

Imagination in Avicenna and Kant

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The intellect thinks time in the now¹.

In comparing the views of Avicenna and Kant on the imagination, we find a striking congruence of doctrine. Kant's doctrines of the syntheses of the imagination in his Transcendental Deduction (both A and B) have remarkable similarities with Avicenna's views. For both Avicenna and Kant, the imagination serves to connect the phenomenal and the noumenal. At the least this comparison has the dual use of placing Kant's doctrines in the context of the Aristotelian tradition and of illuminating the modern significance of the thought of Avicenna. Since Kant's thought is more familiar to us than Avicenna's (although perhaps not as evident in itself), we can use Kant also to help us understand the claims of Avicenna. On the other hand, this comparison may help to support the claim that an understanding of Kant lies to a large extent in his medieval and post-medieval roots – just as Copernicus, in his own “Copernican revolution”, was following certain earlier traditions.

Elsewhere I have noted some congruence of doctrine between Avicenna and Kant on the structure of a physical object, as described by *a priori* propositions². Following Aristotelian tradition, Avicenna distinguishes the corporeity that is substantial and appears as a genus in the category of substance from the corporeity that is fully

¹ ANAWATI, G., ZAYED, S. (eds.): *Fī Nafs*, Cairo 1974, 210, 11. All translations are mine, except as noted and except for the Aristotle, trans. from The Revised Oxford Edition, ed. J. Barnes.

² SCHNAUBELT, J./ VAN FLETEREN, F. (eds.): “Avicenna in the Age of Columbus” in *Columbus and the New World*, New York 1998.

determined in its dimensionality. The latter –what Aquinas, parsing Avicenna in his *De Ente et Essentia*, calls signate matter– is a necessary accident or *proprium* of a physical substance, and falls into the category of quantity. Kant reflects this difference in holding that ‘a body is extended’ is a true analytic *a priori* proposition, while ‘a body has three dimensions’ is a true synthetic *a priori* proposition, and so on for his other examples. I concluded that we have here a striking congruence of doctrine.

Still, although we know that Kant read many current (scholastic) textbooks of his time and that the *Avicenna Latinus* was available, it is hard to make the historical connection between Kant and Avicenna. We also have the problem of over-determination: doctrines of Avicenna can be found in later sources as well as gleaned, with more extrapolation, from earlier ones.

In any case I shall continue the project of comparing their views here. At the least this comparison has the dual use of placing Kant’s doctrines in the context of the Aristotelian tradition and of illuminating the modern significance of the thought of Avicenna. Since Kant’s thought is more familiar to us than Avicenna’s (although perhaps not as evident in itself), let us just say that I shall be using Kant to help us understand the claims of Avicenna. More than that, it may help to support the claim that an understanding of Kant lies to a large extent in his medieval and post-medieval roots –just as Copernicus, in his own “Copernican revolution”, was following certain earlier traditions. Here I shall focus on Avicenna’s famous views on the imagination. I shall show how Kant’s doctrines of the syntheses of the imagination in his transcendental Deduction (both A and B) have remarkable similarity with Avicenna’s views³.

We can perhaps find many of Avicenna’s doctrines in earlier writings, especially those of Aristotle’s. For Avicenna tends to write by reacting to the texts of Aristotle, surrounded with *marginalia* by

³ To keep this project manageable, I shall cite only the primary texts of Kant and hardly any of the secondary literature. Still, cf. SUMMERS, D.: *The Judgment of Sense*, Cambridge 1987, pp. 158, 166-167.

Greek and earlier Islamic commentators. Consequently, the text of Avicenna's writings, not only the encyclopedic *Aṣ-Šifā* but also the later summaries and pointers, is not self-contained. Avicenna is often replying to arguments and doctrines that he does not state fully. Many of these arguments can be found in the Greek commentaries that we have⁴. On account of this style, Avicenna becomes much easier to understand if we have in mind the work of his predecessors. Accordingly, I begin by examining Aristotle's views on the imagination and their interpretation by the Greek commentators⁵.

Aristotle on the Imagination

For Aristotle as for Plato, imagination (φαντασία) has the basic sense of an ability to present appearances, particularly of appearances (φαινόμενα) that the animal has experienced in the past⁶. "...Imagination is that in virtue of which an image (φάντασμα τι) arises for us, excluding metaphorical uses of the term..."⁷ Aristotle admits that even insects have imagination⁸. He does though distinguish that type of perceptual imagination from another type, of calculation or deliberation, belonging only to rational beings⁹.

⁴ Avicenna may have used additional Greek sources, currently lost to us. Cf. BADAWI, A.: *La transmission de la philosophie grecque au monde arabe*, Paris 1968; MOREWEDGE, P.: "New Philosophical Texts Lost in Greek and Preserved in Islamic Translations," in *Islamic Philosophical Theology*, Albany 1979; RULAND, H. J.: *Die arabischen Fassungen zweier Schriften des Alexander von Aphrodisias: Über die Vorsehung und Über das liberum arbitrium*, diss. Saarbrücken 1976; "Zwei arabischen Fassungen der Abhandlung des Alexander von Aphrodisias über die universalialia," *Nachr. der Akademie der Wiss. in Göttingen* 1979 no. 10.

⁵ A complete study would also have to discuss previous Islamic commentators and philosophers. This is a preliminary study and will not do full justice even to those that I shall be discussing. On the preceding Islamic commentaries, especially those of Al-Farābī, which I shall not be discussing see PETERS, F. E.: *Aristotle and the Arabs*, New York 1968, pp. 79-82; ENDRESS, G.: "Die wissenschaftliche Literatur," in *Grundrisse der Arabischen Philologie*, Vol. 2, Wiesbaden 1987, pp. 402-34.

⁶ SCHOFIELD, M.: "Aristotle on the Imagination," [repr.] in *Essays on Aristotle's De Anima*, (Nussbaum, M., Rorty, A. O., eds.) Oxford 1992, pp. 249-50.

⁷ *On the Soul* 428a1-2.

⁸ *On the Soul* 413b20-3; 429a5-6.

⁹ *On the Soul* 433b29-30; 434 a5-10.

Bynum distinguishes various senses of 'imagination' in Aristotle: 1) a capacity to "perceive an object as an object of a certain sort" 2) a capacity "to retain perceptual traces and "in some animals at least...to manipulate and combine them in various ways" 3) (if rational) a capacity "to interpret perceptual traces and their combinations."¹⁰ We shall see Wolfson ascribing much these same senses to Avicenna.

Even insects have imagination in the first, basic sense. As Aristotle holds that some animals, like grubs and worms, do not have memory, they would also lack imagination of the second type, as they would not be able to reproduce images of their past sense perceptions. Those animals able to learn from experience so as to form a generalized image not only have memory and the ability to reproduce past images but also have the ability to form a generalized image¹¹. To use Avicenna's famous example, a sheep can form a generalized wolf-image from its past unpleasant experiences of wolves. In this way a present perception of a wolf can scare it, even though it has never seen that particular image of that particular wolf before. Finally, rational animals can use this sort of imagination also to create images of things that they have never seen before, as in inventing new artifacts and creating new works of art. Thus they can think with images. Aristotle gives very little detail here, but seems to think that rational beings have imagination involved in every act of perception: "...imagination is a general representational capability involved equally in the full range of a person's cognitive repertoire..."¹² If so, Aristotle would be holding that:

...the power of the intellect which acts consciously upon the body initially always brings forth a transformation of the sensory representations. One can easily see how extraordinarily important this power is. No artistic activity,

¹⁰ BYNUM, T.: "A New Look at Aristotle's Theory of Perception," *History of Philosophy Quarterly*, Vol. 4.2, 1987; repr. in *Aristotle's De Anima in Focus* (Durrant, M., ed.), London 1993, p. 101, on 433b27-434a5.

