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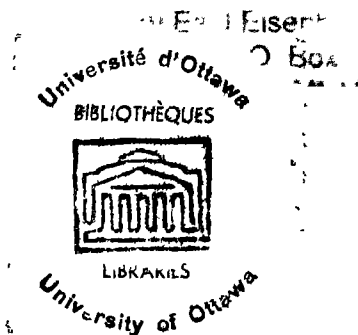
AN HISTORICAL SKETCH OF THE "COGITATIVE
FORCE" IN THE MIDDLE AGES: ITS TRANSI-
TION THROUGH THE ORIENT TO THE OCCIDENT

by

RICHARD EDWARD DUMONT

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DEDICATED
TO
MY PARENTS

Without whose material and spiritual
assistance this dissertation could never have
been realized.

FORWARD

Considerable interest has been recently elicited as to the nature, activity and role of the "vis cogitativa", a vitally important but nonetheless balefully neglected internal sense in the psychological doctrine of St. Thomas. It is the least known of St. Thomas' four internal senses. Too many expositors and professors have contented themselves with repeating verbatim the sparse directives and explanations St. Thomas offers throughout his works with the result that it has become enveloped in an aura of mystery and speculation. Such renown Thomists as Rudolf Allers, Julien Péghaire, Cornelio Fabro and George P. Klubertanz have done much to dissipate this shroud of obscurity.¹ They have sensed the paramount function of this faculty and have recognized in it the ultimate synthesis of knowledge on the sensory level. Its proximity to the intellect has impregnated it with certain powers ordinarily reserved without condition to the spiritual eminence of the reason. Its exalted elevation as a participant in the rational nature of the human soul has imbued it with an activity transcending its counterpart, the

¹Rudolf Allers, "The 'Vis Cogitativa' and Evaluation," The New Scholasticism, XV (1941), pp. 195-221; Julien Péghaire, C.S.Sp., Regards sur le Connaître (Fides: Montréal, 1948), pp. 320-393; Cornelio Fabro, "Il Problema della Percezione Sensoriale," Bollettino Filosofico, LV, no. 1 (1938), pp. 26-62 and "Knowledge and Perception in Aristotelic-Thomistic Psychology," The New Scholasticism, XII (1938), pp. 337-365; George P. Klubertanz, S.J., "The Internal Senses in the Process of Cognition," The Modern Schoolman, XVIII (1941), p. 28 et seq.; cf. also, Rodolphe Hain, O.M.I., "De vi cogitativa et de instinctu hominis," Revue de l'Université d'Ottawa, (special section), vol. II (1933), p. 47 et seq.; Noel Mailloux, O.P., "The Problem of Perception," The Thomist, IV (1942), pp. 273-285; Gerard Esser, S.V.D., Psychologia (typis domus Missionum ad St. Mariam: Techny, Illinois, 1945), p. 122 onward.

estimative force, in brute animals. It is the gateway to intellectual cognition and conversely the focal point where the intellect and the senses merge. Briefly, it is the apex of sensorial perception in the human soul, the culmination of sensible knowledge from which the intellect abstracts its universal ideas.

This thesis represents an historical attempt to examine and evaluate those sources from which St. Thomas derived this cogitative force. To my knowledge there is no present work which has undertaken to trace the historical evolution of this cogitative faculty from its obvious origination in the Aristotelian tradition of thought. Unquestionably it was conceived and crystallized within the intellectual circles of those philosophers who preferred to consider themselves "Peripatetics"; the faculty described by St. Thomas is foreign to the adherents of Platonism and Augustinianism favored by the Franciscans in the 12th and 13th century. Neither within the psychology of St. Bonaventure, Alexander of Hales, Duns Scotus and other eminent Scholastics do we encounter a faculty called the cogitative force exhibiting the same characteristics ascribed to this faculty by St. Thomas. It is strictly an Aristotelian faculty, but not one that Aristotle would have easily recognized himself.

There is no irony in this statement. It is an Aristotelian faculty inasmuch as it was conceived and developed exclusively within the Aristotelian tradition. The fact that it is not found outside this tradition among those who eschewed the works of Aristotle amply justifies this appellation. But unlike the rolling stone which gathers no moss this faculty became more and more complex as it was handed down from one philosopher to the next. I have not essayed

to establish the link between this faculty described by St. Thomas and its actual derivation from the authentic doctrine of Aristotle. I have left this task to the Aristotelian scholar. But the fact remains that in none of the treatises of Aristotle can there be found an internal sense (he was not as precise as the Scholastics in distinguishing between the internal and external senses) bearing this name, cogitative, and discharging the same duties. Consequently, although St. Thomas frequently inserts this faculty in his laborious commentaries of Aristotle he could not have immediately obtained it from Aristotle himself. This leaves us with only one other possibility, the Arabes. Aristotle made his second but more definitive entrance into the Occident via the profound and often agitated commentaries of the Mussulman with the result that many important doctrines actually the personal interpretations of Islamic philosophers were accredited by the latin Scholastics to Aristotle himself. Hence, it is within this evanescent period of history that our search for the origination of the cogitative force must unfold:

...now from an historic point of view one could observe that it is particularly Averroes who directly inspires the Thomistic position. The Commentator explicitly affirms all the above-mentioned duties of the cogitative and believes that such is really the thought of Aristotle.¹

A cursory reading of Averroes was sufficient to establish the immediate source from which St. Thomas obtained this faculty. But our quest could not end with Averroes. Avicenna also wielded a tremendous influence on the formation of the golden era of Scholas-

¹Cornelio Fabro, Knowledge and Perception, p. 353.

ticism. Does his psychological doctrine include a faculty called the cogitative force? To do justice to both of these philosophers we found it necessary to commence our historical exploration with Alkindi.

Within the opening chapter we have forwarded a concise classification of the internal senses (with particular emphasis on the cogitative force) in the systems of Alkindi, Alfarabi, Avicenna, Algazel, Averroes, St. Albert and St. Thomas. The purpose of this is to demonstrate the intimate liaison each has with its predecessor. The second chapter is devoted to Avicenna in which two different roles of the cogitative force have been carefully exposed, the same two functions which are preserved by Algazel and later reiterated by Averroes. The third chapter involving Algazel serves as an added affirmation to strengthen our interpretation of the various texts of Avicenna. The fourth chapter is a recapitulation of Avicenna's doctrine as found in the De Anima of Peter of Spain. The fifth and final chapter is devoted to Averroes.

Bearing in mind our motive for undertaking this historical sketch, the ideal plan would include a special chapter on St. Thomas. However, the wealth of material surrounding the Aquinate requires a ponderate evaluation exceeding the length of a chapter. Such an investigation would be stunted if it excluded the rich, fecund observations of the numerous commentators who belong to the Thomistic tradition and inconclusive if it ignored the recent lucubrations of modern scholars. Rather than exclude St. Thomas altogether, though, we have deigned to devote a large measure of the general conclusion to explicating a cardinal point bearing on his cogitative force, namely

its formal object.

I wish to express my sincere gratitude to my parents and to my family who made this dissertation possible; to the members of the Faculty of Philosophy of the University of Ottawa for their scholarly guidance and tutorage; to Reverend Jacques Croteau, O.M.I., M.A., L.Ph., L.Th., under whose direction this thesis was written; and to Reverend Vincent Caron, O.M.I., D.Ph., D.Th., for his generous assistance in the translation of certain German works.

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CHAPTER I

CLASSIFICATION OF THE INTERNAL SENSES IN SEVERAL PHILOSOPHICAL SYSTEMS

1. Propaedeutic

The history and evolution of the internal senses in the Islamic world takes on the aspect of a jigsaw puzzle. Each individual Arabian philosopher appears to use the same number of pieces but none agree fully in the manner of arranging them. To add to the confusion there is no uniform nomenclature. The description of a faculty in Algazel may coincide with one of Avicenna's faculties in everything but the name. For example, the "phantasia" in the text of Avicenna becomes the common sense in Algazel's and Averroes' system. Both fulfill the same function. Worse than this, Avicenna may in one passage ascribe an activity to the imaginative faculty, the same activity which had been previously reserved for the estimative. In the face of these numerous obstacles, we have considered it expedient to introduce this thesis with a sketch of the internal faculties in the system's of Alkindi, Alfarabi, Avicenna, Algazel, Averroes, St. Albert the Great and St. Thomas so that in the subsequent stages of this thesis reference may be made to one or the other with a minimum of confusion.

of Alfarabi succeeded in overshadowing and virtually eclipsing his eminent predecessor, Alkindi, the same fate he was to later suffer himself at the hands of Avicenna. But this does not diminish the magnitude of Alkindi's contribution to the peripatetic tradition in the Islamic world of philosophy. He is the progenitor of Neo-Aristotelianism in the Orient. In the waning years of the

Mussulman's intellectual blossoming, interest was centered more and more on Avicenna to the detriment of Alfarabi and Alkindi. For this reason not a great deal is known of Alkindi's personal doctrines. Many original notions such as the conception of the estimative faculty in brute animals (i.e., the animal's instinct) which are presently attributed to Alfarabi may actually be traced back to him; just as scholars a few years back credited Avicenna (mislead by a statement from Averroes) with having originated this estimative force and having been the first to include the common sense among the list of internal senses. The remarkable thing about these three mileposts (Alkindi, Alfarabi and Avicenna) in the history of Arabic culture is the apparent uniformity of ideas. There is no radical opposition between them. There are certainly many nuances by which we can differentiate one from the other but these differences are not such as to detract from the broad continuity of thought prevalent throughout their treatises. In fact, it is most probably this continuity more than anything else which caused the later Arabes to ignore Alkindi and Alfarabi. Alkindi's treatises became obsolete through their subsequent amplification by Alfarabi; Alfarabi's own works were in turn superseded by the penetrating analysis of Ibn Sina. Each devoured and expanded the ideas of his predecessor without seeking to destroy or refute his fundamental principles. Peripateticism in the Orient was not menaced or harassed with any serious controversy until the sceptic, Algazel, made his appearance.

2. Alkindi

We have said that Alkindi is the progenitor of Neo-Aristotelianism in the Orient. He was undoubtedly the most prodigious figure in the intellectual circles of the Orient during the 9th century. It was through his copious translations and commentaries of Aristotle that Peripateticism became implanted in the Orient.¹ Being in this promiscuous and exalted position we cannot minimize the magnitude of his commentaries despite their brevity. A few of his terse remarks accompanying a passage of Aristotle could have a tremendous repercussion in the evolution of later thought. Bearing this in mind it is evident that even the most frugal and superficial studies of Alkindi must yield an abundant harvest.

Several treatises of Alkindi were made available to the Latin scholastics through the prolific efforts of Gerard of Cremona, John of Spain and Dominic Gundissalvi. These treatises are entitled in their Latin version the "de intellectu", "de somno et visione", "de quinque essentiis" and the "liber introductionis in artem logicae demonstrationis".² The first trace we find of the

¹S. Munk, Mélanges de Philosophie Juive et Arabe (Librairie A. Franck: Paris, 1859), pp. 339-341.

²Albino Nagy, "Die philosophischen Abhandlungen des Jaqhub ben Ishaq Al-Kindi," Beiträge zur Geschichte der Philosophie des Mittelalters, II, 5, Münster (1897), p. XV. The first of these, the "de intellectu" is preserved in two distinct translations; one is undoubtedly the work of Gerard of Cremona, the other is credited to John of Spain. The "de somno et visione" and the "de quinque essentiis" were translated by Gerard of Cremona. The "liber introductionis" is credited to Dominic Gundissalvi. A. Nagy has prepared a critical edition of these texts within this same article. It is this edition of the "de somno et visione" which will be immediately cited.

cogitative force occurs in the "liber de somno et visione".

After explaining the nature of sleep Alkindi proposes to explain what he understands by "vision". He states that the nature of "vision" will become clearer when we learn the functioning of the formative power, the faculty which obtains the individual forms of things deprived of their matter, i.e., when the things themselves are not present to our exterior senses. He identifies this formative power as the faculty which the ancient, sagacious Greeks called the phantasy.¹ Consequently, we may immediately affirm that this formative power apprehends the individual forms of things, the proof being that when the things themselves are removed from the exterior senses (scilicet cum absentia suorum subiectorum a sensibus nostris) the formative may continue to scrutinize these same individual forms.

The difference between the senses and this formative force consists in this that whereas the senses apprehend forms (of the things they sense) steeped in matter, the latter faculty apprehends individual forms dispossessed of this matter, i.e., it apprehends this form with its lineation or outline and all its qualities apart from the exterior object itself.² This power of re-

¹Alkindi, liber de somno et visione, p. 13 in Nagy's edition, line 22: "Si ergo fuerit hoc, sicut dictum est, tunc iam apparet quid sit visio, cum scitum est quae sunt virtutes animae et quae de eis est virtus, quae nominatur formativa, scilicet virtus quae facit nos invenire formas rerum individuales sine materia, scilicet cum absentia suorum subiectorum a sensibus nostris et est illa quam nominaverunt antiqui sapientum grecorum phantasiam."

²Ibid., p. 14, l. 5: "Differentia namque inter sensum et hanc virtutem formativam est, quod sensus facit nos invenire formas suorum sensorum delatas in materia sua, haec autem virtus facit nos invenire formas individuales expoliatas, sine subiectis cum lineatione sua et omnibus suis qualitatibus."

taining the impressions of the object in the absence of the object will immediately reappear again in the classification of Alfarabi and Avicenna who employ the imagination in a retentive capacity. Alkindi's formative faculty in order to possess and study the individual forms of things in the absence of these things themselves must be capable of retaining these forms. The contents of these individual forms include the measurements (lineatio) and qualities of the exterior object. The contents of forms also retained by Avicenna's imagination includes nothing more than the measurements and accidents of the exterior object.

In another paragraph, Alkindi exemplifies the operation of the formative faculty while the individual is awake. He states that when the soul is awake and in possession of the exterior senses an individual form can be imagined about which it cogitates. The operation or cogitation of this faculty manifests itself more clearly in proportion to the intensity of cogitation in which the soul is plunged, this cogitation being accompanied by a cessation of the use of the exterior senses. To prove this he gives us the example of the man lost in thought who is oblivious to the events transpiring about him.¹ In other words, the special function of this formative force is to cogitate. The individual who is awake

¹Alkindi, liber de somno, p. 14, l. 13: "Invenimus enim quandoque vigilantem, cuius anima quibusdam suis utitur sensibus, imaginari formam rerum individualement, in qua cogitat. et secundum quantitatem profundationis cogitationis in eo et dimissionis usus sensuum, est illa formatio magis apparens ei, ita ut quasi testificetur eam suo sensu. et illud est quoniam, quando advenit ei occupatio in cogitatione sua, qua vocet a sensibus, privatur usu visus et auditus. nos enim multotiens invenimus cogitantem interrogari et non respondet, et, re existente coram visu ipsius, cum egreditur a cogitatione, si interrogatur an viderit eam an non, enuntiat se non vidisse eam. et similiter accidit ei in reliquis sensibus, secundum modum eorum."

and yet remains impervious to the movements which stimulate his external senses: organs is occupied with the objects of his formative force, he is cogitating.

The cogitations of this formative force attain an unimpeded freedom of movement when the individual is sleeping. For then his external senses are completely dormant. And, moreover, the forms about which it cogitates while the individual sleeps present themselves in a clearer, firmer light.¹ Thus, when the formative force is completely segregated from the external senses, it can discover or invent what the senses could never create. It can compose or combine forms with each other. It can imagine irrational constructs such as the forms of a rational wolf or the form of a flying man, something which the external senses because of their submersion in matter could never effect.²

¹Alkindi, op. cit., p. 15, l. 7: "Cumque profundatur cogitatio adeo ut non utatur aliquo sensuum omnino, tunc pervenit ei cogitatio ad somnum, et fit virtus ei formativa fortior quam unquam sit, ad hoc ut faciat apparere operationes suas, cum non occupatur ad dandum animae suae formam inventionum cogitationum sensibilium. videt autem eas cum sensu exspoliatas et non est differentia inter eas omnino. immo cum cogitatione sua, in omni in quo cogitat, apparet ei forma cogitationis denudata semper firmiter et manifestius et melius quam sui sensati."

²Ibid., p. 17, l. 10: "Et iterum ipsa invenit quod non invenit sensus omnino. nam ipsa potest componere formas. sensus vero formas componere non potest, quoniam non potest commiscere materiam neque operationes ejus. visus autem non potest facere nos invenire hominem habentem cornua, aut pennas aut aliud ab hoc de illis, quae non sunt homini in natura, neque animal irrationale. non enim potest illud, cum non sit inventum in materia sui sensati omnino, cuius est, ut inveniat formas in ea. cogitatio vero nostra non prohibet nos quin imaginemur hominem volentem, cum non sit pennatus, et lupum rationalem. et haec quidem virtus formativa non est formativa nisi cognitionis sensibilis, quaecunque cogitatio accidit ei. et apud vacationem suam ab omnibus sensibus exemplificatur (vel imaginatur) forma illius cogitationis nobis nuda absque materia. quare invenimus in somno de formis sensibilibus quod non invenimus cum sensu omnino."

Finally we are told by Alkindi that this compositive activity or cogitation which takes place when the soul abandons the exterior senses is simply the "vision" he has undertaken to explain.¹

This formative force is a compact faculty possessing at the same time a twofold function. It imagines or cogitates and retains the sensible forms of the exterior thing. In order to possess and study the individual forms of things in the absence of the things themselves (*cum absentia suorum subiectorum a sensibus nostris*) it must be capable of retaining these forms. It cogitates or imagines these forms by grouping them together in unorthodox patterns to create images incapable of actual existence, such as a talking wolf. These two activities appear again in the doctrines of Alfarabi and Avicenna as we shall see, but they are assigned to two distinct faculties.

Unlike Alfarabi and Avicenna, Alkindi probably never defined his formative faculty (alias the Greek phantasy) as the retentive power of the common sense. In this treatise, at least, he contents himself with the definition that it is the faculty which extracts the individual forms of things apart from the things themselves, the content of these individual forms being nothing more than the configuration and accidental qualities of the exterior object. And because this formative force is in possession of forms elevated above the individualizing, constraining matter of

¹Alkindi, op. cit., p. 18, l. 1: "Visio igitur est cum anima utitur cogitatione et dimittit usum sensuum ex parte sua ex impressione vero sua, ipsa est sigillatio formarum imaginationis, super quam cadit cogitatio habentium formam in anima cum virtute formativa, propterea quod anima dimittit usum sensuum et adhaeret usui cogitationis."

the exterior object, it attains a freedom of marshalling these forms together to group them in any pattern it wishes. This heterodox groupment is the formative force "imagining" or "cogitating" individual forms: "imaginari formam rerum individualement, in qua cogitat". No other faculty but the formative force is postulated to execute these two roles. The cogitation or imagination described here is likewise attributed to the formative.

The two Alfarabian and Avicennian faculties, the formative and the cogitative, are perfectly circumscribed in these two distinctive roles. Alkindi's formative force does retain the individual form of things, his formative force does imagine or cogitate grotesque, impossible images. This embryonic faculty of Alkindi manifests the two major functions which Alfarabi and Avicenna later ascribe to two different faculties. Alkindi does not speak of a cogitative force but he does speak of cogitation; he does not state that his formative force retains the individual forms of external things, but the fact that it continues to scrutinize these forms in the absence of the things themselves necessitates a certain retentive ability. In other words, the elements by which we come to know the formative and cogitative faculties in the doctrines of Alfarabi and Avicenna are already present in the writings of Alkindi in an embryonic state. The subsequent precisions adduced by Alfarabi, gained no doubt through an intensive perusal of Alkindi, made possible a coherent, systematic classification of the internal senses. Within this treatise of Alkindi we have evidence alone of the formative and cogitative faculties but we may easily suppose that in other localities the other internal senses received more than a cursory treatment.

3. Alfarabi

I do not pretend as neither does M. Horten that Alfarabi maintained throughout his various treatises a constant, uniform conception of the internal senses. This is not the significance which should be attached to the following classification. What we wish to establish at this point is that the basic notions of the internal senses which recur throughout all of the authors we treat both in the Occident and the Orient all make their appearance in this enumeration of Alfarabi. M. Horten summarizes them in the following manner:

A. Faculties productive of psychic contents:

I. Faculties for everything which falls within sensitive perception:

- 1) Receptive: assembling place of the sense impressions
- 2) Retentive: the form constructor

II. Faculties pertaining to sensitive qualities, not perceptive (to the previous senses), in other words, the "intentiones"

- 1) Receptive: estimative
- 2) Retentive: memory

B. Faculties which compare the obtained psychic contents:

- 1) under the simultaneous influence of reason: cognitive
- 2) without the cooperation of reason: the compositive phantasy.

M. Horten adds that since B is to be considered only as the power, a parallelism is obtained between the five interior and

the five exterior senses.¹

The first two faculties are easily identified as the common sense and the imagination.² It is only in his later writings, however, that Alfarabi distinguished these two different functions from each other and assigned each to separate faculties.³ This temporary confusion probably induced Avicenna to formulate his famous principle by which both could be separated one from the other: "Debes autem scire quod recipere est ex una vi, quae est alia ab ea ex qua est retinere."⁴ The third faculty, the estimative, fulfills the role comparable to the animal's instinct. It

¹M. Horten, "Das Buch Der Ringsteine Farabis," Beiträge zur Geschichte der Philosophie des Mittelalters, Band V, Heft 3, Münster 1906, p. 220. For a perspective of Alfarabi's position in the Orient, cf. Ibrahim Madkour, La place d'Al Farabi dans l'école musulmane (Librairie Philosophique J. Vrin: Paris, 1934). For an evaluation of Alfarabi's immediate influence on the Occident consult the thoroughly scientific articles of Rev. Angel Cortabarría, O.P., "Las Obras y la Filosofía de Alfarabi en los Escritos de San Alberto Magno," La Ciencia Tomista, n. 236, July-Sept. (1950), pp. 362-387 and n. 238, Jan.-March (1951), pp. 81-104.

²Harry Austryn Wolfson claims that it was Avicenna who introduced the common sense as the first faculty among the internal senses; but M. Horten, whose article previously cited constitutes an intensive investigation of Alfarabi, insists that it was listed among the internal senses in the latter's system. Cf. H.A. Wolfson, "The Internal Senses in Latin, Arabic and Hebrew Philosophic Texts," The Harvard Theological Review, XXVIII, April (1935), no. 2, p. 95: "The first to specifically include common sense in his classification of the internal senses is Avicenna." Cf. also, M. Horten, Das Buch Der Ringsteine Farabis, p. 219: "Ferner ist auch die Nr. 42 genannte Kraft, die der Sammelort der Sinneseindrücke ist, mit in das System der inneren Sinne zu rechnen." These two scholarly articles will be frequently cited within the pages of this thesis. The latter contention is supported by A.M. Goichon. Singling out this same assertion of Wolfson she offers further probative evidence to discount it. Cf. Ibn Sina (Avicenna), Livre des Directives et Remarques (Kitab Al-Isarat wa L-Tanbihat) (translation with introduction and notes by A.M. Goichon; Librairie Philosophique J. Vrin: Paris, 1951), p. 318, note 5.

³M. Horten, op. cit., p. 218 a.

⁴Avicenna, De Anima, fol. 5rb, p. 21.

accomplishes this by apprehending the relation of usefulness and nocivity present between itself and the exterior object. These relations are known as "intentiones" because they are not contained within the range of perception proper to the two previous faculties. The fourth faculty, the memory, acts as the storeroom for those "intentiones" perceived by the estimative force. It retains these intentions within its interior. The last two faculties, the cogitative and compositive phantasy both manipulate the forms or images contained within the imagination; the former operates under the supervision of the intellect the latter without its cooperation. Both occupy a place within the human soul.

4. Avicenna

Avicenna virtually reproduces the same classification.¹ He enumerates them in the following manner:

- 1) Phantasy or Common Sense: function consists in receiving and distinguishing the data of the external senses.
- 2) Formative or Imagination: retains the data turned over by the Common Sense.

Imaginative: Operates on forms contained within imagination; found only in brute animals.

3)

Cogitative: a) operates on forms contained within the imagination;
b) mediates between the imagination and the memory; this faculty is found only in rational souls.

- 4) Estimative: apprehends the insensate intentions pertinent to beneficence, nocivity and utility.

Memory: retains these insensate intentions.

5)

Recollection: power of remembering a thing after it is forgotten; not a faculty distinct from memory but rather a higher function of memory itself, found only in rational souls

¹Infra, chapter on Avicenna.

Here again through the combination of the compositive animal imagination with the cogitative force and the memory with recollection we have a fivefold division. Avicenna modifies Alfarabi's division slightly by confining the compositive animal imagination (under the control of the estimative force) to brute animals thus leaving the cogitative force the sole occupant of the rational soul.

Both of these classifications have failed to specify whether the estimative force pertains exclusively to the brute animal or whether it also has a legitimate place within the human soul. If we were to base our decision solely on the definition and description of this faculty forwarded here by Alfarabi and Avicenna we would have to restrict it to brute animals. The examples they use to illustrate it are taken from the animal kingdom. It becomes quite evident that the estimative is nothing but the animal's instinct insuring the self-preservation of a sentient being lacking intelligence. M. Horten asserts that without modifying or altering their definition, they illogically assign the estimative force a place within the human brain. It occupies the middle section of the brain. It comes in direct contact with the intellect and through this relationship it is enabled to perform a higher task. This is all we learn from Avicenna. The nature of this higher activity is never clarified and in the final analysis it appears that he posited a faculty within the rational soul identical with the estimative of brute animals; a faculty which is also capable of apprehending the nocivity or beneficence of the exterior object in the same fashion as the lamb immediately seizes the hostility of the wolf.

This is briefly the argument with which M. Horten reproaches Avicenna. The argument is partially justified since there is an estimative faculty within the sensitive part of the human soul apprehending the utility and nocivity of things. For this reason, no additional pains has been taken in the foregoing schema to isolate the human estimative force from that of the animal. But, as shall be seen in the following chapter, Avicenna clearly discriminates between the nocive or useful intention proper to man and that proper to the brute animal. He goes to some length to adapt the estimative force to the human soul.

vec Concluding his animadversion, M. Horten further believes that Avicenna became aware of this feeble point in his doctrine and eventually abolished this discrepancy limiting the estimative to brute animals. At the same time, M. Horten continues, Avicenna fails to make a proper substitution within the human soul to compensate for the loss sustained. This deficiency was later perceived by the scholastics who replaced it with the cogitative.¹

M. Horten's assertion that Avicenna eventually banished the estimative from the human soul without attempting to replace it by another faculty is a plausible supposition. However, it appears to me that Avicenna's indifference in replacing this banished fac-

¹M. Horten, op. cit., p. 230: "Avicenna bildet zufolge dieses Textes in charakteristischer Weise eine Mittelstufe zwischen Alfârâbî und der Scholastik, indem er die aestimativa den Tieren allein zuzpricht, jedoch auf der andern Seite noch mehrere Punkte beibehält, die anzeigen, dass er seine Lehre einem Philosophen entnommen hat, in dessen System die aestimativa vom Menschen zu verstehen war; denn Avicenna will in diesem Abschnitte die inneren Fähigkeiten im allgemeinen für Mensch und Tier angeben, unterlässt es aber, der aestimativa, die er nur für das Tier annimmt, im Menschen eine gleiche gegenüberzustellen, nach dem Vorgange von Alfârâbî---ein Ubelstand, den die Scholastiker beseitigt haben."

ulty argues in favor of the opposite theory denying that he ever discarded it at all. As late as Algazel, we find the estimative faculty occupying one of the ventricles of the brain. He defines the estimative in terms relevant to the animal instinct and immediately proceeds to localize it within the human brain. If his predecessor had restricted the estimative to the brute animal it seems that he would have profited from the amendment, especially since his definition pertains exclusively to the brute animal. Furthermore, St. Albert the Great who was intimately acquainted with Avicenna and Algazel insists that the estimative fulfills a specific role within the human soul. Consequently, M. Horten's supposition must be rejected.

Finally his contention that it was the latin scholastics who later restored an equitable balance within the human soul by introducing the cogitative must be rejected as presumptuous. By scholastics he must evidently have St. Thomas in mind since St. Albert the Great adopted Avicenna's and Algazel's classification of the internal senses with slight modification. St. Albert's cogitative force which he prefers to call the phantasy is identical with Avicenna's. But St. Thomas did not improve Avicenna's doctrine on the internal senses by creating a cogitative force to usurp the estimative's rightful place within the human soul. He did not have to. In the first place, as we have already intimated, the Avicennian estimative force was never expelled from the precinct of the rational soul. In the second place, the Thomistic cogitative had already been clearly formulated within the Oriental domain of thought by the Philosopher from Cordova; St. Thomas merely

incorporated the Averroian cogitative within his own system.

The Arabic term for cogitation is fikr. Hence that faculty which cogitates is called by the name of mufakkira. Without knowing the nature of this cogitative force it would seem quite evident that the activity issuing from its interior would be called cogitation. It is natural to suppose that when the cogitative of Alfarabi and Avicenna operates, it necessarily cogitates. Strangely enough this is not true. Their cogitative completes two different functions as the previous schema indicates. In the first role, the cogitative may "imagine" without cogitating, in the second role its activity is invariably synonymous with cogitation. These two distinct functions become isolated in the system of St. Thomas so that it is no longer the same faculty which accomplishes both. Let us see how this transformation comes about.

The first role of the cogitative we have said is to "imagine". In this capacity the cogitative may be better known as the "compositive human imagination".¹ As the compositive human imagination it operates on the forms contained within the imagination proper creating with these forms bizarre constructs such as

¹I have no objection to the usage of this expression, "compositive human imagination" providing it is not abruptly deployed to circumscribe Alfarabi's and Avicenna's cogitative force completely. To use it in this fashion as H.A. Wolfson does is misleading. It creates the impression that Avicenna's cogitative has the sole function of manipulating the forms contained in the imagination proper. True, Avicenna himself conveys this impression whenever he defines the activity of the cogitative force. As shall be seen in the chapter on his doctrine, he invariably describes the cogitative as the compositive human imagination. But this does not prevent him from employing it in its other capacity of associating or dissociating forms with intentions and intentions with forms to complete the second role we have ascribed to it.

the unicorn, centaur or gold mountain. In other words, it is the creative imagination. It is a replica of Alkindi's formative faculty which in the quiet of the external senses fashions imaginative forms incapable of a concrete existence.

In the system of St. Thomas, this compositive human imagination is not looked upon as a faculty distinct from the imagination proper. The creation of fantastic images (such as the ones already mentioned) is viewed as an activity emanating from the imagination itself (i.e., that faculty whose sole function in the systems of Alfarabi and Avicenna is to retain the data of the external senses turned over by the common sense). St. Thomas does not consider it necessary to create a second faculty distinct from the imagination to explain the invention of a two headed man. His imagination itself, because of its elevation within the human soul, is capable of simultaneously retaining the data of the exterior senses and of construing this data to create grotesque imaginative artifacts. To speak of this compositive activity exclusively as cogitation, consequently, would be tantamount to affirming that Alfarabi and Avicenna held a different conception of this activity than that of St. Thomas. For St. Thomas does not identify cogitation as the fictive compositions of the imagination. It is not his imagination which cogitates, this cogitative movement is attributed to an individual faculty distinct from the imagination. He may not deny that the actions of the compositive human imagination facilitate the work of the cogitative force and that the power to fashion these grotesque figures is indispensable to the process of cogitating but he clearly differentiates the two. His

cogitative force may not be able to cogitate without enlisting the constructive assistance of the imagination but he is right in insisting that a person can create a two headed man without cogitating. It is only in the second role of Alfarabi's and Avicenna's cogitative force that we will find something in common with St. Thomas' own cogitative.

Besides acting as the creative imagination, the Alfarabian and Avicennian cogitative force has the added function of combining and separating intentions with forms and vice versa, forms with intentions.¹ This quaint activity constitutes an integral part of the Mussulman's explanation of recollection. It is the investigation immediately preceeding the recovery of the form or intention which had fallen into oblivion. This compositive and divisive activity operating alternately on forms and intentions constitutes the cogitative's second role and in the exercise of this function it has every claim to its name, mufakkira. It is in this capacity that it resembles St. Thomas' cogitative force. Not that St. Thomas as commands his cogitative to interceed between the memory and the imagination in the same fashion as Avicenna and Averroes prescribe; but the compositions and divisions accomplished by St. Thomas' cogitative force, when he states that the cogitative force composes and divides the individual intentions with each other, had their

¹M. Horten denies that Alfarabi's cogitative operates equally on the intentions as well as the imaginative forms. Cf. op. cit., p. 233: "...letztere hat also weder als Objekt die intentiones des Nützlichen und Schädlichen...". In stating this, though, he overlooks one text of Alfarabi which expressly attributes this function to the cogitative. In fact in this same text, there is no mention made of the primary role of the cogitative. Cf. ibid., p. 24, n. 36, d.

origination in this unique explanation of recollection.

5. Algazel

Chronologically the next philosopher to be briefly reviewed is Algazel. His classification merely reproduces that of Alfarabi and Avicenna.¹ Following their example he names five internal senses:

- 1) Common sense: basic function is the reception and distinction of the data obtained from the exterior senses.
- 2) Imagination: retains data impressed on it from the common sense.
- 3) Cogitative: its function is duplex: a) it operates on the forms of the imagination creating any type of image it pleases; b) it also serves to weld the imagination to the memory.
- 4) Estimative: serves as the intellect for brute animals by apprehending the intentions of hostility or friendliness.
- 5) Memory: it is the treasure chamber for the intentions derived from the estimative.

