Contents

Acknowledgments ..... page ix
Notes on contributors ..... x

Introduction ..... 1
1 The life and times of Avicenna: patronage and learning in medieval Islam
   David C. Reisman ..... 7
2 Avicenna's philosophical project
   Dimitri Gutas ..... 28
3 Avicenna on the syllogism
   Tony Street ..... 48
4 Avicenna's natural philosophy
   Jon McGinnis ..... 71
5 Avicenna on medical practice, epistemology, and the physiology of the inner senses
   Peter E. Pormann ..... 91
6 Avicenna's epistemological optimism
   Dag Nikolaus Hasse ..... 109
7 Certitude, justification, and the principles of knowledge in Avicenna's epistemology
   Deborah L. Black ..... 120
8 Avicenna's metaphysics
   Stephen Menn ..... 143
9 From the necessary existent to God
   Peter Adamson ..... 170
David C. Reisman, author of the first chapter in this volume, passed away within a few months of writing his contribution. David's untimely death cut short a scholarly career that would have continued to break new ground in delineating Avicenna's ideas, as well as the Avicennan corpus and its reception. More importantly, of course, many of us who work on Avicenna and other topics in the intellectual history of the Islamic world have lost a dear friend. It is hoped that the present volume will form a fitting tribute to the memory of a scholar who accomplished so much in such a short time.

The editor would like to thank the Leverhulme Trust, whose support brought David Reisman to London in the last months of his life. The Trust's generosity has also facilitated the editor's work on the volume and the invaluable editorial assistance provided by David Bennett. Thanks are also due to Dimitri Gutas, who helped with the posthumous revision of David Reisman's paper, and to David's family for agreeing to allow its publication.

Finally, Hilary Gaskin and Anna Lowe of Cambridge University Press are to be thanked for their patient shepherding of the text to its publication.
Modern interpreters of Avicenna's epistemology and psychology are divided about his theory of intellectual knowledge. Those who emphasize the Neoplatonic character of Avicenna's position say that all intellectual knowledge comes from the emanation of the active intellect, which is the lowest of the celestial intelligences. Those who emphasize the Aristotelian character of Avicenna's philosophy argue that for Avicenna, intellectual knowledge depends upon the human capacities of abstracting, thinking, and intuition. An example of the first tradition is Fazlur Rahman's reading of Avicenna. He argued in 1958 that Avicenna's language of abstraction is only a metaphor for emanation. Since the intelligible forms emanate directly from the active intellect and since human thinking only has the limited function to dispose the soul for the reception of emanation, the abstraction of the form “for Avicenna is only a façon de parler.”¹ Other scholars have also proposed that Avicenna should not be taken literally on abstraction.²

The opposing interpretative tradition emphasizes the human intellect's capacity to know intelligibles at will. Dimitri Gutas has argued that Avicenna's term “emanation” and the phrase “to come into contact with the active intellect” are nothing but metaphors for the syllogistic, cognitive process, which leads to new knowledge.³ I have supported this line of interpretation in an article which presents translations of many passages on abstraction from various works of Avicenna, in an attempt to show that Avicenna in his middle and later period, in spite of gradually increasing the passive role of the human intellect and the active role of the active intellect,

¹ Rahman 1958: 15.
² Davidson 1992: 94: “Language to the effect that man abstracts thought or that the light of the active intellect transforms potential thoughts into actual thoughts is also not to be taken literally, for the actual thoughts in fact come from the emanation of the active intellect.”
continues to emphasize the human intellect’s capacity to abstract forms from matter. As a consequence, not to take Avicenna literally on abstraction would be hermeneutically dangerous. Other interpreters, however, disagree, and insist on the emanationist reading of Avicenna.

In the present chapter, I shall propose a way out of the antagonism of interpretation by arguing that the opposition between abstraction and emanation is foreign to Avicenna’s philosophy and also problematic in itself. Before I embark on this, I will first turn to two recent interpretations of Avicenna’s intellect theory which I find helpful for understanding the issues at stake.

(i) The first interpretation is offered by Cristina D’Ancona. She draws attention to a passage in the Pseudo-Aristotelian Theology of Aristotle, the Arabic adaptation of Enneads IV–VI: “Often I have . . . become as if I were naked substance (jawhar mujarrad) without body.” This passage Avicenna knew well, as can be seen from his own commentary on it. D’Ancona argues that Avicenna does not draw on the Aristotelian, but on the Plotinian tradition when using the vocabulary of mujarrad (“abstracted”) and tajrid (“abstraction”) and that, as a consequence, Avicenna’s theory of abstraction rests on the assumption that the soul by nature is able to reach the intelligible realm and, in particular, to make contact with the active intellect, where the forms lie entirely free of matter – in contrast to Aristotle, who does not recognize separate forms. “Abstraction” in this sense is not the production of a concept out of sensible forms, but the soul’s becoming like forms, argues D’Ancona. For Avicenna, the Theology was a work by Aristotle, or of the Aristotelian tradition (even though he seems to have been aware of the authenticity problem). and in his commentary on the Theology, he takes recourse to Aristotle’s De anima and De sensu et sensato. This, D’Ancona says, could explain the fact that Avicenna ends up

D’Ancona’s interpretation clearly shows that Avicenna got to know abstraction terminology also from Neoplatonic sources and that he inadvertently fused Plotinian and Aristotelian epistemology. However, I am not convinced of her conclusion that the source of Avicenna’s doctrine of tajrid cannot be the Graeco-Arabic translation of Aristotle’s De anima, where, as D’Ancona argues, the term does not appear, but that the source instead is the pseudo-Theology. First, because Avicenna himself in his commentary refers to “the procedures of abstraction which are explained in the De anima and De sensu et sensato.” Second, because Greek texts were not the most important sources on abstraction terminology for Avicenna, given that the usage of jarrada and mujarrad was already well established in Arabic philosophy in Avicenna’s time. In fact, Avicenna’s usage of abstraction terminology seems to owe much to al-Farabi, who repeatedly employs the term jarrada for the active intellectual operation of freeing a form from attachments.