¹¹ *On the Motion of Animals* 701a32-3.

¹² WEDIN, M. V.: *Mind and Imagination in Aristotle*, New Haven 1988, p. 60.

no rational action, no commerce between intellects would be possible without it, and that in itself would, of course, also hinder the intellectual development of each individual. But it is also in a direct way one of the most important factors of our cognitive activity because of the dependence of our thought upon the images: in its absence even the most ordinary phenomena of our thinking cannot be explained¹³.

Thus for Aristotle, in a basic sense, imagination is the faculty of having things appear to us¹⁴. This ability is common to the five senses. At the same time, it differs from the common sense, which is the ability of putting together the proper perceptions of the five senses, including the common perceptibles *qua* visible or *qua* tangible etc. This common sense makes it possible for us to perceive that the seen color and the felt texture come from the same thing. The common sense also makes it possible for us to perceive perceptibles common to many senses. Thus we have perceptions of the same shapes, when we both see and touch them.

Aristotle though could be taking imagination in the basic sense to associate the various perceptions of the proper senses so that they be perceived together –i.e., to unify them into perceptual fields. For nothing in the definition of perception proper, of ‘presenting the form without the matter’, indicates that it performs the task of having the forms of the objects perceive appear together¹⁵. Rather these objects seem to appear atomically, as far as the proper senses are concerned. As the general faculty of making appearances to us

¹³ BRENTANO, F.: *The Psychology of Aristotle* (ed. & trans. Rolf George), Berkeley 1977, p. 105. Judging by his references, Brentano is influenced heavily by Avicenna!

¹⁴ SCHOFIELD: “Aristotle on the Imagination,” p. 265; Cf. FREDE, D.: “The Cognitive Role of Phantasia in Aristotle,” in *Essays on Aristotle’s De Anima*, (ed. M. C. Nussbaum & A. O. Rorty), Oxford 1992, p. 279: “...difficulties with the concept of *phantasia* start with the translation. One problem is that *phantasia* does triple duty. It designates the capacity, the activity process, and the product or result.”

¹⁵ *On the Soul* 424a18-24.

possible, imagination would do this¹⁶. Taken thus Aristotle would have a doctrine like Kant's view of the imagination in the Transcendental Deduction B, insofar as there too the imagination is what makes it possible for things to appear to us. The imagination still would not have objects special to it, as it is a general schema of things *qua* appearing –whether these things be the individual substances and their attributes, or other things, like the perceptions themselves, both present and past.

Moreover Aristotle may hold imagination to operate also in the activity of the common sense. For something must extract the relevant sense perceptions, of the color and the feel, from the perceptual field, presently perceived or in memory, in order for them to be perceived together. So we have here not only an abstraction but also a synthesis of these special sense perceptions.

Accordingly, the abstraction found in sense perception does not constitute the whole process of sense perception of individual substances and their attributes. While some features are abstracted, or taken away, from the materials worked upon, other features are added on. The dual processes, of abstraction (subtraction) and synthesis (addition) are required in order to obtain perceptions of more than the proper perceptibles as they appear in the “now”, sc., at the present instant of time. Aristotle provides few details here. But, if we speculate and try to fill them in, as Aristotelian philosophers like Avicenna did, we come to see that imagination plays a central role in the various perceptual processes¹⁷.

For, to use a famous example of Avicenna, to say that I “perceive” a raindrop moving is colloquial but misleading. For the “perception” of individual moving objects requires “perceiving” motion as well as “perceiving” individual substances. The perception of motion depends upon combining, or “adding” together, different perceptions

¹⁶ Cf. MODRAK, D. K. W.: “Alexander on Phantasia: A Hopeless Muddle or a Better Account?” in *The Southern Journal of Philosophy* (1993) Vol. 31, Supplement, p.194.

¹⁷ *On the Soul*, Cf. 428a12-5; 428b25-429a2; 460b16-8; 461b3-7.

given at different times. But all this need give me only the experience of a colored patch moving across my visual field or a feel crawling across my hand. To have the experience of the same object, an individual substance doing the moving I need to have an experience of it. For this various perceptions from the different senses must be coordinated so as to give me an experience of an individual substance. At the same time, though, to recognize the same individual substance to be persisting at different times and locations requires further abstracting away from the other perceptual features contained in the individual perceptual field for each of the senses. Then too all these perceptions must be combined in such a way as to get an experience of there being a single individual substance in motion. For surely the colors and shapes that I see from moment to moment may differ. Yet, while ignoring those differences, I may judge, in the basic discriminative sense of 'judging', that there is a single individual substance in motion. Of course, I may be wrong in my judgement. Aristotle is distinguishing then a faculty of judgement about the perception or an image of a perception reproduced by the imagination from that perception or image. As animals too may perhaps dream and make perceptual mistakes, as the crow does with the scarecrow, it seems that this judging need not be deliberative, self-conscious or rational, but only "discriminating" in a basic, rudimentary sense¹⁸. Still it is a process whereby some perceptions are favored over others, and where memories of past perceptions may override what seems to be perceived at present.

Aristotle drops hints but says little on what is required to get a perception of an individual substance, like a raindrop or a bronze sphere, and then to attribute motion to it. Perhaps he had worked out only a few of the general features. Certainly from our perspective we could understand his limitations as we are learning how complex such apparently simple experiences are biologically and

¹⁸ Cf. EBERT, T.: "Aristotle on What is Done in Perceiving," in *Zeitschrift für Philosophische Forschung*, Vol. 37, 1983, pp. 181ff. Perhaps Aristotle takes this basic discriminative sense to coming from the linkage of the proper sense organs with the region around the heart via the blood and its ducts.

neurologically, not to mention conceptually. At any rate, in the fragments that we have Aristotle gives few details.

Let us turn to the sort of imagination distinctive of rational animals. Aristotle holds that imagination makes thinking itself possible: "Without an image thinking is impossible...we cannot think of anything without a continuum or think of non-temporal things without time..."¹⁹ For Aristotle the active intellect (*noûs*) does the thinking. He distinguishes the active intellect in itself from the "we" in how "we think"²⁰. This active intellect is impassive, eternal, unmixed, separate, and always active. In contrast, "we" have actual experiences because of a passive intellect in us, which can be affected and does not operate always. It is this intellect that thinks in time, even when it thinks of eternal truths, such as the standing sentences of mathematics. Aristotle does not say much about the relation between the two "intellects". Yet surely they have some relation, because the active intellect makes it possible for thinking to be an active operation, whereas the latter makes it possible to have some content to think about. Those like Avicenna came to have a great deal to say about how many types or (perhaps) modes of intellect must be required and how it is possible for them to become related²¹.

At the end of the *Posterior Analytics* Aristotle makes it clear that he holds that we grasp knowledge of the universal via induction (*ἐπαγωγή*) from the particulars²². He also makes it clear in *On The Soul* that we come to have perception of particulars via abstracting their (particular) forms from their matter²³. Somehow from these individual perceptions of sense we come to have experiences that go

¹⁹ *On Memory and Recollection* 449b31-450a9; cf. *On The Soul* 40318-9; 431a14-5; 431b2; 432a7-9.