In this classification two points should be noted: 1) the absence of the compositive animal imagination and 2) the cogitative's double function of combining or separating forms with intentions and intentions with forms along with its ability to create new imaginative constructs. This description of the cogitative force is in complete harmony with Avicenna's. Continuing the tradition of

¹This classification is taken from the Maqacid al-Falasifa which was intended by Algazel to be an introduction to his more famous work, the Tahafut el-Falasifa or Destructio Philosophorum. In Averroes' Destructio destructionum philosophiae Algazelis the text of Algazel's Tahafut is reprinted. In this text, Algazel repeats essentially this same classification. Cf. infra, chapter 5, p. 198, note 2 .

the cogitative force as a compositive human imagination, Algazel asserts that it can create with the forms contained in the imagination proper various unorthodox images as a two headed man for example. He passes over this point as if it were a minor trait and dwells more lengthily on its more important function, that of combining or separating intentions with forms and forms with intentions. In the system of Avicenna it had also been the task of the cogitative force to link the imagination with the memory through similar compositive or divisive actions. Algazel also confides this work to the cogitative omitting, at the same time, its correlative faculty proper to animals, i.e., the compositive animal imagination. His omission of the compositive animal imagination leaves no doubt that he is classifying the internal senses of the human soul, not those of the brute animal. Despite this confirmation, however, he sees no contradiction in including the animal's instinct among these faculties. To follow his line of reasoning man would have a faculty by which the lamb perceives the hostility of the wolf. He takes no additional pains to define it otherwise.

His laxity, however, is quite understandable. This passage represents a summary of Avicenna. Algazel intended to reproduce the outstanding features of each faculty without dwelling on them. He probably consulted one section of Avicenna where the internal senses are briefly outlined and contented himself in transferring this section to his own Maqacid. For this reason he ignored the distinct role of the human estimative force in conjunction with the intellect which Avicenna enunciates in his Al-Sifa translated into latin under the title of the De Anima seu Sextus Naturalium.

It might be well to point out another inconsistency which would evolve from Algazel's classification if the estimative force were to be understood merely in relation to the animal. We would have to presume that in order for any man to possess a memory it must be necessary for him to have an estimative faculty similar to the lamb's. His conception of memory like that of Avicenna's is associated with the intentions culled by the estimative. The memory is the estimative's repository. To follow this through to its inevitable conclusion, we would have to deny the existence of a sensible memory within the rational soul. For such an instinct is not to be found in man. As we have noted, Avicenna certainly reserves a special function for the estimative present within the human soul. By differentiating the human estimative from the animal estimative force he precludes this inadmissable dissonance.

6. Averroes

The Averroian common sense and imagination are identical with these same faculties announced by Alfarabi, Avicenna and Algazel. His cogitative force, however, is a compound of two of Avicenna's internal senses. Besides Avicenna's own cogitative, it includes the human estimative as well. Avicenna had considered the cogitative force as a faculty of movement alone and the human estimative as a faculty of perception. By combining these two, Averroes endows the same faculty with these two separate functions. He retains, however, the Avicennian twofold role attributed to the cogitative force, i.e., that of manipulating the forms retained by the imagination and that of interceding between the memory and the imagination to make possible an act of remembrance.

Consequently, in the system of Averroes there is no question of the human estimative force since his cogitative power has adopted the duties of this faculty. Neither is there a question of an estimative power in brute animals. He excludes the Avicennian animal estimative force by reducing its activity to the animal imagination.¹ His conception of memory and remembrance retains the same aspects outlined by Avicenna. Thus he reduces the Avicennian and Alfarabian fivefold classification to four in number. But by transferring the faculty of willful locomotion from among the vital faculties (the place it was consigned by Alfarabi and Avicenna) to place it among the animal faculties he retains the following fivefold enumeration:

- 1) Common sense: its basic function is the reception and distinction of the data of the external senses.
- 2) Imagination: has the single role of retaining the data turned over to it by the common sense.
- 3) Cogitative:
 - i) as the cogitative proper (i.e., Avicenna's)
 - a) it is a creative faculty (i.e., the compositive human imagination.
 - b) it mediates between the imagination and the memory by combining intentions with forms in the process of recollection.
 - ii) as the functionary of Avicenna's human estimative: it apprehends the "individual intentions" of things.

¹H.A.Wolfson, op. cit., p. 107: "Averroes openly rejects the introduction of estimation as a special faculty. He contends that the ancients do not mention it and that it was introduced by Avicenna...a contention which but for the fact that estimation is already used as an internal sense by Alfarabi and independently of the internal senses by Isaac Israeli is quite correct. He further maintained that according to the ancients the unspecified faculty of imagination with which animals are generally assumed to be endowed contains also the function of the estimative faculty."

Memory: retains the intentions seized by the cogitative.

4) Recollection: through a rational investigation the memory regains the forgotten form or intention.

5) Power of Willful Locomotion: the faculty by which the imagination in the brute animal and the cogitative in the human being execute their respective propitious or adverse apprehensions.

A great deal more can be said about the cogitative power proper to Avicenna, Algazel and Averroes and for that reason a brief chapter will be devoted to each. For that matter, a great deal could be said about each faculty being treated. The common sense, for example, certainly has functions other than reception and distinction. But the characteristic trait of each of these faculties has been stressed in order to convey a general idea how they evolved and how certain activities came to be attributed first to one faculty and then to another without substantially altering the nature of the activity.

7. St. Albert the Great

The classification of the internal senses by St. Albert the Great is virtually the same as that of Avicenna and Algazel. This classification is extracted from the Summa de Creaturis (quaest. XXXVII-XLI).¹ Including the common sense among the external senses

¹That the Summa de Creaturis, De Memoria et Reminiscentia and De Anima are authentic works of St. Albert is readily attested by P.G.Meersseman, O.P. Cf. Introductio in Opera Omnia B. Alberti Magni (Bruges: Beyser, 1931); H.C.Scheeben, "Les Ecrits d'Albert le Grand d'après les Catalogues," Revue Thomiste, XXXVI (1931), p. 289 et seq. However, the authenticity of the other two works, Isagoge in Libros de Anima which constitutes a part of the Philosophia Pauperum and the De Apprehensione et Apprehensionis Modis is still contested and he includes them in the list of the writings he calls dubious. The doctrine of the interior senses contained in the Isagoge impugns in no way that found in the previous three works and for that reason we have not hesitated to cite it in con-

he commences his enumeration with the imagination:¹

- 1) Potentia imaginativa seu virtus formalis seu imaginatio:
the retentive imagination or repository for the
common sense.
- 2) a) Phantasia: compositive animal imagination.
b) Cogitativa:
 - i) compositive human imagination.
 - ii) mediates between the imagination and the memory.
- 3) Aestimativa: seizes the "intentiones insensatas".
- 4) a) Memoria: the retentive faculty for the estimative.
b) Reminiscentia: the faculty which retrieves what has
fallen into oblivion; proper to man
only and not distinct from the faculty
of memory.

That this classification can be identified as the personal doctrine of the "Universal Doctor" may be easily inferred from the care he takes to expose, defend and refute the arguments of his

junction with the first three. The De Apprehensione et Apprehensionis Modis has been cited with a little more caution. In reality, however, it appears to be only a summary of what St. Albert has enuntiated in the De Anima. P.G.Meersseman remarks that the literary style alone prevents him from classifying this writing with the other authentic ones.

¹H.A.Wolfson, op. cit., p. 117. H.A.Wolfson splits recollection from memory as if St. Albert considered the two as distinct faculties. St. Albert recognized that memory and recollection were two distinct operations but he understood them as both emanating from the same faculty: "Dicendum, quod reminiscentia est virtus sensibilis animae, et est in subiecto eodem cum memoria, sed differunt in ratione." Cf. Summa de Creaturis, quaest. 41, art. 2, solutio.

Oriental predecessors.

St. Albert the Great was St. Thomas' teacher and as such he must have exerted a tremendous influence over his pupil. In the question of the internal senses, we would logically expect to find St. Thomas of the same mind as his chief professor. Such is not the case. St. Thomas had a definite penchant towards Averroes while St. Albert professes his admiration for Avicenna by adopting without restraint his classification of the internal senses. Following his example, St. Albert separates the compositive animal imagination from the imagination proper and he calls it the phantasy. In the schema above, the cogitative is distinguished from the phantasy but more often St. Albert employs the term, "phantasia" interchangeably with the cogitative power.¹

He retains the estimative force of Avicenna and Alfarabi and seems to be almost ignorant of the different sense Averroes had attached to the cogitative force. He is correct in associating Averroes' cogitative force with Avicenna's estimative but he errs in thinking that Averroes had consigned it to the brute animal.

¹B. Alberti Magni, Opera Omnia (cura Augusti Borgnet; 38 vol.; apud Ludovicum Vives, Bibliopolam editorem: Parisiis, 1890), vol. V, De Anima, liber II, tract. IV, cap. 7: "Et hoc vocarunt phantasiam, quae existens inter memoria in qua sunt intentiones, et imaginativam in qua sunt formae acceptae per sensum, utitur utrisque componendo et dividendo: et haec operatur in somnis, sicut et in vigilia. Phantasia autem ab apparitione dicta est: quoniam illa est major cognitio quam habeat anima sensibilis, et est ultimum virtutis ejus, et haec a vulgo in hominibus vocatur cogitativa: cum tamen proprie cogitare rationis sit proprium. Haec autem phantasia plurimum confert ejus recordationi quod oblitum est per haec quod movet intentiones ad formas, et formas ad intentionem: per hoc enim venit in simile aliquid ejus quod prius scitum fuit, et per illud venit in oblitum, sicut nos in libro de Memoria et Reminiscentia ostendemus." Here he exposes only the second function of the cogitative expounded by Avicenna and Algazel.

Averroes' cogitative force belongs strictly in the rational soul. Therefore, St. Albert has no right to call it the "cogitativa brutorum".¹

At first sight, St. Albert seems to perpetrate the illogicism of Algazel: namely, that the estimative is capable of fulfilling exactly the same role in the human soul as it does in the brute animal; that is, the task of immediately determining what is to be shunned or imitated through the apprehension of what is convenient or inconvenient.

We would be faced with the following alternative: either there is an estimative force in the human soul or there is not. If we accept the affirmative, then we must infer from the description St. Albert frequently gives that we have a faculty which is capable of immediately apprehending values innate in the exterior object comparable to those of utility, nocivity, fidelity or amicability and the like. This militates against experience. Small children for example, confronted with deadly animals are too often oblivious of their grave danger. If we accept the other alternative we have no choice but to reject the possibility of a sensitive memory in human souls since the memory is nothing else than the thesaurus or treasure chamber where the estimative's intentions are stored away. Despite this impasse, St. Albert speaks

¹B. Alberti Magni, Opera Omnia, vol. IX, Liber de Memoria et Reminiscentia, tract. I, cap. 1, p. 98: "Averroes autem improprie vocat cogitativam animalium brutorum, per quam fugiunt nociva et persequuntur convenientia...Quartus locus est in organo virtutis distinctae, quam vocat Averroes cogitativam brutorum, quae distinguit intentiones a figuris rerum." Cf. H.A. Wolfson, op. cit., p. 119.

of a sensitive memory within the human soul thereby implicitly accepting the first contradictory alternative.

Actually to his mind, the problem did not present itself in the manner of the foregoing alternative. For him there was no problem. The estimative in the animal perceived one thing and the estimative in the human soul grasped quite another value. Hence, he felt justified in retaining the name, estimative, in relation to both operations. In fact, he insists that the action proper to the estimative faculty in man is nothing more than an estimate. It is not an opinion, for opinion belongs to the realm of the intellect and envisions a number of individuals. It is an estimate principally because its object is one individual, not several individuals.¹ This probably accounts for his retention of the same name of estimative for the human soul as well as the animal's. The proper function of the estimative faculty, even when abetted by the discursive power of the intellect, is to immediately elicit an intention containing a value innate in the exterior individual and proper to the individual as such. It is evident that the contents of the intention grasped by the human estimative are not in all respects identical to the contents of the intention apprehended by the animal's estimative.² For this reason, St. Albert felt

¹B. Alberti Magni, Opera Omnia, vol. V, De Anima, liber III, tract. I, cap. 2, p. 318: "...aestimatio autem secundum quod hujusmodi non recedit ab hoc individuo secundum quod hoc est: et ideo in homine adjuta ratione non juvatur nisi prout est circa hoc vel illud, et tunc dicitur proprio nomine aestimatio. Si autem compositio alias opiniones similes de pluribus particularibus secundum unam intentionem in eis inventam acceperit, jam hoc est aestimationis, sed cognitionis experimentalis quae rationis est..."

²Idem, p. 317: "Nec potest dici quod hoc sit sensus officium secundum quod determinavimus sensatum per accidens in superioribus:

that he had sufficiently distinguished the two estimatives so as to warrant a valid usage of the estimative in the human soul along with its companion, the sensitive memory. Hence, there was no problem such as the inexorable alternative previously proposed present to his mind.

ext. Anyone might ask the inevitable question of why St. Albert who was apparently equally familiar with all of the Arabes preferred Avicenna's and Algazel's exposition of the internal senses to that of Averroes. Whatever his motivation might have been, his avoidance of Averroes is not accompanied with any defensive arguments. In most probability it was his staunch predilection for Avicenna and his infrangible animosity towards Averroes which caused him to reject the latter. At any rate, the cogitative force in the system of St. Albert the Great is identical with that of Algazel and Avicenna. For this reason, we have not devoted a special chapter to St. Albert in this dissertation. We feel that within the next two chapters the few anecdotes alluding to his writings take sufficient cognizance of his position.¹

quoniam nunquam contingit cognoscere quod iste est filius Dionis, nisi habeatur notitia filiationis secundum quod est in isto: nec unquam lupus miseretur nato suo, nisi habeat cognitionem et hujus individui, et quod hoc individuum est natus ejus: oportet ergo aliquam esse virtutem animae elicentem hujusmodi intentiones, et quod non potest esse imaginatio nec penitus separata ab ea."

¹Beda Thum, O.S.B., "La dottrina di S. Alberto Magno sui sensi interni," Angelicum, XXI (1944), p. 285: "Le funzioni che S. Alberto attribuisce alla fantasia l'avvicinano certo alla cogitativa di Averroes e di S. Tommaso; anche essa è per il nostro Dottore la potenza della cognizione del particolare dai cui fantasmi attinge l'intelletto e la facoltà che rende possibile l'azione pratica superiore; è la mediatrice fra la cognizione concettuale e sensitiva. Ma d'altra parte S. Alberto non l'identifica con l'intellectus passibilis o la ragione particolare e non ascrive ad essa la funzione di raccogliere esperienze generalizzanti dalle

8. St. Thomas

The final classification to receive a cursory consideration is that of St. Thomas. In the 4th article of the 78th question of the first part of his Summa Theologica the internal senses are explained as follows:

- 1) Common sense: predominant function is the reception and distinction of the data obtained from the exterior senses. (Similar to Alfarabi, Avicenna, Algazel and Averroes).
- 2) Imagination:
 - a) it retains the data of the external senses assembled by the common sense. (Similar to the imagination of Alfarabi, Avicenna, Algazel and St. Albert).
 - b) it creates unorthodox figures with the

esperienze singolari. S. Alberto in tutta la sua teoria della fantasia si mostra piu attento a mettere in rilievo ed accentuare la distinzione fra la cognizione intellettuale e sensitiva che non a far comprendere la possibilità della loro collaborazione." In this excellent article, Father Thum correctly recognizes the similarity existent between St. Albert's phantasy and the cogitative of Averroes and St. Thomas. The two exhibit parallel traits. We have already noted that Averroes' cogitative incorporates the second function which St. Albert attributes to his phantasy. Strangely enough, though, St. Albert would have been the last to associate his own phantasy or cogitative force with those of Averroes and St. Thomas. In his mind, their cogitative force corresponds to his own estimative not to his phantasy. This is how he chooses to regard them. It is in relation with Avicenna's estimative that he introduces Averroes' "cogitativa brutorum". Moreover, as Father Thum aptly points out, he refused to identify the phantasy as the passive intellect. In the De Anima of Averroes, the passive intellect is synonymous with the cogitative force. This reluctance on the part of St. Albert to associate his phantasy with Averroes' cogitative force and to prefer to view it in connection with Avicenna's estimative is partially justified. As we have already seen, the Averroian cogitative actually assumes the duties of Avicenna's estimative. The same is true for St. Thomas. Consequently, if we were to seek in the systems of Avicenna, Algazel and St. Albert the faculty which completely adequates the Averroian and Thomistic cogitative force we would have to include their estimative as well as their cogitative, i.e., Avicenna's and St. Albert's.

- 3) a) Estimative: perceives the intentions of nocivity or utility required for the animal's self-preservation. (Similar to the animal estimative of Alfarabi, Avicenna, Algazel and St. Albert).
- b) Cogitative: the correlative faculty of the estimative proper to the human soul. Perceives a higher form of the intentions of utility or nocivity by means of a collation. (This collation involves the second function attributed to the cogitative force by Alfarabi, Avicenna, Algazel, Averroes and St. Albert. This faculty is drawn from Averroes' own cogitative force).
- 4) a) Memory: it is the repository for the intentions perceived by the estimative force. (Identical with the conception of memory already formulated by all of his predecessors).
- b) Rememoration: it consists in a syllogistic inquiry involving the individual intentions. (Nominally identical with recollection expounded Avicenna, Algazel and Averroes).

M. Horten does not recognize the dual role played by Avicenna's cogitative. In his estimation, Avicenna's cogitative serves the sole purpose of manipulating the forms contained in the imagination. We have already intimated that the cogitative has a second function, that of administering to the discursive needs of the memory by associating or dissociating forms with intentions. By neglecting this second function of Avicenna's cogitative, Horten's conclusion, that St. Thomas' cogitative comprises both Avicenna's cogitative and estimative becomes erroneous. For the merger which he claims St. Thomas effected would amount to saying that the cogitative in Thomistic psychology is responsible for the inordinate creations of the imagination. In actuality the imagination itself becomes accountable in the Thomistic synthesis

for the weird images it creates.¹ He relegates the first role of Avicenna's cogitative to the imagination itself. The second

¹M. Horten, op. cit., p. 237: "Dadurch bildet die cogitativa eine doppelte Fähigkeit, ein Paar von psychischen Kräften, indem sie zwei formell und wesentlich verschiedene Potenzen für dieselben hätten aufgestellt werden müssen." The transition from Avicenna to St. Thomas becomes more apparent in the following schema:

Avicenna and Alfarabi:

- I) Imagination
- II) Estimative
- III) Associative faculties
 - a) without cooperation of reason: Imaginative
 - b) with cooperation of reason: Cogitative
 - 1) power of forming unorthodox pictures: creative imagination
 - 2) power of mediating between the memory and imagination: second role of cogitative

Averroes:

- I) Imagination: comprises I).
- II) Cogitative: comprises II) and III b, 1; III, b, 2.

St. Thomas:

- I) Imagination: comprises I) and III, b, 1.
- II) Cogitative: comprises II) and III, b, 2.

Avicenna certainly made a distinction between the compositive human imagination present in the human soul and its counterpart present within the brute animal's. This does not necessarily follow that Averroes or St. Thomas made the same distinction. The fact of the matter is that St. Thomas never recognizes a compositive animal imagination at all. For him the only authentic creative imagination is that found in the rational soul. Avicenna's imaginativa and cogitativa signified one and the same thing to him and his statement in the Summa Theologica that a separate faculty is not required for man to create fantastic imaginative constructs applies to both.

role of this faculty, that of composing and dividing forms with intentions, he assimilates within his own cogitative force. The Thomistic cogitative does not actually deal with both forms and intentions but the compositive and divisive activity ascribed to it is a corruption of this second function. It is true that St. Thomas' cogitative is a compound of the Avicennian estimative and cogitative but this statement becomes unintelligible without distinguishing the two different roles performed by the latter.

This does not mean that St. Thomas was completely aware of this difference between his own cogitative force and that of Avicenna. The only cogitative that he recognizes is the one outlined by Averroes, which he indiscriminately attributes to Avicenna. He knew that Avicenna had posited a compositive imagination between the imagination proper and the estimative force but he seemingly was oblivious to the fact that this compositive imagination was simultaneously called the cogitative force by Avicenna.¹ This is difficult to understand in view of the further fact that St. Albert, his own teacher, was well acquainted with the authentic

¹H.A. Wolfson, op. cit., p. 121: "This does not quite accurately represent Avicenna's classification. In Avicenna, as we have seen, cogitativa is taken in the sense of compositive human imagination and is correlated with imaginativa in the sense of compositive animal imagination. What Thomas really does here is this: He takes cogitativa in the Averroian sense of reason in man and correlates it with the Avicennian aestimativa in animals. Thomas was not evidently aware of the difference in the use of cogitativa by Avicenna and Averroes."

classification of Avicenna and had perfectly reproduced the same faculty in his own system...even to calling it the cogitative.

The similitude of each one of these internal senses with their ancestral lineage is too evident to require further comment. However, the question might be raised whether St. Thomas completely adopted this manner of viewing these senses when he develops them in other treatises. This recapitulation smacks a great deal of Avicenna's mannerisms. For example, the fact that St. Thomas chooses to make the memory the estimative's repository, not the cogitative's, is highly reminiscent of Avicenna. This statement in the doctrine of Avicenna would apply equally to the human soul as well as the animal's since both possess a distinct estimative faculty. But for St. Thomas who restricts the estimative to the brute animal, this conception of memory could not apply immediately to the human soul. To be accurate and decisive St. Thomas should have extended this repository to include the cogitative, the human correlative of the animal's estimative. In view of this passing oversight it might appear that the Angelical Doctor has incorporated within his Summa a synthesis advocated by Avicenna without, at the same time, subscribing to this pattern in his general treatment of the internal senses in other tracts.

To assume this attitude, however, one must assert that St. Thomas teaches one thing and preaches quite another. If his Summa is an epitome of all his known teachings we must suppose that it is in conformity and continuity with his previous doctrine. Otherwise we do him a gross injustice. In reality each of his internal senses possesses the fundamental trait he announces in

this classification. In practice, for example, his memory is the repository for both the estimative and the cogitative depending on whether it is the human or animal memory. Although in many passages where any of these senses are cited we may not immediately recognize them by this description, we need not assume that they cease to be basically what St. Thomas makes of them in this summary. When he wished to put forward a succinct picture of each of the internal senses with a minimum of words he underlined their primary functions, their representative roles. To do this, it was altogether natural for him to resort to the source from whence he had gained them: the literature of the Arabes.

It might be well to bring attention to one instance where St. Thomas deviates from his Arabic heritage. It is the question of recollection. We insisted that his definition of recollection as a syllogistic inquiry involving individual intentions is only nom-
inally identical with the theory expounded by Avicenna, Algazel, and Averroes. The formula is the same in both cases but this is where the similarity ends. The contents of the intention forming a part of the Arabic theory of recollection differs from St. Thomas'. This Arabic intention is a solidified, positive quality whereas the Thomistic intention is simply a mnemonic view.

As shall be seen in the next chapter, Avicenna attaches to recollection a syllogistic inquiry in which his cogitative power combines and separates forms with intentions and conversely, intentions with forms. The intention implied in this peculiar action is a positive quality which was previously apprehended by his estimative force. We were tempted to see in this intention noth-

ing more than the memory's recognition of the form in connection with the past. However, if we accepted this view we would have been sorely taxed to explain why the memory should be searching for that which it already possessed, namely the form itself known as past (ut preteritum) or in other words, the form recognized as having been previously known. Furthermore, since this intention is a factor perceptible to the estimative and merely preserved by the memory, we could not identify it in any way as a tendency, aspect or view proper to the memory alone. Hemmed in by these constraining conditions there was no choice but to accept this intention as a real, substantial element comparable to the imaginative form.

St. Thomas is of a different opinion. He understands this intention as a mnemonic view by which the memory recognizes the imaginative form as an image of the exterior object it represents.¹ From a doctrinal perspective assuredly the memory legitimately enjoys this exclusive privilege. From the standpoint of history, however, it is a misrepresentation of the mind of Avicenna to con-

¹S. Thomae Aquinatis, In Aristotelis librum de Memoria et Reminiscentia Commentarium (editio tertia ex integro retractata; cura et studio Sac. Raymundi M. Spiazzi, O.P.; Marietti: Romae, 1949), lectio III, n. 343, p. 97: "Et sicut accidit de phantasma alicuius singularis hominis, puta Corisci imaginem, quod quandoque ut imago, ita etiam accidit circa intelligibilia: quandoque enim intellectus inspicit ad phantasma, sicut ad quoddam animal pictum, si inspiciat ad ipsum secundum se, sic solum consideratur ut quoddam intelligibile; si autem intellectus inspiciat ad ipsum inquantum est imago, sic erit principium memorandi, sicut accidit tibi, idest circa particularia." In other words, the phantasm may be known as an object of intellect from which the agent intellect abstracts the universal idea or, again, it may be known in its vicarious role whereby it represents the exterior object. St. Thomas sagaciously insists that such a re-cognition of the imaginative form pertains to the domain of the memory.

from this point by citing him as its participant.¹ The Avicennian intention accentuated in his theory of recollection is not a particular aspect of the imaginative form perceptible only to the memory. Consequently, the intentions which figure so prominently in either explanation of recollection are quite different. In St. Thomas' case, the intentions involved in this syllogistic inquiry are simply the forms of things recognized by the memory as representative images and in Avicenna's they are the perceptive products of his estimative force.

As was previously mentioned, this is not an exhaustive appraisal of the internal senses. We have not attempted to do more than enunciate the link cementing the doctrine of St. Thomas with his forebears. In this classification extracted from the Summa Theologica, St. Thomas evidently leans heavily on the authority of Avicenna and from all appearances he merely transfers the latter's classification taken from the De Anima seu Sextus Naturalium to his own Summa. This immediately creates the false impression that he is a faithful disciple of Avicenna in everything except the matter of the imagination where he rejects the autonomy of the creative imagination as redundant. In reality, however, he differs with Avicenna on several other points including his description of the cogitative force although St. Thomas seemed to be unaware of this himself. He would have been more accurate had he

¹St. Thomae Aquinatis, De Memoria et Reminiscentia, lectio III, n. 343, p. 97 (ed. Marietti): "Si autem anima convertatur ad ipsum inquantum est imago eius, quod prius audivimus aut intelleximus, hoc pertinet ad actum memorandi. Et quia esse imaginem significat intentionem quamdam circa formam, ideo convenienter Avicenna dicit quod memoria respicit intentionem, imaginatio vero formam per sensum apprehensam."

cited a text of Averroes to corroborate his position in regards the internal senses; his treatment and understanding of them in other sections of his works is in closer conformity with that of Averroes. However, nowhere in the major commentary of Averroes with which St. Thomas was quite familiar is there an elaborate classification of the internal senses taken collectively. To gain a complete picture of Averroes' internal senses one has to rummage throughout all of his De Anima. Avicenna, on the other hand, presents a succinct summary of each of his internal senses within his De Anima which we will presently study. St. Thomas must have found it more convenient to refer to this recapitulation rather than cite several different passages of Averroes' De Anima. Furthermore, the clarity with which each internal sense is delineated reflects the terminology of Avicenna. For example, the imagination of Averroes is certainly a retentive faculty but nowhere in his De Anima does he distinctly define it as such.

As regards the basic conceptions of the common sense, imagination, estimative (i.e., the animal's estimative) and the memory, St. Thomas appears to have been directly inspired by Avicenna. As regards the development of each of these (save the estimative) and especially his conception of the cogitative he depends more on the De Anima of Averroes. A comparison of St. Thomas' Commentary on the De Anima of Aristotle with Averroes' major commentary of the same treatise will disclose a number of parallel arguments. Many intricate polemics undertaken by St. Thomas in his commentary are direct assaults against the points of view adopted by Averroes in his own De Anima. This is not the proper place to cite examples

but within the general conclusion of this thesis it will become evident that the Thomistic cogitative force, at least, is an extract of Averroes' De Anima.

It is not our contention that each of the internal senses in the system of St. Thomas is a perfect reproduction of the Oriental classification. There are many subtle nuances contained in his various expositions in which he improves and explicitates the doctrines of Avicenna, Algazel and Averroes. These additional nuances cannot be attributed to the influence of the Orient. They are penetrating modifications effected by his own remarkable genius. Despite these subtle inflections every internal sense in the doctrine of St. Thomas has its roots in the Islamic world of philosophy. The fact that even in the twilight of his life he reverted to the authority of Avicenna to strengthen and clarify the doctrine of the internal senses is demonstrative proof of his predilection, obligation and dependence on the Arabes. This is the only prupose we have had in presenting these rough sketches. We wish to make the reader conscious of the sources from which St. Thomas derived his idea of the internal senses and the consequent necessity of studying these in order to understand and appreciate more fully the tremendous powers of assimilation, interpretation and integration the Angelical Doctor possessed.

CHAPTER II

AVICENNA: HIS COGITATIVE
AND ESTIMATIVE FACULTIES

1. Avicenna's place in history

Avicenna,¹ Abu Ali al Hasain ben Abdallah ben Sina (980-1037), exerted a tremendous influence on the formation of philosophical thought in the Middle Ages commencing from the latter part of the twelfth century up until 1230 of the thirteenth. His was the first systematized Oriental doctrine available to the Latin Christians.² M.A. Goichon deems that Avicenna's value to modern scholars consists in his relation to St. Thomas. She states that Avicenna occupies a definitive but progressively feeble place in the Thomistic synthesis.³

That St. Thomas borrowed from Avicenna is incontestable. The numerous references throughout his works and his predilection for the Arabian philosopher both attest and confirm this.⁴ Frequent allusions are made to Avicenna's Metaphysica sive Philosophia Prima, De Anima seu VI Naturalium, De Animalibus, Sufficientia, De In-

¹For a concise synthesis of his life, consult A. M. Goichon, La Philosophie d'Avicenne et son influence en Europe Médiévale (Forlong lectures, 1940; Paris: Librairie d'Amérique et d'Orient, Adrien-Maisonneuve, 1944), pp. 14-15.

²Idem, p. 90.

³Idem, pp. 92-93.

⁴Martin Grabmann, Saint Thomas d'Aquin (translation by E. Vansteenberghe; Bloud et Gay; 6th edition), p. 60.

telligentiis and De Prophetis.¹ In those localities where these works are explicitly cited, one can determine what doctrinal point St. Thomas fused into his own system or rejected as erroneous. But the exact extent of this influence cannot be adequately gauged by a mere perusal of these texts; the actual edition of Avicenna's works which was available to the Angelical Doctor in the thirteenth century would have to be consulted. The 1508 Venetian edition of Avicenna's works which will be consulted in this chapter undoubtedly the same latin translations employed by St. Thomas.² The fact

¹A. Forest enumerates an imposing list of passages where St. Thomas explicitly cites these various works of Avicenna. This list signifies clearly the intimate knowledge St. Thomas had with his illustrious predecessor but we must not suppose that it adequately circumscribes the profound influence Avicenna exerted on the subconscious mind of the Aquinate. The insights, the views, the attitudes of Avicenna became an integral part of the Aquinate's philosophical acumen. The degree to which the subterranean part of St. Thomas' mind became infected with the personality of Avicenna could never be measured by the sparse references scattered through his works. Cf. Aimé Forest, La Structure Métaphysique du Concept selon Saint Thomas d'Aquin (Librairie philosophique J. Vrin: Paris, 1931), pp. 331-360. x

²This 1508 Venetian edition contains the following introduction: Avicenne, perhypatetici philosophi ac medicorum facile primi, Opera in lucem redacta ac nuper quantum ars niti potuit per Canonicos emendata. Logyca. Sufficientia. De Celo et mundo (ex translatione Dominici Gundisalvi). De anima (ex translatione Joannis Hispalensis et Dominici Gundisalvi). De animalibus (ex translatione Michaelis Scoti). De intelligentiis. Alfarabius de intelligentiis. Philosophia prima (ex translatione Dominici Gundisalvi) ...Fol. 109 b: Explicit Metaphysica Avicenne...castigata et emendata per Canonicos regulares Sancti Augustini, in monasterio divi Joannis de Viridario commorantes; Venetiis, 1508. For this explanation I am indebted to A.M.Goichon, La Distinction de l'Essence et de l'Existence d'après Ibn Sina (Avicenne) (Paris: Desclée de Brouwer, 1937), pp. 507-508. Cf. also, P. Mandonnet, O.P., Siger de Brabant et l'Averroisme latin au XIII^e siècle (Institut supérieure de philosophie de l'université: Louvain, 1911), p. 15, note 1. All three of these eminent translators belong to the famous Toledoian school which converted into latin the bulk of Arabic

that it is a different edition than the original manuscript current in the thirteenth century does not detract in the least from its similitude with the original.¹

A.M.Goichon has only the kindest sympathies towards Avicenna

literature during the last part of the twelfth century and the early part of the thirteenth. Cf. Maurice de Wulf, Histoire de la Philosophie Médiévale (2 vols.; 6th edition; Librairie Philosophique J. Vrin: Paris, 1936), II, p. 27.

For all references to the De Anima seu VI Naturalium we shall use George P.Klubertanz's excellent transcription of the same 1508 Venetian edition. For references to other sections of this edition I have taken the liberty to use my own transcriptions. The key to the pagination of the Avicennian references follows this pattern. First the work will be cited, then the division of the manuscript itself and lastly the page referring to Father Klubertanz's transcription, e.g., Avicenna, De Anima, fol. 16 rb, p. 36.