D’Ancona’s interpretation makes us think again about the extent to which Avicenna’s philosophy can be called Neoplatonic. There is no question about the fact that Avicenna often speaks about the intellect’s turning towards the upper realm and about receiving intelligibles from there. Also, Avicenna contends in Neoplatonic fashion that there exist separate forms, namely, in the active intellect. However, this is only one half of the story. There is an important difference between Avicenna’s and the Greek Neoplatonists’ doctrine of forms. Avicenna maintains that the forms emanate from the active intellect into the sublunar world. As a result, the same essentials exist both in the active intellect as universal forms and in the sublunar substances as particular forms. It is true Avicenna acknowledges the separate existence of forms, but he also advocates an Aristotelian realism regarding immanent forms. For epistemology, this means that in principle there could be two ways to acquire universal forms: either by abstraction from particular forms, or by directly receiving them from the active intellect. Hence, it misses the point to say that “abstraction” for Avicenna is a façon de parler because the “proper place” of the intelligible form of interpretation by arguing that the opposition between abstraction and emanation is foreign to Avicenna’s philosophy and also problematic in itself. Before I embark on this, I will first turn to two recent interpretations of Avicenna’s intellect theory which I find helpful for understanding the issues at stake.

5 Black 2005: 319–40. “The function of the agent intellect in this process is therefore not to illumine the sense images so that universals can be abstracted from them. The ultimate cause of the production of new intelligible concepts in individual minds is not an act of abstraction at all, but, rather, a direct emanation from the agent intellect.” Taylor 2005: 182: “Simply put, intelligibles in act exist in the naked substance (jawhar mujarrad) without body.” This passage Avicenna knew well, as can be seen from his own commentary on it. D’Ancona argues that Avicenna does not draw on the Aristotelian, but on the Plotinian tradition when using the vocabulary of mujarrad (“abstracted”) and tajrid (“abstraction”) and that, as a consequence, Avicenna’s theory of abstraction rests on the assumption that the soul by nature is able to reach the intelligible realm and, in particular, to make contact with the active intellect, where the forms lie entirely free of matter – in contrast to Aristotle, who does not recognize separate forms. “Abstraction” in this sense is not the production of a concept out of sensible forms, but the soul’s becoming like forms, argues D’Ancona. For Avicenna, the Theology was a work by Aristotle, or of the Aristotelian tradition (even though he seems to have been aware of the authenticity problem). and in his commentary on the Theology, he takes recourse to Aristotle’s De anima and De sensu et sensato. This, D’Ancona says, could explain the fact that Avicenna ends up

9 Avicenna, Commentary on the Theology, p. 40. Translated in D’Ancona 2008: 64.
10 See, e.g., al-Farabi 1969–70: § 15.
11 See Adamson 2004a: 87–111, who shows that Avicenna’s most important epistemological borrowing from the Neoplatonic Theology is his recognition of a non-discursive kind of thinking, i.e. the intellectual understanding of God through revelation, which Avicenna likens to the non-discursive grasp of intelligibles.
continues to emphasize the human intellect’s capacity to abstract forms from matter. As a consequence, not to take Avicenna literally on abstraction would be hermeneutically dangerous. Other interpreters, however, disagree, and insist on the emanationist reading of Avicenna.6

In the present chapter, I shall propose a way out of the antagonism of interpretation by arguing that the opposition between abstraction and emanation is foreign to Avicenna’s philosophy and also problematic in itself. Before I embark on this, I will first turn to two recent interpretations of Avicenna’s intellect theory which I find helpful for understanding the issues at stake.

(i) The first interpretation is offered by Cristina D’Ancona. She draws attention to a passage in the Pseudo-Aristotelian Theology of Aristotle, the Arabic adaptation of Eunomius’ De sensu et sensato: “Often I have . . . become as if I were naked substance (jawhar mujarrad) without body.”7 This passage Avicenna knew well, as can be seen from his own commentary on it. D’Ancona argues that Avicenna does not draw on the Aristotelian, but on the Plotinian tradition when using the vocabulary of mujarrad (“abstracted”) and tajrid (“abstraction”) and that, as a consequence, Avicenna’s theory of abstraction rests on the assumption that the soul by nature is able to reach the intelligible realm and, in particular, to make contact with the active intellect, where the forms lie entirely free of matter — in contrast to Aristotle, who does not recognize separate forms. “Abstraction” in this sense is not the production of a concept out of sensible forms, but the soul’s becoming like forms, argues D’Ancona. For Avicenna, the Theology was a work by Aristotle, or of the Aristotelian tradition (even though he seems to have been aware of the authenticity problem),7 and in his commentary on the Theology, he takes recourse to Aristotle’s De anima and De sensu et sensato. This, D’Ancona says, could explain the fact that Avicenna ends up

---

5 Black 2005: 119–40: “The function of the agent intellect in this process is therefore not to illumine the sense images so that universals can be abstracted from them. The ultimate cause of the production of new intelligible concepts in individual minds is not an act of abstraction at all, but, rather, a direct emanation from the agent intellect.” Taylor 2005: 182: “Simply put, intelligibles in act exist in the separate Agent Intellect which is itself wholly in act and so cannot be a recipient of abstractions from the data of sense perception. Moreover, the unity of intersubjective discourse requires the unity of intelligible referents in the Agent Intellect. Abstraction or tajrid, then, is less a description of an idea or an intelligible than a façon de parler denoting a linking to intelligibles in act in the Agent Intellect so that individual human beings may in some way be called knowers.”
7 Avicenna remarks in the letter to Kiya: “I commented clearly on the difficult passages in the original texts up to the end of the Theologia Aristotelis, despite the fact that the Theologia is somewhat suspect” (Gutas 1988: 65–4).
forms is the active intellect.\textsuperscript{12} Since the forms also exist in the sublunar world, Avicenna could have designed an epistemology that did not involve the active intellect altogether.