²⁰ *On The Soul* 430a14-25. Cf. HAMLYN, D. W.: *Aristotle's De Anima: Books II and II*, Oxford 1968, p. 141.

²¹ CHARLTON, W.: "Introduction" *Philoponus: On Aristotle on the Intellect*, Ithaca 1991, p. 15, likewise suggests that "...the difference between the two intellects...[is]...a difference between powers."

²² *On the Soul* 100a3-b5.

²³ *On the Soul* 424a18-24

beyond the content of a particular sense perception at a particular moment. We have an experience of this raindrop moving down this window, even though at any particular instant the drop does not move. We also can come to think of motion and time in general concepts.

Aristotle says that the common sense has the ability to perceive attributes that can be perceived by more than one of the five senses. I can both feel and see a raindrop moving. My ability to have such a perception depends upon my being able to recollect, via memory, past sense perceptions of the drop and somehow superimpose them all at once in order to see the drop move from one place to another. In constructing this experience imagination comes into play.

Again, recognizing and identifying individual substances involves memory as well as *per accidens* perception and perhaps an operation of imagination more advanced than the mere reproduction ("reproduction") of images. Judging that we are seeing the same individual substance, that it has persisted through time, requires that we have access to memories of it. In imagining a dog via remembering past experiences of that dog, we animals can re-create an image or phantasm of that dog in the imagination. This image tends not to have all the detail of the original sense perception and experience of that dog²⁴. Moreover, it generally is abstracted from the particular setting in which the particular dog was perceived at first. For we animals can then recognize the same dog on the basis of past experience, when the setting or the dog's posture has changed. Thus, some features of the original sense perceptions and experience have been preserved and others left out, or subtracted. For, if not, we would not think it possible, or act as if it were possible, that we are "seeing" the same dog again, at a different time and place. Moreover, the very notion of a substance persisting while changing its attributes goes beyond the perceptions of sense.

Likewise in coming to apprehend the universal via my experience of particulars, I must somehow bring forward in memory all these

²⁴ *Physics* 184a23-b14.

particulars and display and experience them simultaneously, and pick out what is common via abstraction. Once more imagination will play a large part here. Indeed the imagining must be creative and go beyond the content of the sense perceptions. For I never did experience them all at once nor in some mode of superimposition, nor have a sense perception of a universal concept. This creative work of the imagination becomes yet more evident if we consider our ability to produce, in art or craft, images of objects of which we have had no prior sense perception.

Aristotle does drop some hints that imagination plays a large part in such activities. Yet he makes only a few remarks and does not mark off the various stages and processes very sharply. The Greek commentators and even more so Avicenna will do this far more clearly.

Moreover Aristotle says that the theoretical intellect cannot itself initiate movement in the rational animal, which is guided by fears and wants. Yet somehow we can act in accordance with a rational principle and follow reason²⁵. Again Aristotle does not give much detail on how we can reason practically. Still, he does say in *Nicomachean Ethics* III that we can deliberate rationally and choose between alternatives, and in VI.10 that we have a faculty of understanding (σύνδεσις) whereby we can know and judge the contingent objects involved in practical, moral activity.

With some notable exceptions such as Dorothea Frede and perhaps Terence Irwin, finding Kantian strains or at any rate stressing them in Aristotle's theory of mind has gone out of fashion in Aristotle scholarship. Yet this was a common theme until quite recently. Thus Schofield suggests that, in his view of the imagination, Aristotle may "...have succumbed temporarily to a Kantian conception, according to which sensation (i.e. sense-perceptions) would...be reduced to the level of a mere passive affection which has to be interpreted by *phantasia*..."²⁶ Likewise David Hamlyn in discussing Aristotle's

²⁵ *On The Soul* 429b26-433a15.

²⁶ SCHOFIELD, M.: "Aristotle on the Imagination," p. 250.

view of the apprehension of the common perceptibles says that "...[w]hat he is seeking is something like the notion of a unity of consciousness or Kant's synthetic unity of apperception, as has been frequently enough suggested."²⁷ However, he does claim that Aristotle, unlike Kant, demands only a unity of sense, not a unity of consciousness in general²⁸.

More recently Dorothea Frede has suggested that Aristotle may have the imagination produce actively the syntheses of the perceptual manifold given passively by the five senses. She compares this to Kant's First Analogy of experience, where I can look over the parts of the house in my visual field because the imagination has synthesized the various visual perceptions into a view²⁹. She admits though that the textual evidence is scanty³⁰. She does still see a strong similarity in that both Aristotle and Kant insist that actual thinking requires images: "It seems that Aristotle, like Kant, wants to say that we cannot think of a line without drawing one in our mind."³¹

Like Kant's noumenal self, Aristotle's *noûs poiētikos*, the active intellect, at least in its purest form, is impassive. He distinguishes the passive intellect, which thinks by becoming all things, from this active intellect:

...thought, as we have described it, is what it is by virtue of becoming all things, while there is another which is what it is by virtue of making all things: this is a sort of positive state like light...[it] is separable, impassible, unmixed... It does not sometimes think and sometimes not think...immortal and eternal...and without this nothing thinks³².

²⁷ HAMLYN, D. W.: "Koinē Aisthesis," in *Monist*, Vol. 52, 1968, p. 197.

²⁸ HAMLYN, D. W.: "Koinē Aisthesis," p. 208.

²⁹ FREDE, D.: "The Cognitive Role of Phantasia in Aristotle," p. 283. *Critique of Pure Reason* B235-6.

³⁰ FREDE, D.: "The Cognitive Role of Phantasia in Aristotle," p. 286.

³¹ FREDE, D.: "The Cognitive Role of Phantasia in Aristotle," p. 290.

³² *On The Soul* 430a14-25.

In contrast the passive intellect –or, perhaps, intellect insofar as it is passive– is affected by other things via perceptions and feelings, and does not think all the time³³. How then is the thinking thing, the active intellect, affected? For it is utterly transcendent, as it is intelligible (also known as ‘noumenal’) and unaffected by things outside of itself? How does it operate with and upon the contents of the passive intellect which it affects, and appear in the world –even as itself an object of experience at some time?³⁴ Aristotle himself raises the question: “The thinking part of the soul must therefore be, while impassible, capable of receiving the form of an object.”³⁵ Aristotle goes on to raise the problem: “If thinking is a passive affection, then if thought is simple and impassible and has nothing in common with anything else... how can it think at all?”³⁶ His solution proceeds by bringing in the passive intellect. Yet he says little then on how the passive intellect has a relationship with the active intellect. Brentano claims that already in Aristotle we have the doctrine that the imagination provides the bridging³⁷. Yet once again we have at most only hints for later Aristotelians to pursue.

The Greek Commentators

Alexander of Aphrodisias perhaps stays truer to the texts of Aristotle than the later Greek commentators. He says that perceptions leave “types” or models in the imagination³⁸. As these types are like the impressions left as with a signet ring, Alexander may be implying that types have a quasi-universality, as a single ring can make impressions of the same type many times. He distinguishes theoretical *noûs*, dealing with universals only, from practical *noûs*,

³³ *On The Soul* 430a4-7; 429a7-8.

³⁴ *On The Soul* 430a2-3.

³⁵ *On the Soul* 429a15-8.

³⁶ *On the Soul* 429b22-5.