For the latest bibliographical compilation of Avicenna's works in their original Arabic, cf. M.-M. Anawati, O.P., "La tradition manuscrite orientale de l'oeuvre d'Avicenne," Revue Thomiste, LI, n. 2 (1951), p. 407 et seq. On page 414, Father Anawati notes that a long awaited "Avicenna latinus" (i.e., a bibliography of all his works translated into latin during the Middle Ages) by Miss Alverny is still forthcoming. The most complete attempt to compile an "Avicenna latinus" seems to be the article, "Les premières versions tolédanes de philosophie d'oeuvres d'Avicenne", of Father H. Bédoret, S.J. in the Revue Néoscholastique de Philosophie, XLI (1938), pp. 374-400. In this article he describes the contents of the numerous manuscripts he investigated bearing on the following Avicennian works translated by the Toledoian school: Logica, Sufficientia Physicorum, Liber de Coelo et Mundo, De Generatione et Corruptione, De Actionibus et Passionibus, Liber Meteororum, Liber de Anima (Liber sextus naturalium), Liber de Vegetalibus, Metaphysica (Philosophia prima).

¹There are three Venetian editions of Avicenna's works printed in 1495, 1500 and 1508. It is the opinion of Stein-schneider that the last two are copies of the 1495 edition. Cf. H. Bédoret, Les premières versions tolédane, p. 376, footnote 7. Having only the last edition we could not compare any of them together to determine which is superior. However, we may presume that each subsequent edition marked an improvement over its predecessor. The 1508 edition, therefore, should be the most legible of the three.

by wishing to associate him with St. Thomas. She would be the last to intimate that Avicenna's sole value resides in this relationship. Yet, it is surely an enticing proposition to know that a more intimate knowledge of Avicenna will evince a profounder comprehension of St. Thomas. With an air of expectancy hovering in the background we undertook an exploration of Avicenna's works printed in this 1508 edition. The fruits of our research revealed a unique interpretation of common psychological phenomena which becomes overshadowed by the doctrine of Averroes and later ignored by St. Thomas who professed a penchant towards Averroes. Furthermore, we discovered that the influence of Avicenna, as regards the internal senses at least, has a preponderance unmatched by any scholastic of the Middle Ages save St. Thomas himself. In the first chapter of this thesis we traced out the tentacles of his classification as they dominated the closing era of philosophy within the Orient and passed over to the Occident to leave their distinct imprint on the doctrines of St. Albert and St. Thomas. Within this chapter we will have the further opportunity of studying and evaluating two of his internal senses, the cogitative and the estimative. For, the Averroian and later the Thomistic cogitatives are combinations of these two faculties. With this brief "mise au point" we may pass on to the analysis of the Avicennian text itself.

2. The internal senses in general

The major issue confronting us in this chapter is the necessity for determining Avicenna's conception of the "vis cogita-

tativa", its relation with the other internal sense faculties and its relation with the intellect. As we read certain passages throughout this edition, we learn that the "vis cogitativa" co-operates with such generalities as the "motus" or "sensus". In other passages we are at a loss to reconcile timely innovations with the specific activity originally assigned to this faculty. Again, in still other passages, we encounter descriptions which seem to perfectly encompass this "vis cogitativa" but with nothing more than a "sensus interior" or "imaginativa" for a reference or explanation it becomes impossible to determine definitively whether Avicenna is discussing the function of the common sense, imagination, estimative or cogitative force in particular. And, as if these difficulties were not sufficient, we are further encumbered by the seemingly limitless elasticity of each one of these individual senses. It is no uncommon thing for them (especially the common sense and the imagination) to be distended, contracted and even substituted one for the other by turns. In the face of these numerous discrepancies a number of questions inadvertently come to the mind. But such an inanimate text as this translation from the Arabic happens to be will certainly not yield to all the questions which our research will inevitably pose. We shall have to content ourselves with the anemic solution that a minute scrutiny of the text itself will furnish.

After Avicenna has declared that the variety of actions within the soul must proceed from the diversity of its forces or powers (chapter four) he continues to enumerate these forces or powers of the soul (chapter five). In his enumeration, he divides the

animal forces in three main groups, the vegetative, sensitive and human soul following the fashion of Aristotle. From the second of these two types of powers (i.e., the sensitive or vital soul) he deduces two main functions, one by which the soul propels or moves itself, the other by which it apprehends. He further subdivides this function of apprehending into two classes: 1) that faculty which apprehends things exteriorly (a foris) and 2) that which apprehends things interiorly (ab intus).¹ Those faculties which apprehend things exteriorly are called the external senses of which there are either five or eight depending on whether the sense of touch is subdivided into four distinct species or not; the others which apprehend interiorly are called the internal senses. In the ensuing text², Avicenna proffers three fundamental points by which the internal senses may be differentiated one from the other. 1) The first of these consists in the fact that some internal senses apprehend sensible forms (formas sensibiles) gleaned from the external senses whereas others apprehend the intentions (intentiones sensibilium) of these sensible forms. It would be well to explain immediately this distinction between the form and the intention of the form because these expressions recur incess-

¹Avicenna, De Anima, fol. 4vb, p. 20: "Sed vis apprehendens duplex est. Alia enim est vis quae apprehendit a foris, alia quae apprehendit ab intus."

²Idem, fol. 5 ra, p. 20: "Sed virium apprehendentium ab intus quaedam apprehendunt formas sensibiles; quaedam vero apprehendunt intentiones sensibilium. Apprehendentium autem quaedam sunt quae apprehendunt et operantur simul; quaedam vero apprehendunt et non operantur; quaedam apprehendunt principaliter et quaedam secundario."

santly in Avicenna's treatment of the internal senses and more frequently still in the works of those other philosophers of the Middle Ages who borrowed from him. The form may be defined as that which the internal sense apprehends of the thing. For example, all the accidents of a wolf such as his stature, figure, color, weight, etc., which are enclosed in the lamb's imagination (*imaginatio*) are called the form of the wolf. But the aversion and the need for fleeing the wolf which the lamb grasps by his estimative power (*vis estimativa*) is the intention which follows from the form lodged in the imagination.¹ 2) The second fundamental point by which the internal sense faculties are distinguished one from another consists in the ability of some to simultaneously apprehend and operate (*quaedam vero apprehendunt et operantur simul*) while others are limited to apprehension alone (*quaedam apprehendunt et non operantur*). The activity of apprehending and operating simultaneously is explained as the prerogative of some internal senses (v.g., the common sense) to compose forms and in-

¹Avicenna, *De Anima*, fol. 5 ra, p. 20-21: "Differentia autem inter apprehendere formas et apprehendere intentionem haec est: quod forma est illa quam apprehendit sensus interior et sensus exterior simul. Sed sensus exterior primo apprehendit eam, et postea reddit eam sensui interiori. Sicut cum ovis apprehendit formam lupi, scilicet figuram eius, et affectionem et colorem. Sed sensus exterior ovis primo apprehendit eam, et deinde sensus interior, Intentio autem est id quod apprehendit anima de sensibili, quamvis non prius apprehendit illud sensus exterior, sicut ovis apprehendit intentionem quam habet de lupo, quae scilicet est quare debeat eum timere et fugere; quamvis hoc sensus non apprehendit ullo modo. Id autem quod de lupo apprehendit sensus exterior primo et postea interior vocatur hic proprie homine forma; quod autem apprehendunt vires occultae absque sensu vocatur in hoc loco proprie homine intentionis."

tentions with each other or to separate them one from another.¹ In this respect the common sense is not only capable of apprehending the formal objects of each of the external senses but it is, moreover, capable of combining and dividing these forms amongst each other. The imagination, on the other hand (at least in one particular locality), is denied the ability to either compose or divide.² 3) The final point of discrimination between the internal senses consists in the fact that some apprehend a thing primarily whereas others apprehend a thing secondarily. In primary apprehensions the faculty grasps something about an object which is compatible with the usual mode of acquiring a knowledge of this object.³ In secondary apprehensions, the internal sense faculty

¹Avicenna, op. cit., fol. 5 ra, p. 21: "Differentia autem quae est inter apprehendere operando, et apprehendere non operando haec est: quod de actionibus alicuius virium interiorum est componere aliquos formarum et intentionum apprehensarum cum aliis, et separare ab aliquibus. Habet ergo apprehendere et operari etiam in eo quod apprehendit. Sed apprehendere non operando hoc est: cum forma aut intentio describitur in vi tantum, ita ut non possit agere in eam, aliquid ullo modo." Avicenna's words do not clarify whether this composition and separation occurs exclusively between forms and intentions or also includes a combination of forms with forms, intentions with intentions. Since all three modes are found alternately we may suppose that this statement englobes them all. Moreover, he is speaking of several internal senses (quod de actionibus alicuius virium interiorum). He is not defining a principle which applies to one alone.

²Idem, fol. 17 va, p. 83: "...formam enim sensibilem retinet illa quae vocatur formalis, fantasia, et imaginatio; et non discernit illam ullo modo, nisi quia tantum retinet."

³This "quod accidit rei per se" is rather an awkward expression. It must evidently mean that which pertains to the thing per se (quod pertinet rei per se), otherwise there would be no basis for the distinction between the primary and secondary apprehensions. A.M. Goichon does not hesitate to interpret it in this sense although she offers no example to elucidate the point. Cf. A.M. Goichon, Lexique de la Langue Philosophique d'Ibn Sina (Avicenne) (Desclée de Brouwer: Paris, 1938), p. 123, n. 246.

obtains a knowledge about the object from something else (ex alio) which suggests the same object (quod eam induxerit).¹ Avicenna proffers no example himself by way of illustrating his point and the vagueness of the terminology suggests more than one possible application. It seems fairly certain, however, that he is not referring to a dual activity within the same faculty as the versatile common sense could easily fulfill the conditions demanded here. Moreover, he uses (at least his translators) the indefinite pronoun, "quaedam" which implies two internal senses, not one alone.²

Immediately following these general considerations on the internal senses, Avicenna reproduces the same classification as that of his predecessor, Alfarabi, with slight modification. 1) The first of these he calls the fantasy (fantasia, hiss mustarak or

¹Avicenna, De Anima, fol. 5 rb, p. 21: "Differentia autem inter apprehendere principaliter et apprehendere secundario haec est: quod apprehendere principaliter est cum forma acquiritur aliquo modo acquisitionis quod accidit rei per se; apprehendere secundario est acquisitio rei ex alio quod eam induxerit."

²The author of the "Isagoge in libros de Anima" was quite familiar with these three principles. His interpretation of them and especially the third puts in bold relief his intuitive understanding of Avicenna. Cf. B. Alberti Magni, Opera Omnia, vol. V, Isagoge in libros de Anima, cap. XIX, p. 523 (Vivés edition): "Et nota, quod virium intrinsecus apprehendentium quaedam apprehendunt formas sensibiles, sicut sensus communis, imaginatio, sive imaginativa, et excogitativa: quaedam intentiones sensibilibus, ut aestimativa et memorativa. Item harum et illarum quaedam apprehendunt et operantur, ut sensus communis, et excogitativa et aestimativa: quaedam vero apprehendunt et non operantur, ut imaginatio, et memorativa. Item quaedam apprehendunt principaliter, quaedam secundario: et in apprehensione formarum sensibilibus principaliter apprehendit sensus communis cum sensibus exterioribus, secundario vero virtus imaginationis et virtus imaginativa. Et in apprehensione intentionum sensibilibus principaliter apprehendit virtus aestimativa, secundario vero virtus memorativa."

fantasiya) or common sense,¹ located in the anterior hollow of the brain, whose function is to receive for forms which imprint themselves in the external senses and to distinguish these same forms one from another (that is to say, only those forms which are the proper objects of the exterior senses). 2) The second he calls the imagination or formans (formans, musawwira or hayal) located in the highest part of the anterior hollow of the brain whose proper function is to retain those forms which the common sense receives from the external senses even after the exterior object has been removed. 3) The third he calls the imaginative (imaginativa, mutahayyila) when it is a question of brute animals and the cognitive (cogitativa, mufakkira) when it is a question of the human soul.² This power is located in the middle hollow of the brain and its proper function consists in composing or separating forms in the imagination in any combination it wishes. 4) The fourth he calls the estimative (vis estimativa, wahm) which although located in the middle hollow of the brain must surpass the previous power because of its superior elevation. It is situated in the highest part of this hollow. Its peculiar activity is to apprehend in-

¹H.A.Wolfson, op. cit., p. 97: "In Al-Najat, however, he follows the philosophers' view and treats common sense and imagination as two faculties, one receptive and the other retentive, but, curiously enough, he reproduces the Greek word $\phi\alpha\upsilon\tau\alpha\sigma\iota\alpha$ in Arabic transliteration and makes it synonymous with "common sense" as if he did not know that the Greek term meant imagination, which he, following the philosophers, treats here as a faculty distinct from common sense."

²Here he deviates from the doctrine of Alfarabi who taught that both of these compositive faculties occupied a place within the rational soul. Cf. supra, chapt. I, p. 11.

sensate intentions. An example of this insensate intention may be found in a sheep which perceives without previous experience that it must flee the presence of a wolf. This estimative force is also capable of composing and separating within the imagination.¹ 5) The fifth he calls the memory (vis memorialis, mutadakkira) and recollection (vis reminiscibilis) which is located in the posterior hollow of the brain. Its proper function is to retain those insensate intentions which the estimative force apprehends of singular things. Avicenna illustrates this by means of an analogy. Memory is to the estimative force what the imagination is to the common sense. One retains and stores up insensate forms or intentions while the other retains and stores up sensible forms.²

¹M. Horten has the following explanatory anecdote concerning the estimative's compositive and divisive action within the imagination: "...d.h. die Bilden der vorstellenden Phantasie werden nach den Intentionen des Nützlichen und Schädlichen, nicht insofern sie einfache Verstellungsbilder sind, verglichen und zu positiven oder negativen Aussagen verwertet." Cf. M. Horten, op. cit., p. 230.

²Avicenna, De Anima, fol. 5rb, p. 21: "Virium autem apprehendentium occultarum vitalium prima est fantasia quae est sensus communis, quae est vis ordinata in prima concavitate cerebri recipiens per seipsam formas omnes quae inprimuntur quinque sensibus et redduntur ei. Post hanc est imaginatio, vel quae est etiam formans; quae est vis ordinata in extremo anterioris concavitatis cerebri retinens quod recipit sensus communis a quinque sensibus, et remanet in ea post remotionem illorum sensibilium. Debes autem scire quod recipere est ex una vi, quae est alia ab ea ex qua est retinere, et hoc considera in aqua quae habet potentiam recipiendi insculptiones et depictiones et omnino figuram, et non habet potentiam retinendi; quamvis postea etiam addemus certitudinem huius. Cum autem volueris scire differentiam inter opus sensus exterioris et opus sensus communis et opus formantis, attende dispositionem unius guttae cadentis de pluvia, et videbis rectam lineam. Et attende dispositionem huius recti; cuius summitas moveatur in circuitu, et videbitur circulus. Impossibile autem est ut

Although this fivefold classification varies in the Canon, Al-Shifa, Al-Najat and Risalah fi al-Nafs, these variations are but additional nuances and the fundamental unity of this classification is preserved throughout.¹ Whatever the combination may

apprehendas rem aut lineam aut circulum nisi illam saepe inspexeris. Sed impossibile est ut sensus exterior videat eam bis; sed videt eam ubi est. Cum autem describitur in sensu communi, et remouetur antequam deleatur forma sensus communis, apprehendit eam sensus exterior illic ubi est, quia apprehendit eam sensus communis quasi esset illic ubi fuit, et quasi esset illic ubi est, et videt distensionem circularem aut rectam. Hoc autem impossibile est comparari sensui exteriori ullo modo. Sed formans apprehendit illa duo, et format ea, quamvis sit distructa res quae iam abiit. Post hanc est vis quae vocatur imaginativa comparatione animae vitalis, et cogitativa comparatione animae humanae, quae est vis ordinata in media concavitate cerebri ubi est nervus, et solet componere aliquid de eo quod est in imaginatione cum alio et deinde aliquid ab alio secundum quod vult. Deinde est vis extimativa, quae est vis ordinata in summo mediae concavitate cerebri, apprehendens intentiones non sensatas, quae sunt in singulis sensibilibus; sicut vis quae est in ove diiudicans quod ab hoc lupo est fugiendum, et quod huius agni est miserendum. Videtur etiam haec vis operari in imaginatis compositionem et divisionem. Deinde est vis memorialis, et reminiscibilis, quae est vis ordinata in posteriore concavitate cerebri, retinens quod apprehendit vis extimationis de intentionibus non sensatis singulorum sensibilibus. Comparatio autem virtutis memorialis ad virtutem extimationis talis est qualis comparatio virtutis quae vocatur imaginatio ad sensum communem. Et comparatio huius virtutis ad intentiones est qualis comparatio illius virtutis ad formas sensibiles." Cf. also fol. 16 ra, p. 76 et passim.

¹H.A. Wolfson, op. cit., pp. 99-100: "In correspondence with this variety of combinations, Avicenna gives in Canon three kinds of classifications of the internal senses. First, a threefold classification: (1) (a) common sense and (b) imagination (defined in terms of common sense); (2) compositive (a) human and (b) animal imagination and (c) estimation; (3) (a) memory and (b) recollection. Second, a fourfold classification, by counting common sense and imagination as two. Third, a fivefold classification, by counting memory and recollection as two. In Al-Shifa and Al-Najat the classification would seem to be fivefold, as follows: (1) common sense, synonymous with the Arabic transliteration of the Greek $\phi\alpha\nu\tau\alpha\sigma\iota\alpha$; (2) retentive imagination, (3) compositive (a) animal and (b) human imagination, (4) estimation, (5) memory and recollection. In Risalah fi al-Nafs the classification would

be in anyone of these writings, these seven values are inviolably retained: 1) common sense: reception and integration, 2) imagination: retention, 3) imaginative: composition and separation, 4) cogitative: composition and separation, 5) estimative: apprehension of insensate intentions, 6) memory: retention of insensate intentions, 7) recollection: memory involving rational or syllogistic deductions.

3. The cogitative force

A. Preliminary considerations

So much for the internal senses in general. Now, let us turn our attention to that internal force called the cogitative force. It is defined in the foregoing classification as the power of freely combining and separating within the imagination various forms of the external thing. It is located in the middle hollow of the brain. This much we are definitely told by Avicenna. From this information we may deduce that the cogitative force must be distinct from common sense, imagination (*musawwira*), memory and recollection since it is not located in either the anterior or posterior hollow of the brain. The estimative force while located in the same hollow appears to be carefully segregated from the cogitative by reason of the exalted place it occupies in the superior part of this hollow. This distinction may be confirmed by apply-

¹also seem to be fivefold, but arranged as follows: (1) common sense and imagination, the latter not only identified with common sense but also defined as common sense; (2) compositive animal imagination; (3) estimation; (4) memory and recollection; (5) compositive human imagination."

ing the first general principle which clearly differentiates a power whose formal object is "insensate intentions" from a power whose formal object is "sensible forms". It is also clear that the cogitative force simultaneously operates (i.e., composes and divides) while apprehending. This peculiar activity, in fact, is its condition for knowing anything about the object. Furthermore, the cogitative force has a corresponding faculty in brute animals which Avicenna calls the imaginative force (*mutahayilla*).

The precise nature of this imaginative force is a moot question. Does it also compose and divide forms? If so, what distinguishes it from the cogitative? Why designate it by another name? Why call it the imaginative? In another locality, Avicenna partially replies to these questions. He explains that this power is called the cogitative force when dominated by the intellect and the imaginative force when dominated by the estimative force, (*virtus animalis*).¹ The scope of the estimative force not being as diffuse as that of the intellect, the imaginative cannot understandably enjoy the same liberty as the cogitative in manipulating forms. Despite this handicap, however, it seems that the imaginative force partakes in some degree of this constructive acti-

¹Avicenna, *De Anima*, fol. 17 va, p. 83: "Iam autem scimus verissime in nostra natura esse, ut componamus sensibilia inter se et dividamus ea inter se secundum formam quam vidimus extra, quamvis non credamus ea esse vel non esse. Oportet ergo ut in nobis sit virtus quae hoc operatur, et haec est virtus quae cum intellectus ei imperat vocatur cogitans, sed cum virtus animalis illi imperat vocatur imaginativa." This "virtus animalis" is simply another term for the estimative. In another work, Avicenna distinctly employs "vis estimativa" in lieu of "virtus animalis". Cf. A.L. Goichon, *Lexique de la Langue Philosophique*, p. 120, no. 242.

vity. The paramount question is whether this imaginative force is to be found exclusively within brute animals or does it also constitute a part of the internal senses of man. Would it be impossible for the same faculty to alternately "imagine" (when under the influence of the estimative) and "cogitate" (when under the influence of the intellect)? And granting that this might be possible, how could we account for the fact that there is an added internal faculty within man not to be found in animals? Avicenna concedes that the internal sensible faculties function more perfectly in rational beings because of their alliance with the rational soul but he does not multiply them for any similar reason.

In this question, Avicenna deviates from his predecessor, Alfarabi. Alfarabi placed the combining phantasy (*mutaḥayyila*) side by side with the cogitative power (*mufakkira*) within the rational soul. The combining phantasy was governed by the estimative force while the intellect controlled the cogitative sense...hence its name. Avicenna continues to regard them as two distinct faculties but he consigns the combining phantasy to the brute animal while retaining the cogitative for the rational soul. This appears to me to be a very logical scission. Although the cogitative power enjoys the creative freedom afforded by its connection with the intellect, it remains in the final analysis simply another combining phantasy. Nothing more. This being the case, why have two combining phantasies within the same soul? Following this line of argument he must have decided to place one in the brute animal and the other, its counterpart, in the rational soul.

This imaginative faculty (*mulahayyila*) gives us the keynote

to the "ratio existendi" of the cogitative force. It is subservient (i.e., the imaginative force) to the animal's estimative and it is restricted to a compositive and divisive activity not productive of imaginative artifacts. Yet, it is indispensable to the brute animal. Without it no animal could possibly ever adapt itself to new conditions. The dog, for example, could never learn to distinguish his master's voice from amongst a group of others if it lacked this faculty. It is through the associations of its imaginative force that it is capable to recognize its master's voice. It is by reason of numerous experiences in which its master's voice is associated with the numerous benefits derived from it that the dog comes to recognize this voice. The brute animal not only reacts instinctively and immediately in the face of certain propitious or dangerous objects, it also partakes of experience. It can acquire an experimental knowledge by which it learns to recognize an object as useful or harmful. Without this imaginative faculty, its associative and dissociative power, it could never enrich itself through experience.

When this faculty is transferred to the human soul it remains an associative and dissociative power. But because of its proximity to the intellect, this compositive activity gains a complete freedom of movement. It is not constrained by anything, not even the exterior object which it can reshape and ridicule in any manner it wishes. In other words, the unbounded and uninhibited license of this cogitative faculty endows it with a creative power from which strange, weird, impossible images may emerge. But it still remains the servant of the estimative force,

i.e., in this case, the human estimative force. It does not exist primarily to invent impossible, imaginative artifacts. These arise purely from the superfluity of its compositive actions. It exists primarily to serve the estimative force and the efficiency of its service increases in proportion to the degree of its associative freedom. The imaginative in brute animals combines and separates but because its operation is confined to the dictates of the estimative faculty and not the human intellect it is obliged to associate things consistently in the same manner. Thus a bird with slight modification repeatedly reenacts the same movements to build its nest. The continuity and uniformity of its actions are determined by its instinct, its estimative force; the slight modifications it acquires through the years are due to the compositive and divisive actions of its imaginative faculty. Since this same faculty in the human soul is liberated from every form of constraint, it permits the human estimative faculty an adaptation and freedom of movement far surpassing that of the brute animal. The service the imaginative and cogitative forces render to the animal and human estimative faculties is treated at greater length in the discussion of the three modes of estimation at the close of this chapter.¹

¹St. Albert offers a vital comment by which the actions of these two potencies may be more easily identified. According to him who purports to follow the vast majority of "Philosophers" the imaginative of the brute animal is acted upon, it actually does not act; the contrary of this is the cogitative (phantasia) which acts from its own initiative. It derives this impetus from the reason. Consequently when the animal's imaginative is transferred to the human soul it develops into the creative imagination. Cf. B. Alberti Magni, Opera Omnia, vol. V, Liber III De Anima, tract. 1,

des. From this same text,¹ we learn that the cogitative is not as free to combine sensible forms as the preceeding reference would have us believe. It must manipulate these forms in a pattern determined by the exterior object (*secundum formam quam vidimus extra*). It is also under the domination and supervision of the intellect. Not that the intellect itself moulds these sensible forms (this activity is strictly attributed to the cogitative force)² but it can command the cogitative force to compose and separate these sensible forms. Furthermore, the cogitative force can create with these sensible forms of the exterior object any

cap. 3: "Oportet autem latere, quod quando hae potentiae conjunctae sunt, rationi, sicut sunt in homine, accipiunt ordinem agendi et operandi et regimen a ratione: et quia ratio diversificatur secundum diversitatem eorundem de quibus ratiocinatio fit, ideo operationes etiam phantasiae multiplicantur valde: quando autem sunt non cum ratione, tunc ipsae regunt ad instinctum naturae solum: et quia natura uno modo est in habentibus speciem unam, ideo opera phantasiae in omnibus habentibus speciem unam in irrationabilibus sunt uno modo: et ideo omnis hirundo facit nidum, et omnis formica uno modo providet cibum, et sic de aliis secundum visa phantasiae ad instinctum naturae operantibus. Homo autem non sic operatur propter diversa principia operis de quibus inquiri per rationem. Et hoc est quod dixerunt Philosophi quidem in philosophia naturali admodum excellentes, quod istae virtutes in brutis potius aguntur a natura quam agant, in homine autem potius agunt quam agantur: quia in homine natura instrumentaliter tantum subservit eis, in brutis autem secundum aliquid movet eas potius quam moveantur ab eis: ita etiam vis est quae multum impedit intellectum, eo quod nimis occupat animam compositione et divisione imaginationum et intentionum, quarum magna copia est apud eam: et non tantum potest componere accepta a sensibus, sed etiam fingere his similia..."

¹Avicenna, De Anima, fol. 17 va, p. 83, supra, p. 51, note 1.

²Idem, fol. 18 ra, p. 85: "Virtus vero cogitativa convertitur ad formas quae sunt in hac virtute formali ad componendum eas, et resolvendum, quoniam sunt subiecta ipsius."

design it wills whether this resultant product actually exists in the exterior object or not. At least, it is in this sense that I interpret the words of Avicenna: "quamvis non credamus ea esse vel non esse".¹ The cogitative force like every other sensible faculty serves the one soul and the purpose of its activity is not merely to exercise itself irrespective of the other faculties in the human soul as we already mentioned. It not only serves the estimative directly it is also obliged to obey the intellect.²

¹ The usage of the verb credere and the noun fides are clearly explained by A.M. Goichon in the Lexique on page 178, no. 359: "SAD-DAQA, il crut, son esprit adhéra à telle chose reconnue comme vraie, c'est le sens courant." In other words, the expression "quamvis credamus ea esse vel non esse" means simply whether we accept the concoction created by the cogitative force to be a true representation of the exterior object or a distortion of the same.

² Avicenna, De Anima, fol. 18 ra, p. 85: "Ad maiorem autem huius declarationem dicemus nos in sequentibus demonstrationes, quod omnes hae virtutes sunt unius animae, deservientes ei." As a fitting conclusion to these preliminary considerations the following admirable summation may be included. Carra de Vaux, Avicenne (Félix Alcan: Paris, 1901), pp. 215-216: "La formative est suivie par une faculté qui ressemble à une embryon d'intelligence, bien qu'il ne faille pas oublier qu'elle n'est, comme tout ce groupe de puissances, qu'une faculté animale. On appelle cette puissance la cogitative (el-mofakkirah) et aussi l'imaginative (el-motakhayilah) et encore la collective (el-mokallidah). Le rôle assez mal défini de la cogitative est d'opérer un premier travail, encore très fruste, d'abstraction, de groupement, d'association, de généralisation sur les données des sens retenues par la formative. Elle élabore des notions qui vont servir à la faculté suivante, ou opinion, pour former ses espèces de jugements. Cependant, on l'entend bien, ni les notions de la cogitative ne sont vraiment des idées, ni les jugements de l'opinion ne sont vraiment des jugements intellectuels, car les objets sur lesquels agissent ces facultés ne sont pas des universaux, mais seulement des particuliers très imparfaitement dégagés des conditions de la matière. La cogitative a son siège dans la partie antérieure de la cavité moyenne du cerveau tout près de l'opinion." The faculty of opinion is the faculty we have preferred to call the estimative in accordance with the latin translation we are employing.

- B. Primary role of the cogitative: is cogitation synonymous with the action of the creative imagination?

Wolfson prefers to call this cogitative force by the name of "compositive human imagination", probably because the expression facilitates a comparison between the doctrine of Alfarabi and that of Avicenna.¹ This expression at its face value perfectly describes the first role of the cogitative that of operating directly on the imaginative forms retained within the formative or imagination. This expression may be misleading, however. If it is employed without further qualification it precludes the second role which the cogitative fulfills in the Alfarabian and Avicennian psychology. Indeed their cogitative is a compositive faculty whose foremost trait is its associative and dissociative ability. But it exercises this function on the intentions preserved within the memory as well as the forms of the imagination as the expression coined by Wolfson would have us believe. In fact, if we were to limit ourselves to its operation on imaginative forms alone, we would search in vain for an adequate explanation of cogitation. Cogitation does not exist in the invention of a two headed man or similar artifacts. If this were so, we might ponder why Avicenna decides to call the faculty which "combines and separates sensible forms according to the exterior object" by this name, the cogitative. Neither can cogitation be due entirely to this constructive ability since then we would have to also call the external senses, the common sense and the animal's imaginative force by

¹Cf. H.A.Wolfson, op. cit., p. 96.

the same name.¹

Cogitation must be explained by some additional activity. This leaves only its peculiar ability to reconstruct the exterior object in any manner it pleases. That is to say, we may distinguish in this compositive, creative activity the uninhibited power itself and the products which evolve from it. Cogitation does not necessarily reside in the production of purely imaginative constructs. The proof of this is the fact that St. Thomas isolates such imaginative creations from his own cogitative force and assigns them to a separate faculty. However, the ability or power of tampering with imaginative forms without regard for their actual configuration in extraimaginative reality may connote the act of cogitating.

A.M.Goichon defines cogitation (fikr) as the act of reflecting. In this sense an idea is derived from a prolonged reflection, meditation or cogitation on the part of the intellect.² Transforming this to the plane of a sensible faculty, the cogitative force would develop an original artifact within the imagination as a result of a prolonged reflection. In this sense we might interpret Avicenna's words---virtus vero cogitative convertitur ad formas---as if the cogitative's conversion towards the imaginative forms constituted itself the cogitation from which it derives its

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¹Avicenna, De Anima, fol. 17 va, p. 83: "...sensus enim communis et sensus exteriores discernunt aliquo modo et diiudicant. Dicunt enim hoc mobile esse nigrum, et hoc rubicundum esse accidit."

²A.M.Goichon, Lexique, p. 280: "FIKR, pluriel afkar, réflexion, au sens de pensée née de l'action de réfléchir."

name. What would be the nature of this conversion? Would not this conversion be nothing more than the cogitative force "reflecting" (in a metaphorical sense) on these sensible forms, a reflection designed to compose and separate these forms, not in any haphazard fashion, but rather in a premeditated manner? But, then would not the creative freedom of the cogitative force be hampered? And would not the resultant product be necessarily a faithful re-presentation of the exterior object? It is not up to the cogitative force to create (by composition or separation) a true likeness of the exterior object; its peculiar activity consists in creating without regard to convention or exactitude. Like the proverbial expression, "art for art's sake", it creates for the sake of creating or exercising itself.

To the question: "would not the resultant product be necessarily a faithful re-presentation of the exterior object", the answer must be in the negative. Avicenna asserts that the intellect certainly knows the object as it actually exists but this knowledge does not impede it from creating some incongruous artifact within the imagination through the efforts of the cogitative force. The creative freedom of the cogitative would not be hampered through its alliance with the intellect. On the contrary, its creative freedom emanates from the intellect. But, an analysis of the activity of this creative imagination (i.e., an analysis of the power to freely construct diverse combinations of forms) proves that it does not suffice to explain cogitation. Cogitation may presuppose a creative imagination but this does not make them identical. Moreover, if the cogitative were taken exclusively to de-

note nothing more than a compositive human imagination, the process of cogitation would have an entirely different sense in Alfarabi's and Avicenna's eyes than it does in that of St. Thomas.¹ It is not the Thomistic cogitative which has the power to fashion a two headed man or a pink elephant. Hence we must search for some other function exerted by the cogitative force, some other characteristic which can assist us in forming a lucid idea of the nature of cogitation. Did Avicenna attribute another function to his cogitative force?