(2) The second interpretation to be considered here comes from Jon McGinnis.\textsuperscript{13} He has suggested that we may solve the puzzle of Avicenna's theory if we understand how Avicenna modelled the act of thinking upon the act of seeing. In several passages, notably in chapter V.5 of \textit{De anima} (the Kitāb al-nafs of al-Šifā', c.2 1022–4 CE), Avicenna compares the active intellect to the sun, the rational soul to the eyes\textsuperscript{4} and the particular forms in the imaginative faculty to potential objects of vision. The soul's cognitive attention to the imaginative forms is likened to the perceiver's turning towards a potential object of vision, and the abstract intelligible forms imprinted in the rational soul are likened to the objects actually seen. The active intellect's effect upon the forms in the imaginative faculty corresponds to the sun's light falling upon a potentially visible object. These parallels are all explicit in Avicenna's text. But what is the intellectual counterpart to the sun's light, which causes the air to be transparent? Apparently, the equivalent has to be the forms which emanate from the active intellect. McGinnis claims that the exact equivalent is not the intelligible forms proper, but something that makes the abstractions intelligible to the rational soul: "intelligible accidents" or "intellectualizing forms," that is, accidents that determine the abstract essence when it is being conceptualized. Examples of such accidents are: being a subject, being a predicate, universality or particularity, unity or plurality, second, as conceptualized. In the latter case, the essence is determined by the mentioned accidents.\textsuperscript{15} McGinnis maintains that the intelligible accidents, once emanated, "mix" with the abstracted form in the imaginative faculty, so that there comes about an intelligible form in the human mind.

This is an intriguing interpretation, but there is a problem with the textual evidence. The distinction between abstract forms (or essences) and intellectualizing forms (or accidents) does not have a textual basis in Avicenna's psychological works – nor does the idea of a "mixing" of emanated intellectualizing forms and abstracted forms. Avicenna uses the terms al-ma'qūlat (the intelligibles), al-suwar al-ma'qūlat (the intelligible forms) and al-suwar al-'aqliyya (the intellectual forms) interchangeably in \textit{De anima} v.5–7. These forms are "in the active intellect,"\textsuperscript{16} from which they flow into the soul. Avicenna does not differentiate terminologically between two kinds of forms and he does not mention a "mixture" of the two components. Rather, the accidents of universality or particularity "follow upon" or "attach to" (labīqa) the essences if they exist in the intellect or in the material word.\textsuperscript{17}

Even so, McGinnis's interpretation clearly demonstrates that an adequate interpretation of Avicenna's epistemology has to integrate Avicenna's ontology of essences and his understanding of vision. Let us briefly turn to these two issues. As to ontology, how does Avicenna's theory of intellection relate to his distinction between essences and existence? Essences exist either in the external world or in the intellect. The material forms in the sublunar world, which are the objects of the activity of abstraction, are particular forms. The intelligible forms in the mind, which are abstracted and received from the active intellect, are universal forms (\textit{Metaphysics} v.1).\textsuperscript{18} What is the ontological status of the intelligible forms in the active intellect? Avicenna obviously thought that they exist, and since the active intellect is an intellect, they cannot but exist in the way of conceptualization, that is, as universals.\textsuperscript{19} The forms which are in the active intellect already have the two components: essence and the mode of conceptual existence. As to the process of emanation, the active intellect not only gives the mode of existence to the soul (that is, conceptualizing accidents) – this would be impossible, since in reality essence and mode of existence cannot be separated – but the conceptualized, universal forms as a whole, as they exist in the active intellect. Otherwise Avicenna would not use expressions such as: "the forms in the active intellect are imprinted on the soul,"\textsuperscript{20} or: "the theoretical faculty receives an impression of universal forms."\textsuperscript{21}

As to the theory of vision, it seems to me that Avicenna's analogy has the limitation of all allegories: they explode if spelled out too far. Light flows from the sun, and forms flow from the active intellect, but forms are not

\textsuperscript{12} Cure: Psychology v.7, 249.21.  \textsuperscript{13} Cure: Introduction: 15.4–5; translated in McGinnis 2010: 31.
\textsuperscript{14} Cure: Psychology v.7, 249.22.  \textsuperscript{15} Ibid. 1.5, 48.1.
\textsuperscript{16} Cure: Psychology v.7, 249.22.
forms is the active intellect. Since the forms also exist in the sublunar world, Avicenna could have designed an epistemology that did not involve the active intellect altogether.