³⁷ BRENTANO, F.: *The Psychology of Aristotle*, p. 141. Brentano suggests too that in one of its modes the imagination functions as the passive intellect itself.

³⁸ ALEXANDER: in *De An.* 68, 10-3; 70, 3-7; 72, 5-10. I use the *Commentaria Graeca* pagination for the commentary and for the *Mantissa*. (An English translation is by Frederic M. Schroeder and Robert B. Todd: *Two Greek Aristotelian Commentators on the De Anima*, Toronto: Pontifical Academy of Mediaeval Studies, 1990)

dealing with universals but then descending back down to deal with and act among particulars³⁹. Such action with particulars also requires the operation of imagination⁴⁰.

“Any comprehension and grasp of the universal by the similarity of singular perceptibles is thinking.”⁴¹ For Alexander such a universal is a form abstracted from the particulars given by sense perception⁴². These singular perceptions have to be grouped together and have their common elements extracted. “For the synthesis of similar [singular perceptibles] is already the work of *noûs*.”⁴³ *Noûs* deals with synthesis, and is the place of forms. Like Aristotle, Alexander distinguishes the *noûs* in us, namely the material or passive intellect, which is that place, from the active *noûs* working on the forms there⁴⁴. *Noûs* can itself come to be one of the forms in the material intellect: “Again *noûs* might be said to think itself not insofar as it is *noûs* but insofar as it too is intelligible.”⁴⁵ Alexander ends up making a threefold division of *noûs*: 1) material or passive *noûs*⁴⁶ 2) the *noûs* that thinks in us, in virtue of a state (ἐξίς). We have an active intellect in potency, which through education can come to be an active *noûs* actually thinking, at least at the times when it is not sleeping, ill, diverted etc⁴⁷. This *noûs*, an actual disposition (ἐξίς) to think, is not eternal and comes to be the object thought⁴⁸. 3) an active *noûs* external to our eternal soul⁴⁹. This active *noûs* makes the perceptibles intelligible via abstracting the universal from them⁵⁰. But: Alexander does not say how it does the abstracting. We think when this active *noûs* comes to be present in

³⁹ ALEXANDER: in *De An.* 81, 5-12.

⁴⁰ ALEXANDER: in *De An.* 71, 22-3.

⁴¹ ALEXANDER: in *De An.* 83, 11-2.

⁴² ALEXANDER: in *De An.* 85, 5-16.

⁴³ ALEXANDER: in *De An.* 83, 12-3.

⁴⁴ ALEXANDER: in *De An.* 88, 5-7; 88, 23-4; 89, 6; 89, 19-21.

⁴⁵ ALEXANDER: in *De An.* 109, 15-7; cf. 109, 22-3.

⁴⁶ ALEXANDER: in *De An.* 106, 19.

⁴⁷ ALEXANDER: in *De An.* 86, 3; 107, 21; 109, 13.

⁴⁸ ALEXANDER: in *De An.* 112, 18-20.

⁴⁹ ALEXANDER: in *De An.* 107, 29-31; 108, 22-6; 90, 20-91, 5; 108, 22-6.

⁵⁰ ALEXANDER: in *De An.* 111, 1-2; 111, 15-7.

us⁵¹. Still this the eternal [active] *noûs* thinks only itself always⁵². In effect it seems to be the divine intellect, the logos:

Now this *noûs* either [1] alone (by) itself manages the things here relative to the reference of the divine things, and compounds and distinguishes so that it is also the demiurge of the one (*noûs*) in potency, or [2] with the well ordered motion of the heavens⁵³.

Alexander thus distinguishes sharply the active *noûs* in itself, always thinking the universal intelligibles contained in itself, from the active *noûs* in us, sometimes thinking these very intelligibles, sometime thinking these universals in the particulars⁵⁴. Yet the *noûs* in us somehow acts on account of its relationship with the active *noûs* in itself. The former concerns itself with phenomenal experience of particulars and itself can be an object of experience; the latter somehow transcends phenomenal experience while interacting with it. Alexander provides few details⁵⁵. It fell to the later commentators to do so.

Drawing perhaps upon their neo-Platonist heritage⁵⁶, the later Greek commentators distinguish sharply between the ability to

⁵¹ ALEXANDER: in *De An.* 112, 20-9.

⁵² ALEXANDER: in *De An.* 109, 28-30. He also says, 90, 8-10, that universal and abstract objects exist only when thought.

⁵³ ALEXANDER: in *De An.* 113, 6-9.

⁵⁴ WHITE, M. J.: "The Problem of Aristotle's *Noûs Poiētikos*" in *The Review of Metaphysics*, Vol. 57, 2004, p. 734: "I suggested that there are two rather obvious strategies for attempting to mitigate the problem of Aristotle's *noûs poiētikos* ... one strategy is...an attempt to distance *noûs poiētikos* (as identified with actualized, occurrent knowing) from the individual human organism, the knowing subject, in such a way that that knower is not already in full possession of the Knowledge the acquisition of which Aristotle sets out to explain. Thusly Alexander of Aphrodisias [*in De An.* 107, 11-27]..."

⁵⁵ LIBERA, A.: *L'art des généralités*, Paris: Aubier 1999, p. 28, claims that Aristotle left the problem of distinguishing beings intelligible through abstraction and beings intelligible through themselves, and that here the view of Alexander was crucial.

⁵⁶ Cf. BLUMENTHAL, H. J.: *Aristotle and Neoplatonism in Late Antiquity: Interpretations of the De Anima*, Ithaca 1996.

apprehend the universal from the particulars and the contemplation of the universals in themselves by *noûs*. The latter makes it possible for us to recognize ("re-cognize", as in Plato's doctrine of recollection perhaps) the universal appearing in the many particulars. This amounts to Kant's sharply distinguishing reason from understanding. Already Aristotle had contrasted ἐπιστήμη (and σύνεσις) with νοῦς: the νοῦς gives an immediate intuition of the first principles, whereas the former gives the ability for making demonstrative derivations from those principles⁵⁷. Those like [pseudo-] Simplicius perhaps amplified this distinction in asserting νοῦς to perceive Platonic Forms in themselves, while the latter concerns their application to the world⁵⁸. According to Charlton, unlike Aristotle, Philoponus holds likewise that the intellect does not then form the universal via abstraction but just finds the universal there or matches it to the universals that it already contains in itself⁵⁹. Philoponus identifies imagination with the passive intellect⁶⁰.

Likewise for Kant reason gives the regulative Ideas that govern how concepts come to be acquired from sense perception via the application of categories by the understanding⁶¹. That is, the generation of concepts must proceed in accordance with the laws of logic. Like νοῦς reason is theoretical or practical or productive⁶². Kant also insists on distinguishing sharply between understanding and reason⁶³. Kant's understanding (*Verstand*) deals with the formation of concepts from the perceptions of singulars, whereas

⁵⁷ *Nicomachean Ethics* 1161b26.

⁵⁸ PHILOPONUS: in *De An.* 98, 39-42; 61, 85-62, 87; 116, 82-3, says that Aristotle holds that we can think without imagination when we think of logical or theological issues.

⁵⁹ CHARLTON, W. (trans. & comm.): *Philoponus, On Aristotle on the Intellect*, Ithaca 1991, p. 14. PHILOPONUS: in *De An.* 23, 51-2; 116, 85-6. Cf. ARISTOTLE: *On The Soul* 423b17-21.