C. Second major role of the cogitative

I. Cogitativa alias "imaginativa"

In one passage---De Anima, fol. 18 ra, p. 86: "...ita quod non permittit imaginativam cogitare."---, Avicenna seems to speak of the imagination as if it could cogitate. His exact words when translated into english would read, "...so that the imaginative would not be permitted to cogitate". Notice that the term employ-

¹In defense of H.A. Wolfson's expression, "compositive human imagination", it must be pointed out that Avicenna's definition of the cogitative throughout the De Anima as the equivalent of a faculty whose sole occupation consists in creating imaginative constructs would seem to justify the name prescribed by Wolfson. Regardless of the narrow definition, however, the cogitative's scope becomes sufficiently distended to encompass the contents of the memory as well. It combines forms with intentions and intentions with forms. But once this possible confusion is dissipated, this term may be unscrupulously employed to describe one function of the cogitative force. When placed in its proper focus, it circumscribes more poignantly the activity assigned to the cogitative than the name cogitative itself. For, although the cogitative is undoubtedly distinct from the imagination, its field of operation is situated within the latter. So much so that we may well ponder whether it is the cogitative which composes and separates sensible forms or whether it is the retentive imagination itself which effects this composition and division.

ed here is not "imaginatio" but "imaginativa", an inflection which merits closer attention than a cursory glance can provide. Does this "imaginativa" refer back to the cogitative's counterpart in brute animals also called by the same name? It would seem so if one were to judge from the similarity of terminology alone. Furthermore, the "imaginativa" (mutahayyila) in brute animals is also capable of composing and separating forms. Just a little further within this same passage, however, we learn that this sensible power¹ is compelled to obey the rational soul: "...sed trahitur ad partem ad quam trahit eam anima rationalis." Now, the "imaginativa" (mutahayyila) within brute animals is under the domination of the estimative force (virtus animalis) not a rational soul. And, furthermore, its ability to compose and separate sensible forms does not necessarily imply that it cogitates. Otherwise, why would Avicenna refuse it the name of "vis cogitativa"? Consequently, it cannot be the imaginative of brute animals which Avicenna is elucidating here. There remains the imagination, the treasure chest of the common sense. Among all the internal senses, this is the only other faculty bearing a similar name. This nominal similarity momentarily satisfies the mind. I say momentarily because within the same passage we encounter what appears to be an exceedingly awkward operation: the "formal or formative force" (formalis) is impeded from being joined with the imaginative.¹ In other words, the imagination is impeded from being joined with it-

¹Avicenna, De Anima, fol. 18 ra, p. 86.

self. There is a schism between the imagination and itself. How could this be so? How could the imagination be separated from itself? Its activity might be temporarily suspended; its activity might even be perverted. But how could it be disjoined from itself? And why would Avicenna and his translators employ two distinct terms to designate the same faculty? Is this imaginative actually the imagination or formative force after all?

In my estimation this imaginative power is synonymous with the cogitative force. I enumerate the following arguments to sustain my contention. Dominic Gundissalvi identifies the two.¹ In the title of this chapter we are considering where the name "imaginativa" frequently recurs, Avicenna proposes to elucidate the activity proper to the imagination and the cogitative force.² In the succeeding chapter, he reaffirms this previous intention but in doing so he speaks of the two internal faculties which he calls "formalis et imaginativa".³ Hence, he again overtly identifies the cogitative force with the imaginative. A perusal of the actual Arabic texts would be necessary to employ these arguments with utmost certitude. I do not pretend that the term imagination is identical in these three instances. In identifying the cogitative force with the imagination and by dissociating the imaginative

¹Avicenna, De Intelligentiis, fol. 67 b: "...ad cogitativam hoc est, ad imaginativam...". Cf. infra, same chapter, p. 82, note .

²Avicenna, De Anima, fol. 18 ra, p. 85: "Capitulum secundum de actionibus formalis et cogitativae horum sensuum interiorum..."

³Idem, fol. 19 rb, p. 91: "Postquam iam perscrutati sumus dictionem de dispositione imaginativae et formalis..."

from the formative faculty, Avicenna may be employing distinct terms which his translators have failed to convey with this latin version. The unique term of imagination may conceivably hide a number of subtle nuances. Granting that this is so, it still does not detract from the fact that Avicenna's exposition of the imagination in this particular locality coincides in general with much of the activity attributed to the cogitative force by later philosophers.¹

As has been previously noted, Avicenna even speaks of the imaginative as being capable of cogitating. He ascribes to the imaginative force the exclusive role of uniting intentions with forms and forms with intentions, an operation he had in another treatise allotted to the cogitative.² In yet another passage, he states that the cogitative as well as the estimative by reason of its convenient locality dominates the entire brain, a condition he had previously enuntiated for the estimative in order that it might cement the form with the intention.³ Lastly, and this is the cardinal argument, if the cogitative in the eyes of Avicenna does not

¹H.A.Wolfson upholds the accuracy of these translations discounting the disparaging opinion of R. Bacon. Cf. op. cit., p. 115: "Of particular interest to us in this study of these translations is the remarkable care and comparative uniformity with which the technical Arabic terms are rendered into latin."

²Cf. A.M.Goichon, Lexique, p. 281; Livre des Directives et Remarques (translated by A.M.Goichon), p. 322: "Elle (i.e., the estimative force) y est servie par une quatrième faculté à laquelle il appartient de composer et diviser les plus proches parmi les formes tirées de la sensation et les idées saisies par l'estimative; elle a encore à composer les formes avec les idées, et à les séparer aussi de celles-ci. Elle s'appelle, lorsque l'intelligence l'emploie, cogitative, et lorsque l'estimative l'emploie, l'imaginative." The underlining is my own.

³Cf. infra, same chapter, p. 83

intercede between the imaginative forms and the memorial intentions, where did the theologian and avowed enemy of philosophy, Algazel, find time to conceive such a theory? As we shall see a little further on he credits the cogitative force with the function of uniting the imaginative form with the intention lodged in the memory. Did he devote his youth to philosophical pursuits? Pre-supposing that he had, is it merely coincidental that the various activities he describes as pertaining to the cogitative force are identical with those Avicenna ascribes to the imaginative force we are considering? Hardly. He was too familiar with Avicenna's philosophical doctrine.¹ Consequently, we will proceed to consider this imaginative force as identical with the faculty we have undertaken to elucidate.²

¹Cf. Miguel Palacios, La Espiritualidad de Algazel y su Sentido Cristiano (4 vols.; publication of the school of Arabic studies of Madrid-Granada: Madrid-Granada, 1934), I, pp. 28-29: "A este primera época de su vida, es decir, antes de los veinte años de edad, corresponde el origen de su escepticismo místico, según él mismo lo asegura en su libro titulado Munqid, que es una autobiografía, o mejor una apología de su evolución mental." Hence, Algazel's mystical skepticism or rejection of the autonomy of philosophy took root in his early youth. Furthermore, M. Palacios informs us that the psychological doctrine of Algazel concerning the internal senses was extracted directly from Avicenna. Cf. idem, pp. 42-43: "La clasificación de las facultades aprehensivas y apetitivas del alma y su localización cerebral fue calcada por Algazel sobre la psicología de Avicenna."

²In the Isagoge in libros de Anima there is a chapter entitled "De virtute imaginativa". This faculty is unquestionably identical with Avicenna's cogitative force even to its description. Cf. B. Alberti, Magni, Opera Omnia, vol. V, Isagoge in libros de Anima, cap. XVI, pp. 518-519: "...virtus vero cogitativa, sive imaginativa, sive formativa convertitur ad formas quae sunt in imaginatione ad ponendum eas et resolvendum, quoniam ei subjectae sunt." This chapter is concluded with the following notation: "Et nota quod quidam hanc virtutem secundum quod movetur ab uno phantasmate in aliud tanquam essent res, appellant phantasiam: secundum vero transformationes quae sunt in somniis, appellant imagina-

II. Various functions this "imaginativa" fulfills

We are informed that this imaginative force (alias the cogitative) in union with the formative (the repository for the common sense) are strengthened in their proper activity by reason of the intellect's occupation with other things and as a result they "imagine" forms which appear to have an objective existence.¹ Avi-

tivam." Unequivocally we are informed that this imaginative faculty (identical with Avicenna's cogitative) is called the phantasy when it manipulates the forms contained within the imagination and the imaginative when it becomes the subject of dreams. Although this treatise is not unanimously attributed to the pen of St. Albert, it certainly explains why he preferred to call Avicenna's cogitative by the name of "phantasia". He understood this faculty in relation to its primary role (i.e., as a creative imagination) since Avicenna had not given any other definition. Yet St. Albert was not oblivious to the second role enacted by Avicenna's cogitative, that of composing forms with intentions and intentions with forms. Whoever composed this Isagoge in libro de Anima must have had the actual text of Avicenna's De Anima seu VI Naturalium at his elbow. Aside from the numerous citations extracted from Avicenna's treatise it actually imitates the sequel of his De Anima seu VI Naturalium by introducing the question of dreams and prophecy. In Avicenna's De Anima there are two brief chapters which undoubtedly constitute an abridgment of Aristotle's Parva Naturalia containing the treatises of De Memoria et Reminiscentia, De Somno et Vigilia and De Divinatione per Somnum. Aristotle never mentioned these questions in his own De Anima itself. Yet, the author of the Isagoge in libros de Anima briefly touches this problem before passing on to the question of the intellect following the pattern of Avicenna's own exposition.

¹Avicenna, op. cit., fol. 18 ra, p. 85: "Si autem haec forma eo modo quo est compositionis vel divisionis adveniret de foris haec virtus retineret eam, praeter haec, etiam si appareret huic virtuti ex alia causa. Cum autem contingerit ex alia causa, aut ex imaginatione aut ex cogitatione aut ex aliqua figurarum caelestium, ut appareat in formali alia forma; et intellectus fuerit absens, aut cessans ab inspiciendo; possibile est tunc describi in ipso sensu communi, quem ostendimus: aut audiat, et videat colores et sonos qui non habent esse extra, neque aliquid de illis est extra. Et saepius contingit hoc cum negligens est virtus intelligibilis, quia cum anima rationalis occupatur aliis, et non ostendit estimationem et imaginationem, tunc confortatur imaginativa et formativa in suis propriis actionibus, ita ut formae quae imaginantur videantur ei quasi sensatae."

cenna's explanation of this phenomenon hinges on the unity of the rational soul. All the inferior senses are made to serve the superior. The superior faculty of the rational soul, the intellect, cannot equally consider all of its inferior faculties. When its attention is focused on one of them, the others suffer by neglect and in revenge they become strengthened in their proper activity and they function independently from the immediate domination of the intellect through those movements with which they are naturally endowed. In this matter, they may easily distort and falsify the exterior reality of things because of the failure of the intellect to guide them in their meanderings. Surely, Avicenna could easily take his place among the foremost modern psychological exponents of the theory of the stream of consciousness, but with this paramount difference. Whereas modern psychologists only succeed in describing consciousness as a "stream" or compare it with a periphery, Avicenna immediately seizes the nucleus of the problem. His explanation probes beyond the superficial veil of description. His explanation amounts to a definition of the conscious and semiconscious states of the soul. For him the state of semiconsciousness is defined as the activity of those internal or external faculties left to function according to their natural guise. Consciousness would be brought about when the intellect reverts its attention from some other occupation to reconsider these various faculties. Their activity and the object of their activity then immediately return to the realm of consciousness. His dissection of the soul in the same spirit as his Hellenic predecessor, Aristotle, only serves to illustrate its deeper unity.

This imaginative force, another name for the cogitative force, can hamper the soul from carrying out its proper activity by distorting the true existence of the exterior object. But the soul is capable of restraining this faculty either by dominating it along with the common sense and compelling them both to compose and separate certain forms as it sees fit, thereby preventing the imaginative or cogitative force from creating imaginative constructs out of proportion with the exterior object which it falsifies. Thus the intellect impedes the imaginative or cogitative force from representing exterior things.¹

When the imaginative or cogitative force is impeded in either, Its proper activity is weakened. But if both impediments are removed, as for example during sleep, infirmity or when the soul is gripped by terror (for in all these instances the intellect's activity is diminished) then the imaginative or cogitative force becomes strengthened in its proper activity and by converting itself to the formative it is capable of representing forms to the common

¹Avicenna, op. cit., fol. 18 ra, p. 86: "Deinde virtus imaginativa est virtus quam aliquando retrahit anima a sua actione propria duobus modis; uno cum occupatur anima sensibus exterioribus, et convertit virtutem formalem ad operandum in suis exterioribus, et movet eam per id quod reddit ei de illis, ita quod non permittit imaginativam cogitare, sed ut imaginativa impediatur a sua propria actione; et formalis etiam impediatur, ne possit coniungi imaginativae, et id quo utraque eget de sensu communi est pertinax ad impediendum sensus exteriores, et hic est unus modus. Aliquando autem anima praevalet super eam in suis actionibus quae continuantur eidem cognitione et cogitatione, et hoc duobus modis, Uno cum dominatur imaginativae et subiicit eam sibi, et sensum communem cum ea, ad componendum formas aliquas et disiungendum, secundum quod appetit anima vehementer. Unde non licet imaginativae agere quod debebat agere naturaliter, sed trahitur ad partem ad quam trahit eam anima rationalis. Alio cum revocat eam ab imaginationibus quae non assimilantur rebus extrinsecis, et retrahit eam ab his falsificando eas. Unde non multum licet ei effigiare eas et repraesentare."

sense as if they had an exterior existence. The formative sense also apprehends impressions coming from the interior (i.e., from the cogitative force) as well as those from the exterior (i.e., from the common sense). But when the intellect through its cogitation recalls the imaginative or cogitative force to itself by exciting it, these false forms and images are dispelled.¹

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^{all} There are some men in whom the imaginative or cogitative force is domineering to a point that it prevails over the external senses and the formative faculty. And because these men are preoccupied with things of the intellect to the detriment of the things pertaining to the senses, their souls are greatly fortified. These men when awake are similar to those who are sleeping. In

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^{h2}¹Avicenna, op. cit., fol. 18 rb, p. 86: "Si autem imaginativa impedita fuerit utroque modo debilitatur eius actio. Sed remoto utroque impedimento, sicut fit in hora dormiendi, aut uno modo sicut in infirmitatibus quae debilitant corpus et impediunt animam ne habeat intellectum et cognitionem, et sicut fit in terrore cum debilitatur anima, et quasi dissolvitur propter id quod timetur, et retrahitur omnino ab intellectu propter suam debilitatem, et quia timet ne accendant res corporales, et sic quasi discedet ab intellectu et ab eius dominio, tunc potest imaginatio niti et converti ad formalem et coniungere et operari et earum adunatio confortatur simul, et actio formalis fit manifestior, et formae quae sunt in formali praesentantur in sensu communi, et videntur quasi habeant esse extrinsecus. Operatio etenim apprehensa ex eo quod venit ab exterioribus, et ex eo quod venit ab interioribus est id quod praesentatur in formali, et non differt nisi in comparatione. Sed cum sensatum vere est id quod apparet in ea, tunc id quod apparet intus est tale quale est quod apparet foris. Et propter hoc videt epilepticus et perterritus et dissolutus et soporatus imaginationes existentes quales vere videt in tempore salutis, et etiam audit sonos. Si autem cogitatio et intellectus subvenerit ei in aliquo istorum et revocaverit ad se virtutem imaginativam exditando eam, delebuntur formae illae falsae et imaginationes." In this quotation, we have definitive evidence that Avicenna himself did not completely identify the act of cogitation with the action of imagining in the sense of composing absurd artifacts. It is quite evident that when the cogitative force (here called by the name of imaginative) is left to its own devices, it does not properly speaking cogitate but it only imagines. Cogitation returns to it when the attention of the intellect is again focused on its operation.

those whose soul is thus conditioned, the imaginative force is more favorably disposed to prophecize.¹

¹Avicenna, loc. cit., "Contingit autem aliquibus nominibus quod virtus imaginativa sit creata in illis fortissima et praevalens, ita ut non dominantur ei sensus neque formalis resistat ei; et quod anima eorum sit fortissima, ita ut propter hoc quod contemplatur intellectum et id quod est super intellectum, non destruaturs eius descensio ad sensus. Isti habent in vigiliis quod alii in somnis, sicut postea dicemus. Haec enim dispositio dormientis dum apprehendit visiones ut certificetur ei aut ita ut sunt aut propter imagines quas habent. Istis quoque accidunt talia in vigiliis...et haec est propria prophetia virtutis imaginativae." We shall not embark on the question of prophecies which will take us too far afield. This whole section from fol. 18 va, p. 88 to the close of the chapter contains an illuminating exposition of the mode by which the prophecy informs the intellect through the senses, especially the cogitative or imaginative force. Avicenna did not understand a prophecy as a supernatural influx in the soul. To him a prophet was a man who possessed an electrifyingly active imaginative or cogitative force which could respond to the illuminations of the agent intellect and the other celestial spheres. Cf. Georges Vajda, Introduction à la Pensée Juive du Moyen Age (Librairie Philosophique J. Vrin: Paris, 1947), pp. 140-141: "La providence s'exerce donc sur les individus selon leur perfection intellectuelle à laquelle se mesure la jonction plus ou moins étroite de leur intellect avec l'Intellect Agent. Liaison parfaitement naturelle et s'établissant nécessairement dès que les conditions physiques et psychiques s'en trouvent réalisées. A un degré particulièrement intense de cette union, nous nous trouvons en présence de l'inspiration prophétique qui rentre ainsi, Maïmonide l'enseigne à la suite des philosophes arabes, dans le cadre naturel du psychisme humain...A partir d'un certain degré de perfection intellectuelle, l'Intellect Agent illumine le sujet d'une façon spéciale. Cette illumination peut concerner soit l'intellect humain (d'où résulte la plénitude de la connaissance spéculative), soit l'imagination (ce qui confère l'aptitude divinatoire). Or, tandis que la prophétie est l'action conjointe de l'Intellect Agent sur les deux facultés de l'âme, les autres inspirés ne bénéficient de cette illumination que pour l'une ou pour l'autre. On est philosophe ou devin, mais pas les deux à la fois. . .seulement, même interprétée de la sorte, la prophétie demeure un phénomène naturel puisque, en bonne logique, il suffit de la réalisation de toutes les conditions requises pour que l'illumination s'épanche sur le sujet. Les philosophes musulmans ont effectivement tiré cette conclusion." The latin scholastics were aware of this and condemned both him and Algazel for their doctrine of natural prophecies. Cf. P. Mandonnet, O.P., Siger de Brabant, special section at the end of this work: incerti

Here we encounter once again all the elements of Alkindi's formative force which was responsible for the knowledge he called by the name of "vision" which Avicenna terms a "prophecy". Alkindi's formative force is broken down into two component faculties by Avicenna who most probably adopted this dissection already effected by Alfarabi. Avicenna's formative (the retentive imagination) and imaginative force (alias the cogitative) operate jointly. When neither is impeded by the distractions of the external senses or by the domineering vigilance of the intellect, they immediately acquire an unrestrained and extravagant power of invention. For formative supplies the material and the imaginative proceeds to distort it. This creative ability is identical with that described by Alkindi. It is no small wonder that Avicenna and Alfarabi profess a faculty called the cogitative and define its activity in terms relevant to the creative imagination. That is precisely how Alkindi described cogitation. Moreover, Alkindi explained that this compositive activity was provocative of the "vision"; Avicenna reasserts this by attaching prophetic powers to the fortified activity of this imaginative force.¹

auctoris, Tractatus de Erroribus Philosophorum, p. 13, fol. 34 a: (errors of Avicenna) "Uterius erravit circa prophetiam. Bene enim dicit circa prophetiam in eo quod voluit prophetam esse altiore non prophetiis; et quod propheta audit verbum divinum et quod videt, vel saltem videre potest, angelos transfiguratos coram se, in forma qua videri possunt. Sed male dixit, quia visus dicere prophetiam esse naturalem, et voluit quod secundum ordinem quem habet anima nostra ad animos supercoelestes, et ab intelligentia ultima derivatur ad nos prophetia."; p. 16, fol. 34 d: (Algazel's errors) "Uterius erravit circa prophetiam, ponens cognitionem futurorum et prophetiam esse in nobis naturaliter."

¹Cf. supra, chapter 1, pp. 7-8.

We are further informed by Avicenna that the cogitative force like the common sense and the estimative force has a faculty which retains and stores up the sensible forms which it creates. The imagination, the thesaurus for the common sense, acts as the thesaurus for the cogitative force also. In other words, we can remember the pink elephant which we fancied last week without having to create another.¹

The most perfect acquisition proper to the cogitative force and consequently the most perfect act in which it delights is "hope". Hope is something else other than desire. For hope is the image of a thing with the consequent affirmation or opinion that it will be. Desire, on the other hand, is the image of a thing and the concupiscence felt for the thing portrayed which consists in the judgment that if that particular thing were actually present a certain delectation would necessarily follow.²

¹Avicenna, op. cit., fol. 18 ra, p. 85: "Virtus vero cogitativa convertitur ad formas quae sunt in hoc virtute formali ad componendum eas, et resolvendum, quoniam sunt subiecta ipsius. Et cum eis composuerit formam aut diviserit possibile est ut reponat in illa. Illa enim non est thesaurus huius formae secundum quod haec forma comparatur ad aliquid, aut secundum quod est adveniens ab intus vel de foris. Sed est thesaurus eius ideo quod ipsa est forma abstracta hoc modo abstractionis."

²Avicenna, idem, fol. 21 ra, p. 102: "Gaudium enim est delicia. Omnis autem delicia est apprehensio perfectae acquisitionis propriae virtuti apprehendenti. Sicut sentire dulce, et odorem sensui; percipere vindictam virtuti irascibili, et percipere spem virtuti cogitativae et estimativae." Cf. also, fol. 19 va, p. 94: "Spes enim est imaginatio alicuius rei cum affirmatione aut opinione quia erit. Desiderium vero est imaginatio rei, et concupiscentia ejus, et iudicare quod delectabitur in illa si adfuerit." This hope, in other words, is tantamount to affirming that the imaginative portrait we have of an object is a true representation of it.

It is the sole prerogative of this imaginative or cogitative force to pry into the contents of both the formative and memorative repositories. Commencing with either the imaginative or memorative form it proceeds from it to its contrary or to another form midway between the two and thus it compares them. Its nature consists in executing these comparisons. But it is the singular extrinsic object which determines which of these comparisons the imaginative or cogitative will carry out.¹ It is necessary that this process be executed as follows: the soul, in considering simultaneously both the forms lodged within the formative force and the intentions stored up within the memory must proceed from the intention to the form which is prior or, when the connection between the form and the intention has not been previously grasped either by the sense or the estimative force, from the form to the intention which is the more natural course to follow.²

¹These comparisons are undertaken as the preliminary inquiry leading up to the thing we are attempting to recall. But in the chain of argumentative deductions involved in recollection a start has to be made some place. If we are trying to recall the jovial face which passes us on the street we have to commence with something similar or dissimilar to this face. This is what Avicenna means when he states that the choice of these comparisons depend on the exterior object. In reality this section is merely a more ample treatment of the functioning of the cogitative already summed up in a previous passage when Avicenna insists that it combines sensible forms "...secundum formam quam vidimus extra". Cf. supra, p. 55.

²Avicenna, op. cit., fol. 18 rb, p. 87: "Haec autem virtus imaginativa solet rimari duos thesauros, formalis et memorialis, et semper repraesentare formas, eo incipiens a forma sensata, aut memorata procedit ab ea ad contrariam vel ad similem, vel ad aliquid inter quod et illam sit aliqua comparatio. Et haec est natura eius. Sed proprietas motus eius de uno ad contrarium eius, et non ad consimile, vel ad consimile et non ad contrarium eius, fit ex rebus singularibus quae non numerantur. "

III. The cogitative's role in the process of recollection

In this passage, Avicenna is merely outlining the mechanics which make up an act of rememoration.¹ He speaks of two movements, one initiated with the form which culminates in the memory and the retrograde movement culminating in the formative force or imagination. These had already been mentioned in his formal treatment of memory and recollection. Seeing that this operation involves more than a mere manipulation of imaginative forms with the view of

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¹From the context it is evident that Avicenna is elucidating that faculty which assumes the initiative in the obtention of prophecies: "...et haec est propria prophetia virtutis imaginativae". Consequently, it may seem logical to presume that the passage cited above involving this same imaginative faculty deals primarily with the question of prophecy and not rememoration as we maintain. It cannot be denied that this passage deals directly with the question of prophecy but we wish to point out also that prophecy demands a rememorative action to complete its presageing vision. Cf. Avicenna, Metaphysices Compendium (ex arabo latinum reddidit et adnotationibus adornavit Nemataallah Caramé; Pont. Institutum Orientalium Studiorum: Romae, 1926), p. 258: "Praeterea, huiusmodi personae, quae propheta est, existentia, non omni tempore renovatur: materia enim quae perfectionis huiusmodi hominis receptiva est, in perpaucis constitutionibus et complexionibus contingit. Ergo, absque ullo dubio, oportebit ut propheta apte disponit et provideat, ut quidquid statuerit et praescripserit, circa hominum commoda utilitatesque, diuturne perdurat. Haud dubium est utilitatem quae inde exoritur, hanc esse: ut scilicet, homines cognitionem de opifice et de altera vita, ab ipsis habitam, perseverantur teneant; utque horum oblivionis causa, quae propter decessum generationis immediate prophetam sequentis, circa ea accidere posset, penitus tollatur. Ergo oportet, ut ab hominibus sint quaedam facienda atque agenda, quorum iterationem ipsis praescribat temporibus, ita inter se propinquis, ut illud cuius tempus utile et designatum transierit, proximum sit tempori quod transierit et sic recordatio iterum redeat, et antequam haec recordatio deleatur, altera ei succedat. Oportet quoque, ut actiones istae agendaee coniunctae sint cum quadam re, quae necessario in mentem revocet recordationem Dei et futurae vitae; secus enim nulla ex eis caparetur utilitas. Recordatio autem, non aliter fieri potest, nisi per verba quae proferuntur, vel per intentiones quae in imaginatione intenduntur." The underlining is my own.

creating some ridiculous construct, it would be advisable to revert to that section where this peculiar maneuvering of forms with intentions is more amply developed.

In this locality, Avicenna undertakes to expound the intricate comparisons involved in the process of recollection: "...per quod formatur cum memoratur post oblivionem".¹ As was previously mentioned, there are two distinct movements initiated either in the memory or the imagination. The first movement proceeds from the imagination when the estimative calls forth all the forms contained there and reviews them one by one until it locates the proper form corresponding to the forgotten intention. When the proper form is discovered, its corresponding intention spontaneously appears and an act of memory occurs by which the exterior object is recognized as having been previously known. The second movement proceeds from the memory to the imagination. The intention of the exterior object is already present within the memory but its corresponding image remains unknown. In this case, the comparison initiates in the memory and terminates in the imagination with the view of recalling the forgotten image. Two courses are open to effect this: the memory may undertake a search throughout the intentions which it has stored up in order to locate the propitious intention which can awaken the desired image or it can have recourse to the objects contained within the scope of the exterior senses and institute a search in those channels through

¹Avicenna, op. cit., fol. 17 vb, p. 84.

which the image originally entered the imagination.¹

To illustrate the first movement from the imaginative form to the mnemonic intention he offers an example. He states that when you are oblivious of your comparison to some form which you had previously known, you consider the action through which it originally appeared and when you discover this action you know which figure or color or taste it must have, and your comparison is restored to this form (of color or taste or figure). When this has been carried out you have regained the original form which you had known before in the imagination and through this form you can restore the comparison within the memory, i.e., you can regain the forgotten intention.² This example appears more cryptic than his

¹Avicenna, op. cit., fol. 174 vb, p. 84: "quod fit cum existimatio convertitur ad suam virtutem estimativam et repraesentat unamquamque formarum quae sunt in imaginatione, ita ut quasi modo videat quod ipsae sint formae eius. Cum vero ostensa fuerit forma quae apprehendit intentionem quae deleta erat, apparebit ei intentio sicut apparuerat extra, et stabiliet eam virtus memorialis in se, sicut stabilierat prius, et fiet memoria. Et aliquando perveniet ab intentione ad formam, et memoria tunc habita non habebit comparationem ad id quod est in thesauro retinendi; sed ad id quod est in thesauro imaginandi, et eius conversio erit aut ex hoc quod convertitur ad intentiones quae sunt in retentione, ita ut intentio faciat sibi formam necessario apparere, et convertetur iterum comparatio ad id quod est in imaginatione; aut propter conversionem ad sensum."

²Ibidem, "Exemplum autem primum est: quod cum oblitus fueris comparationis tuae ad aliquam formam quam iam tu scieras, considerabis actionem quae apparebat per illam, et cum scieris actionem et inveneris eam, scies quem saporem aut quam figuram aut quam colorem debeat habere, et revocabitur comparatio tua ad formam et cum posueris hoc acquiretur comparatio ad formam quae in imaginatione est, et restitutes comparationem in memoriam."

explanation and his failure to elucidate this quaint exposition of recollection by supplying a tangible example greatly diminishes its value. What is most vexing is the frequent recurrence of this explanation of recollection throughout most Arabic treatises subsequent to Alfarabi¹ and in each case, there are numerous explanations which all bare faint points of resemblance so that we might say that Algazel holds the same doctrine as Avicenna or that Averroes expounds the same doctrine as Algazel. But in none of these expositions is there one practical, clairvoyant example offered to illustrate the operation. Even St. Albert becomes hazy and obscure when he treats this problem. He seems to have learned his lesson well and is capable of repeating with an irritable accuracy what he has seen in the Mussulman's treatises but he conveys anything but a crystal idea concerning the practical application of this operation.

The stumbling block resides in the nature of the intention which is associated with the imaginative form. There is nothing novel about the comparative investigation forming the preliminary stages in the process of recollection. Aristotle himself was most eloquent in disclosing the quasi syllogistic meanderings of

¹St. Albert must have had access to some work containing the Alfarabian doctrine of recollection since he cites him along with Avicenna and Averroes. Furthermore, he singles them out for the uniformity of their views. Cf. B. Alberti Magni, Opera Omnia, vol. IX, De Memoria et Reminiscentia, tract. II, cap. 1: "Ponamus igitur primo sententias Averrois et Avicennae, et Alexandri, et Theophrastii, et Alfarabii, qui omnes concorditer dicunt, quod remiscencia nihil aliud est nisi investigatio obliti per memoriam."

the memory in quest of a forgotten experience. But, the dubious intention never entered his exposition. In his own treatise of recollection, it is the imaginative form seen as the image of the external object which forms the subject matter for the memory's recollective search.¹ This mnemonic intention is something added most likely by Alfarabi. But what is this intention which is associated with the imaginative form? What is the content of this intention in the light of Avicennian psychology?

It is, first of all, a residual quality which the memory habitually preserves within its interior. For prior to forgetting this intention the memory presumably must have had the power of retaining it. And since the memory has already been defined as the storeroom for the intentions apprehended by the estimative we may safely conclude that this intention is nothing more than the perceptions of the estimative force. But these perceptual intentions are apprehended by the estimative in several ways. Avicenna indicates three of these. A study of the second will provide us with the necessary clue to solve the enigma of recollection.

This second mode by which the estimative acquires the intention of beneficence or nociveness is illustrated by an example taken from the animal kingdom. He is describing the method in which an animal gains through experience a conditioned knowledge of the beneficial or nocive value pertinent to the numerous things about

¹As was previously mentioned, this was the inadmissible interpretation St. Thomas had given to this intention which figures so prominently in Avicenna's theory of recollection. Cf. supra, chapter 1, pp. 33-35.

it. Thus through experience, dogs come to fear stones and sticks. This knowledge is acquired in the following manner. When an animal senses a certain pain or joy it associates these sensations with the forms from which they are derived. Or to put it in other words, when an animal senses something useful (joy) or something nocive (pain) it is always in relation with the same sensible form. Hence, the sensitive form of the thing is described in the imagination (in formali) along with the forms of pleasure or pain which it engenders. The intention of this operation (i.e., the pleasure or pain associated with the particular form from which they emanate) is afterwards described in the memory and the memory is subsequently capable of passing the judgment that it knows this operation as a previous one. It is in this manner that an intention of the beneficence or nociveness of a particular object is acquired.¹ So that if an animal were to again confront the original object, the following operation would be enacted. The form of the thing would appear in the imaginative power and would provoke the imaginative power to seek the intention of utility or nociveness with which the form was originally accompanied. To do this the imaginative form would have to delve into the repository of the memory. For such is its nature. But the estimative force senses all this together and recognizes within this particular form the accompanying intention of nociveness or beneficence.¹

Let us take the case of the dog and its fear of a stick. The

¹Cf. infra, this same chapter, p. 106, note 2 .

dog, Bozo, has been frequently badgered by its master with a stick utilized solely for this purpose. Bozo's imaginative force eventually comes to associate the pain it feels with the form its imagination gives it of this stick. When this association has been properly established, the pain associated with the stick becomes entrenched in the memory. So that whenever Bozo is threatened with the stick, its imaginative force immediately associates it (the form of the stick) with the pain it can inflict. But the form itself of the stick portrayed within the imagination (*vis formalis*) is distinct from the pain linked with it. The pain associated with the stick constitutes the intention of nociveness apprehended by the estimative and later confined to the memory. (The memory obtains its intentions from the estimative). So that the estimative force comes to know the stick as a harmful object. It is not the imaginative force which recognizes the stick as harmful. It merely associates the stick with the pain. It is the estimative which ultimately evaluates the stick as a harmful object. In a similar fashion, the estimative faculty located within the human soul obtains an estimative knowledge of various things with which it comes in contact. We do not know instantaneously the quality or character of Mr. Jones down the street. We do not know if he is affable, kind, generous, supercilious or miserly. We acquire this information through a comparative analysis of his actions culminating in a qualitative or estimative judgment of his character. It is quite possible that the first time we meet Mr. Jones we either are attracted or repelled by him without even having exchanged a word of greeting. Mr. Jones could easily be as-

sociated by the cogitative force (Avicenna's that is) with some other individual because of some external appearance and the estimative force pronounces its judgment that Mr. Jones is a despicable person. But whatever be the judgment, it is an estimate bearing on the nocive or beneficent quality of the exterior object. This is the content of the intention. Fortified with this conception we may return to the problem of recollection with greater assurance of solving the dilemma.