(2) The second interpretation to be considered here comes from Jon McGinnis. He has suggested that we may solve the puzzle of Avicenna's theory if we understand how Avicenna modelled the act of thinking upon the act of seeing. In several passages, notably in chapter V.5 of De anima (the Kitāb al-nafs of al-Shifa', c.e. 1022–4 CE). Avicenna compares the active intellect to the sun, the rational soul to the eyes and the particular forms in the imaginative faculty to potential objects of vision. The soul's cognitive attention to the imaginative forms is likened to the perceiver's turning towards a potential object of vision, and the abstract intelligible forms imprinted in the rational soul are likened to the objects actually seen. The active intellect's effect upon the forms in the imaginative faculty corresponds to the sun's light falling upon a potentially visible object. These parallels are all explicit in Avicenna's text. But what is the intellectual counterpart to the sun's light, which causes the air to be transparent? Apparently, the equivalent has to be the forms which emanate from the active intellect. McGinnis claims that the exact equivalent is not the intelligible forms proper, but something that makes the abstractions intelligible to the rational soul: "intelligible accidents" or "intellectualizing forms," that is, accidents that determine the abstract essence when it is being conceptualized. Examples of such accidents are: being a subject, being a predicate, universality or particularity, unity or plurality, second, as conceptualized. In the latter case, the essence is determined by the mentioned accidents. McGinnis maintains that the intelligible accidents, once emanated, "mix" with the abstracted form in the imaginative faculty, so that there comes about an intelligible form in the human mind.

This is an intriguing interpretation, but there is a problem with the textual evidence. The distinction between abstract forms (or essences) and intellectualizing forms (or accidents) does not have a textual basis in Avicenna's psychological works – nor does the idea of a "mixing" of emanated intellectualizing forms and abstracted forms. Avicenna uses the terms al-ma'qīlat (the intelligibles), al-fuwar al-ma'qīlat (the intelligible forms) and al-fuwar al-'aqliyya (the intellectual forms) interchangeably in De anima v.5–7. These forms are "in the active intellect," from which they flow into the soul. Avicenna does not differentiate terminologically between two kinds of forms and he does not mention a "mixture" of the two components. Rather, the accidents of universality or particularity "follow upon" or "attach to" (lābiqa) the essences if they exist in the intellect or in the material world.

Even so, McGinnis's interpretation clearly demonstrates that an adequate interpretation of Avicenna's epistemology has to integrate Avicenna's ontology of essences and his understanding of vision. Let us briefly turn to these two issues. As to ontology, how does Avicenna's theory of intellect relate to his distinction between essences and existence? Essences exist either in the external world or in the intellect. The material forms in the sublunar world, which are the objects of the activity of abstraction, are particular forms. The intelligible forms in the mind, which are abstracted and received from the active intellect, are universal forms (Metaphysics v.1). What is the ontological status of the intelligible forms in the active intellect? Avicenna obviously thought that they exist, and since the active intellect is an intellect, they cannot but exist in the way of conceptualization, that is, as universals. The forms which are in the active intellect already have the two components: essence and the mode of conceptual existence. As to the process of emanation, the active intellect not only gives the mode of existence to the soul (that is, conceptualizing accidents) – this would be impossible, since in reality essence and mode of existence cannot be separated – but the conceptualized, universal forms as a whole, as they exist in the active intellect. Otherwise Avicenna would not use expressions such as: "the forms in the active intellect are imprinted on the soul," or: "the theoretical faculty receives an impression of universal forms."

As to the theory of vision, it seems to me that Avicenna's analogy has the limitation of all allegories: they explode if spelled out too far. Light flows from the sun, and forms flow from the active intellect, but forms are not
equivale to light in Avicenna's simile. As Avicenna puts it: forms appear in the soul "through the mediation of illumination by the active intellect" or "due to the light of the active intellect" (De Anima v.5).22 In fact, nothing replaces light on the epistemological side of the simile. Rather, Avicenna uses "light" (daw') or "illumination" (ishraq) on both sides of the analogy. Moreover, there is no equivalent to the emanation of forms on the visual side: visual forms do not flow from the sun, as intelligible forms do from the active intellect. Avicenna mitigates the imperfection of the comparison by saying that not only forms emanate from the active intellect, but also "the capacity for abstract intellecction" (quwwa al-`aql al-mujarrad),23 or "a power" (quwwa).24 This is why Avicenna calls the actually knowing intellect "acquired intellect" (al-`aql al-mustafad),25 that is, acquired from the active intellect. Hence, there is at least some sense in the comparison of emanation and light, since it is due to light that we have the capacity of vision, and due to an emanation that we have the capacity of abstract thinking. But the analogy as a whole has its severe limitations.

Now we are at the point to face directly the problematic issues of Avicenna's theory of intellecction. It has puzzled interpreters of Avicenna (including myself) that he seems to combine two incompatible notions in one theory: Is the intelligible abstracted by the soul or does it flow from the active intellect?26 I suspect that the difficulties of interpretation arise because the question is improperly asked. For Avicenna, abstraction and emanation do not seem to exclude each other. Why? Because abstraction is his solution to an epistemological problem, emanation to an ontological problem. Let us see how Avicenna introduces abstraction in De Anima 1.5:

As regards the theoretical faculty, it is a faculty of the sort that it receives an impression of universal forms which are abstracted from matter. If (these) forms are abstract in themselves, the faculty's grasping of their form in itself is easier. If they are not, they become abstracted by force of the faculty's action of abstracting them so that no attachments of matter are left in them; we will explain how (this happens) later on.27

Avicenna turns to this explanation in De Anima 11.2. There again he differentiates between the forms of immaterial objects – he does not give examples, but apparently thinks of the supralunar intelligences and God28 – and the forms of material objects. The former can be perceived by grasping them as abstract, whereas the latter still have to be abstracted by the soul:

As to what exists in matter, either because its existence is material or because it is by accident material, [this faculty] abstracts it both from matter and from their material attachments and grasps it in the way of abstraction, so that it will be like "man" which is predicated of many, to the effect that [the faculty] grasps the many as one nature, divesting it of all material quantity, quality, place, and position. If it did not abstract it from these, it could not be truly predicated of all.29