⁶⁰ PHILOPONUS: in *De An.* 13, 3; 61, 73-4.

⁶¹ *Critique of Pure Reason* B78; B397-8.

⁶² Kant might be thought to deal with the third in his third Critique. Cf. *Critique of Judgement* 246'-247'.

⁶³ *Critique of Pure Reason* B355ff.; *Prolegomena* §§42-3; *Critique of Judgement* 341.

reason (*Vernunft*) lies on the noumenal level of the intelligibles in themselves.

For the later commentators we have then two ways to grasp the intelligibles: directly through a type of intellectual intuition and indirectly via comprehending the content in sense perception⁶⁴. So [pseudo-] Simplicius says that “intelligibles are consequently twofold⁶⁵. Likewise Kant allows, on the one hand, for divine beings to acquire content for their consciousness via intellectual intuition and, on the other, more generally, for *a priori* intuition of *a priori* structures of phenomenal experience, as well as for an understanding of those same concepts via phenomenal experience⁶⁶.

We have clearly here also the doctrine of the imagination receiving the sensory manifold and then manipulating them in terms of “types” or conceptual structures already present in it *a priori*:

For just as perception was not able to apprehend [something] as true, but only as perceptible, similarly so the imagination, but not only of the types, however as many as it grasps by perception, not needing the perceptibles to which the types are similarly always to be present, but also putting these [types] forward from itself as it does not always follow those seen at the start but also synthesizing and abstracting and changing and varying them⁶⁷.

The imagination performs this task through both abstracting the various elements fitting in with the *a priori* types and synthesizing them. Simplicius hints, without giving many details, that the imagination can even change the content from the sense perceptions so as to make them fit into these types. Imagination makes it possible

⁶⁴ [Pseudo-] SIMPLICIUS: in *De An.* 215, 18-28. On the authorship question, see URMSON, J. O.: “Introduction” in SIMPLICIUS: *On Aristotle's On the Soul 1.1-2.4* Ithaca 1995, pp. 2-4.

⁶⁵ [Pseudo-] SIMPLICIUS: in *De An.* 248, 33ff.

⁶⁶ *Critique of Pure Reason* B72; B87.

⁶⁷ [Pseudo-] SIMPLICIUS: in *De An.* 206, 14-8.

for perceptions to appear to consciousness. Thus too Themistius says:

...in virtue of the fact that the soul is moved by the perceptibles, it has a perceptive power, while, in virtue of the fact that it is able to perceive the perceivings, (it has) an imaginative power. So then it is clear that, whenever perception is active about the perceptible, at the same time also the imagination is⁶⁸.

In sum, we have here some process of the synthesis of the manifold by imagination. We have little detail here. But then too Kant himself gives few details on how the imagination synthesizes the sensory manifold via the imagination.

Now these types in the imagination are not the forms intuited by *noûs* but rather these forms modified so as to apply to phenomenal experience. This looks much like Kant's schematism of the categories so as to make them apply to our form of sensibility⁶⁹. For a neo-Platonist like [pseudo-]Simplicius such schematized forms are above all the objects of mathematics⁷⁰. In contrast, Kant has three quantitative categories but reserves most pure mathematical objects for the *a priori* structure of sense perception and not the understanding⁷¹. (Avicenna however distinguishes a pure form of corporeity from three-dimensional corporeity, and so seems more like Kant...)

So already in the Greek commentators we have the picture of *noûs* knowing the forms, the intelligible objects, in themselves, prior to all

⁶⁸ THEMISTIUS: in *De An.* 92, 39-93, 1.

⁶⁹ *Critique of Pure Reason* B176-87. Note that Kant was very proud of the schematism, even though most Kant scholars today do not find it to have much worth. Cf. *Prolegomena* §34. Perhaps this Aristotelian background explains his pride.

⁷⁰ [Pseudo-] SIMPLICIUS: in *De An.*, 233, 10-26.

⁷¹ *Critique of Pure Reason* B106; B55-6.

experience of phenomena, of the things that appear to us⁷². It then makes the phenomena fit into the structure demanded by those forms by, on the one hand, making those forms appropriate for the sort of phenomena being received –chematizing them– and, on the other, rendering the phenomena –“pre-form-ating” them– fit to have the schematized forms apply. Thus [pseudo-] Simplicius says that “substance is apprehended by reason and not by perception.”⁷³

Although Aristotle seems to distinguish clearly only the active and the passive intellect, the later commentators found grounds for distinguishing more types of *noûs*. In particular, they had to explain why the active intellect was always active, whereas the intellect in us, not only the passive given of which we are conscious but the thing that does the active thinking in our minds (so as to make those minds “ours”), does not operate always. So they distinguished an active *noûs* in itself from the active *noûs* in us. Thus [pseudo-] Simplicius says:

For the *noûs* proceeding outwards and having been called passive by him was sometimes true and sometimes false. However, the essential one is never true or false, but always true. The one is able to apprehend the definition [τί ἐστίν] in virtue of the quiddity, i.e., the one [*noûs*] of the essence [or: substance] of objects⁷⁴.

The doctrine became yet more elaborate with perhaps four active intellects distinguished: in short, the passive intellect in us, the active

⁷² PHILOPONUS: *in De An.* 115, 44; 23, 51-2; 116, 85-6, says that the intellect finds or “recurs to universal accounts” of the imagined particulars “which are already present in itself.” In his “Introduction” Charlton says, that this commentary was available to Islamic philosophers, p. 8.

⁷³ [Pseudo-] SIMPLICIUS: *in De An.* 182, 1-2; again, 277, 35-7: “Now they are able to discern the accidents but not the essences [or: substances]. For *noûs* and reason are able to apprehend essences.”

⁷⁴ [Pseudo-] SIMPLICIUS: *in De An.*, 261, 2-5 [on “not every *noûs*” 430b27]

intellect in us, an active intellect on the level of the world soul, and the divine active intellect⁷⁵.

Despite all this *a priori* apprehension by *noûs*, *noûs* does not automatically grasp these universal structures in the particulars. After all, theoreticians may not be able to put their theory into practice.

For not looking at intelligibles as intelligibles (νοητά) will someone grasp the universal in perceptibles... Thus, since even if it [practical *noûs*] makes the account universally about practical things, it does not stand completely apart from the particulars... nor will it stand completely apart from the imagination⁷⁶.

Once again, for practical *noûs* to be able to apply its universal moral principles to the particular situations of the phenomenal world, it needs a bridge.

Thus transcendent *noûs* must somehow be able to connect up with these phenomenal things. How so? The imagination once again provides that bridge⁷⁷. [Pseudo-] Simplicius says:

As in most cases practical *noûs*, seeing the impressions of the perceptibles in the imagination, happens to calculate and to deliberate. For too, sometimes when the perceptibles are present, the thinking soul, turning upon itself activates the calculations about practical (things), and in the turning upon itself, by necessity it observes not the perceptibles themselves, but the types engendered by them, and uses these as they come to be parts of the [practical] syllogism in

⁷⁵ PHILOPONUS: in *De An.* 43, 18ff., trans. Charlton, p. 63; [Pseudo-] SIMPLICIUS: in *De An.* 254, 31-4; THEMISTIUS: in *De An. apud* 100, 16. Arthur Hyman, "The Theory of the Intellect," en *Averroes and the Aristotelian Transition* (ed. G. Endriss & J. Aertsen), Leiden 1999, pp. 192-193.