The first movement of recollection, as we remember, proceeds from the imagination and terminates with the repossession of the intention retained in the memory. Thus, the shape, color, approximate weight, the appearance and other similar characteristics of Mr. Jones would reappear in the imagination. Immediately the Avicennian cogitative seeks to restore to this imaginative form of Mr. Jones, (this imaginative form is taken in a collective sense) its corresponding intention that he is despicable. But this intention has fallen momentarily into oblivion and the cogitative has to resort to a ratiocinative examination of all those impressions connected with him in order to call back this particular intention. Thus, it considers primarily the action by which Mr. Jones originally entered the imagination. A consideration of this activity, such as our departure from the house on our way to the office, restores the form of Mr. Jones also departing for work. This in turn immediately gives rise to other additional factors such as the time, the place and the length of the acquaintance and the identity of Mr. Jones as our next door neighbor. When these additional qualifications of Mr. Jones are recovered, the

cogitative immediately regains the forgotten intention retained in the memory: Mr. Jones is a dispicable person. During the course of this inquiry, the cogitative is assisted by the memory which remembers each one of these factors as they are restored to the imagination (i.e., the memory recognizes each as having previously known it: "...memoria per seipsam naturaliter apprehendet hoc...").

At the risk of misinterpreting his authentic doctrine we have inserted the example which Avicenna failed to provide. The example itself may not be a satisfactory elucidation of all the intricacies of recollection but it gives us some indication of the nature and content of the intention which plays such a prominent part in the Arabian theory of recollection. The intention consists of a value judgment bearing on the beneficence or nociveness of the exterior object.

Moreover, it is not the primary interest of this dissertation to elucidate the Arabian conception of recollection. We are considering recollection merely because it entails a compositive and divisive activity proper to the cogitative force. The vital point to be retained here is that recollection involves a previous inquisition and that it is the cogitative force which is responsible through its comparative efforts in recalling or evoking the forgotten intention or form. That these comparative efforts include a combination or separation of forms with intentions or intentions with forms is accidental to the nature of this activity. What we have attempted to show is the difference between this second role of the cogitative in its service to the memory and its former role

as the compositive human imagination.¹

¹Liber Avicennae de Intelligentiis, fol. 67b (in 1508 Venetian edition): "Propterea duas visiones volumus commendare: unam cum visio sentientis formatur ex corpore: aliam cum visio animi formatur ex memoria: aliam vero nolumus (sic): quoniam solet dici visio quando forma memorie commendatur que sit in sensu cernentis. De altera autem specie corporis (que sentiebatur) remanet in memoria similitudo eius: quo rursus voluntas convertat aciem: ut ex inde formetur sensus intrinsecus: sicut in corpore sensibili obiecto formatur sensus extrinsecus: sicque fit trinitas illa ex memoria intelligentia visione: et (que utraque copulat) voluntate: que tria cum cogantur in unum ab ipso coactu cogitatio dicitur. Scias autem quod in unum coguntur cum in unum sint coeuntia: hoc est in unam visionem. Memoria voluntas et acies formandi: ex iam dictis planum est quid sit cogitatio: et certus es per hoc quod non est in cogitatione nisi id cuius est receptibilis memoria: et memoria non recipit aliquid: nisi a virtute sensibili. Igitur cum vires sensibiles non apprehendant: nisi intelligentes que non transcendunt sensus; neque formas: nisi quas apprehendunt sensus: tunc certus es quod causa prima est supra cognitionem. Hic autem modus quo te certificavi est modus auctenticus cui nephas est contradicere: quoniam veritas est in ipso. Verumtamen etsi ostendimus memoriam esse radicem aciei cogitantis: scias tamen aciem animi posse converti ad cogitativam hoc est ad imaginativam que est vis sequens imaginariam: et ipsa est componens aliquid de his que sunt in imaginaria cum alio: et dividens similiter secundum voluntatem. Si autem convertatur ad eam per voluntatem, sequitur visio intrinseca: et propter hoc credimus cogitationis radices esse duas: sed non simul." This treatise is purportedly not an authentic work of Avicenna because of the numerous allusions to St. Augustine and Dionysius. It is commonly attributed to Dominic Gundissalvi. Cf. E. Gilson, "Les Sources Gréco-Arabs de l'Augustinisme Avicennisant," Archives d'histoire et Littéraire du Moyen Age, IV (1929-30), pp. 92-93. The first vision described here proves that Dominic Gundissalvi did not confine cogitation to this compositive and divisive activity whereby the cogitative force becomes a compositive human imagination. In this first vision the memory is the root of cogitation. Dominic does not amplify this assertion but no additional proof is required to demonstrate that the cogitation of this first vision is identical with the cogitative or imaginative force's (as he pairs them himself) occupation in the process of remembrance. At least, no further proof is required to demonstrate that Gundissalvi had a double view of cogitation: "...et propter hoc credimus cogitationis radices esse duas". The vision announced here is undoubtedly a continuation of the problem of vision and cogitation broached by Alkindi.

Returning to the previous locality where recollection is expounded, we read that the faculty which combines forms with forms and intentions with intentions is the ubiquitous estimative. Because of its convenient locality in the central part of the brain it is capable of communicating with the forms as well as the intentions.¹ But notice that Avicenna's statement is not emphatic. He uses the indefinite article "quasi". For he adds immediately afterwards that in accomplishing this task, the estimative is simultaneously the cogitative (which is listed first), the imagination and the memory.² In other words, it is actually the cogitative which is responsible for these comparisons. It is also conveniently located in the middle ventricle of the brain between the imagination and the memory. And in this position it equally dom-

¹Avicenna, De Anima, fol. 174 vb, p. 84: "Et haec virtus quae componit inter formam et formam, et inter formam et intentionem est quasi virtus estimativa. Et haec propter locum, non propter hoc quod iudicat, immo quia facit pervenire ad iudicium. Iam autem posuerunt locum eius in medietate cerebri, ideo ut habeat continuitatem cum intentione et cum forma."

²Ibidem, "Videtur autem quod virtus estimativa sit virtus cogitativa et imaginativa et memorialis, et quod ipsa est diiudicans. In another locality Avicenna clearly states that the estimative force resuscitates the forms retained within the imagination only through the medium of the imaginative force: "Probatio autem certitudinis huius rei, scilicet quod existentia huius formae in estimatione est extra existentiam eius in imaginatione, hoc est autem quod imaginatio est quasi conservatrix, et formae quae sunt in ea non sunt semper imaginatae ab anima in effectu. Si enim ita esset, imaginatio simul deberet imaginari multas formas qualiscumque forma esset in imaginatione. Sed neque haec forma in imaginatione est ad modum eius quod est in potentia. Sed enim ita esset, oporteret ut creaturae exteriores redirent ad eam iterum. Sed sunt repositae in illa. Estimatio vero mediante virtute cognitionis aut imaginativae ostendit eas animae, et penes eam consistit redditio formarum sensibilium. Cf. De Anima, fol. 16 va, p. 77. Underscoring is my own.

inates the other internal senses.¹

Avicenna seems to be fond of intermingling the functions of the imaginative, cogitative and estimative faculties. In certain passages, he informs us that it is the imagination (i.e., the retentive power for the common sense) which cogitates or that the cogitative is capable of imagining just as in this last passage we learn that it is the estimative which composes forms with intentions. St. Albert was aware of this ambiguity. In the fourth article of his "Summa de Creaturis" where he is treating the act of the "phantasia" (i.e., Avicenna's cogitative) he gives us the reason for this substitution. He explains that the phantasy can be taken in a wide sense in which case it encompasses all three faculties. It is in this sense that Aristotle understood it. Or the phantasy may be taken in a strict sense and accordingly it must be distinguished from the other two because of the diversity of its activity.² In other words, Avicenna's fondness for substitution

¹Avicenna, De Anima, p. 142: "Virtus vero formalis et communis sensus fiunt in prima parte cerebri, spiritu replente ipsum ventriculum; quae omnia non fiunt ita, nisi ut respiciant super sensus, quorum plures non derivantur nisi ex priore parte cerebri. Cogitatio vero et memoria sunt in aliis duobus ventriculis. Sed memoriae locus est posterior, ideo ut spiritus cogitationis sit in medio, scilicet inter thesaurum formarum et thesaurum intentionum. Et spatium quod est inter utrumque est aequale, et ut ille et estimatio dominantur in toto cerebro."

²B. Alberti Magni, Opera Omnia, vol. XXXV, Summa de Creaturis, Secunda pars, quaest. 38, art. 4, p. 334 a, solutio: "Dicendum, quod si phantasia large accipiatur, tunc parva erit differentia inter phantasiam et imaginationem et aestimationem quantum ad actum, objectum, et organum. Et hoc modo videtur aestimationem quantum ad actum, objectum, et organum. Et hoc modo videtur sumere Aristoteles, qui dicit phantasiam esse potentiam secundum quam phantasma nobis fit, et quod phantasia est motus a sensu secundum actum factus, quod totum convenit imaginativae. Dicit

stituting the activity of one faculty with that of another stems directly from the unity of Aristotle's phantasy which had been previously broken down into three distinct faculties by Alfarabi.

IV. Cogitation as an inquisition

As we have seen, cogitation becomes unintelligible when equated with the creative imagination. If we are to understand cogitation simply as an act of the imagination guided by the nobler interests of the intellect or preferably the estimative force, we must conclude that the word has one meaning for Avicenna and Alfarabi and another for St. Thomas. We shall attempt to prove that cogitation for Avicenna consists predominately in the second function of the cogitative (i.e., that of mediating between the forms and the intentions). By scrutinizing this second function of the cogitative we may gain a more accurate conception of this activity called cogitation.¹

etiam phantasiam esse veram et falsam, quod convenit potentiae dividendi et componendi imagines apprehensas. Dicit etiam phantasiam esse moventem, per quod etiam determinat delectabile et triste, et nocivum et conveniens imaginibus apprehensis, quod videtur convenire aestimativae. Si autem stricte sumatur, tunc distinguitur phantasia ab imaginativa per hoc quod non est ejusdem potentiae in specie specialissima tenere imaginationes, quod fit per virtutem sicci et conferre eas, quod fit per virtutem spiritus subtilis et mobilis. Et ideo quidam Auctores sequentes hanc rationem, distinguunt inter phantasiam et imaginativam."

¹In most places where St. Albert treats the phantasy he merely reiterates the definition proffered by Avicenna, namely, that it serves the unique purpose of combining and separating forms within the imagination. In one place, even, he insists that this faculty is called the cogitative principally because of this compositive ability. Cf. B. Alberti Magni, Opera Omnia, vol. XXXV, Summa de Creaturis, Secunda pars, quaest. 38, art. 1, p. 331 a,

The cogitative is the handmaid of memory; it is in continuity with the imagination and the memory. It serves the memory by instituting a constructive comparison within the imagination or within the interior of the memory itself depending on whether the act of recollection commences with an intention or with an imaginative form. Briefly, it executes the laborious preparation which immediately precedes the memory's recognition of an object. In order to accomplish this it must be under the immediate supervision of the intellect. By reason of this liaison it surpasses its counterpart within brute animals. It acquires the added perfection of "cogitating". And man, as a result, can both remember and recollect. For the cogitative force serves the memory so well that it permits the latter to track down what has already fallen into oblivion. In animals, the memory responds automatically or not at all. When an animal is confronted with an object, either it remembers the object or it does not. If it does not remember the object (or the particular experience which it previously derived from the object) it does not commence a premeditated quest in search of a certain imaginative form with the design of recalling

solutio: "Dicendum, quod phantasia...stricte autem accipitur pro potentia collativa imaginum per compositionem et divisionem, et sic diffinitur ab Algazele: et ideo dicit Al,azel, quod quidam appellant eam potentiam cogitativam, sicut eam appellat Avicenna: sed tamen cogitativa non est proprie nisi in hominibus." If we were to judge from this text alone we would be assured that St. Albert associated the activity of cogitation with the operations of the creative imagination exclusively. Actually, this is not the case. St. Albert knew of the double role of Avicenna's cogitative. He knew that the cogitative operated on the intentions as well, as the forms. Cf. supra, chapter 1, p. 24, note.

its accompanying intention. The animal does not cogitate. It only imagines in the manner in which its imaginative force (*mutahayyila*) responds to the command of the estimative. True, its imaginative force can compose and separate forms within the imagination (*musawwira*) just as the cogitative force does within the rational soul. But this composition and division is effected automatically: according to the similarity or dissimilarity of the imaginative forms themselves. So that when the imagination (*musawwira*) represents an exterior object either the imaginative immediately or automatically associates or dissociates it from another form and the resultant operation is a judgment by the memory; or³ this composition and division fails to take place and the animal cannot remember. If the latter is the case, not even the most urgent promptings on the part of the estimative can induce the imaginative force to seek through its composition and separation the necessary¹ form which will immediately effect a memorial judgment. The imaginative force of the brute animal cannot "cogitate". Only when this same faculty is transplanted to a rational soul can it, in response to the intellect, undertake a quest to recover the form which will immediately elicit its corresponding intention from the memory.¹

¹Avicenna, *De Anima*, fol. 19 rb, p. 93: "Sed recordatio quae est ingenium recordandi quod oblitum est, non invenitur, ut puto, nisi in solo homine. Cognoscere etenim aliquid sibi fuisse quod postea deletum est non est nisi virtutis rationalis; si autem fuerit alterius praeter rationalem, poterit esse estimationis, sed quae decoratur rationalitate. Reliqua enim animalia si memorant, memorant tantum. Si vero non memorant, memorare non desiderant neque cogitant inde. Immo hoc desiderium et hic appetitus solius hominis est."

Since recollection involves a syllogistic argumentation or a certain ingenuity by which the forgotten notion can be recovered, Avicenna concludes that only the reason is capable of such an effort. No other faculty can accomplish this task unless it be endowed or imbued with reason. He states that the estimative force is such a faculty. From this statement then, it would follow that it is the estimative force which cogitates, not the cogitative. But it has already been pointed out that although Avicenna makes the estimative the mediator between the imagination and the memory, it compares or dissociates forms with intentions by means of the cogitative. In other words, it is actually the cogitative under the impulse of the rationalized estimative which cogitates. For it is only by virtue of the cogitative force that the estimative can compare the form with the intention or the intention with the form. That is to say, it is only by virtue of the cogitative that the estimative can cogitate.

The cogitative force, retaining its essential nature of composing and dividing imaginative forms without any regard as to their objective existence, is moreover capable of "cogitating" these various combinations. That is to say that under the impulse of the intellect, it composes and separates these forms with the purpose of reproducing one in particular which will in turn permit the memory to pronounce its judgment by eliciting the intention which primarily originated the quest.

To cogitate is to seek. Recollection entails cogitation; not that recollection is synonymous with cogitation; the two are not convertible. It may be correct to say that recollection is cogita-

tion, but it does not follow that cogitation is recollection.¹ Recollection is an inquisition to reestablish in the future what existed in the past. This activity presupposes cogitation but also surpasses it. Cogitation is merely an inquisition whose purpose is to know (*ad hoc ut sciantur*). This inquisition comprehends a movement from the known to the unknown. In other words, cogitation signifies to learn (*discere*) by proceeding from one thing which is known to the knowledge of another which unknown.

If there is still any doubt as to whether "discere" and "cogitare" are synonymous in the mind of Avicenna, the alternate usage of these two terms in the passage immediately following this definition should be sufficient to dispel any disquietude. Here, Avicenna further elaborates the differences between the mere act of cogitating or learning, on the one hand, and that of recollecting and remembering, on the other. In regards to the latter, it is almost impossible for any man to learn (*discere*) and to remember equally well. To learn, the disposition of the imagination (*musawwira*) must be impressionable enough to easily imprint even the slightest impression of one of these forms whereas the converse must be true when it becomes necessary to remember. For then retention, not impression, becomes the foremost concern and this in

¹ Avicenna, *De Anima*, fol. 19 va, p. 93: "Recordatio vero est relatio ad aliquid quod habuit esse in anima in praeterito, et imitatur discere secundum aliquid, et non imitatur secundum aliud. Recordatio etenim est motus a rebus apprehensis exterioribus ad alias. Similiter discere est motus a cognitis ad incognita ad hoc ut sciantur. Recordatio vero est inquisitio ut habeatur in futuro quale habebatur in praeterito. Discere vero non est nisi ut habeatur aliquid in futuro."

turn necessitates a durable disposition within the formative force. Following this, Avicenna proceeds to enunciate a general principle: those, whose souls are not burdened by numerous movements or whose cogitations are not too widely dispersed, possess a strong memory. He whose soul is racked with numerous movements and cogitations cannot remember well.¹

This inquisition or investigation requires a manipulation of the forms contained within the imagination. This manipulation actually consists of a rational juggling of forms in the process of which some very unusual and ludicrous combinations are created. This explains why Avicenna, Algazel and Alfarabi never altered their definition of the cogitative force. In order to regain the particular form for which it is searching the cogitative force must be the compositive human imagination. If it did not have the elastic property of distorting or rearranging things, it never could "argue" from one form to another and consequently, it never could eventually locate the forgotten form unless it were to accidentally stumble on it or, as in the case of the animal's imaginative force, unless it were to automatically recreate the desired form.

D. Summation

Foot

¹Avicenna, op. cit., fol. 19 va, p. 93: "sunt autem plerique homines quibus facilius est discere quam recordari. Isti enim naturaliter habent cognoscere necessaria motus. Quibusdam vero fit e contrario. Quidam enim ex illis est fortis in memoriter retinendo, sed debilis in recordando, eo quod est siccae complexionis, quae retinet quod apprehendit...alius vero est fortis in discendo, sed debilis in memorando, quasi enim inter discere et memorare contrarietas est...illi vero sunt memoriores, quorum animae non habent multos motus, neque disperguntur cogitationes eorum. Ille enim, cuius anima multos habet motus et multiplices cogitatus, non bene memorantur."

We have attempted to distinguish two roles in Avicenna's cogitative by introducing the mnemonic intention within its compositive scope. Not finding an adequate explanation of cogitation within the cogitative's first role whereby it assumes the prominence of a creative imagination we were induced to seek a justification for its name elsewhere. Our search brought us to the problem of recollection in which the cogitative acts as intermediary between the memory and the formative. In this capacity we discovered that although it does not cease to be a creative imagination it utilizes this inventive freedom in a manner which is more compatible with the action of cogitation, that of deducing the unknown from the known. It functions with apparent neglect for the true configuration of the exterior object but in reality it possesses a purposiveness by reason of its sublimation to the interests of the memory. The fantastic atrifacts which it constructs are formed with the purpose of locating a special image. St. Thomas separates the compositive human imagination from the cogitative force. And because of this segregation, the creative imagination appears to be something freakish derived from the abundance of the soul's rational nature. The very fact that St. Thomas could conceive the compositive human imagination apart from the activity of his cogitative, however, has spurred us on to seek in this compositive human imagination of Avicenna another explanation for cogitation. For it must be remembered that it is one thing to construct fanciful images and it is yet another to seek a particular image through this same unorthodox manipulation. The first pertains to the creative imagination proper and does not necessarily imply the

second. In other words, we can still create a pink elephant without cogitating.

Avicenna himself would not have sanctioned this elementary disjunction of the cogitative into the two roles we have indicated. In his eyes the cogitative functions consistently in a creative manner whether it be serving the memory or whether it be serving the estimative: he never describes it in any other words. And this is quite comprehensible since we have already demonstrated that this faculty is derivative from Alkindi who defined cogitation as an imaginative invention. Yet, the fact does remain, however, that this faculty never acts merely for the sake of exercising itself or merely for the pleasure of distorting things. We had temporarily accentuated this aspect in order to segregate it from its other companions and thereby facilitate its analysis.¹ But actually in its primary role as well as its second it ministers to the needs of another internal sense. We have already studied how it serves the memory in what we have chosen to call its second role. In our study of the estimative force at the end of this chapter it will become evident that even in the first role we have outlined it is subservient to another internal sense, the estimative. Without ceasing to be the human creative imagination it serves alternately the estimative and the memory and as a consequence of this reorientation its activity assumes a purposiveness compatible with cogitation as it came to be known later in the doctrine of St. Thomas (i.e., a movement from the known to the unknown).

¹Cf. supra, same chapter, p. 58 et passim.

There is no question in the mind of Avicenna whether cogitation belongs primarily to the intellect or to some other internal sense. As we have seen, cogitation is an integral part of recollection and this "ingenium recordandi" is proper to the reason alone. Consequently, the cogitative can cogitate only in conjunction with the intellect.¹

We shall terminate this summation by considering a few salacious observations which Hugues of Sienne (1370-1439) makes in regard to Avicenna's doctrine. He describes the cogitative's role as follows: "The cogitative serves the intellect by representing the phantasms from which the intellect abstracts its idea...it serves the estimative by rendering it the images received and formed from which the estimative can in turn elicit its 'intentiones insensatas'." The cogitative exercises itself by composing and separating. It is distinct from the formative which merely conserves. The cogitative combines images in a manner alien to the senses. It composes and divides without at the same time affirming or denying. It receives images infused within the imaginative by some divine virtue such as occurs in a prophecy.² The

¹Cf. supra, same chapter, p. 88.

²G. Quadri, La Philosophie Arabe dans l'Europe Médiévale (dès Origines à Averroës) (traduit de l'Italien par Roland Huret; Payot: Paris, 1947), p. 188: "La 'cogitative' doit être prise pour une double vertu, cogitative quand elle sert à l'intellect et imaginative quand elle est au service de l'estimative. On peut même entendre cela dans le sens qu'elle est cogitative chez les bêtes. Mais il est préférable de l'entendre au premier sens. Seulement en ce cas elle peut être conçue comme une seule vertu. Voici son office: 'Servitium cogitativae ad intellectum est representatio phantasmatum a quibus intellectus abstrahit...servitium vero eius ad estimativam (sic) est: quod imagines in ista receptae et forma-

cogitative is indubitably distinct from the estimative.¹

Hugues of Sienne also gives us an interesting insight into Avicenna's conception of a judgment. He explains that in some places Avicenna understands the judgment in a broad sense as encompassing any complex proposition. In this manner even the imaginative could judge. In a stricter sense, it must be understood as a complete apprehension of the "insensate intentions" (presumably by the estimative force). Hugues himself puts forward the following definition: "a knowledge sufficient in itself to arouse the appetite"---*cognitio quam non subsequente cognitione sequitur inclinatio appetitus*. The judgment thus understood belongs exclusively to the estimative and the practical intellect. The operations of the cogitative, on the contrary, are not immediately or necessarily provocative of an appetitive quest and cannot be prop-

tae redduntur estimativae: unde estimativa insensatas intentiones elicit.' La cogitative 'se exercet illis formis componendo et dividendo'. Elle se distingue par là de la fantaisie qui seulement conserve. La cogitative compose même les images d'une façon autre que celle dont elles sont dans les sens. Elle peut imaginer un homme qui vole sur une montagne d'émeraude, ou quelque autre combinaison semblable. Elle sert à la vertu qui saisit les choses occultes, c'est-à-dire les intelligibles, à l'intellect. Toutefois, elle compose et divise dans affirmer ni nier. On note cependant qu'elle peut parfois accidentellement recevoir des images ne provenant pas des sens, mais imprimées dans l'imaginative à raison d'une vertu divine, comme il arrive dans la prophétie."

¹G. Quadri, *La Philosophie Arabe*, p. 189: "que la vertu estimative soit distincte de la cogitative, cela apparaît d'ailleurs par divers troubles et lésions du cerveau qui empêchent le fonctionnement de l'une ou de l'autre vertu, comme dans le cas de celui qui, étant enrhumé, se savait pas si le vase qu'il connaissait bien serait brisé en tombant, ne réussissant pas à accorder l'"*intentio fracti*" avec l'"*intentio vasi cadentis*"."

erly termed judgments.¹

4. The estimative force

A. In genere

This chapter would be incomplete without a brief appraisal of the estimative's role in the organism of the human soul. Contrary to M. Morten's supposition it will become immediately evident that Avicenna did not bar the estimative faculty from the precincts of the human soul but was, on the contrary, very solicitous in assigning it an activity which could not impugn the higher perceptions of the intellect. To eliminate the possibility of confusion and to underline the two distinct roles of this faculty we have chosen to call it the animal estimative whenever it is a question of the brute animal's instinct in opposition to the human estimative force operating in union with the intellect.²

¹G. Quadri, op. cit., p. 189: "Pour Avicenne, le jugement peut quelquefois s'entendre au sens large pour toute proposition complexe. Ainsi, même le sens jugerait et l'imaginative jugerait. Au sens strict, on peut l'entendre comme l'appréhension complète avec les intentions non reçues des sens. Mais Hugues préfère définir ainsi le jugement: 'cognitio quam non subsequente cognitione sequitur inclinatio appetitus'. Ainsi le jugement, qui peut aussi être dans le sens quand un membre se retire en face d'une chose repoussante, est dans l'estimative et dans l'intellect qui se résolvent dans un acte de la vertu appétitive, lorsqu'ils ne se statuent pas dans une conclusion syllogistique ('intellectus theoreticus' ou 'intellectus practicus'). Au contraire des opérations de la cogitative, l'acte de la vertu appétitive ne suit pas immédiatement."

²We must take exception with M. Goichon and L. Gilson who both intimate that Avicenna paired the estimative with the cogi-

We have already had the occasion of mentioning the animal's estimative faculty in treating Avicenna's classification of the internal senses. We ascertained that the object of this faculty was the "intentio insensata", e.g., the wolf's hostility seized by the lamb. If Avicenna had confined the operation of the estimative to this simple task of safeguarding the animal's continued existence we could reproach him for naively inserting an animal's

tative placing the first within the animal and the second within the rational soul. They implicitly affirm that the estimative is exclusively an animal's faculty becoming the cogitative when elevated to the human soul. In other words, they view the cogitative as a rationalized version of the animal's estimative. Cf. A.M. Goichon, La Philosophie d'Avicenne et son influence en Europe médiévale, p. 31: "C'est la faculté par laquelle l'animal porte des jugements particuliers en dégagant des idées déjà immatérielles: la brebis saisit chez le loup l'idée d'ennemi. Chez l'homme, elle agit sous la dépendance de la raison, et se nomme cogitative." Cf. also, Ibn Sina (Avicenne), Libre des Directives et Remarques (Kitab Al-Isarat wa L-Tahbihat) (translation with introduction and notes by A.M. Goichon; Librairie Philosophique J. Vrin: Paris, 1951), p. 317, note. Here in an explanatory footnote A.M. Goichon suggests the same pairing of the cogitative with the estimative. Cf. also, E. Gilson, Les sources Gréco-Arabes, p. 71: "...si elle ne les y retrouve pas, elle a recours à la faculté que nous avons nommé estimative chez l'animal et qui, chez l'homme, se nomme cogitative... cette cogitative, ou estimative, joue donc un rôle essentiel dans la psychologie d'Avicenne, car dans une doctrine où l'intelligible est reçu, toute la part de l'homme consiste à se mettre en état de le recevoir; c'est ce que fait ce sens interne, qui n'est donc pas tant le conservatoire des intentions, que la faculté de les juger. Nous voici donc en possession d'une imagination qui conserve les images, d'une cogitative ou estimative qui les juge..." This opposition between the cogitative and the estimative exists in St. Thomas where the cogitative replaces the animal's estimative force. As such, it fulfills on a higher plane all the functions of which the estimative is capable on a much lower level. It does not relinquish its estimative nature. The Avicennian cogitative, however, has nothing in common with the estimative force. To assert that it is the equivalent of the animal's estimative force is tantamount to affirming that Avicenna eliminates the latter from the human soul thereby reducing the number of internal senses to four.

instinct within the human soul for which there is no practical justification. Experience proves that an individual man does not become instinctively cognizant of the fatal danger lurking in certain species of herbs, animals or fish. Avicenna was well aware of this. He took the necessary measures to fit the estimative force into the scheme of internal senses fortifying the human soul. This human acclimatization of the estimative illustrates the medical mind of Avicenna as shall be seen.

B. In specie

He proposes to investigate the position of the estimative force within the human soul. And he also proposes to investigate that special act of the estimative in which it operates without any interference on the part of the intellect (*in quibus non conicet intellectus in hora estimandi*). In other words, he wishes to determine how it apprehends its intentions immediately following the divestment of things by the senses. He recognizes that this estimative seizure is brought about in several ways; he indicates three of them.

I. The first mode of estimation

The first of these might be called the subitaneous estimation to distinguish it from the latter two deliberative cases which require a prior reflection in order for the estimative to grasp its intentions. He likens this first case to a cautiousness or prudence with which the individual is endowed through the divine clem-

ency of God. He offers three instances where the estimative force considered as a cautiousness or prudence takes command of the human individual. The first of these is the disposition of the infant who after birth immediately seeks to be succored at his mother's breast; the second is the disposition of the infant who instinctively clutches at something to hold him up and check his fall when his immature legs buckle under him; and thirdly, such would be the case when a doctor sets about to purge someone to cure him of an inflammation of the eyes. The patient instinctively closes them before he can ascertain completely just what the doctor will have to do as if his refusal to watch the operation could abolish its existence. These inadvertant acts emanate from the nature of the individual, they are not prompted by any choice or mature reflection. Furthermore, they are human instinctive actions. Brute animals are also endowed with this natural cautiousness, the reason for this being the ineluctable principles of their nature causing them to act spontaneously. This spontaneity issues from the fact that the animal's estimative faculty does not apprehend the object through the aid of numerous comparisons like those accompanying the intellect. Immediately when it is confronted with an object which has an essential bearing on the continued existence of the animal, the estimative force seizes the nocivity or beneficence of that object. The lamb instantly trembles in the presence of the wolf even if it had never seen a wolf or suffered any physical harm from it. Similarly, many animals tremble at the sight of a lion. Some birds instinctively fear and flee from certain varieties of birds which are birds of prey whereas they spon-

taneously commingle with less beligerent species.¹

Here is abundant evidence to prove that Avicenna did not banish the estimative force from the human soul. We can study the additional precaution he took to dissociate the activity of the human estimative force from that of the animal's. He concedes that the mode of operation is identical in both. Both function from a spontaneity of nature, both apprehend that which merits pursuit and that which should be avoided or shuned. But this is where the

¹Avicenna, De Anima, fol. 19 rb, p. 92: "Redeamus autem ad agendum de estimatione dicentes quia oportet inquirere rationes considerandi estimationem in quibus non coniectet intellectus in hora extimandi, scilicet qualiter apprehendat intentiones quae sunt in sensibilibus statim ut sensus apprehendit formas, ita ut aliquid de illis intentionibus non sentatur, et ita ut aliquid de illis intentionibus non sentiatur, et ita ut plures ex illis neque prosunt post neque in ipsa hora. Dicemus igitur quod ipsa extimatio fit multis modis. Unus ex illis est cautela proveniens in esse quod est a divina clementia, sicut idspotitio infantis qui cum nascitur mox pendet ab uberibus, et dispositio infantis qui cum elevatur ad standum et vult cadere statim currit ad adhaerendum alicui, vel ad custodiendum se per aliquid; et cum quis oculum eius purgare voluerit a lippitudine, ipse statim claudit antequam intelligat quid sibi accidet ex illo, et quid debeat facere super illud, quasi sit natura animae eius, et non habeat hoc per electionem. Propter hoc etiam animalia habent suas cautelas naturales. Cuius rei causa sunt comparationes quae habent esse inter has animas et earum principia, quae sunt duces incessantes praeter comparationes quas contingit aliquando esse et aliquando non esse, sicut considerare cum intellectu, et quod subito in mente venit. Omnia etenim illic veniunt et per istas cautelas apprehendit estimatio intentiones quae sunt commixtae cum sensibus de eo quod obest et prodest, unde ovis pavet lupum, etsi numquam viderit illum, neque aliquid mali pertulerit ab illo; leonem quoque multa animalia pavent; sed accipitres pavent aliae aves, et conveniunt cum aliis absque discretionem. Hic est unus modus." Cf. B. Alberti Magni, Opera Omnia, vol. V, Isagoge de Anima, cap. 18, p. 521 b: "Nota ergo, quod aestimatio utilium et nocivorum sit tribus modis. Primus modus est ex causa naturali, sicut accidet in puero, qui cum elevatur ad standum et aestimat se cadere, statim alicui adhaeret et cum oculus alicujus debet purgari a lippiditate, statim ille claudit antequam cognoscat quid sibi accidet: et sicut ovis timet lupum et naturaliter animalia leonem, et avis accipitrem, quia aestimat nocivum."

similarity ends. Avicenna realized that those things which are harmful or beneficial for animals need not be so for human individuals. And yet, through his diffuse experience as a medical doctor, he recognized a number of spontaneous or automatic movements and tendencies within the rational individual precluding meditation or deliberation. These actions, he claims, are proper to the human estimative force. He was not so naive as to suppose that the human being was equipped with a faculty to discern the hostility of a wolf immediately upon coming into contact with it.¹

But it remains to judge whether these spontaneous actions of the rational being actually emanate from the individual's estimative force. Is it the infant's estimative force which causes it to desire milk from its mother's breast, or to clutch at some protruding object to check its fall? Is it the human estimative force which prompts the individual to close its eyes to the operation it will have to undergo? If we accept the estimative force simply as an evaluative faculty apprehending what is nocive or beneficial to the maintenance of the individual's life we might reply in the affirmative. It is essential to the baby's existence that it be

¹In another locality Avicenna describes this first mode of estimation in the following terms: "Extimatio autem operatur in homine iudicia propria, ex quibus est illud, cum anima pertinaciter negat esse res quae non imaginantur neque describuntur in ea, et omnino non vult eas credere esse. Et haec virtus sine dubio consistit in nobis, quae est diiudicans in animali iudicium non diffinitum, sicut est iudicium intellectuale, immo iudicium imaginabile coniunctum cum singularitate et forma sensibili, et ex hac emanant quamplures actiones animalium." Cf. De Anima, fol.17 vb, p. 83. In other words, the "instinctive" closing of the eyes when faced with something distasteful or harmful is provoked according to Avicenna by a special edict of the human estimative force. By such an action, the estimative force would exterminate or abolish the exterior thing by refusing to concede its existence.

nourished with mild and likewise the toddling infant must protect itself from a mortal wound which could be inflicted if it were to fall on its head. The infant's failure to react in either case could imperil the prolongation of its existence. Drawing on this simile, Avicenna judges that these actions must be provoked by the human estimative force; such "instinctive" movements insure the same security for the rational being as the harmful or useful apprehensions do for the animal.