What is true of Avicenna's example "man" is true also of all other forms that the sublunar world receives by emanation from the active intellect, hence of all genera and species: they are in matter accidentally and have to be abstracted. Or, to phrase it differently: material forms need to be abstracted, whereas immaterial forms such as God and the intelligences are grasped directly. The first process is more cumbersome, the second is direct and "easier." The process of abstraction is later described in the well-known passage in De Anima v.5, where the above-mentioned simile with vision is used: the intellectual faculty considers the particulars stored in the faculty of imagination, which are transformed into intelligible forms.30 Thus, for Avicenna, the alternative to abstraction (ta'rif) is not emanation; the alternative is the direct grasping of an object abstract in itself, or as Avicenna puts it: "grasping in an abstract manner" (akhdha akhdbhan mujarradan).31 Abstraction is Avicenna's answer to the epistemological question of how we perceive universal forms that are not by themselves separate from matter – that is, the great majority of universal forms.

If emanation is not the alternative to abstraction for Avicenna, what is it, then? It is an answer to an ontological question. Avicenna says that both separate forms and those that need to be abstracted are received as an impression (intaba'a) from the active intellect. Epistemologically, the normal way to acquire universal forms is abstraction from particulars, but ontologically the forms come from the active intellect. Why does Avicenna not maintain that the forms come from the sublunar world, after having been separated from matter? The reason is not Avicenna's alleged

---

22 Ibn. v.5, 235.12 and 236.1. 23 Ibn. v.6, 247.9.
24 Salvation: 193.10. 25 Cure: Psychology 1.5, 50.5.
28 In the Introduction to al-Shifti, Avicenna differentiates beings mixed with motion (matter) from those unmixed, for which he gives "the intellect and God" as examples. He further differentiates beings always separate from motion from those that may be separate, "such as being, unity, plurality and causality." See Cure: Introduction: 12.13 and 13.5. Cf. McGinnis 2010: 36–7. On Avicenna's concept of "direct vision" (muḥābāha), which results in knowledge that is structured syllogistically, as in all knowledge for Avicenna, see Adamson 2004a: 87–111 and Gutas 2006a: 351–72.
equivalent to light in Avicenna’s simile. As Avicenna puts it: forms appear in the soul “through the mediation of illumination by the active intellect” or “due to the light of the active intellect” (De Anima v.5). In fact, nothing replaces light on the epistemological side of the simile. Rather, Avicenna uses “light” (da‘w) or “illumination” (îshrâq) on both sides of the analogy. Moreover, there is no equivalent to the emanation of forms on the visual side: visual forms do not flow from the sun, as intelligible forms do from the active intellect. Avicenna mitigates the imperfection of the comparison by saying that not only forms emanate from the active intellect, but also “the capacity for abstract intellection” (quwwa al-‘aql al-mujarrad), or “a power” (quwwa). This is why Avicenna calls the actually knowing intellect “acquired intellect” (al-‘aql al-mustafîd), that is, acquired from the active intellect. Hence, there is at least some sense in the comparison of emanation and light, since it is due to light that we have the capacity of vision, and due to an emanation that we have the capacity of abstract thinking. But the analogy as a whole has its severe limitations.

Now we are at the point to face directly the problematic issues of Avicenna’s theory of intellection. It has puzzled interpreters of Avicenna (including myself) that he seems to combine two incompatible notions in one theory: Is the intelligible abstracted by the soul or does it flow from the active intellect? I suspect that the difficulties of interpretation arise because the question is improperly asked. For Avicenna, abstraction and emanation do not seem to exclude each other. Why? Because abstraction is his solution to an epistemological problem, emanation to an ontological problem. Let us see how Avicenna introduces abstraction in De Anima 1.5:

As regards the theoretical faculty, it is a faculty of the sort that it receives an impression of universal forms which are abstracted from matter. If these forms are abstract in themselves, the faculty’s grasping of their form in itself is easier. If they are not, they become abstracted by force of the faculty’s action of abstracting them so that no attachments of matter are left in them; we will explain how (this happens) later on.77

Avicenna turns to this explanation in De Anima 11.2. There again he differentiates between the forms of immaterial objects – he does not give examples, but apparently thinks of the supralunar intelligences and God – and the forms of material objects. The former can be perceived by grasping them as abstract, whereas the latter still have to be abstracted by the soul:

As to what exists in matter, either because its existence is material or because it is by accident material, [this faculty] abstracts it both from matter and from their material attachments and grasps it in the way of abstraction, so that it will be like “man” which is predicatated of many, to the effect that [the faculty] grasps the many as one nature, divesting it of all material quantity, quality, place, and position. If it did not abstract it from these, it could not be truly predicatated of all. What is true of Avicenna’s example “man” is true also of all other forms that the sublunar world receives by emanation from the active intellect, hence of all genera and species: they are in matter accidentally and have to be abstracted. Or, to phrase it differently: material forms need to be abstracted, whereas immaterial forms such as God and the intelligences are grasped directly. The first process is more cumbersome, the second is direct and “easier.” The process of abstraction is later described in the well-known passage in De Anima v.5, where the above-mentioned simile with vision is used: the intellectual faculty considers the particulars stored in the faculty of imagination, which are transformed into intelligible forms. Thus, for Avicenna, the alternative to abstraction (tajrid) is not emanation; the alternative is the direct grasping of an object abstract in itself, or as Avicenna puts it: “grasping in an abstract manner” (akhdha akhdhan mujarradan). Abstraction is Avicenna’s answer to the epistemological question of how we perceive universal forms that are not by themselves separate from matter – that is, the great majority of universal forms.