⁷⁶ [Pseudo-] SIMPLICIUS: in *de An.*, 275, 26-7; 275, 30-3.

⁷⁷ PHILOPONUS: in *De An.* 98, 33-4; 96, 43-7.

the lesser of the premises [its minor premise]. Thus too by necessity it needs the imagination⁷⁸.

If we continue to read *noûs* as 'reason' (*Vernunft*) we can attribute most of this doctrine to Kant. Kant does not say much about how noumenal *noûs* connects up enough with phenomenal objects and experience in order to make its decisions in time and to bring about actions of the human being in the world. Still, given what Kant says about the role of the imagination in practical reason, of how it informs theoretical reason itself and how it preformats the sensible manifold so that it might be made intelligible, it is plausible to suggest that the imagination plays this role for practical reason also. The Greek commentator has said that sense perceptions have their "forms", sc., their particular characteristics (*Merkmale*) represented in the imagination, whose content then becomes available for *noûs* to operate upon. The judgments of *noûs* about this perceptual content then come to appear in the imagination, which can use it as the minor premise in practical syllogism. Now in Aristotle the motions of animals, including human ones, come about once the practical syllogism has been completed. E.g., "no man should take a walk now; I am a man; therefore I do not walk now"⁷⁹. Aristotle considers perceptions and judgements about them to be motions too⁸⁰. In this way then the deliberations of a transcendent *noûs* can have practical effect in the world. I suggest that we might look for the same account in Kant too, or at any rate offer it to him.

We can picture Avicenna reading Themistius, Philoponus, or his Simplicius and then interpreting and commenting upon such doctrines.....

⁷⁸ *In De An.* 273, 3-10.

⁷⁹ *De Motu Animalium* 701a14-5.

⁸⁰ *Physics* 244b11-2.

Avicenna

Given all this Kantian material in previous Aristotelian works, what remains for us to find in those of Avicenna? At the least we shall find him stating these doctrines much more clearly than those before did⁸¹. In particular he sharply distinguishes the powers of the non-rational from those of the rational imagination, the former staying on the level of perceptual phenomena, the latter able to perform the non-rational functions but also serving as a two-way conduit for the noumenal intellect. Moreover his formulations became widely known and followed in Latin medieval times and later on in post-medieval scholastic circles. We need only think of his influence on Aquinas, on the *augustinisme-avicennante* of Scotus, and the frequent citations of Avicenna by those like Henry of Ghent and William of Ockham⁸².

Avicenna distinguishes (pictorial) 'imagination or fancy' (*takayyul*; *kaya-l*) from 'estimation' (*wahm*). The former works upon sense perceptions so as via abstraction to form generalized images, albeit ones still having individual characteristics: phantasms and concepts⁸³. Although he sometimes uses 'estimation' for

⁸¹ As the current literature on Aristotle's psychology attests, it is not obvious which doctrines to attribute to Aristotle: e.g., does he have a "faculty-psychology" or not? Does Aristotle admit the estimative faculty and practical reason to animals? [*Metaph.* 980a27-b27; *Eth. Nic.* 1141a26-8] Does Aristotle himself have a theory of the four intellects that Hasse attributes to Avicenna? HASSE, D. G.: *Avicenna's De Anima in the Latin West: The Formation of a Peripatetic Philosophy of Soul 160-1300*, Londres-Turin 2000, p. 141, admits that there are some hints in Aristotle's theory of the estimative imagination, but is at pains to distance Avicenna's theory from these. Still, Hasse, pp. 148-50; 152-3, takes those commentators, like Albert and perhaps Aquinas, who have Avicenna agreeing with Aristotle, as having a wrong interpretation of Avicenna.

⁸² Cf. GILSON, E.: "Avicenne et le point de départ de Duns Scotus," *Archives d'histoire* Vol. 2, 1927; PASNAU, R.: "Intentionality and Final Causes," en *Ancient and Medieval Theories of Intentionality*, (ed. D. Perler) Leiden 2001; p. 305.

⁸³ *An-Najāt*, Cairo 1938, 277-278; GOICHON, A.-M.: *Lexique de la langue philosophique d'ibn Sinā*, Paris 1938; MICHON, C.: "Intentionality and Proto-Thoughts," en *Ancient and Medieval Theories of Intentionality* (ed. D. Perler), Leiden 2001, p. 341; RAHMAN: *Avicenna's Psychology*, pp. 295-296. Avicenna

'imagination' in general, Avicenna uses it more precisely to name the ability whereby an animal can connect up "concepts" whose connection is not given in the sense perceptions. Thus a sheep can feel pain or alarm when seeing a wolf and flee. This process involves memory and what Aristotle had called perception *per accidens*.

In Avicenna's theory of the imagination Wolfson finds him distinguishing three types, similar to those attributed to Aristotle above⁸⁴: 1) the retentive, which stores past sense perceptions 2) the estimative, whereby animals can use images from their past experience to guide their present behavior. For example, a sheep is scared of a wolf image because of past images of wolves being remembers and brought to bear on its current perceptions by the imagination⁸⁵. 3) the composite, which is able to combine images.

Now Wolfson *et al.* accuse Avicenna of being inconstant in his divisions of the imagination⁸⁶. Perhaps so, but perhaps this criticism misses Avicenna's point. Surely estimative imagination requires the composition and division of images: the sheep must abstract the past wolf images from their surroundings (say, in the visual field). Then it must combine them with each other to get a generalized wolf-image or images, so as to be able to recognize a wolf in the visual images, the colored patches that it sees now –or if not recognize a wolf substance, at least have a template wolf image sufficiently flexible so as to be matched by various visual patterns⁸⁷. Thus these "types" of imagination interpenetrate, and Avicenna characterizes the imagination generally as an abstracting power⁸⁸. Given the need also

admits that even animals can form these sorts of concepts or senses (ma'ānin). See *Fī Nafs* 148, 8-149, 6.

⁸⁴ WOLFSON, H. A.: "The Internal Senses," in *Studies in the History of Philosophy and Religion*, Cambridge Mass. 1973, p. 277.

⁸⁵ *Fī Nafs* 35, 9-11; 36, 22; 148, 1-2 (or possibly also instinct, Avicenna suggests at one point. Cf. 163, 12-4).

⁸⁶ WOLFSON: "The Internal Senses" pp. 277-81 ; DAVIDSON, H.: *Alfarabi, Avicenna and Averroes on Intellect*, New York 1992, pp. 95-6.

⁸⁷ *Fī Nafs* 45, 6; 166, 4-10. Cf. HASSE: *Avicenna's De Anima*, pp. 154; 157-158.

⁸⁸ *Fī Nafs* 29, 11-30, 10. RAHMAN: *Avicenna's Psychology*, London 1952, p. 79, disagrees that Avicenna has distinct types of imagination.

for their having unified activity, it is better to say that these types are aspects or functions of the same imaginative faculty⁸⁹. If so, we can see why Avicenna can be rather arbitrary about which terms he uses to describe the imagination.

