash'ur al-muṣaddiq bihā annahū kāna yajūz lahu an yakhluw 'an al-taṣdīq bihā waqtan al-battata)." 101 Elsewhere, Ibn Sīnā mentions the case where "the human soul or mind recognizes certain propositions" ('inda istish'ār alnafs qaḍāyā)—a phrase indicating the rational, rather than the sensical function. We also find that in his metaphysical text, Ibn Sīnā contrasts two ways of arriving at knowledge; one of them is "istish'ār" or intuition, the other is "qiyās" or syllogistic reasoning. 102 To cite further evidence, while commenting upon the argument, Ibn Sīnā says:

He who has attained [the truth] (al-muḥaṣṣil) should closely examine his reality (dhāt) and his current awareness (shu'ūrahu al-ān) of his self. Let him reflect upon his consciousness that the very fact [1] that he is (bi annahū huwa), and [2] that he has limbs and actions attributed to him, is but an intuition of his self's existence (shu'ūr bi huwiyyatih)....

¹⁰⁰ See Molla Sadra, Livre des pénétrations métaphysiques (Kitāb al-Mashā'ir), ed. and tr. H. Corbin (Teheran and Paris: Institut Franco-Iranien et Institut d'Études Iraniennes, 1964); and The Metaphysics of Mulla Sadra, tr. Parviz Morewedge (New York: The Society for the Study of Islamic Philosophy and Science (SSIPS), 1992).

¹⁰¹ Shifā': Ṭabī'iyyāt: Nafs, 39.

¹⁰² Shifā':Ilāhiyyāt, 424-5.

SYAMSUDDIN

Indeed, many a person who is conscious of the existence of his self does not yet recognize it in totality, just as one would never know how one's heart, brain, and the principal and subordinate organs exactly look except through anatomical operation (tashrīḥ). But intuition of the self's existence is prior to such physical disintegration...and it will remain the same regardless of any change...for the intuited existence of the self (al-inniyyah al-mash'ūr bihā) is always "one." 103

¹⁰³ Mubāḥathāt, 59.