If emanation is not the alternative to abstraction for Avicenna, what is it, then? It is an answer to an ontological question. Avicenna says that both separate forms and those that need to be abstracted are received as an impression (intaba’a) from the active intellect. Epistemologically, the normal way to acquire universal forms is abstraction from particulars, but ontologically the forms come from the active intellect. Why does Avicenna not maintain that the forms come from the sublunar world, after having been separated from matter? The reason is not Avicenna’s alleged
Neoplatonic ontology, as was pointed out above. Most forms in question exist both as immanent in the sublunar world – this is the Aristotelian part of his ontology – and in the separate active intellect – this being the Neoplatonic part. The principal reason, as I want to show, is that emanation theory solves the problem of intellectual memory. This is how Avicenna introduces the problem in De Anima v.6:

What, then, are we to say now about the human souls and the intelligibles which they acquire and [then] disregard to turn to others: do they exist in them with complete actuality so that [the souls] would inevitably be thinking them with complete actuality, or do they have a depository in which they store them, this depository being either themselves or their bodies or something bodily that pertains to them?33

Avicenna proceeds to discard the possibility of a bodily depository, since the intelligibles would then cease being intelligible. He also discards a theory of separate forms existing by themselves to which the soul, like a mirror, turns or does not turn, so that sometimes they appear in the soul and sometimes not – that is, Avicenna discards a version of Plato’s theory of forms. The alternative left is emanation theory:

Or [are we to say that] the active principle makes form after form flow upon the soul in accordance with the soul’s demand, and that when it turns away from the [principle], the effluence ceases? . . . We say that the latter alternative is the truth. The reason is that it is absurd to say that this form exists in the soul in perfect actuality, [but] that the soul does not know it in perfect actuality; because the meaning of [the phrase] “[the soul] knows it” is nothing else than that the form exists in it . . . It remains that the correct alternative is the last one, [according to which] learning is seeking the perfect disposition for establishing contact with [the active principle], so that there results from it the intellection which is simple and the forms flow from it in a differentiated way into the soul through the mediation of thinking.33

These passages show why Avicenna did not maintain that the intelligible forms come from the sublunar world. For, if the forms originate in the sublunar world, one could not explain where the forms are if you do not think them in actuality. They cannot stay in the intellectual soul, because then you would continuously think them. The faculty of memory (dhikr), in turn, is a bodily faculty, located in the rear ventricle of the brain (De Anima 1.5 and iv.1), and intelligibles cannot be stored in memory without ceasing to be intelligibles. Avicenna thus opts for the emanation of forms from the active intellect whenever the soul wishes. The forms disappear from the intellectual soul when they are not thought in actuality, but the disposition to think the form remains, which explains why we do not have to learn everything again from the beginning. In contrast – and this is a point which Avicenna does not spell out, but which seems clear enough – if the forms were won by separating them from sublunar matter, they would have to be retrieved by abstraction again and again. But this is in conflict with the evident fact that we are capable of remembering what we have learned, without a new process of empirical inquiry.

In sum, the form (or more precisely, the material form, since the immaterial form is grasped directly without abstraction) has to be grasped by way of abstraction, but it nevertheless comes from the active intellect, as soon as the abstraction process is completed and the perfect disposition for receiving the form is reached. This is possible since the essences of material forms exist both as universals in the active intellect and as particulars in the sublunar world. But abstraction is only needed for the first acquisition of a form. After that, the rational soul can make the form be present in the mind whenever it wishes: “The first learning is like the cure of an eye,” as Avicenna puts it.34

Hence, there is no need to call either side, abstraction or emanation, a metaphor. Avicenna is not metaphorical when saying about abstraction that particulars “are transformed (istahāla) into something abstracted from matter” and that “the imaginable things, which are intelligible in potentiality, become (sāna) intelligible in actuality, though not themselves, but that which is collected (il’taqāfa) from them.”35 And, likewise, he is serious about emanation when saying that “abstracted forms flow upon the soul from the active intellect” (De Anima v.5).35 Epistemologically, universal forms are either abstracted from particular forms if intellected for the first time, or grasped directly if intellected again. Ontologically, they always come from the active intellect. For Avicenna, this is not a contradiction. We get to know the universal form by looking at the sublunar world and engaging in abstraction, but we do not separate the form ontologically from the world, but receive it from above.

It seems sensible, therefore, to drop the misleading opposition between abstraction and emanation. This is also suggested by the fact that, in the history of epistemology, the common alternative to abstraction is not emanation, but illumination. One could show this by turning to Augustine or to al-Suhrawardi, but a more instructive point of comparison is Henry of Ghent (Henricus Gandavensis), the late thirteenth-century Christian

33 Ibid. v.6, 245.3-9. 34 Ibid. v.5, 247.11. 35 Ibid. v.5, 234-5.
Neoplatonic ontology, as was pointed out above. Most forms in question exist both as immanent in the sublunar world - this is the Aristotelian part of his ontology - and in the separate active intellect - this being the Neoplatonic part. The principal reason, as I want to show, is that emanation theory solves the problem of intellectual memory. This is how Avicenna introduces the problem in De Anima v.6:

What, then, are we to say now about the human souls and the intelligibles which they acquire and [then] disregard to turn to others: do they exist in them with complete actuality so that [the souls] would inevitably be thinking them with complete actuality, or do they have a depository in which they store them, this depository being either themselves or their bodies or something bodily that pertains to them?