It is the last "type" of imagination that, when an active intellect is present, can synthesize perceptual experience into intelligent consciousness. When the imagination does this, Avicenna tends to call it the cogitative power⁹⁰. Thus Avicenna says: "...a power emanates from the active intellect and travels to the potentially intelligible things in the imaginative faculty in order to render them actually intelligible and to render the potential intellect actual intellect."⁹¹ Still this cogitative power uses imagination of the second type in order that the intellect be able to become conscious of the sensory manifold: "When the intellectual faculty gazes on particulars in the imagination and the light of the active intellect in us shines on them...they become abstracted from matter...and are imprinted in the rational soul."⁹²

For Avicenna images come to constitute concepts "...not in the sense that they are themselves transported from the imagination to the human intellect but in the sense that examining them prepares the soul for the abstract [concept] to emanate upon it from the active intellect."⁹³ Avicenna has then two sources for the universal concepts arising in the soul or consciousness. One is via the generation of common images. Here the (pictorial) imagination can call up and compare sense perceptions stored in memory so as to arrive at

⁸⁹ Cf. *Fī Nafs* 230, 1-9. BLACK, D.: "Estimation (Wahm) in Avicenna," in *Dialogue*, Vol. 32 (1993), p. 245 n. 2.

⁹⁰ *Fī Nafs* 213, 18-214, 14; 216, 13-219, 7. HASSE: *Avicenna's De Anima*, pp. 157-9. As he notes, pp. 177-83, Avicenna also distinguishes four sorts of active intellect in *Fī Nafs* I.5 (like those that I have listed above). I put aside this issue in this paper.

⁹¹ An-Najāt 193, trans. en RAHMAN: *Avicenna's Psychology*, Londres 1952, p. 69.

⁹² *Fī Nafs*, 208, 8-18, trans. DAVIDSON: *Alfarabi, Avicenna, and Averroes on Intellect*, p. 93.

⁹³ DAVIDSON: *Alfarabi, Avicenna, and Averroes on Intellect*, p. 93. Cf. HASSE: *Avicenna's De Anima*, p. 186: "The function of the human soul is to illuminate the objects of abstraction and let the abstracted forms occur to the human soul." I.e., to appear in time in our phenomenal experience.

generic "images" common to those perceptions, such as a generic wolf portrait and a general notion of a sweet taste⁹⁴. Rational animals can take this process further so as to distinguish, for instance, necessarily concomitant perceptibles from each other: shape from color.

Even to get to this level of abstraction might already require the other source, *a priori* knowledge of universals in themselves. Avicenna speaks of the imagination making the perceptions ready so that we can grasp the universal in them: the grasping of the universal itself requires the radiance of an eternal, divine active intellect giving access to the universals in themselves.

Still, in any case, Avicenna does distinguish knowledge based upon universals or quiddities *in re*, based upon sense perceptions of particulars, from a knowledge based upon a direct intuition of quiddities in themselves. We have to have this intuition not to satisfy our mystical psychological cravings (although we shall satisfy them too), but to solve the logical problem of how correct definition and inductions are possible in science.

Avicenna gives the example: what if all humans were from the Sudan? Then we would conclude from experience that all human beings are black, perhaps essentially so. But we don't. So how is this possible?⁹⁵ Somehow we are able to separate out the necessary features from the merely contingent feature in defining the human being. However, sensory experience by itself does not do so. Avicenna's theory of emanation explains how it is possible for us to do so:

⁹⁴ *Fī Nafs* 183, 12-3.

⁹⁵ *Burhān*, (ed. A. Affīfī) Cairo 1959, 46, 11-6 *et passim*. Cf. AVICENNA: *Al-Madkhal*, (ed. G. Anawati et al.) Cairo 1952, 70, 1-20 [= *Logica* 12r col. 1]: "So if you say: Zayd is the handsome, tall, literate so-and-so [man] —as many attributes as you like, still the individuality of Zayd has not been determined for you in the intellect. Rather it is possible for the concept consisting of the totality of all that to belong to more than one."

...in our nature we combine [synthesize] some perceptibles with others, and that we differentiate [analyze] some from others not according to the form that we find of them externally nor with the belief in the existence of one of those existents nor in its non-existence. So it is necessary that there be in us a power by which we do that. And this is what is called reflective [or: cogitative] when the intellect uses it, and imaginative when the imagining power uses it⁹⁶.

Now certainly Kant would endorse Avicenna's first sort of knowledge, from working upon the materials offered by sense experience. But the "emanation" talk involved in the second sort may not sound much like Kant, as it smacks of the transcendent. However, recall that the categories are *a priori*, not given in experience, and somehow devolving from the transcendental unity of apperception they pre-format the perceptible manifold and are brought to bear upon the sensory of manifold presented imagination⁹⁷. We might as well call this process an "emanation": at the least, universal categories are being modified and applied to more particular contents.

For Avicenna the cognitive power of the imagination differentiates somehow the universal forms of the intellect into ones applicable to the sort of experience we have, and also structures the sensory manifold in order to receive those images:

...the cogitative faculty plays a role in both phases. In the first place, it combines and separates images stored within the retentive imagination and present its handiwork to the human intellect...In the second place, it induces an additional emanation within the soul, an emanation in which

⁹⁶ AVICENNA: *Fī Nafs* 147, 14-8.

⁹⁷ *Critique of Pure Reason* A111-9. The parallel becomes striking as Kant, B159; B359-62, identifies the Ideas of pure reason with various types of syllogisms while Avicenna has the cogitative power construct syllogisms for particular cases. Cf. AVICENNA: *Al-Ishārāt wa-t-tanbīhāt* (ed. S. Dunya), Cairo 1960ff. 127.

thoughts are differentiated, articulated, and arranged sequentially⁹⁸.

The cogitative power does so via presenting images⁹⁹. This view does not differ too much from views today:

...these essentially reproductive forms of imagery...but there is something passive and mechanical and impersonal about them, which makes them utterly different from the higher and more personal powers of the imagination, where there is a continual struggle for concepts and form and meaning, a calling upon all the powers of the self. Imagination dissolves and transforms, unifies and creates, while drawing upon the "lower" powers of memory and association. It is by such imagination, such "vision", that we create or construct our individual worlds¹⁰⁰.

Now despite differences in language Kant seems to hold similar views. Somehow the imagination pre-forms the sensory manifold in order to make it possible for the categories of the understanding to be applied to it¹⁰¹. At the same time, something has to schematize the categories in order to make them apply to the form of sensibility that the human rational beings happen to have. Beyond that we might wonder: just what are the connections between the categories of the understanding and the ideas of reason for Kant? When reason is purely noumenal, as Kant insists for God, it has no need at all for the categories whose transcendental applicability is limited to the domain of merely phenomenal experience. Yet when a rational being also has phenomenal experience, as human beings do, somehow the structure of reason –its Ideas– would have to come to be applied to that phenomenal domain. Moreover for Kant or for us to have any

⁹⁸ DAVIDSON: *Alfarabi, Avicenna, and Averroes on Intellect* pp. 96-97. Cf. *Fī Nafs* 37, 4-6; *Critique of Pure Reason* B153-4; A120-1.

⁹⁹ *Critique of Pure Reason* B154-5. One difference might be that Avicenna allows for a holy prophetic power of intuition that can dispense with this process. Cf. DAVIDSON: *Alfarabi, Avicenna, and Averroes on Intellect* pp. 99-101.

¹⁰⁰ SACKS, O.: "The Mind's Eye" in *The New Yorker*, July 28, 2003, p. 59.

¹⁰¹ *Critique of Pure Reason* B151-2.

knowledge of these ideas, they must appear in consciousness at some time –that is in phenomenal consciousness¹⁰². Kant says little here about how these noumenal structures can come to be part of our experience. Indeed Hegel, at the start of his *Phenomenology*, criticizes him for his silence.