Further study today in the problem of instinctive behaviour makes it possible for us to probe more deeply into the question and to judge that such actions which Avicenna describes need not emanate from a special internal faculty comparable to the animal's instinct. We may distinguish three types of activities all possessing the same purposiveness as the instinctive actions of the brute animal: 1) an activity emanating from the instinct itself, 2) an activity issuing from an impulse and 3) an activity prompted by a motor reflex. If we ignore this distinction we may easily mistake an impulsive or purely reflexive action of the human organism as an instinctive movement issuing from an innate faculty comparable to the animal's estimative force. We do not imply that the human being is lacking in an estimative faculty but we are questioning whether such actions involved in the examples preferred by Avicenna emanate from this faculty or are not rather merely impulsive or reflexive movements originating from the nature of the human organism itself.

For example, we have the latent ability to see, to taste, to hear, etc. Such faculties do not necessitate an additional intern-

al sense in order to function. If we possess these faculties we must also possess the potentiality of exercising them. We do not have to have recourse to any special, innate faculty to explain the desire we feel to see, taste, touch, hear, etc. These cravings or desires are explained by these organs themselves. In the same fashion, our ability to move our arms and legs up and down and our head from side to side does not postulate any further need to exercise these members of our body. Our muscles themselves generate an exigency for exercise. If we are born with an intricate organism intended to admit food into the body, swallow it, convey it into the inner regions and finally assimilate it into living tissue, this organism demands to be exercised of its very nature. The newborn child desires nourishment, not from any instinctive craving but from the mere fact that he possesses organs created for absorbing food. The child does not estimate that his mother's breast is a useful object in preference to any other source of nourishment. It is not his mother's breast as such from which he craves succor. He simply craves to be fed without any regard for the tool which will accomplish this desire. Consequently, when the baby is taken in its mother's arms and held close to her breast we may not suppose that any interior faculty estimates the salutary value of the breast as such, provoking the baby to the action of sucking. The muscles of the baby's mouth operate of their own textural initiative. Often enough the mother has to teach the baby to suck by stroking its cheek. The baby's craving for food is not an instinctive action, it is merely an impulsive one.

We have been explaining an instinctive action as one initi-

ated by the nocive or beneficent apprehension obtained by the interior sense faculty which Avicenna calls the estimative force. Every truly instinctive action of the brute animal (i.e., every action which cannot be reduced to a motor reflex or the impulse of some individual organ) issues from its estimative force. Modern psychologists prefer to describe an instinctive activity in regards to the effects of the action itself omitting its origination. Thus we have the following definition of instinctive actions as "the behavior of the individual acting as a unit organism, directing itself to an end of importance but without conscious design or intentional adaptation of means to ends."¹ But this does not detract from the fact that the instinctive action defined here is motivated by one individual sense faculty. The intentional seizure

¹Thomas Verner Moore, The Driving Forces of Human Nature and their Adjustment (Grune and Stratton: New York, 1948), p. 233. I am indebted to this clarifying treatment of instinctive activity by Father Moore for the contradistinctions introduced above. Father Moore discriminates between a genuine instinctive activity defined above and the spurious manifestations of impulse and reflexes with which it is often confused. Abiding strictly by the proposed definition he sagaciously concludes that "using the term in this sense there is no such thing as instinctive behavior in man. Only by broadening the concept to include native impulses and desires can one speak as Claremont does of the innumerable instincts of man." Cf. ibidem. Father Moore defines an impulse "as a tendency that we experience, in the presence of an actual opportunity to make use of any of our human abilities." Cf. idem, p. 236. He goes on from here to indicate a number of striking differentiations obtained between the impulse and the reflexive action, the first being that "immediate necessity characterizes the relationship between stimulus and response in reflex action" whereas the contrary is true for the impulse. He proffers no simple definition of the reflex action but he adequately describes it by distinguishing it from the impulse. Thus, reflex actions involve only a piece of mechanism not the entire individual organism; they are always responses to simple stimuli; they are obtained in the unconscious subject; they occur independently of the will. To each one of these the impulsive action manifests itself in the opposite fashion. Cf. idem, p. 237.

by Avicenna's estimative force and the ensuing action which this seizure arouses completely fulfills the conditions implied in this definition. All the faculties and abilities of the lamb are coordinated to bear it away from the presence of the wolf. Moreover, the consequent flight of the lamb is not perceived as an action ordained to some desired end. The lamb flees principally because its sensitive appetite is activated by the compelling dictates of the estimative force. It does not realize the reason for its flight. Its estimative force does not know the wolf as a wolf, i.e., as an animal seeking its destruction. It merely knows the wolf as something to be abhorred, as an object to be shunned. Nothing more. Consequently, if we maintain this definition of the instinct, we cannot conceive of a similar faculty within the psychological constitution of a rational being. Rational beings act with an end in view. All their actions are undertaken with a specific end in view and are chosen precisely because of their ability to effect this end. If there are any spontaneous actions in the human mechanism which occur without due deliberation, these actions are not instinctive, i.e., "without conscious design or intentional adaptation of means to ends". These actions may be reduced to impulsive or reflexive movements motivated by individual organs or a combination of individual organs within the human organism.

We reduced the first example given by Avicenna to an impulse of hunger. The last two examples may be explained as reflex actions, not instinctive ones. Thus the clutching movement of the baby is not initiated by an estimative force but rather by the semicircular

canals of equilibrium located in the ear.¹ The same may be said for the abrupt closing of the eyelids when the individual is confronted with something over which he has no control. As Father Moore notes, the will may impede the eyes from closing since the adult "exercises a control over the actions of the body musculature". Or again the will may continue to hold the eyes closed once the neurological mechanism of our reflex actions has caused them to abruptly cover the eyes.

We may repudiate the examples which Avicenna offers to demonstrate the functioning of the estimative force within the human being, we may be forced to bar this conception of the estimative force from the precincts of the human soul but we cannot accuse Avicenna of neglecting the problem or of gratuitously providing

¹Thomas Verner Moore, op. cit., p. 238: "When, for the first time, an infant is in apparent danger of falling from the lurching of a wagon, it may clutch the person holding it by an adequately coordinated movement which could not have been learned by experience. We must, therefore, conclude that the mechanism of many coordinate movements is an established element of neurological heredity. Disturbances of equilibrium, for example, act upon the semicircular canals and these transmit the stimulus to Deiter's nucleus, to the cerebellum, and also to the cortex by way, perhaps, of the optic thalamus. Through these connections a mechanism for the throwing out the arms and grasping whatever may be in reach is set in action. In the young infant this mechanism may be a pure reflex, and even in the adult it approaches the character of a reflex. It seems, however, to be a motor tendency which, unlike the simple reflex, is not executed in unconscious subjects; and unlike the cortical reflexes involves sensorimotor coordinations, i.e., adjustments to present situations. The whole process is rather complicated. It seems to exist prior to experience. It is a hereditary neuromuscular mechanism which comes into play when equilibration reflexes are inadequate to meet the situation. There are many such mechanisms present in the human nervous system. Situations of one kind or another set them in action. They may be inhibited by the adult whose ideals of conduct exercise a control over the actions of the body musculature. Or they may be the first step in a series of actions continued and directed by conscious voluntary control."

man with an instinctive faculty as efficient as the animal's. This brings us to another paramount question. If the estimative functions blindly in the fashion previously described how can we legitimately posit a faculty within the human soul corresponding to it? Can we accurately speak of a "human" estimative force without compromising the essential nature of this faculty? The remaining two cases or modes whereby the estimative force acquires its intentions will provide the necessary answer.

II. The second mode of estimation

The second of these modes is that of experience. We have already developed this operation by presumptuously expanding Avicenna's doctrine with an example which he did not provide himself.¹ Through the knowledge gained by experience, the dog comes to fear such objects as sticks or stones. This fear is dictated by the estimative faculty which perceives the harmfulness of these objects within their form reproduced by the imagination. We have also pointed out a parallel operation within the human individual. Avicenna does not offer us an illustration of experience in regards to the rational being but it would be a false interpretation of his doctrine to intimate that the human estimative faculty could not enrich itself in a similar fashion. At least, no one can deny that the human individual is not as capable as an animal to experience things. Experience is not a prerogative of the animal.²

¹Cf. supra, same chapter, p. 77 et seq.

²Avicenna, De Anima, fol. 19 rb, p. 92: "Alius autem modus est

The questioned legitimacy of a "human" estimative force finds its justification and defense in this second mode of estimation. In fact, the human estimative force could not possibly operate in any other manner. The human estimative force does not instinctively know the utility of the spoon; it only derives this intention after the imaginative force has conducted numerous comparisons within the interior of the imagination. But is this faculty which functions in conjunction with the compositive and divisive comparisons of the imaginative force the same faculty which spontaneously compells the lamb to flee the wolf or the bird to pick up the straw to build its nest? As to the mode of action, they are distinct: the latter seizing its intentions immediately without previous experience, the former demanding the intervention of the imaginative or cogitative force. As to the effects resulting from these intentional ap-

sicut hoc quod fit per experientiam. Animal etenim, cum habuit colorem aut delicias aut pervenerit ad illud utilitas sensibilis aut nocumentum sensibile adiunctum cum forma sensibili, et descripta fuerit in formali forma huius rei et forma eius quod adiunctum est illi, et descripta fuerit in memoria intentio operationis quae est inter illas, et iudicium de illa, scilicet quod memoria per seipsam naturaliter apprehendit hoc; et deinde cum apparuerit extra imaginativam forma ipsa, tunc movebitur per formam, et movebitur cum illa id quod adiunctum fuerit illi de intentionibus utilibus aut nocivis, et omnino procedet in memoria ad modum motus et perquisitionis qui est in natura virtutis imaginativae. Sed estimatio hoc totum sentiet simul, et videbit intentionem per formam illam. Et hic est modus qui accidit per experientiam, unde canes terrentur lapidibus et fustibus et similia." The Isagoge de Anima repeats the same doctrine almost verbatim. Cf. B. Alberti Magni, op. cit., cap. 18, p. 522 a: "Secundum modus est per experientiam, sicut accidit cum animal habuit dolorem vel delicias ab aliqua re, cujus forma descripta est in virtute formali sive imaginatione, et intentiones utilitatis et nocimenti descriptae in memorativa, statim ut apparuerit extra res illa, erunt in aestimatione deliciarum aut nocimenti. Hinc est quod canes terrentur fustibus et lapidibus, quia reputant nociva: et alli-ciuntur ossibus, quia aestimant delectabilia."

prehensions, both initiate the same reaction; both possess immediate control over the irascible and concupiscent sensitive appetite. The subitaneous apprehension by the lamb's estimative force of the nociveness of the wolf activitates the irascible appetite which in turn compells the lamb to flee. The estimation obtained through the intervention of the imaginative force has the same effect on the sensitive appetite. When the dog estimates that stones and sticks are evil, this estimation awakens the dog's irascible appetite and compells it either to flee or to submit itself to their authority out of the fear which they engender. The conditioned intentions apprehended by the human estimative force are designed to dominate and control the sensitive appetite also. Consequently, the human estimative force is actually an "estimative" force apprehending the useful, evil, beneficial and practical values inherent in the exterior object, i.e., the same faculty by which the lamb estimates that the wolf is evil or the bird estimates that this piece of straw is good. Its apprehensions exercise a similar compelling control over the sensitive appetite. In the human being, the irascible or concupiscible sensitive appetite aroused by the estimative force may be thwarted by the will and left unfulfilled. But even when they remain unsatisfied, we continue to feel the desire or dread they create in us.

III. The third mode of estimation

The third and final mode of estimation springs from the similitude of things. Somethings have an estimative intention con-

sistently appended to their imaginative forms whenever these forms appear in the imagination. In other words, the imaginative form of such and such an object is repeatedly accompanied by the same intention. There is such an habitual association between the two that it suffices to have the form reappear in the imagination and immediately the estimative force perceives its intention.¹

Let us clarify this with the example of the apple suggested by the author of the "Isagoge". The apple itself is the thing or the exterior object; the color of the apple is the form of the apple within the imagination. Color alone is not by any means the only form of the apple which is impressed within the imagination. There is its size, weight, shape etc. included. But the distinctive trait of the apple is its color and for this reason we will temporarily suppress the others. And, finally, the intention consistently accompanying this color is one of sweetness if the apple has attained a red, ripeness or possibly one of bitterness if the apple is still green. So that we have the apple itself, the imaginative form of the apple, its ripe, red lustre, and the intention of this form, the sweetness of the apple.

¹Avicenna, De Anima, fol. 19 rb, p. 92: "Aliquando autem ab estimatione adveniunt alia iudicia ad modum similitudinis. Cum enim res habuerit aliquam formam coniunctam cum intentione estimationis in aliquo sensibilium quae coniuncta est semper cum omnibus illis, cum visa fuerit eius, videbitur intentio." Cf. also, B. Alberti Magin, op. cit., Isagoge de Anima, cap. 18, p. 522 a: "Tertius modus est ag modum similitudinis per proprietatem coniunctam, sicut res habet aliquam formam coniunctam cum intentione aestimationis in aliquo sensibilium, sicut accidit in pomo cum est coloris coccinei, quod est maturum et dulce: et ideo cum videmus pomum coccineum, aestimamus dulce."

Now, it may not be supposed that the estimative faculty apprehended the sweetness of a ripe, red apple immediately without ever coming in contact with it. The knowledge that a ripe, red apple is sweet is a knowledge gained from one or numerous experiences where the individual eats or tastes this fruit. It is only because the intention of sweetness is repeatedly experienced in association with the red apple that the two are leagued together inseparably. Neither must it be supposed that the estimative faculty itself tastes the sweetness of a red, ripe apple. The taste buds located within the mouth perform this task. The estimative force's role consists in judging that the red, round form present within the imagination is a sweet thing. The cogitative or imaginative force only associates the red, round form with its delicious or sweet intention; it does not judge that the object is sweet. Its judgment merely bears on the truth or falsity accruing from the equation it has brought about between the red, ripe form of the apple and the intention of sweetness. If the cogitative or imaginative force had combined this red, ripe form with the intention of bitterness, it would judge the union as a false one; only by combining this particular form with the intention of sweetness will its judgment affirm the truth of the union. In other words, its judgment involves the truth or falsity obtained from the union of the form with the intention, nothing more. It does not judge that this red, ripe form is sweet and delicious. This judgment is reserved for the estimative. It is the estimative which perceives the quality of goodness in this imaginative form and immediately induces the concupiscent, sensitive appetite to set off

in pursuence.¹ When a young lad, for example, espies in the window of a fruit store an apple sporting a bright, res sheen and he immediately envisions a delicious snack, the following movements take place within his internal senses. The form of the apple is

¹B. Alverti Magni, Opera Omnia, vol. 35, Secunda pars Summa de Creaturis, quaest. 42, art. 2, p. 360 b: "Secundo autem modo duobus modis accipitur, scilicet secundum quod intentio comparatur ad imaginem et dividitur in ipsa per modum veri et falsi, et sic est phantasia: vel secundum quod intentio divisa vel composita cum imagine est principium appetitus secundum laetitiam vel tristitiam et sic de ipsa est aestimativa..." St. Albert was familiar with a vast selection of documents composed by a host of Jewish and Arabic philosophers. He did not hesitate to consult these texts and incorporate them into his own works pruning them of the errors he detected. But his vague and general references to these sources make it almost impossible to state with any certitude that in this passage or that one he is quoting Avicenna or Alfarabi or Algazel or some other specific author and thereby retrace the origin of his thought. He hardly ever took the trouble to outline the ideas of each one of these Arabians so that we could place their individual doctrines in watertight compartments: "Por otra parte, es conveniente recordar desde ahora, que cuando un estudioso quiere adentrarse en el amplio campo de la literatura albertina encuentra sus dificultades al tratar de determinar el origen de ciertos textos y de ciertas ideas. Y ello debido a varios factores, tales como el estilo de las citas antiguas, que con frecuencia no permite ni siquiera precisar el nombre de la obra a que se refiere el escritor." Cf. Angel Cortabarría, O.P., Las Obras y la Filosofía de Alfarabi, n. 236, July-Sept. (1950), p. 367 in the La Ciencia Tomista. It is not without a feeling of trepidation that I have inserted several passages of St. Albert to elucidate a statement by Avicenna or to confirm my own interpretation. I realize that the source of St. Albert's psychology extends beyond the "De Anima" of Avicenna. Yet, I also realize that as far as the internal sense faculties are concerned, Alfarabi, Avicenna and Algazel (and even Averroes to some extent) all possess the same general features. Consequently, although St. Albert may be especially indebted to Alfarabi rather than Avicenna in the development of certain points in his doctrine, this preponderant unanimity between the Arabian philosophers makes it possible for us to maintain with a reasonable certitude that the Albertinian classification and exposition of the internal senses is predominately Avicennian. In this passage of his Summa, at least, it appears fairly certain to me that he is interpreting and clarifying the doctrine of Avicenna. Within this article itself, he quotes Avicenna twice and reproduces his enumeration of the internal senses. Moreover, the authority of Avicenna without doubt prevails throughout the breadth of this question.

described in his imagination, his cogitative or imaginative force immediately associates this form with the intention of sweetness and the estimative moves the appetite to action by perceiving that this red object is delicious.

IV. Conclusion

From the investigation we have made of these three modes of estimation can we affirm that the human estimative force has a more noble and a more flexible role than the animal's? The first two modes of estimation are common to both species and, in fact, the development of the second is undertaken exclusively in regards to the animal's internal senses. We have extended its application to include the travail of the human estimative force without, I trust, jeopardizing the authentic doctrine of Ibn Sina. The third mode is not imputed explicitly either to the animal or the human individual. But through a minute examination of the text itself, it may be shown that such perceptions through similarity are possible to the animal as well as the intelligent being. In other words, an attentive scrutiny of these three modes of estimation have failed to portray a distinctive function of the human estimative which it might enjoy from its alliance with the intellect. It appears that the animal estimative force is capable of everything predicable to the same faculty operating within the human soul. Despite this incongruity there should no longer be any doubt that Avicenna attempted to adapt the animal's estimative to the human soul. The three modes enunciated above may not be incompatible with the intellect but the question remains whether an

intellectual person is contented with the nocive or beneficial knowledge of an exterior object. The answer is indisputably in the negative. We not only know that a thing is good or bad but we also know that a thing is either a plant or a machine or a spoon or a book or an animal or whatever it happens to be by its nature. Consequently, although these estimative apprehensions of the beneficence and nocivity of things do not actually conflict with the more penetrating apprehensions of the intellect, they do not assist the intellect in any way to learn the nature of things. And yet it appears that Avicenna did reserve a higher function for the estimative force by which it assists the intellect in the acquisition of arts and science, the fruit of experience. In view of the jejune and terse description of this privileged activity it is impossible to elaborate or explore the mind of Avicenna. He does concede a higher form of activity within the human internal senses by reason of their proximity to the intellect but even this concession does not appear to be intended to alter ~~their~~ fundamental uniformity with the animal's internal senses.

In one passage¹, we are informed that an estimation is the

¹Avicenna, op. cit., fol. 19 rb, p. 91: "Dicemus ergo quia extimatio est excellentior iudex in animalibus, quae iudicat ad modum adinventae imaginationis cum non est certa. Et hoc est sicut id quod accidit homini cum putat mel esse sordidum quia est simile stercore. Estimatio iudicat ita esse, et anima sequitur ipsam extimationem, quamvis intellectus prohibet. Animalia autem, et qui assimilantur eis homines, non sequuntur in suis actionibus nisi hoc iudicium extimationis, quod non habet descriptionem rationalem, sed ad modum adinventionis quae est in eius animo tantum, quamvis virtutibus hominis propter consortium rationis accadat aliquid propter quod virtutes eius interiores differunt a virtutibus animalium. Unde ex utilitatibus sonorum compositorum et spei et desiderii habet quaedam quae non habent cetera animalia. Et eius virtus imaginativa interior cuiusmodi est quod valet ad scientias, et praecipue virtus suae memoriae valet multum ad scientias, eo quod confert nobis experimenta quae retinet memoria et considerationes singulorum et cetera huiusmodi."

most excellent judgment with which the animal is blessed and that the animal judges through its estimative force in a manner determined by its imagination: "ad modum adinventae imaginationis" which judgment, moreover, remains uncertain. But how can Avicenna maintain that this faculty, which infallibly warns the lamb that the wolf must be shunned, partake of any incertitude? If the lamb were uncertain, even for a fraction of a minute, about the wolf's carnivorous intentions its life would be in great peril. At that moment the lamb is utterly defenceless. How can the animal's estimative force ever be uncertain? Avicenna gives us an example of such an instance, an example corresponding to the third mode of estimation. This tentative judgment of the animal's estimative would be like that which occurs when an intelligent person esteems honey to be sordid because of its resemblance to dung. It is the estimative which pronounces this judgment and the soul pursues this estimation even though the intellect would prohibit it.¹

¹In the doctrine of Aristotle it appears that it is the common sense which initiates similar perceptual estimates. In one passage of the *De Anima* Aristotle gives us a parallel example: "But the various senses incidentally perceive each other's proper objects, not as so many separate senses, but as forming a single sense, when there is concurrent perception relating to the same object; as, for instance, when we perceive that gall is bitter and yellow. For it is certainly not the part of any other sense to declare that both objects are one and the same. Hence you are sometimes deceived and, on observing something yellow, fancy it to be gall." Cf. *De Anima*, III, 1, 425 a 30-425 b2. R.D. Hicks commenting this passage adduces the following anecdote: "ἑτέρας γε. It belongs to the other sense, distinct from the κοινή, to affirm the co-existence in one object of two or more qualities." Cf. Aristotle, *De Anima* (translation, introduction and notes by R.D. Hicks; University Press: Cambridge, 1907), p. 432. For further proof that Avicenna reserves such perceptions to the estimative force, cf. *De Anima*, fol. 17 va, p. 83 et passim.

The incertitude which this comparative perception engenders is shared by the animal's estimative force. Besides sharing the vacillation incumbent on this type of perception does the animal estimative force enjoy the liberty of pronouncing similar ones? Or is the choice of this example proper alone to man (*quod accidit homini*)? From the ensuing explanation it becomes immediately apparent that the brute animal no less than the intelligent individual is capable of rendering such tentative estimates.

For, animals and all men which partake of animality strike out in pursuence only of those estimative judgments completely devoid of rational purposiveness, i.e., those judgments which arise from a propitious resemblance discovered within the interior of the soul itself and lacking an adequate foundation in extramental reality: "*quod non habet descriptionem rationalem, sed ad modum adinventionis quae est in eius animo tantum*". An example will serve to clarify this profound insight into the peculiarities of human nature. Let us re-examine our brief encounter with Mr. Jones, our neighbor living a short ways up the street. Let us suppose, as we have already done, that we are completely ignorant of his character, We do not know if he is affable, kind, generous, supercilious, miserly or of some other disposition. Yet, we may persist in disliking him. Is this animosity a rational one? Hardly. We would be sorely taxed to render an adequate rational explanation. In short, our spontaneous dislike is not rational. This is why Avicenna insists that we pursue only those estimations which lack a "rational description". The moment this hostile feeling is rationalized we must avow that Mr. Jones is a very aimable

gentleman, incapable of willfully inflicting harm on anyone. How often does it occur in the lives of rational individuals that they immediately from the outset like or dislike someone before knowing hardly anything of the person's character or background. Avicenna explains this peculiar conduct by showing that the rational individual is provoked to adopt a hostile or benevolent attitude through the rash judgment of that faculty which he possesses in common with brute animals.

The estimative force itself is provoked to this false estimate through the propitious findings of the imaginative or cogitative force. This faculty is forever uniting and separating different imaginative forms because of their similarity and dissimilarity. It, in turn, combines or dissociates these same forms with various intentions of bitterness, sweetness, joy, sorrow, fear, etc., and similar notions expressive of like and dislike. Hence, the cogitative could easily link the complex imaginative form of Mr. Jones with an intention expressing dislike because of Mr. Jones' resemblance to another person which had previously occasioned an odious experience. The estimative, without further motive than this accidental resemblance, judges Mr. Jones in a most unfavorable manner. Or again, Mr. Jones need not bear the resemblance with another person whom we despise; he might be just unfortunate enough to have made his appearance when we were stricken with a migraine headache. The cogitative force links the two together (merely because of their simultaneity) and the estimative irrationally does adopt a hostile attitude towards him. This is what Avicenna means to convey by the awkward translation: "quae iudicat

(i.e., the estimative force) ad modum adinventae imaginationis". But, fortunately enough, this false estimate is subject to alteration. We may become reconciled with Mr. Jones when we learn more about his true personality. To provide for this reconciliation, Avicenna adds that this perceptual estimate in spite of its vigor and tenacity is still only a tentative and dubious one.

He terminates this passage by affirming that the internal senses because of their alliance with the intellect partake of an activity surpassing the scope of the same faculties located within the brute animal: "quamvis virtutibus hominis propter consortium rationis accidat aliquid propter quod virtutes eius interiores differunt a virtutibus animalium." Wherefore, he continues, from the utility of grouping together sounds, odors, colors, tastes, "as hope and desire, the human internal senses possess something else not had by other brute animals. Following his usual reticent manner, Avicenna supplies us with no example and leaves the reader to fend for himself. However, it does not take much mental intuition to recognize the groupings suggested here. The animal truly partakes of the third mode of estimation but only in a limited manner, in proportion to the restricted compositive and divisive actions of its imaginative force. Since the human imaginative force, alias the cogitative force, enjoys an uninhibited liberty of composition and division, its combining activity will procure the rational individual an unlimited number of perceptual estimates such as the one described about the honey. Through similar associations, the rational individual comes to recognize the color red as the sign of danger, a red and white pole as a barber's shop, the porten-

tions of rain in a dark sky, the sense of joy on a happy face, etc. Finally, he assures us that by reason of these multiple associations and combinations the imaginative or cogitative force suffices for the procurement of science which is even more true in the case of the memory; the experience acquired by the imaginative force is retained by the memory along with many considerations of individual things and other such notions. It is most unfortunate that Avicenna has not developed this last statement. Undoubtedly it is an application of the Aristotelian doctrine that from the memory of a thing grasped by the senses, an experience is acquired and from the repetition of this experience the principles of art and science are born into the intellect.

This may be the implication here but unless Avicenna alters his conception of the human estimative, his internal senses cannot legitimately "experience" things in a fashion designed to furnish the intellect with the phantasm from which these apodictic principles are abstracted. For the abstraction of these principles the phantasm must consist of more than simply the configuration of the exterior object plus its beneficent or nocive quality. As shall be seen, Averroes was well aware of this and he takes unusual pains to accomodate the contents of the "intention" to the lofty view of the intellect. But prior to advancing to the doctrine of Averroes let us pause to consider an exceedingly revealing passage in Algazel's "Maqacid".

CHAPTER III

ALGAZEL: A COMPILATION OF AVICENNIAN PSYCHOLOGY

1. Introduction

Following our adopted plan we have deemed it prudent to limit our inquisitive ruminations to those Arabic philosophers who contributed most to the Occidental formulation of the cogitative force, our ultimate goal being to amass the various ingredients which entered into and prepared the doctrine of the Aquinate. The next huge figure which looms up in the tradition of Oriental thought is that of Algazel (Abu Hamed Mohamed ibn Mohamed Al Gazali), born in 1033, he died at the age of 55. Actually a bitter opponent to philosophy, he was known to the medieval latinists only through his treatise "Maqacid al falsifa" (i.e., the tendencies of the philosophers), in reality only an introduction to his more famous work, the "Tahafut el-falsifa" or "Destructio Philosophorum", and consequently, misconstrued as the disciple of Avicenna.¹ His twenty propositions leveled against philosophy

¹The great doctors of the Middle Ages accepted Algazel as a disciple of Avicenna precisely because his Maqacid was introduced in the Occident without either its prologue or its companion the "Tahafut" for which it was intended as an introduction. Father D. Salman, O.P. sums it up in the following words: "Par une singulière ironie de l'histoire, le Maqacid fut séparé de la "Destruction" qui devait le compléter et lui donner son véritable sens; de plus, on l'amputa de son prologue et de sa conclusion. Il ne restait alors qu'un exposé si loyal, si parfaitement objectif des doctrines de la falsafa, que nul n'y reconnaîtrait l'oeuvre d'un critique, voire d'un polémiste. Aussi eut-on vite fait d'attribuer au Ghazâli lui-même ce qui n'était, à ses yeux, que les pires erreurs de ses devanciers. Toute l'érudition occidentale, en particulier, donna dans cette erreur, et les rares

which form the major content of this "Destruction" provide some choice morcels for argument if one would care to investigate Averroes' rebuttal to this condemnation of philosophy. The outline of this thesis commands us to confine ourselves to the less stimulating work to which the medieval latinists had access.

2. The text of his Maqacid and its analysis

Ironically enough, Algazel, the self-appointed foe of philosophy provides through his eloquence in describing the cogitative force a synthesis of the Islamic philosophers who preceded him as well as his own opinion.¹ The passage in question deserves to be incorporated within the body of this thesis in its entirety. It is an extract from the "Tendencies of Philosophers" translated into latin in the twelfth century by Dominic Gundissalvi and John of Seville transcribed and published by Rev. J.T.Muckle, C.S.B.

auteurs, qui aux diverses époques connurent la vérité ne réussirent jamais à se faire écouter." Cf. D.Salman, C.P., "Algazel et les Latins," Archives d'Histoire Doctrinale et Littéraire du Moyen Age, X (1935-36), p. 103. By "falsafa" he has in mind Avicenna and Alfarabi. Cf. idem, p. 105. In this erudite article, Father Salman reproduces a passage from the "Communium Naturalium Pars IV" of Roger Bacon which proves decisively that one major doctor of the Middle Ages was aware of the true position of Algazel.