Avicenna proceeds to discard the possibility of a bodily depository, since the intelligibles would then cease being intelligible. He alsodiscards a theory of separate forms existing by themselves to which the soul, like a mirror, turns or does not turn, so that sometimes they appear in the soul and sometimes not - that is, Avicenna discards a version of Plato’s theory of forms. The alternative left is emanation theory:

Or [are we to say that] the active principle makes form after form flow upon the soul in accordance with the soul’s demand, and that when it turns away from the [principle], the effluence ceases? . . . We say that the latter alternative is the truth. The reason is that it is absurd to say that this form exists in the soul in perfect actuality, [but] that the soul does not know it in perfect actuality; because the meaning of [the phrase] “[the soul] knows it” is nothing else than that the form exists in it . . . It remains that the correct alternative is the last one, [according to which] learning is seeking the perfect disposition for establishing contact with [the active principle], so that there results from it the intellect which is simple and the forms flow from it in a differentiated way into the soul through the mediation of thinking.

These passages show why Avicenna did not maintain that the intelligible forms come from the sublunar world. For, if the forms originate in the sublunar world, one could not explain where the forms are if you do not think them in actuality. They cannot stay in the intellectual soul, because then you would continuously think them. The faculty of memory (dhikr), in turn, is a bodily faculty, located in the rear ventricle of the brain (De Anima 1.5 and iv.1), and intelligibles cannot be stored in memory without ceasing to be intelligibles. Avicenna thus opts for the emanation of forms from the active intellect whenever the soul wishes. The forms disappear from the intellectual soul when they are not thought in actuality, but the disposition to think the form remains, which explains why we do not have to learn everything again from the beginning. In contrast - and this is a point which Avicenna does not spell out, but which seems clear enough - if the forms were won by separating them from sublunar matter, they would have to be retrieved by abstraction again and again. But this is in conflict with the evident fact that we are capable of remembering what we have learned, without a new process of empirical inquiry.

In sum, the form (or more precisely, the material form, since the immaterial form is grasped directly without abstraction) has to be grasped by way of abstraction, but it nevertheless comes from the active intellect, as soon as the abstraction process is completed and the perfect disposition for receiving the form is reached. This is possible since the essences of material forms exist both as universals in the active intellect and as particulars in the sublunar world. But abstraction is only needed for the first acquisition of a form. After that, the rational soul can make the form be present in the mind whenever it wishes: “The first learning is like the cure of an eye,” as Avicenna puts it.34

Hence, there is no need to call either side, abstraction or emanation, a metaphor. Avicenna is not metaphorical when saying about abstraction that particulars “are transformed (istahāda) into something abstracted from matter” and that “the imaginable things, which are intelligible in potentiality, become (ṣārād) intelligible in actuality, though not themselves, but that which is collected (iltaqāṣa) from them.”35 And, likewise, he is serious about emanation when saying that “abstracted forms flow upon the soul from the active intellect” (De Anima v.5).35 Epistemologically, universal forms are either abstracted from particular forms if intellected for the first time, or grasped directly if intellected again. Ontologically, they always come from the active intellect. For Avicenna, this is not a contradiction. We get to know the universal form by looking at the sublunar world and engaging in abstraction, but we do not separate the form ontologically from the world, but receive it from above.

It seems sensible, therefore, to drop the misleading opposition between abstraction and emanation. This is also suggested by the fact that, in the history of epistemology, the common alternative to abstraction is not emanation, but illumination. One could show this by turning to Augustine or to al-Suhrawardi, but a more instructive point of comparison is Henry of Ghent (Henricus Gandavensis), the late thirteenth-century Christian

31 Ibid. v.6, 245.5-9. 32 Ibid. 245.18-247.5. 33 Ibid. v.5, 234-5.
the theologian and philosopher. His epistemology is comparable to Avicenna's because he draws amply on Aristotle, but modifies Aristotle's theory by adding illumination. Moreover, Henry of Ghent's example is instructive, because it will bring to the fore Avicenna's epistemological optimism.

In the first three quaestiones of the Summa quaestionum ordinariarum, dating from c.1276 CE, Henry of Ghent argues that for grasping the truth in an eminently perceptible manner — that is, for grasping the essence of something — one needs an exemplar. Aristotle maintained that the exemplar could be won by abstraction, that is, by abstracting the concepts of species and genera from the particulars. But such an exemplar, argues Henry, does not lead to full certainty (certa cognitio), but only to incomplete and obscured truth, for three reasons: the material objects are in constant change; the soul is in constant change and is liable to error; the exemplar may refer to non-existent things, as in dreams. In view of these arguments, which are all drawn from the skeptical tradition, Henry postulates that certain truth can only be reached by recourse to an eternal exemplar. For this we need special illumination, which is granted by the grace of God. By way of illumination through the divine truth, the imperfect concepts in our memory are transformed according to the eternal exemplar (necesse est ergo quod illa veritas increata... conceptum nostrum transformet). As a result, we are able to grasp precisely the universals which are lurking in the confused mass of imaginitive forms.

The contrast between Avicenna and Henry of Ghent is considerable, even though both maintain that the soul is receiving an impression from a higher principle. For Avicenna, the universal forms which the soul arrives at by abstraction are in no way deficient. By exerting the activity of abstraction, the soul reaches the perfect disposition to make the universal form appear in it. The disposition triggers the emanation of the form from the active intellect into the soul. The active intellect is always in actuality, but is not active in the sense that it initiates or transforms anything in the epistemological process. Its sole function is to serve as a source of intelligibles for the soul, which is always available: it "makes form after form flow upon the soul in accordance with the soul's demand." Divine illumination in Henry of Ghent's theory has a very different function; it has recently been compared to an automatic spelling correction on the computer (which is a sensible comparison, since Henry modifies his statement that illumination is a gift of grace by saying that this gift, as a rule, is given to everybody): the deficient concepts in the human mind are automatically corrected against the divine exemplar. In Avicenna's epistemology, there is no need for a correction program. In principle, human beings are fully capable of acquiring perfect knowledge by themselves, granted that there are great differences between people in their ability to acquire knowledge. The active intellect resembles an external hard disk, in the sense of an intellectual depository which delivers upon demand.