Avicenna at least names the operation whereby purely intelligible (as 'noumenal' indeed means) Ideas come to be applicable phenomenally. Like the later Greek commentators, he holds that the intellect in potency in us comes to be our intellect in act, the one in virtue of a state (ἔξις), once it is affected by forms abstracted from matter via sense perception and imagination¹⁰³. Even when in potency our intellect has a connection to the intellect always in act¹⁰⁴. This connection seems for Avicenna to make it possible for us and not the arational animals to be able to abstract the universal from the particulars. For we then have a connection to the intelligibles in themselves apart from our having access to them via sense perception. Avicenna also says that the pictorial imagination brings about forms and concepts via a synthesis. Then the intellect may operate on these concepts in the imagination¹⁰⁵. All this suggests that the imagination proper to rational beings is imbued with intellect from the start.

Accordingly Avicenna discusses intellectual abstraction¹⁰⁶. The intellect unifies and multiplies things. In the world, it does so via the imagination¹⁰⁷. For the imagination returns the intellect from intuiting universal quiddities in themselves to dealing with particulars¹⁰⁸. Avicenna holds that the intellect may think the universal quiddities in two ways: in themselves, via direct intuition, and *in re* via the imagination abstracting them from senses

¹⁰² *Critique of Judgement* 344-5.

¹⁰³ *Fī Nafs* 39, 3-6; 208, 3-6; 219, 4-7. Avicenna, 40, 20ff., distinguishes four types of modes of intellect in us: acquired or theoretical, active, material, and practical.

¹⁰⁴ *Fī Nafs* 39, 3-40, 16; 209, 1-8.

¹⁰⁵ *Fī Nafs* 148, 8ff.

¹⁰⁶ *Fī Nafs* 190, 13ff.

¹⁰⁷ *Fī Nafs* 209, 4ff.

¹⁰⁸ *Fī Nafs* 219, 4-6.

perceptions of individuals¹⁰⁹. We have seen though that the abstraction process itself depends upon the imagination having some access to the quiddities in themselves. Avicenna insists that our intellects, once activated, have direct access to quiddities in themselves¹¹⁰. Still, even then, for the intellect to descend from the radiant realm of these quiddities to the cave-like world of particulars, it needs the imagination.

We can find parallels to Kant's analogies too. Avicenna has a long discussion about how it is possible for our imagination to produce an image of two squares on opposite ends with a larger square, whether from sense perception or from a mathematical description. The topic resembles Kant's discussion of our perception of the parts of a house coexisting at once. Likewise, Avicenna's example on how we can construct an experience of a raindrop moving down a windowpane from a series of visual perceptions recalls Kant's discussion of our experiencing a boat moving down the river¹¹¹.

Aristotle had an easier time than Kant in having our experience be objective, as our perceptions copy the forms of things in themselves and the intellect becomes identical to the form thought¹¹². Avicenna in contrast denies that identity¹¹³. Like Kant, he has the intellect impose an *a priori* structure on the sense perceptions. Unlike Kant, he tries to explain how the noumenal self or active intellect can operate in the phenomenal world.

There are hints too that Kant's views on practical reason have Aristotelian and perhaps Avicennian roots. The Greek commentators

¹⁰⁹ *Fī Nafs* 212, 4-9.

¹¹⁰ *Fī Nafs* 216, 5-219, 3; cf. 212, 5-6.

¹¹¹ *Critique of Pure Reason* B236-7; AVICENNA: *Fī Nafs* 36, 7-37, 6; 168, 10-16911.

¹¹² *On the Soul* 420a19-20. Cf. FREDE, M.: "La Théorie Aristotélicienne de L'intellect Agent," in *Corps et Âme: sur le De Anima D'Aristote*, (ed. G. Dherbey & C. Viano) Paris 1996, p. 380-1: "Si je pense un homme comme un homme, c'est parce que c'est un homme. Pourquoi, donc, Aristote, dans le cas de la pensée, ne se contente-t-il pas d'identifier l'agent avec l'intelligible? Pourquoi introduit-il, en plus de l'intelligible, un intellect agent?"

¹¹³ *Fī Nafs* 212, 12-213.8.

had already found themselves able to distinguish in the cryptic passages of Aristotle's *De Anima* a complex doctrine of *noûs* whereby Aristotle distinguishes a transcendent, eternally active *noûs* from the *noûs* in us, which acts only in fits and starts and can be blinded and dissuaded by passions and inadequate evidence. Avicenna had sharpened and perhaps added on to the types of *noûs* being distinguished. Now in this noetic hierarchy theoretical *noûs* deals with universal and unchanging objects –for the neo-Platonic commentators, the Forms of Plato. In contrast, practical *noûs* deals with particular things and events, which we as finite animals must seek or avoid in order to survive. This latter, practical *noûs* has to deal with the content of sense perceptions, which present the “phenomena”, which, for Kant even more so than for the Greeks, are the things as they appear to us. Avicenna too says that the human soul has both theoretical and practical intellect, which are not ‘intellect’ in the same sense.¹¹⁴ Thus the intellect has two sides, one rising upwards towards the quiddities in themselves, the other descending towards particular things, the quiddities *in re*.¹¹⁵ In the moral sphere this amounts to the two viewpoints that Kant attributes to us rational moral agents in the Third Antinomy and in the *Grounding*: we have two sources of motivation and are subject both to the laws of nature and the laws of reason according to whether we have or take the phenomenal or the noumenal viewpoint, *qua* phenomenal self or *qua* noumenal self.¹¹⁶

As with the Greek commentators, Avicenna has imagination enabling a transcendent *noûs* to become practical and become applied to particulars. Furthermore, imagination makes it possible for the potential intellect in us to become actualized and hook up with the active intellect in us, that is, with the intelligibles –or, to use the Greek term once again, with the “noumenal”. Once activated, our intellect can construct scientific demonstrations and definitions. In

¹¹⁴ *Fī Nafs* 37, 7-8; 185, 6-7.

¹¹⁵ *Fī Nafs* 38, 10-39, 16.

¹¹⁶ *Critique of Pure Reason* B566-586; *Grounding* 452-3; *Critique of Judgement* 202'. Cf. A400-1; B411 on how the self appears in the world as a phenomenal object.

short, imagination makes science possible through making it possible for the intellect to operate¹¹⁷. Now Avicenna calls the relationship of our activated intellect to the intelligibles intellectual "prophecy": not the sort of prophecy sought in popular religion, but the true prophecy of the philosophers. Still he also allows the prophecy of popular religion, including the prediction of future contingent events. Such prophecy requires again an especially active imagination.¹¹⁸ Hence imagination also makes religion possible.

Kant does not take this approach to religion and prophecy. Yet he too emphasizes the role of imagination in making our world intelligible. On his theory a person needs to have an active, creative imagination in order to grasp the scientific principles of the phenomenal world as well as its noumenal basis. We can find here a theoretical grounding for exalting the status of artists, no longer craftspeople but spiritual beings, having inspired imaginations and profound, ineffable, mystical insights of High and Fine Art –the prophets of our time.

¹¹⁷ Because of this DAVIDSON: *Alfarabi, Avicenna, and Averroes on Intellect* is misleading when he says, pp. 119-21, that Avicenna distinguishes a purely intellectual from imaginative prophecy.

¹¹⁸ *Fī Nafs* 219, 8-220, 14; *Al-Iṣharāt* 214-5.