¹G. Quadri, La Philosophie Arabe, pp. 140-141 and pp. 131-132. He points out that in this treatise Algazel not only summarizes the philosophical doctrine of his predecessors as Munk and Gauthier maintain but, moreover, personally subscribes his name to their doctrine bearing on the soul. Quadri argues that Algazel did not reject philosophy completely. He considered it as an indispensable propaedeutic to theology which in the final analysis though, superseded all other knowledge.

under the auspices of St. Michael's College bearing the title,
Algazel, Metaphysics.¹ We quote from this transcription:

Scias quod sensus interiores quinque sunt etiam
scilicet, sensus communis et virtus imagina-
tiva, et cogitativa, et virtus estimativa, et
virtus memorialis; sensus vero communis est sen-
sus a quo omnes isti quinque derivantur, et ad
quem omnis eorum impressio renunciatur, et in
quo omnes conjunguntur, et sic sunt quasi omnes
sint suggestentes ipsum; si enim nil esset in no-
bis in quo conjungerentur albedo et sonus, nes-
ciremus hoc album esse id cujus sonum audivimus.
Coniunccionem autem albedinis, et soni, non ap-
prehendit oculus nec auris. Imaginativa est
virtus retentiva ejus quod impressum fuit sens-
ui communi. Retinere quidem aliud est quam re-
cipere; unde aqua recipit formam, et figuram,
sed non retinet eas. Auditus vero recipit per
virtutem levitatis, et retinet per virtutem sic-
citatatis. Si autem contingerit impediri anter-
iorem partem cerebri, destruetur retencio fan-
tasiarum, et sequetur oblivio formarum. Esti-
mativa est virtus apprehendens de sensato quod
non est sensatum sicut ovis apprehendi inimi-
cicias lupi; hoc autem non fit per oculum, sed
per aliam virtutem, que hoc est brutis animalib-
us, quod est intellectus homini. Memorialis
vero est conservatrix harum intencionum, quas
apprehendit estimativa, et ideo est archa in-
tencionum sicut imaginativa, conservatrix form-
arum est archa formarum, et hec due scilicet,
estimativa, et memorialis sunt in posteriore
parte cerebri. Communis vero et imaginativa
sunt in posteriore parte cerebri. Communis
vero et imaginativa sunt in anteriore parte cer-
ebri. Cogitacio vero est virtus in medio cer-
ebri. Communis vero et imaginativa sunt in
anteriore parte cerebri. Cogitacio vero est
virtus in medio cerebri, cujus est movere, non
apprehendere; perquirat enim nunc de his que
sunt in archa formarum, nunc de his que sunt
in archa intencionum, quoniam fixa est inter
eas, et operatur in his duabus componendo, et
dividendo tantum; imaginat enim aliquando ho-
minem cum duobus capitibus, vel aliquid cujus
medietas sit forma equi, et medietas forma nom-
inis, et alia hujusmodi; non est autem ejus ad-

St. Cf. D.SALMAN, O.P., op. cit., p. 105.

invenire formam absque precedenti exemplo, sed ea que disjuncta sunt in fantasia conjungit, et conjuncta disiungit; hec autem in homine solet vocari cogitativa. Cogitativa autem secundum veritatem est ratio, sed fantasia instrumentum est cogitationis, non quod ipsa sit cogitativa. Sicut enim aptate sunt cause quibus possit moveri oculus in sua concavitate ad partes diversas, ut per hoc expandatur visus ad inquirendum occulta, et parva; similiter aptate sunt cause quibus acquirantur intentiones que sunt reposite in duabus archis; natura igitur hujus virtutis est moveri, nec cessat etiam in dormiendo, et de natura habet velociter moveri ad id quod est sibi conferibile, vel propter similitudinem, vel propter contrarietatem, vel propter hoc quod iam erat coniunctum ei causaliter quando venit in fantasiam, et de natura habet conformare, et gesticulari. Quod enim tuus intellectus dividit in partes, hec assimilatur arbori habenti multos ramos, sed quod tuus intellectus ordinat gradatim ipsa assimilatur rebus arduis, et scalis, per hanc recordatur homo oblitorum; hec enim non cessat perquirere de formis que sunt in imaginativa, et movetur de forma ad formam propinquam, quosque offendit in formam propter quam apprehenditur intentio oblita, qua mediante recordatur ejus quod oblitus fuerat. Comparatio autem illius forme ad presentandum id quod est propinquum, et pendet ex eo, est sicut comparatio medii termini ad conclusionem, quo mediante aptatur homo recipere conclusionem; hec igitur sunt virtutes exteriores, et interiores...¹

Algazel enumerates five interior senses, the common, imaginative, cogitative, estimative and memorial sense. The common sense is indispensable to inform us that the sound we are hearing proceeds from that white (object), a connection which the eye and ear are incapable of effecting alone. The common sense receives the impressions of the exterior senses whereas the imaginative

¹Algazel, Metaphysics (edited by Rev. J.T. Muckle, C.S.B.; St. Michael's College: Toronto, 1933), pp. 169-171.

retains them. Consequently they are two distinct faculties. Reception requires a certain fluidity within the interior of the sense faculty whereas retention presupposes a dryness insuring the durability of the forms retained. If the anterior chamber of the brain is impaired, the proper functioning of the imagination is impeded and the forms which it retains fall into oblivion. The estimative virtue apprehends those intentions which surpass the exterior senses such as the nocivity of the wolf grasped by the lamb. It performs the same activity in brute animals as the intellect does in man. The memory is the treasure chest for those intentions apprehended by the estimative virtue just as the imagination is the treasure chest or thesaurus for those forms apprehended by the common sense. He associates the term, form, with the imagination and the term, intention, with the memory in the same manner as Avicenna before him but he deviates from the doctrine of his predecessor by localizing the estimative with the memory in the posterior ventricle of the brain for which he was later criticized by Averroes. He situates the common sense and imagination within the anterior ventricle and reserves the middle ventricle exclusively for the cogitative force. He distinctly specifies that the proper activity of the cogitative force is movement not apprehension. By apprehension, he must definitely mean an understanding or comprehensible seizure in respect to the exterior object for it is evident that if its activity is designed to associate and dissociate the form from the intention or vice versa the intention from the form, it must be capable of grasping

or apprehending both.¹

This is an important nuance to which the doctrine of Avicenna bears ample testimony. We have not encountered this subtle modification in our analysis of Avicenna's De Anima but only a moment of reflection is necessary to observe that it rings true. Ibn Sina never speaks of the cogitative force as if it came in direct contact with the exterior object as is the case with the estimative force which apprehends "intentiones insensatas". He speaks of it solely as the faculty which ruminates within the formative sense and the memory. The magnitude of this distinction will become evident when we investigate Averroes' cogitative. His cogitative simultaneously moves and apprehends in the sense that Algazel distinguishes the two here. Its movement is identical with Algazel's cogitative inasmuch as it mediates between the forms and intentions. Besides this, it grasps the insensate intentions pertinent to Algazel's and Avicenna's estimative. In other words, it is a combination of these two faculties.

Algazel describes this movement as a quest undertaken alternately within the coffer of forms (i.e., the formative faculty) and the coffer of intentions (i.e., the memory) because of its convenient locality between the two. Its operation concerning the two is limited to a composition and division. An example of this compositive and divisive activity would be the combination of the torso of an individual man with the body of a horse to form a cen-

¹Another Arabian, Nasir al-Dia al-Tusi, commenting Avicenna's "Kitab Al-Isarat Wa L-Tanbihat" notes also that the purpose of the cogitative force is not to "perceive" or apprehend the exterior object. Cf. Ibn Sina (Avicenne), Livre des Directives et Remarques, (translated by A.M. Goichon), p. 323, note 1.

taur or again the absurdity of a two headed man. Notice that it is the term "imagine" which the translator utilizes in conveying Algazel's thought. And yet it is the cogitative force which Algazel is describing. The formative faculty, if left to its own devices could not "imagine" as neither could the cogitative if it were severed from the former. It is by a union of the two that man is able to imagine in the sense that we hear the aphorism: "It is only your imagination" meaning that the form conceived exists nowhere else. This coordination between the formative and cogitative Avicenna also deemed necessary in order for man "to imagine".

Algazel's paraphrase of Avicenna continues. The cogitative force cannot uncover (*adinvenire*) or produce a form without proceeding compositively as in the preceding example of the centaur. Whatever it finds joined in the phantasy, it separates and those forms which are disjoined it unites together. Here we have an uncompromising explanation of this compositive and divisive activity including an example to boot. If the cogitative finds the form of a concrete man within the imagination, it immediately commences to dismember the body and the dissected parts it associates and combines with other forms in order to create a new aggregate such as the centaur. This faculty deserves the name of cogitative only when it operates within a rational soul. Take particular note of the verb "*adinvenire*". This sums up perfectly the "*ratio existendi*" of the compositive human imagination or cogitative force. This verb "*adinvenire*" means to find or locate. Was this not the specific role of Avicenna's cogitative to locate or regain or un-

cover a particular form in the process of recollection? In order to accomplish this task, it must institute a series of comparisons. Hence, Algazel aptly explains that it is impossible for the cogitative to find a particular form without composing and separating forms with each other. This composition and separation succeeds in reconstructing fantastic artifacts in the process of recovering a particular form but these artifacts become less monstrous when one takes into consideration the part they play. They make it possible to regain a forgotten notion. In St. Thomas' system these imaginative constructs appear to have no greater purpose than to minister to the inspirational needs of the creative artist.

Returning to Algazel's description we are further informed that the cogitative in respect to truth is the faculty of reason (literal translation). How is this statement to be interpreted? Is the cogitative, indeed, the intellect? Is this what Algazel is astonishingly declaring? Negligibly. This "secundum veritatem" is not employed in an emphatic or exclamatory sense. Algazel's meaning is that when the cogitative compares the intention with the image or the image with the intention it judges them to be correlative or disparit. If they are identical, truth prevails, if they are incompatible the cogitative concludes that they are false.¹ Algazel concludes that when the cogitative is in possession of truth

¹St. Albert the Great understood that truth and falsity were properly the object of the "phantasia", his term for the cogitative. Cf. Summa de Creaturis, Secunda pars, quaest. 39, art. 2, Opera Omnia, vol. XXXV, p. 338 a: "...et sic accipiuntur duobus modis, scilicet prout sunt principium veri et falsi in partibus, et sic sunt phantasia..." Cf. also chapter 2, p. 84, note 2.

it would be more correct to call it by the name of reason or intellect than by its own name.

The phantasy---that is to say the imagination, the retentive thesaurus for the common sense (Algazel did not persist in inaccurately associating the common sense with the term, phantasy, as Avicenna did)---without relinquishing its individuality of independence, ministers to the needs of the cogitative. Algazel is reiterating that the imagination cannot form imaginative constructs without extrinsic assistance from the cogitative force; and despite this deficiency it retains sufficient autonomy to be distinguished and separated from the latter.

lati. Immediately following, Algazel provides us with an unusually vivid picture of the cogitative force. He compares it with the eye. Just as the eye is capable of moving in various directions within its socket in order to obtain a wider vision of minute and hidden things, likewise the cogitative force is capable of maneuvering itself about in the process of recovering the intentions and forms---"intentiones" manifestly refers to both---retained in each coffer. Without changing its locality within the middle ventricle of the brain it oscillates between the memory and the imagination further enriching itself by alternately scrutinizing the contents of each faculty. Such is its task because its nature is to move, to be in motion and it does not cease this conjunctive movement even when the body sleeps. It is its nature to become rapidly aligned with that which is consentaneous (conferabile) prompted by the similitude of one form with another or the contrariety between two different forms or because of a causal link which accompanied the

entrance of two forms within the imagination. In other words, it is its proper nature to create symmetrical patterns or forms (conformare) and to gesticulate (gesticulari); that is to say, propose further intricate arrangements by a pantomimic or suggestive motion. An example of the first combination would be the "rapprochement" or grouping of the imaginative forms of Peter with Paul to create a two headed man. An example of the second might be the contrast afforded between a horse and an individual man to create a centaur. The third includes a causal link such as the association of the white (object) with a certain sound, The cogitative itself certainly did not originally apprehend these two forms in this relation. On the contrary, it is the common sense which effects this perception. But once this causal link has been established within the imagination where it is conserved, the cogitative upon considering this certain sound immediately compares it with the white object from which it issued.

What the intellect divides into parts, the cogitative assimilates in the manner of a tree having numerous branches. It is extremely unfortunate that no examples are provided to concretize this simile. Whereas the intellect considers things individually, one apart from the rest without confusing one with another, the cogitative amasses everything in one conglomerative whole. But Algazel also adds that while the intellect ordains things gradually---that is to say, while it requires much time to place things in their proper hierarchical order---, the cogitative with consummate ease (implied in the sentence) assimilates or groups together things involving unusual duplicity and diversity.

And thus, Algazel points out the enormous role which the cogitative plays in the process of cognition. The service it renders the intellect is inestimable. Its unorthodox manner of grouping extremely incompatible things in one heterogenous whole suggest a number of subtle nuances which otherwise would go undetected. The casual manner in which it juggles arduous and dissimilar things, one with another, facilitates the intellect's comprehension of reality, grants it a more profound insight into the nature of things and consequently permits it to determine with greater clarity and precision the factor or quality which distinguishes one thing from another. I trust that this exegesis is not so totally in conformity with Algazel's authentic doctrine as to reproduce his vagueness. My words amount to this. Comparison is the condition for knowledge. By comparing one imaginative form with another (the contraction of a man with a horse to form a centaur is a comparison) definite aspects of both become accentuated, aspects which prior to the comparison remained undetected. The cogitative force itself would not question the validity of such a creation as the centaur. Its work would end with the actual formation. It is left to the intellect to perceive its incongruity. Was it not the intellect in the doctrine of Avicenna which prevented the cogitative from falsifying the exterior objects? The intellect in perceiving the incongruity of a man having four legs would logically ask the question "why". And the answer to this question causes within the intellect a new idea to blossom forth, an idea which formerly existed there only unconsciously or potentially: the idea that man is a biped. This example may ap-

pear to be redundant and absurd to an older man would dismiss it scornfully with the objection that the intellect could detect the difference simply because it already knew beforehand, even before the comparison was initiated, that man was a biped. But, such an objection overlooks the basic point of this example. Where and how was this original knowledge or idea obtained? I repeat. Comparison is the condition for knowledge. Since the cogitative force is the comparative faculty having for its material the forms contained within the imagination (at least in the doctrines of Algazel and Avicenna) its service becomes indispensable and extremely fruitful for the intellect.

Through this faculty, Algazel continues, man remembers things which had fallen into oblivion. Algazel is not confusing the cogitative with the memory. He is merely repeating what Avicenna had already explained before him. The cogitative becomes the handmaid of the memory and ministers to its discursive needs. Its hunt for forms within the imagination never ceases. One of the conditions prescribed by Avicenna for the cogitative to obtain an accurate infusion from the stars (i.e., a prophecy) included its necessity to abandon this particular quest. The cogitative under the compelling domination of the will continues the same pursuit during sleep as it previously had undertaken while the individual was awake.

Algazel describes this search as a movement extending from one form to its neighbor, a movement which eventually strikes or uncovers the propitious form originally sought. Not that this form itself constitutes the object which the cogitative is attempt-

ing to remember---this is not the final act in the process of recollecting a thing---, rather this particular form became the object of the cogitative's search because of its affinity with the intention that we are trying to recall. It is the reawakening and recalling of the intention that constitutes the act itself of remembering. With the reappearance of the forgotten intention which instigated the quest, the memory judges that it remembers the object in question. In order to obtain this intention, though, it became necessary for the cogitative to locate the exact form which preceded its conception in the past. When this form is recovered the cogitative compares it with the intention contained in the memory. If it is the proper form it will immediately evoke the desired intention. This ends the investigation and the memory pronounces its judgment of recognition. Algazel mentions only this one type of recollection but it must be remembered that Avicenna had spoken of a second which originated in the memory itself.

This description by Algazel is merely a synthesis of what we have already seen in the De Anima of Avicenna. The imaginative force, alias the cogitative, in joining the formative thesaurus with the memory accomplishes an act of recollection. Notice that Algazel carefully distinguishes mere discursive activity proper to the cogitative from the act of recollection itself uttered by the memory. He was as fully aware as Avicenna that cogitation is not synonymous with recollection.

As a previous condition to regaining the forgotten intention, it becomes incumbent on the cogitative to make numerous comparisons. These comparisons, we are told, assume the form of a syl-

logism. The comparison of one form with its neighbor is similar to the process by which we deduce a conclusion from the premises of a syllogism via the middle term. In other words, there is an inherent connection or illation existing between the conclusion of the syllogism and its premise. This connection is made possible through the mutual affiliations of the middle term with the major premise and the conclusion. The middle term makes the conclusion possible. Similarly, the comparison undertaken by the cogitative proceeds from one form to that of its neighbor. Like the syllogism this transition is effected because of an inherent quality cementing the two. One is inferred from the other. Something in the first form immediately suggests the second. This something acts as the middle term. We are well aware that in reminiscing, the pattern of our thoughts includes a chain of logical deductions. We proceed from one thing to another with a purposiveness by which each notion we consider is linked to the former through some mutual aspect. This aspect may be determined by the law of contiguity or dissimilarity or by some other law of causality whereby we associate one form immediately with a second which engendered the first. Whatever this aspect may be, it serves as the middle term by which a second form is deduced. The second form depends on the first. For example, the passage from a white wall to the white paper enclosing a cigarette to a headache engendered by the cigarette involves the comparisons of contiguity and causality; each notion is chained to the former by some mutual quality.

But this is a strange language. A syllogism involves the use

of reason. It is made possible through the aloofness reason enjoys over matter. Only a spiritual faculty can obtain valid knowledge through syllogistic reasoning. How can Algazel compare the inquisition undertaken by the cogitative to the syllogistic reasonings of the intellect without confusing the two? His comparison helps us to understand more clearly the activity of the cogitative in its quest after a certain form but is it conceivable that a sensible faculty can operate even after the fashion of a spiritual one? St. Albert senses the problem and dismisses it with the following solution:

Causa autem hujus est, quod reminisci cum sit investigatio per memoriam, est sicut syllogismus quidam a principio procedens: non tamen est vere syllogismus: quia procedit per se ex particularibus in res, et non in cognitionem aliquam factam per principia: sed procedit in rem quae primo fecit cognitionem in anima: et est syllogismus quidam ejus quod aliquis prius vidit aut audivit aut aliquo hujusmodi secundum sensum passus fuit. Sic enim syllogizatur reminiscens in seipso et in sua reminiscentia et est sua reminiscentia quaestio sive investigatio quaedam, sicut diximus superius. Talis autem investigatio non est sine ordinante ratione: et ideo accidit eis quibus accidit deliberare et ordinare antecedens ad consequens. Ratio autem deliberans unum ex altero est per modum syllogismi, qui quandoque quidem est necessarius, quandoque autem probabilis, et quandoque quasi consuetudinis utitur auctoritate.¹

To employ scholastic terms we would say that the cogitative force of Algazel "reasons" materially whereas the intellect reasons formally. In other words, the cogitative force of Algazel does

¹St. Albert, Liber de Memoria et Reminiscentia, tract. II, cap. 6, Opera Omnia, vol. IX, pp. 116-117.

force. We have not attempted to reconstruct this explanation of recollection by inserting a practical illustration. Algazel did not aid us by suggesting one himself. But it is not our primary purpose to elucidate the mechanics of recollection and the knowledge we have obtained gives us a sufficiently well delineated picture of the cogitative force proposed by Algazel and Avicenna, our primary concern. The numerous similarities between their doctrines have been brought to the attention of the reader. By now, there should be no question as to the authorship of the cogitative force portrayed by Algazel. His descriptions of its role and activity were unquestionably derived directly from Avicenna and Alfarabi. This passage has served as a succinct summation of the particular place this faculty possessed in the minds of the Arabians prior to Averroes. The succeeding chapter will serve as a recapitulation of the doctrine of Avicenna.

not reason at all in the sense that we understand reasoning applied to the syllogism. The major premise of a syllogism is the principle of the syllogism. It is a principle in two senses: 1) inasmuch as the syllogism commences with the major premise; 2) inasmuch as the major premise announces a statement comparable to a definition from which certain properties may be deduced. If the major premise of the syllogism is taken in the second sense, only the intellect is capable of reasoning in the form of a syllogism. Because, in reality, the major premise constitutes the essence or nature of a thing and only an immaterial faculty can apprehend the essence of things. If the major premise is taken in its primary sense as the first step in a chain of argumentation it may be applied to the cogitative's investigation by which subsequent forms are deduced from an original one. This deduction certainly entails a common term by which the second form is derived from the first; but this does not mean that the second form will be the property of the first nor does it mean that the cogitative will perceive a deeper connection between the two than that of similarity or dissimilarity. The intellect, because it considers universal ideas perceives that a certain quality, for example risibility predicated of a rational animal, pertains to a thing essentially. For that reason it deduces this property from the nature of that thing. The knowledge of the essence of man as a rational animal provokes the intellect to conclude that he is necessarily risible. No such universal knowledge is available to the cogitative or any sensible faculty. It knows only concrete, individual, sensible forms and as such it cannot attain the nature

or essence of these forms. Consequently it cannot deduce one individual property from these images since such an inference emanates from a knowledge of a things essential nature. But because it can deduce one individual form from another, that is because it passes from the knowledge of one form to the acquisition of a second, it resembles the transient passage of the intellect engaged in extracting one idea from another.

This is where the similarity ends. The latter deduces a second idea through a knowledge of the first's essence, the former deduces a second form through some convenient association such as similarity or dissimilarity. The first preserves the essential notion of a syllogism while the second retains only its accidents. St. Albert points out the decisive difference when he states that recollection cannot include a valid syllogism because it proceeds from an individual fact and not from the knowledge of some fact through its universal principle. His usage of principle here must be understood in the second sense. A valid syllogism commences with a universal proposition. The memory is limited to individual things ---therefore it cannot properly speaking reason.

As was the case with Avicenna, we have not emerged with a clairvoyant idea of recollection. All we have ascertained is that recollection involves a previous comparison of forms with intentions and intentions with forms; that this comparison is designed to locate or regain the form or intention which had fallen into oblivion; that the inquisition is distinct from the act of memory itself which immediately follows the recovery of the forgotten form or intention; that the inquisition is conducted by the cogitative

force. We have not attempted to reconstruct this explanation of recollection by inserting a practical illustration. Algazel did not aid us by suggesting one himself. But it is not our primary purpose to elucidate the mechanics of recollection and the knowledge we have obtained gives us a sufficiently well delineated picture of the cogitative force proposed by Algazel and Avicenna, our primary concern. The numerous similarities between their doctrines have been brought to the attention of the reader. By now, there should be no question as to the authorship of the cogitative force portrayed by Algazel. His descriptions of its role and activity were unquestionably derived directly from Avicenna and Alfarabi. This passage has served as a succinct summation of the particular place this faculty possessed in the minds of the Arabians prior to Averroes. The succeeding chapter will serve as a recapitulation of the doctrine of Avicenna.

CHAPTER IV

PETER HISPANUS: A RECAPITULATION OF THE AVICENNIAN INTERNAL SENSES

1. Introduction

By interposing Peter Hispanus¹ between Algazel and Averroes it would seem to the casual observer that I was guilty of a blatant anachronism. In the transition of historical events, Averroes was buried a number of years before the birth of Peter Hispanus but in the sequence of the intellectual world, the De Anima of Peter Hispanus may have been written before the doctrines of the eminent Philosopher from Cordova had hit their full stride in the Christian circles of Medieval Europe. In the latter case, the De Anima of Peter Hispanus could have taken shape prior to the growth of Averroism in the latin world. If this were the case, we would have in this treatise an unparalleled manual of psychological data totally isolated from the Averroian current of thought. Unfortunately, Peter Hispanus' De Anima is completely devoid of references to those authors and sources from which he sought in-

¹Cf. Maurice De Wulf, Histoire de la Philosophie Médiévale (6th edition; 2 vols.; Librairie Philosophique J. Vrin; Paris, 1936), II, p. 85: "Né à Lisbonne, P. Hispanus s'était initié à la médecine dans les cercles de Salerne placés dans le brillant éclairage de Frédéric II, roi des Deux-Siciles. Il fit d'abord carrière à Paris, puis à Sienne (1246). En 1276 il devint pape sous le titre de Jean XXI, et ce fut lui qui mit en branle E. Tempier dans la fameuse affaire de 1277." Cf. p. 86: "De l'auteur qui nous occupe, Grabmann a retrouvé un De anima, le premier manuel systematique de cette époque..." It is this manual which is being consulted in this chapter.

spiration.¹ Father Alonso sensing the physical impossibility of retracing these sources confines his energies to the re-editing of the text itself. We propose to take a step in this direction by drawing attention to the remarkable similarity to be found between the internal senses of Peter Hispanus and those of Avicenna. We do not pretend that this treatise is an unadulterated compilation of Avicennian psychology, but the author's classification of the internal senses is undoubtedly extracted from the "De Anima" of Avicenna.² As such, it gives us an opportunity of briefly re-

¹Peter Hispanus, Scientia Libri de Anima (edited and annotated by Manuel Alonso, S.J.; Consejo superior de investigaciones científicas: Madrid, 1941), p. 40, Father Alonso's prologue: "cuando un autor con sus citas indica continuamente las fuentes de donde toma sus doctrinas no parece muy necesario indicar los libros antiguos en que se inspira. Esto se hace más necesario cuando en obras como la presente no se cita autor ninguno, a pesar de ser sumas o compilaciones donde no se pretende inventar, sino tan sólo presentar la doctrina."

²Father Alonso believes that it was written subsequent to Peter Hispanus' commentary on Aristotle's De Anima in which there are numerous references to Averroes and other Oriental and Jewish thinkers. Cf. Peter Hispanus, op. cit., prologue, p. 40: "De aquí se infiere que la fuente principal e inmediata de la presente obra son las obras anteriores del mismo Pedro Hispano. Las fuentes remotas couen a través de éstas más próximas, y aquí reciben el matiz propio que revisten en el autor." Cf. also Pedro Hispano, Obras Filosóficas II, Comentario al "De Anima" de Aristoteles (edited by M. Alonso, S.J.; Consejo superior de investigaciones científicas: Madrid, 1944), preliminary introduction, p. 38: "Por último, tenemos en el mismo Pedro Hispano una indicación bastante formal sobre dos obras suyas que comentaban el De Anima de Aristoteles. En su Scientia libri de anima podemos leer estas palabras: Ad nostre igitur thronum mentis curiosa necnon executione digna ascendit intentio, ut de natura anime differentiarumque eius compendiosam ac perfectam ordinaremus traditionem, ut, postquam sermones inquisitivi sub disputationis examine procedentes in aliis operibus a nobis editis sint premissi, in hoc ergo negotio omnium inquisitionum veritatis sentencie certis summis ac brevibus concludantur. Habia, pues, ya escrito más de una obra sobre la materia; y no parece que puedan indicarse otras que el Comentario al De Anima del códice madrileño 3314, fol. 68r-89^{rb}. El que con

capitulating Avicenna's position.

2. The internal senses in general

In the fifth chapter of the second tract entitled, "De virtutibus interioribus apprehensivis animae sensibilis", Peter Hispanus develops the interior senses. The interior apprehensive faculties are five in number: the common sense, imagination, imaginative, estimative and memory.¹ Immediately following this statement, Peter Hispanus proceeds to expound the functioning of each in the light of the three general principles enunciated in Avicenna's "De Anima",² namely, that some interior faculties apprehend forms whereas others apprehend intentions, some apprehend while operating whereas others do not and thirdly, some apprehend primarily whereas others apprehend only secondarily. It would be superfluous to repeat here the innuendos prevailing between the internal senses through the application of these three principles to each. Suffice it to say that Peter Hispanus recreates with them the five faculties which make up Avicenna's doctrine of the internal senses.

las palabras dichas re remita a las obras m dicas parece que debe tenerse por falso, toda vez que en estas obras m dicas, como hemos visto, se remite a las obras filos ficas. Estas, pues, son anteriores a aqu llas."

¹Because of the length of this text we are summarizing it has been enclosed in an appendix at the end of this thesis. Cf. infra, p.

²Cf. supra, chapter 2, p. 43 et passim.

Further on¹, the common sense is defined as the receptor of forms in contradistinction to the imagination which retains them. Similarly he pairs the estimative with the memory making it the faculty apprehending intentions and the memory its repository. The imaginative faculty is responsible for the discussion consisting of a composition and division which precedes the apprehension of the intention by the estimative faculty. The estimative force educes its intention from the compositive and divisive operations of the imaginative force like grain is separated from chaff. In this order each faculty ministers to the needs of the succeeding one which furnishes in its own turn something additional to the data obtained. Thus the exterior senses minister to the common sense by presenting the sensible forms of things and the common sense ministers to the imagination by discerning and combining these sensible forms; the imagination ministers in turn to the imaginative by retaining these forms; the imaginative in its turn ministers to the estimative by combining or separating these sensible forms retained by the imagination. It is through these discursive and deliberative efforts of the imaginative force bearing on the sensible forms that the estimative extracts its intentions. When this intention is secured by the estimative it is subsequently stored away in the memory.²

¹Towards the end of fol. 10^r, col. 1: "Sensus vero communis in formarum susceptione etc." Infra, p. 299.

²The only exception to this principle is the memory. The memory is subservient to the estimative, not vice versa.

Finally, his localization is identical with Avicenna's. In the first ventricle of the brain he locates the common sense and imagination, the middle ventricle he divides in two parts placing the imaginative in the anterior section and the estimative in the posterior. The third ventricle is reserved for the memory.

3. The internal senses in particular

Further on in the seventh tract he devotes a chapter to each one of the internal senses. Of these, we will present briefly his exposition of the imaginative (which he now calls the phantasy) and the estimative.

A. The imaginative or cogitative force

After the sensible forms have been extracted from the exterior senses and conveyed to the imagination for safekeeping, the sensitive soul is obliged to judge, discriminate, unite, divide, distinguish and compose them. It is the function of the phantasy to accomplish this task. The sensible and insensate intentions cannot be perceived by other interior senses (meaning the estimative force) unless the phantasy exercises its own deliberative reorganization of these sensible forms. The operation of this faculty manifests itself when the soul is absorbed in profound meditation or when it is sleeping.¹

¹Peter Hispanus, De Anima, tract. 7, cap. 3, fol. 36^r, col. 1, p. 315: "Postquam vero forme sensibiles ab exterioribus virtutibus orientes ad communem sensum deferuntur et ymaginatione reponuntur, eget anima sensibilis usu iudicii, discretionis, unionis, diversitatis, distinctionis, compositionis circa ipsas, ut hec opera in-

This faculty is known by many names. It is called the phantasy because it forms and judges these sensible forms by composing and dividing them. It is called by the name of vision because it provides through its subtilities and illuminating operations a vision of things. It is called the imaginative because it discerns, distinguishes, composes and divides the imaginative forms retained by the imagination. It is called the cogitative when it is under the guidance of the intellect in contradistinction to the same faculty located in the brute animal which bears the name, "imaginativa".¹

terius prima opera exteriorum virtutum compleantur. Ad hoc autem virtus creata est fantastica, que hec omnia opera excercet. Et cum virtutes alie interiores intentiones sensibiles et insensibiles accipiant, egent hac virtute que eis formas presentat ex quibus intentiones eliciuntur. Huius autem virtutis operationes manifestantur in profundis cogitationibus exteriorum usu cessante et in somponiis. Est igitur fantasia virtus sita in media cellula cerebri ordinata ad compositionem et divisionem excercendas circa formas ymaginatione presentatas secundum notum inclinationis sue."

¹Peter Hispanus, loc. cit., "Nominatur autem hec virtus nominibus diversis; dicitur enim fantasia eo quod formas apparentes format ac diiudicat componendo et dividendo; dicitur autem visio nomine visus proportionali propter visus subtilitatem et luminis operationem; dicitur autem ymaginativa eo quod formarum ymages ab ymaginatione receptas discernit, distinguit, componit ac dividit; dicitur autem cogitativa eo quod considerationi et speculationi circa formas sensibiles deputatur et cum anime sensibilis nutum sequitur et preceptum dicitur ymaginativa; cum autem intellectus imperium, cogitativa vocatur." Nowhere either in Avicenna or Algazel was the imaginative or cogitative force called the phantasy. Avicenna called his common sense the phantasy and Algazel called his imagination by the same name; this term was never appropriated to the cogitative force, however. Despite this, St. Albert as well as Peter Hispanus seem to prefer to call their imaginative or cogitative the "phantasia". If they did not derive this name from either Avicenna or Algazel they must have obtained it from Alkindi or Alfarabi. We are not in a position to state whether the latin versions of Alfarabi's works employed "phantasia" to translate this faculty but we do have probative evidence that Peter Hispanus, at least, could have easily obtained

Its operation consists in dividing and composing these forms; in the absence of the exterior object itself, it recreates or re-forms it through this composition and division. Sometimes it can even create with these forms certain aggregates incapable of existing outside of the mind. But this formation occurs only when the phantasy refuses to obey the dictates of the intellect.¹

this term from Alkindi. Several points in the preceding text indicate that he either read the "Liber de somno et visione" of Alkindi or something very similar to it. In this "liber de somno et visione", Alkindi states that the faculty receiving the vision which forms the object of this treatise is called the "phantasia" by the ancient greeks. Furthermore, he states that this faculty operates more efficiently when the exterior senses are dormant or when the individual is sleeping. Peter Hispanus employs this same simile to illustrate the activity of his phantasy. In fact, the similarity of his words with the ones found in the "Liber de somno et visione" is startling. Peter Hispanus writes: "...manifestantur in profundis cogitationibus exteriorum usu cessante et in sompniis," and Alkindi writes: "...et secundum quantitatem profundationis cogitationis in eo et dimissionis usus sensuum...". Finally, Peter Hispanus states that vision is another likely name for the phantasy. In the "Liber de somno et visione" it was the same phantasy which received vision through its compositive and divisive operations exercised on the imaginative forms. These passages from the treatise of Alkindi will be found in the footnotes of the opening chapter. Cf. supra, pp. 4-8.