At the bottom of all this is a fundamental difference between Avicenna and Henry of Ghent: Avicenna does not share Henry's skepticism about the limits of human knowledge by purely natural means. For Henry, the most eminent form of knowledge can only be reached with divine help. For Avicenna, the human soul does not need to be helped by a second player. Whether the soul is able to get in contact with the active intellect or not is entirely up to itself. In the epistemological process, there is only one activity and one achievement: that of the human soul. In fact, Avicenna even claims that there are no limits to natural knowledge. The most intelligent of human beings are fully capable of knowing everything knowable by their own virtue: "There might be a person whose soul has been rendered so powerful through extreme purity and intense contact with intellectual principles that he blazes with intuition — i.e. with the ability to receive them in all matters from the active intellect —, and the forms of the things contained in the active intellect are imprinted on his soul either at once or nearly so." This is why Avicenna does not develop a theory of illumination in the sense that the human being is helped in the process of knowing: Avicenna exhibits a deep-rooted epistemological optimism.

It is true that, for Avicenna, considering the particulars disposes the soul for the emanation of a universal form. But Avicenna's phrase "disposes" is not at all meant as a limitation of the soul's intellectual powers. Avicenna does not say that considering the particulars "only" disposes for an emanation. The soul is fully capable of acquiring universal forms all by itself; it is able to do all that is necessary to make a form flow from the active intellect upon it.

---

theologian and philosopher. His epistemology is comparable to Avicenna’s because he draws amply on Aristotle, but modifies Aristotle’s theory by adding illumination. Moreover, Henry of Ghent’s example is instructive, because it will bring to the fore Avicenna’s epistemological optimism.

In the first three quæstiones of the Summa quæstionum ordinariarum, dating from c.1276 CE, Henry of Ghent argues that for grasping the truth in an eminently fine way — that is, for grasping the essence of something — one needs an exemplar. Aristotle maintained that the exemplar could be won by abstraction, that is, by abstracting the concepts of species and genera from the particulars. But such an exemplar, argues Henry, does not lead to full certainty (certa cognitio), but only to incomplete and obscured truth, for three reasons: the material objects are in constant change; the soul is in constant change and is liable to error; the exemplar may refer to non-existent things, as in dreams. In view of these arguments, which are all drawn from the skeptical tradition, Henry postulates that certain truth can only be reached by recourse to an eternal exemplar. For this, we need special illumination, which is granted by the grace of God. By way of illumination through the divine truth, the imperfect concepts in our memory are transformed according to the eternal exemplar (necesse est ergo quod illa veritas increata . . . conceptum nostrum transformet). As a result, we are able to grasp precisely the universals which are lurking in the confused mass of imaginative forms.

The contrast between Avicenna and Henry of Ghent is considerable, even though both maintain that the soul is receiving an impression from a higher principle. For Avicenna, the universal forms which the soul arrives at by abstraction are in no way deficient. By exerting the activity of abstraction, the soul reaches the perfect disposition to make the universal form appear in it. The disposition triggers the emanation of the form from the active intellect into the soul. The active intellect is always in actuality, but is not active in the sense that it initiates or transforms anything in the epistemological process. Its sole function is to serve as a source of intelligibles for the soul, which is always available: it “makes form after form flow upon the soul in accordance with the soul’s demand.”

Divine illumination in Henry of Ghent’s theory has a very different function; it has recently been compared to an automatic spelling correction on the computer (which is a sensible comparison, since Henry modifies his statement that illumination is a gift of grace by saying that this gift, as a rule, is given to everybody): the deficient concepts in the human mind are automatically corrected against the divine exemplar. In Avicenna’s epistemology, there is no need for a correction program. In principle, human beings are fully capable of acquiring perfect knowledge by themselves, granted that there are great differences between people in their ability to acquire knowledge. The active intellect resembles an external hard disk, in the sense of an intellectual depository which delivers upon demand.

At the bottom of all this is a fundamental difference between Avicenna and Henry of Ghent: Avicenna does not share Henry’s skepticism about the limits of human knowledge by purely natural means. For Henry, the most eminent form of knowledge can only be reached with divine help. For Avicenna, the human soul does not need to be helped by a second player. Whether the soul is able to get in contact with the active intellect or not is entirely up to itself. In the epistemological process, there is only one activity and one achievement: that of the human soul. In fact, Avicenna even claims that there are no limits to natural knowledge. The most intelligent of human beings are fully capable of knowing everything knowable by their own virtue: “There might be a person whose soul has been rendered so powerful through extreme purity and intense contact with intellectual principles that he blazes with intuition — i.e. with the ability to receive them in all matters from the active intellect, and the forms of the things contained in the active intellect are imprinted on his soul either at once or nearly so.” This is why Avicenna does not develop a theory of illumination in the sense that the human being is helped in the process of knowing: Avicenna exhibits a deep-rooted epistemological optimism.

It is true that, for Avicenna, considering the particulars disposes the soul for the emanation of a universal form. But Avicenna’s phrase “disposes” is not at all meant as a limitation of the soul’s intellectual powers. Avicenna does not say that considering the particulars “only” disposes for an emanation. The soul is fully capable of acquiring universal forms all by itself: it is able to do all that is necessary to make a form flow from the active intellect upon it.

---

38 Cure: Psychology: v.6, 435.18–49.
39 Petier 2006: 82.