¹Peter Hispanus, loc. cit., "Eget autem hec virtus organo corporali eo quod est virtus a materiali subiecto dependens et formas recipit corporales, que sicut materie corporali inprimuntur, similiter earum similitudines corporali organo inprimuntur. Est autem sita in media cellula cerebri eo quod inter virtutes interiores medium locum tenet, nam ipsa formas in ymaginatione a sensu communi emanando repositas recipit et receptas componendo ac dividendo confert et estimative et memorative eas offert et ipse ab eius officio eas recipiunt. Situm autem tenet in prima extremitate ad interioris cellule ultimam extremitatem declinante, ut ymaginationi qua formas recipit proxima sit; cum igitur hec pars nocuum^{us} incurrit eius operationes leduntur aut deficientes aut omnino^{us} aut ad contraria deviantes! Est autem via media secundum foraminis apertionem per quam spiritus ab anteriori cellula ad illam mediam irradiat que officio eius ministrat, et quo forme ex ymaginatione fluentes ei presentantur. Est autem hec pars ad omnium formarum sensibilium receptionem indifferenter ordinata, et ideo hec

B. The estimative force

Concerning the estimative, Peter Hispanus states that the regime of the animal does not consist solely in the perception and judgment of sensible forms but that intentions such as goodness, malice, friendliness and enmity are also educed from the contents of the imaginative forms impressed in the imagination. When the sensible soul ruling the animal forces it to flee danger and embrace beneficial things, this action must emanate from a particular faculty through which it discerns the beneficial and the harmful, the good and the bad, the convenient and the inconvenient. These occult forms do not fall within the scope of the exterior senses since each one of these have their proper object, nor does it fall within the scope of the common sense, imagination or imaginative faculties since each have their specific duties to perform; we must posit another faculty to comprehend these occult forms, this faculty being the estimative force. It is not only given to the intellect to discourse over these sensible forms. If this were so

virtus nec ex se nec ex organo ad sensibilibus obiectorum aliquod coartatur, sed ad omnia valet extendi. Eius igitur obiecta sunt omnes forme sensibiles que in sensu communi representate in ymaginatione reponuntur tam proprie quam communes, omnes enim iudicat, distinguit, componit ac dividit. Operatio autem eius in earum formarum compositione ac divisione consistit, nam ipsa in absentia sensibilibus obiectorum has format, componit ac dividit et circa ipsarum compositionem et divisionem inducit iudicium. Quandoque vero eius vigor intenditur et tunc format ymages componens ipsas ac dividens que in re existentiam non habentes nunquam fuerunt exterioribus sensibus presentate. Et hec deviatio ei accidit, cum ad sensus exteriores non inclinatur, nec regimen suspicit intellectus. Sed et multe operationes ex ipsa emanant que in multis egritudinibus et in sompno et in profundis cogitationibus fiunt et multi ex ipsa errores trahunt ortum."

the sensible soul would be imperfect and would not be capable of defending itself from harmful objects. As a result, many animals would inevitably perish. It is essential to the animal that the sensible soul be equipped with this faculty.¹

The object of this faculty is the insensate forms educed from the imaginative forms retained within the imagination and since these insensate intentions are leagued with the imaginative forms, the estimative force discerns and separates them one from the other. These insensate forms apprehended by the estimative force are of two classes: 1) some intentions of their very nature transcend the scope of the other senses, such as the intentions of friendliness or danger which the lamb senses in the presence of the wolf or another lamb; 2) other intentions of their very nature

¹Peter Hispanus, op. cit., tract. 7, cap 4, fol. 36^r, col. 2, p. 319: "Non solum autem animalis regimen ac perfectio in perceptione ac iudicio formarum sensibilium consistit, sed in discretionem formarum insensibilium que ex sensibilibus eliciuntur, sicut sunt bonitas ac malitia, amicitia et inimicitia, et ideo cum ad sensibilium comprehensionem virtutes exteriores et interiores sensus communis ymaginatio et ymaginativa destinantur, ordinatur alia que estimativa dicitur ad insensibilium apprehensionem. Cum autem anima sensibilis regens animal ipsum a nocivis removet et ad iuvativa approximatur, ab ipsa necesse fuit hanc emanare virtutem per quam iuvativum et nocivum, bonum et malum, conveniens et inconveniens discernit et necesse est hanc virtutem esse interiorem eo quod ex exterioribus solis emanat regimen et ordo. Hec autem forme occulte non cadunt in apprehensionem exteriorum virtutum cum sint ipse ad propria genera obiectorum determinate, nec ad ipsa sensus communis, ymaginatio, extenduntur cum solum hic recipiat, illa vero retineat que exterioribus presentantur, nec ymaginativa eo quod solas formas sensibiles sibi a sensu communi et ymaginatione oblatas componit ac dividit; igitur virtus superior illas occultas comprehendit quam estimativam vocant. Non est autem illarum formarum discretio a solo intellectu eo quod anima sensibilis esset in virtutibus et operibus imperfecta et non esset ab ea perfectum regimen nec defensio a nocivis et proficuum executionis deliberatio et multa animalia intellectu carentia harum formarum discretionem participant quibus estimationem necesse est inesse."

fall within the scope of the other senses but these same senses are incapable of judging or discerning them.¹ An example of these second intentions would be the white substance perceived by the eye. The soul judges that this white substance is sweet milk. All the common sense is capable of discerning is the unity of the object, namely that the whiteness is a part of this exterior substance and if this sweet milk has a savourous odor the common sense relates the odor with the same exterior substance. But, the common sense is incapable of judging the quality of this white, savoury substance. It cannot judge that it is sweet or appetizing or that it is milk; this judgment emanates from the estimative force. In other words, this second intention is partially sensible because the object itself is sensible and perceptible to the exterior senses. The actual evaluation of this sensible substance as something good, bad, convenient, inconvenient, delectable, unpalatable, painful, etc., transcends the senses and requires an additional faculty to render it. This faculty is the estimative force.²

¹For this same division in the De Anima of Avicenna, cf. supra, chapter 2, p. 114, note 1. For further explanation on the special mode of abstraction peculiar to the insensate intention, cf. fol. 7 ra, p. 29.

²Peter Hispanus, op. cit., tract. 7, cap. 4, fol. 36^r, col. 1, p. 320: "Sunt autem huius virtutis obiecta forme insensibiles ex sensibilibus elicite, et cum ipse sint sensibilibus colligate, simul utrumque accipit genus et unum ab altero separat ac discernit. Quedam enim sunt que ex natura sua non cadunt in sensus apprehensionem, sicut inimicitia ovis et lupi, et amicitia agni; alie sunt que ex sua natura cadunt in sensum sed sensus eas in hominis iudicii non discernit, sicut cum videt visus substantiam albam, iudicat anima esse lac dulce, non tamen hoc iudicium redditur ex sensu in hora apprehensionis eius."

All faculties concerned with individual corporeal substances vested with sensible accidents may be reduced to this one faculty.¹ It might be well to elucidate this declaration by Peter Hispanus. The statement in its literal translation appears rather obtuse but its meaning, nevertheless, can be easily fathomed. All particular faculties (meaning all the exterior senses) which perceive individual sensible substances through the raiment of sensible accidents with which this substance is clothed, perceive this substance under the power of the estimative force. Let us take the same example which Peter Hispanus has given us. The eye perceives a white substance. In reality, the formal object of the eye is color; all the eye can perceive in its own right is the whiteness of the substance. Yet, the eye does not stop there. It does not see mere whiteness. This whiteness adhere to some object. Hence, through its formal object it perceives something surpassing its nature. True, it also has the capacity of perceiving the common sensibles such as magnitude or form through the medium of its formal object. But, the accidental sensibles, such as the estimation that this white substance is sweet milk, surpasses its field completely.² Despite this we repeatedly exclaim that we "see"

¹Peter Hispanus, op. cit., tract. 7, cap. 4, fol. 36^r, col. 1, p. 320: "Ad hanc vero virtutem reducuntur virtutes particulares substantiarum individuarum corporalium sensibilibus accidentibus velatarum."

²Avicenna concedes that the common sensibles are apprehended immediately by the exterior senses and not by the common sense as some philosophers claimed. However, he recognizes the need for a special faculty to apprehend the accidental sensibles. Cf. De Anima, fol. 17 rb, p. 80 et seq. for an enumeration of the common sensibles perceived by each individual sense faculty.

a glass of milk. And in reality we do "see" a glass of milk. Peter Hispanus explains, however, that such a vision bearing on an individual sensible substance is possible only if the eye collaborates with the estimative force. All exterior senses perceiving sensible accidents proper to the individual substance qua substance do so in virtue of the estimative force.

Our author proceeds to expound three ways by which the estimative force acquires its intentions. These three modes are the same three which we discussed in our chapter on Avicenna. Peter Hispanus' treatment merely repeats Avicenna's exposition without adding to the formal content.¹

¹Peter Hispanus, loc. cit., "Eius igitur operatio circa predicta formarum genera exercetur, sed eius operatio triplici via procedit: prima est naturalis cautela a divina provisione proveniens ordinata ad omne iuvativum aut nocivum, et hec est in puero qui nondum visum habet, intellectus, vita, regimen corporis, et statim cum nascitur, pendet ex uberibus et cum ad standum erigitur, timet casum inminentem, propter mollitiem et debilitatem membrorum alicui innititur, ut preservetur et cum nutrix intendit eius oculum a lipa purgare claudit ipsum propter eius custodiam, et hee operationes ei accidunt absque intellectus discretione et multis animalibus intellectu carentibus hee et consimiles secundum hanc viam adveniunt ex naturali provisione anime sensitive. Nam quidam aspectus sunt ordinati inter animam et virtutes eius et sunt principia rerum ipsas inmutantium qui sunt duces non cessantes animam dirigere preter notitiam casus qui debet contingere vel non contingere et fit hec previsio absque operatione et electione intellectus, et tamen fit secundum similitudinem considerationis intellectus et subiti mentis aspectus. Unde anime cautele naturales sunt insite, per quas preservatur a rebus nocivis et non est mirum cum in rebus animatis sit quedam naturalis discretio per quam loca sibi eligunt propria sue saluti deputata, et contraria fugiunt et vegetabilis anima, licet cognitione careat, in corporis regimine convenientia attrahit et nociva expellit. Habent igitur anime virtutes ad res aspectum mutuum, quas absque deliberatione discernunt et per has cautelas estimatio percipit intentiones insensibiles formis sensibilibus connexas, in quibus proficuum atque nocivum discernit, unde omnis agna lupum timet, licet ipsum numquam viderit et nullam lesionem ab eo pertulerit et multa animalia leonem et aves multe accipitrem...secunda via est per experientiam

4. A final summation of the internal senses

Before taking leave of Peter Hispanus an investigation of a chapter he devotes to recollection will prove most profitable.¹

procedens secundum quam animal ex aliqua re sensu percepta delectatione atque dulcedine consequitur aut iuvamen sensibile aut nocumentum que sunt connexa forma sensibili que in ymaginatione describitur cum iuvamento et nocumento et aliis que cum ipsa adveniunt, et deinde in memoria reponitur ipsa et eius intentio ad iudicium et aspectus eius ad intentionem et ad ea que ad eam consequuntur, tunc cum iterum illa forma animali presentatur, memoria apprehendit omnia ei connexa et tunc forma illa presentatur in ymaginativa et tunc movetur ad ea que illi sunt coniuncta, sicut conditiones proficuas et nocivas, et tunc procedit memoria inquirendo per modum motus perscrutationis procedentis a virtute ymaginative et tunc operatio estimativa per se discernendo deveniet ad notitiam intentionum consequentium illam formam inducentium iuvamen et nocumentum et per hanc viam lapides ac baculos timent fugientes. Tertia via est per materiam similitudinis per proprietates procedens, nam cum res sensibilis habet formam coniunctam cum intentione qua diiudicat estimatio quando forma sensui presentatur cum omnibus appenditiis suis, devenit estimatio ad notitiam intentionis, ut cum infectio pannosa faciei sit signum inpregnationis in femina, cum apparet iudicat estimatio inpregnationem, et cum color flavus sit signum maturationis in pomo cum apparet pomum flavum estimatio ipsum maturum iudicat." Cf. supra, chapter 3, p. 97 et seq.

¹We trust that no one will judge the value of this book or compendium by the curt manner in which we are treating it. The contents of this treatise cannot be reckoned too highly. True, we cannot situate it in any one vein of thought current in the Middle Ages but this should not detract from the tremendous amount of positive information contained within its covers. It may be an amalgamation of a number of Jewish, Arabic and Hellenic texts without the due acknowledgment it owes them but albeit this enervating infirmity we may reassure ourselves that a perusal of its contents will acquaint the reader with those psychological ideas which basked in the limelight during the early part of the thirteenth century. M. Grabmann who uncovered this treatise and judged it to be composed by none other than Peter Hispanus, later the reigning pope, John XXI, considers it to be the first systematized manual of the scholastic epoque. Cf. supra, same chapter, p. 137, note 1. We might add to this in regards to the internal senses that within the early part of the thirteenth century the works and doctrines of Avicenna were unquestionably in the ascendancy. If this predilection for Avicenna is only suggested by St. Albert, this treatise of Peter Hispanus serves to confirm it.

There is a gradation of seven faculties in distinct states of spiritual elevation corresponding to seven different orders of forms. First there is the exterior sense in which the material form impresses itself. Secondly there is the representation of such sensible forms within the common sense. Thirdly, there is the regroupment of these sensible forms by the imaginative force. Fourthly, they are contained and preserved by the imagination. Fifthly, the estimative extracts from them its numerous intentions. In the sixth grade, the memory conserves these intentions. In the seventh and final grade, these sensible forms and the intentions extracted from them are subjected to an intensive investigation by the faculty of recollection. In the act of recollection there are four grades: the image of the form, the intention of the image, the revival of the intention from its forgotten state and the collation of this intention with its image. Generally speaking, the imaginative faculty receives forms and judges the image, the estimative recognizes its intention anew, the recollective faculty revives the intention of the image from its forgotten state and the distinctive faculty compares this intention of the image with the image itself judging whether they are identical or extraneous.¹

¹Peter Hispanus, *op. cit.*, tract. 10, cap. 12, fol. 58^v, col. 2, p. 481 et seq.: "Disponunt autem septem formarum ordines ac virtutum secundum gradus spiritualis elevationis distincti: primus est exterior, in quo forme materiales extrinsecis sensibilibus virtutibus inprimuntur. Secundus est sensibilibus formarum interno aspectu in sensu communi representatio, fantasie et formative officio concurrente. Tertius in virtute ymaginativa earum pertractatio. Quartus est earum in ymaginatione repositio. Quintus in-

A. First level of sensorial perception

Let us take the example of the spoon to examine this spiritual gradation on the first level of sensorial perception. First of all, the spoon is known to the exterior senses. The eye perceives that the spoon is a greyish silver, the nose may detect an odor of alloy, the ear hears the metallic sound emitted by the spoon dropped on the floor, our sense of touch informs us that the spoon is smooth and cool, by putting it in our mouth we discover that the spoon has no distinctive taste. All these are proper sensibles forming the specific object of each of our exterior senses. Some of the exterior senses are also capable of apprehending through their formal objects additional data pertaining to the spoon. Thus the eye also perceives that this spoon is in the shape of a shallow container with a small stem, it determines the locality of the spoon resting on the table, our sense of touch determines that the spoon is relatively light and so on. All these impressions of the spoon are absorbed by the common sense which relates them to the spoon itself taking particular care to prevent any false accidents such as the color red or the feeling of roughness being associated with it. The imagination in turn, conserves all these impressions within its bosom. When

tentionum sensibilium per opus estimative facta distinctio. Sextus in memoria earum conservatio. Septimus ductu reminiscentie per earum rememorationem inquisitio. In internis vero acceptionibus quatuor sunt gradus: ymago forme, intentio ymaginis, reductio intentionis preterite ad presentem existentiam actualem, et collatio illius intentionis ad suam ymaginem: generaliter igitur ymaginativa ymaginem suscipit, format ac diiudicat; estimativa intentionem eius accipit: rememorativa intentionem preterite ymaginis ad actualem presentiam reducit; distinctiva vero intentionem ymagini conferens eam eius propriam esse asserens aut ei extraneam eam cum ipsa componit ac diiudicat."

the spoon has been relieved of all these sensible forms the primary stage of sensorial perception has been completed and the soul is in possession of the raw material from which it educes the intention of the spoon. The extraction of the intention by the estimative force constitutes the second, higher stage of sensorial perception.

B. Second level of sensorial perception

As we may remember, there are three main types of intentions. The first of these, the "intentio insensata" is apprehended instantaneously both by the animal's estimative force when the lamb comes in contact with the wolf for example, and by the human estimative when the child instinctively clutches at some object to break its fall. The second intention is obtained as the fruit of experience and the third through association. Since the first is strictly impulsive no previous conditioning is necessary for the estimative force to grasp it. But the last two instances demand a complex investigation on the part of the imaginative force before the estimative apprehends its intention. The third being merely an extension of the second, (the estimative acquires an intention through association only after this intention has been obtained in an experience) we will confine this second sensorial perception to the intention apprehended through experience.

In the complex exploration involved in the second case, the imaginative force working on the proper and common sensible forms associates, dissociates, combines and separates them in any manner it pleases. This activity was repeatedly described by Avicenna in

terms relating to the compositive human imagination: "...solet componere aliquid de eo quod est in imaginatione cum alio et deinde aliquid ab alio secundum vult". Thus, by refashioning or regrouping these sensible forms in any manner it wills, the imaginative or cogitative force can create a pink spoon or a purple spoon or a spoon without a handle or again a spoon as big as a house or a spoon too heavy to lift or a spoon which can move by itself and so on. It enjoys the liberty of recreating the spoon in any size, dimension, form, weight, color, etc. that it wishes.

We reprimanded Avicenna for confusing cogitation (this activity emanating from the cogitative force could not be conceivably called anything else) with the composition of fanciful constructs. We based our complaint on the fact that St. Thomas did not identify cogitation with the creation of imaginative aggregates but, on the contrary, appropriates the activity of imagining (understood in the fictive sense) to the imagination and the activity of cogitating to a separate faculty which he calls the cogitative force. Furthermore, we pointed out that it was possible for any individual person to imagine fanciful objects without having to simultaneously cogitate them (understanding cogitation as a movement from the known to the unknown). We recognized the necessity for cogitation to have a faculty which can reenvision the exterior object in a number of ludicrous positions (otherwise this movement from the known to the unknown would be frustrated) but we also recognized that this did not present sufficient grounds for Avicenna to identify the two. We may imagine while we cogitate but it does not follow that we must cogitate while we imagine.

Following up this distinction we insisted that Avicenna's cogitative force cogitated only when it was in pursuit of some sensible form which had become lost to the imagination or formative faculty.

Avicenna would be the first to acknowledge the validity of this distinction if it had been brought to his attention. The fact that he ignored it is quite comprehensible. When he defines his cogitative force in terms relevant to the compositive human imagination he certainly conveys the impression that the sole function of this faculty is to construct unorthodox images out of the residue of sensitive impressions preserved by the formative force; as if his cogitative force creates a two-headed man from the sheer pleasure it derives in this activity. At least this is how St. Thomas understood the operations of this faculty for immediately he denies the necessity for positing an autonomous power to execute this distinctive role. However, these contorted constructions of the Avicennian cogitative force are merely the preliminary conditions without which it could not fulfill its higher role in ministering alternately to the discursive needs of the estimative and memnomic faculties. It was not the creation of impossible images which arrested his thought. He had no use for these inordinate images as such. To his mind they were simply by-products of the cogitative force. What occupied his attention was the need of having a faculty to move about within the interior of the imagination uninhibited by conventional ties. It is purely incidental to the work of his cogitative force itself that such products as a two-headed man take shape.

Alkindi who originated this conception of the cogitative or imaginative force merely illustrated the functioning of this faculty by indicating the products of which it is capable. In other words, we could be sure that we were exercising this faculty when we imagined a wolf that could speak or a man that could fly. It would be a false interpretation of his doctrine to insist that this faculty existed for no other purpose. Its primary purpose consisted in partaking of the vision which he mentions. These compositive formations are merely the condition for its attainment.

Understood in this sense, Avicenna's cogitative force really never simply imagines, its imaginations are always cogitations, i.e., it always undertakes the formation of these imaginative constructs with some ulterior purpose in view, this purpose being either to assist the estimative force in extracting its experimental intention or aiding the memory to regain its forgotten intention by personally conducting the inquisition essential to recollection. St. Thomas lost sight of this fact. Believing the Avicennian imaginative or cogitative force to be an extravagance of human nature, he reduced this activity to the imagination proper.

A more vivid instance of the purposiveness behind the irrational products of this cogitative force may be found in the compositive actions of its counterpart, the imaginative force located in brute animals. This imaginative force has no further purpose than to serve the estimative. It does this through the associations or comparisons it conducts. The dog comes to know meat as a delectable object because his imaginative force has repeatedly linked the intention of delectation with the complex sensible im-

age depicting a piece of meat. These associations do not succeed in creating any impossible images comparable to those fashioned by the cogitative force. And precisely because of this ineptitude, the dog cannot recollect. For example when the dog was but a pup the sight of a raw slab of meat may have had no more effect on it than spaghetti would have on a Chinaman. And yet, the dog may already have enjoyed two similar pieces of meat on the two preceding days. The enjoyment which it had gained from the two former pieces had not yet been properly connected with the pleasure derived. Only when the association had been repeated a number of times by the imaginative force could the estimative judge the slab of raw meat to be delectable. Similarly, a little girl confronted with a plate of sausages (which she had had once before) may not remember whether she liked them or not. But, unlike the dog, she can reassemble the contents of her imagination and by renewing step by step all the meals she had during the past week she may "recall" the particular meal at which she enjoyed the sausages and immediately her estimative force will recognize anew the savoury taste of them. Had the little girl no faculty capable of "arguing" or "reasoning" backwards to relive the events of the past, this intention could never be recalled. It is the unimpeded liberty of the cogitative force, its peculiar privilege of distorting the exterior object as it sees fit which insures the rational being its recollective power.

C. Recollection

Let us procede to the final phase in our recapitulation of

the internal senses. We have described the role of the exterior senses, that of the common sense, imagination, imaginative force, estimative force and memory, the last three mutually concurring to bring about an experience. These same three faculties collaborate in the course of recollection. In fact, an experience (understood as an operation culminating with the estimative's obtention of that intention which evaluates the exterior object) is not enacted without the aid of recollection. Peter Hispanus enumerates four different points involved in the act of recollection: 1) the image of the form, 2) the intention of the image, 3) the revival of the intention from its dormant state and 4) the collation of this intention with its image. Generally speaking, he states, the imaginative faculty receives, judges and forms the image, the estimative recognizes its intention anew, the recollective faculty revives the intention of the image from its forgotten state and the distinctive faculty compares this intention of the image with the image itself judging whether they are identical or incompatible.

Before elucidating this schema it may be well to explain the presence of this "distinctive faculty". Up to now, we have not encountered this term either in Avicenna's or Algazel's classification. We may easily recognize the role it fulfills in Algazel's cogitative force which had the task of mediating between the intentions retained in the memory and the sensible images preserved in the imagination. But Algazel never called this faculty by any other name than the cogitative force. We have shown that Avicenna sometimes preferred to call this same faculty the imaginative force when he undertook to propound the nature of dreams, sleep,

prophecy and recollection but in none of these places does he employ the name, "distinctive faculty" as a likely substitute. In fact, it may be shown that this faculty is neither Avicennian nor Algazelian. It is a power introduced by Averroes in his "Liber Aristotelis de Memoria et Reminiscentia".¹ If Peter Hispanus had

¹There can be no doubt that the source of Hispanus' doctrine of recollection is Averroes' "Liber Aristotelis de Memoria et Reminiscentia". In some places even, Peter Hispanus recopies Averroes' text verbatim. Consider the following parallel passages. Averroes, Liber de Memoria, fol. 195 va, l. 21, p. 49: "Et ideo rememoratio est conservatio abscisa; conservatio autem est rememoratio continua." For the pagination and legend of this reference, cf. infra, following chapter, p. , note . Peter Hispanus writes: "Dicitur vero hec retentio quandoque continua, quandoque intercisa...set rememorativa est eorum retentiva memoria intercisa." Cf. op. cit., fol. 57^r, col. 2, tract. 10, cap. 11, p. 470. Averroes, op. cit., fol. 195va, l. 53, p. 51: "Sunt igitur quatuor, ymago et intentio illius ymaginis et facere illam intentionem esse presentem et iudicare eam esse intentionem illius ymaginis que prius sentiebatur." Peter Hispanus writes accordingly: "In internis vero acceptionibus quatuor sunt gradus: ymago forme, intentio ymaginis, reductio intentionis preterite ad presentem existentiam actualem, et collatio illius intentionis ad suam ymaginem..." Cf. op. cit., fol. 58^v, col. 2, tract. 10, cap. 12, p. 482. Averroes, op. cit., fol. 196ra, l. 11, p. 60: "Intentio igitur forme presentatur a rememorativa; descriptio eius presentatur ab ymaginativa; et compositio intentionis cum descriptione fit a distinctiva; et per congregationem istarum trium virtutum presentatur res oblita apud investigationem rememorationis." Peter Hispanus reiterates this thought: "Rememorationis vero actus complementum attingit, cum ex rememorativo opere forme intentio presentatur, forme vero ymaginis descriptioni ymaginativa presentat, intentionis vero compositio cum descriptione ymaginis a distinctiva procedit; ex concursu igitur operum harum virtutum fit opere reminiscentie representatio rei lapse investigatione rememorationis, ad investigationem vero reminiscentie industria operatur." Cf. op. cit., fol. 59^r, col. 2, tract. 10, cap. 12, p. 484. And finally, Averroes, op. cit., fol. 196ra, l. 28, p. 62: "...sed etiam in quibusdam hominibus presentantur apud congregationem earum forme rerum sensibilibus quas numquam sensit, sed solummodo translata fuerunt dispositiones earum, sicut narravit Aristoteles de quodam antiquo, qui informabat res translata ad ipsum per auditum, quas numquam vidit; et cum ille forme experimentabantur, inveniebantur secundum veram dispositionem. Et secundum hunc modum potest ymaginari elephantem qui numquam sensit ipsum, etc." P. Hispanus repeats essentially the same thing even to the example proffered by Averroes. Cf. op. cit., fol. 59^v, col. 1, tract. 10, cap. 12, p. 486.

given more attention to history and had he been less anxious to compile a synthetic compendium of Arabian psychology, he would have been more scrupulous in safeguarding the authentic doctrines of Avicenna and Averroes. As it is, his explanation of the four steps of recollection amalgamates two distinct systems of thought.

He was well acquainted with the Avicennian classification of the internal senses and the specific role of each one of them. With this knowledge stored away in the back of his mind he must have fused Avicenna's hierarchy of internal senses with the exposition of recollection contained in Averroes' "De memoria et reminiscentia". This coalescence would lead anyone to believe that Avicenna prescribed a "distinctive" faculty to mediate between the intentions and forms whereas he had already commissioned his imaginative or cogitative force to execute this task. Or again it may dupe the reader into believing that Averroes included the estimative force in his enumeration of the internal senses (providing he were aware that this exposition of recollection is an extract from the "De memoria et reminiscentia"). Peter Hispanus could have done more justice to the Arabian philosophers by treating each of them individually with special regard for their personal doctrines.¹

¹St. Albert the Great frequently groups a number of Arabian and Christian philosophers together as if all of them partook equally of the ideas he proceeds to summarize. His summation of the Peripatetic's conception of recollection makes it appear that all of them reserved a place for the "distinctive" force in their respective theories of recollection. Cf. B. Alberti Magni, Opera Omnia, vol. IX, Liber de Memoria et Reminiscentia, tract. II, cap. 1, p. 107: "De reminiscentia tractaturi, non eligimus sequi dicta communia, primo sententias Averrois et Avicennae, et Alexandri, et Themistii, et Alfarabii, qui omnes concorditer dicunt, quod reminiscentia nihil aliud est nisi investigatio obliti per memoriam."

In an act of recollection, then, we have the image of the form: a plate of sausages; the intention of the image: sausages are greasy and leave the stomach bloated with gas after they are eaten; the revival of the intention from its forgotten state: when we are presented with a plate of sausages we may not remember instantly how they taste or what effect they may have had on us in the past; the collation of this intention with its image: by comparing the intention of a bloated gaseous stomach with the image of sausages we judge that it is the sausages and not some other ali-

Non igitur credendum est eis qui dixerunt reminiscentiam esse partem intellectualis animae secundum se. Tradunt enim praeinducti Philosophi tria exigi ad reminiscentiam, quorum primum est repraesentatio imaginis ut imaginis; et hec non fit nisi per memoriam per se incipientem quidem a phantasmate, per accidens autem ab intellectu, ut in praedictis diximus. Secundum autem est descriptio figurae et aptatio secundum quod debet esse; et hoc fit virtute, quae dicitur imaginativa, adunante figuras et aptante eas. Et ideo multa vis reminiscentiae est in imaginatione bona vel phantasia. Tertium autem est quod Arabes vocant virtutem distinctivam, quae est componens omnia haec, et attribuens rei omnibus modis quibus attribui possunt per simile et contrarium et per locum et tempus et aliis modis, ut eliciatur secundum intentum quod cecidit in oblivione, sicut inferius monstrabimus: et quoad hoc solum reminiscentia solis rationabilibus convenit..." This distinctive force mentioned here is once again the same faculty introduced by Averroes in his "De memoria et reminiscentia". The following passage immediately succeeding the above quotation is undoubtedly an extract from Averroes' treatise and the "dicunt" which St. Albert employs does not refer to the previously mentioned philosophers but to Averroes himself. But, St. Albert makes no attempt to show the difference; cf. loc. cit., p. 108: "Adducunt autem quiddam mirabile: dicunt enim Aristotelem dicere quemdam senem fuisse tanti vigoris in imaginum adunatione et compositione, et tanti vigoris in potentia intellectiva distinguente unum ab alio et componente unum cum alio secundum rei proprietatem, quod rerum veris formis refigurabat ea quae in praeteritum per auditum audierat. Et hoc esse non potuit nisi procul dubio ex formis ipsis res inveniatur. Et hoc modo describit elephantem vere et proprie, qui numquam elephantem vidit vel picturam ejus, sed tantum audivit de ipso. Et ideo etiam non est mirum, si oblita tamen prius scita per adunationem talium imaginum, iterum ad animam revertantur." This quotation (although St. Albert does not acknowledge it as such) is taken directly from the "De Memoria" of Averroes, even to the example of the elephant. Cf. supra, previous footnote, fol. 196ra, l. 28, p. 62.

ment which has an adverse effect on the stomach. Let us say that the process runs from the image to the intention. We come to the supper table and we find that sausages have been prepared. Immediately we try to recall what these sausages taste like, what effect they have on us, what impression our previous encounter with them made on us. If we have had sausages often enough we instantly react with a grimace or with an indulgent smile depending whether we enjoyed them or not. The cogitative or imaginative force (i.e., Avicenna) has instantly through dint of repetition associated the particular image of sausages with the satisfying or repulsive intention accompanying it. In order to do this, the memory must yield its intention instantly to the demands of the cogitative force. Following this association the estimative force judges that the sausages are delicious, appetizing, delectable or distasteful and disagreeable. If it happens that a certain individual confronted with a plate of sausages cannot instantly recall the effect that sausages produce on him, he may have to sit down a few moments to recollect. In other words, the nocive or beneficial intention which he had previously acquired from eating sausages is not put forward by the memory; it has fallen into oblivion. In order to revivify it and bring it back to actuality the cogitative or imaginative force undertakes an association and dissociation within the interior of the imagination, an investigation intended to call back the forgotten intention.

This compositive and divisive inquisition on the part of the cogitative force may require it to create a number of ludicrous compounds and situations; the cogitative force may combine sausages

with baked beans to form a baked bean the size of a sausage. We may suppose that the cogitative force will associate the sausage with all the meals it can call back from the past. It will investigate the chicken dinner we had last Sunday, the fish we had last Friday, the meat balls we had last Thursday ---and in order to recall these meals back into the imagination the cogitative force may have to "reason" from one image to the next, v.g., from the image of the day, Sunday, to the image of the preparations preceding dinner, to the image of the dinner itself, etc.--- in an effort to bring back to the imagination the previous image it had of the sausages. During this process, the cogitative force may undertake numerous comparisons of these images it uncovers with the intentions retained in the memory. For example, it may compare the image of chicken with its accompanying intention of satisfaction to determine whether this satisfying intention could not be the forgotten intention corresponding to the image of the sausages; it may compare the meat balls with its accompanying intention of dissatisfaction for the same purpose. But, again, these added comparisons may fail to recall the precise intention the individual had previously experienced in relation to the image of sausages. These inquisitive comparisons may end in failure and the individual may never be able to remember just how these sausages lying in his plate will affect him.

cog: On the other hand, if the cogitative force succeeds in recalling the particular meal in the past at which sausages were served it will be capable of reliving the events of that meal. Thus it might recall, for example, the German visitor which was present

that day which was the reason for preparing sausages. From this image of the German visitor the cogitative force could immediately jump to the exclamation of the German that he had never tasted such sausages since he left his native land. From this exclamation the cogitative force could proceed to the unpleasant reaction the individual himself experienced in eating the sausages. Thus through this complicated ratiocination the cogitative force reintroduces in the memory the intention which had fallen into oblivion. It associates the image of these sausages presently lying on the plate in front of the individual with the unpleasant intention they had engendered; the memory judges that it knows this unpleasant intention they had engendered as having known it in the past; the estimative judges that sausages are distasteful and the individual breaks out with an unhealthy grimace.

If the process is reversed and we commence with an intention instead of an image we could have the following example. The memory calls forth a nauseating feeling we have experienced in the past. We deplore the feeling and would take any measures to shun it. But at the moment we cannot recall just what produced this nausea which causes a twinge of loathing to shudder through our body. Here the cogitative force takes command. It conducts a number of invigorating comparisons between the images retained by the imagination and the intention reproduced by the memory. The cogitative recreates an event of the past such as the encounter we may have had with a snake. It compares the image of this snake and all the circumstances surrounding this image (such as the shock of the encounter, the time and place of the encounter) with

the intention of paralyzing fear it produced. This intention of paralyzing fear is in turn compared with the original intention of nausea and the cogitative judges that they are distinct. The cogitative searches within the coffer of the imagination for another excruciating experience suffered sometime in the past. It revivifies within the imagination the experience we may have had when crossing a lofty bridge---this revivification itself involves argumentative associations by which the cogitative force proceeds from one image to a neighboring image suggested by the first by some superficial trait common to both. This image of ourself standing on a lofty bridge peering tremulously over the edge awakens the intention of failing breath which we experienced. The cogitative force compares this intention involving a contraction of our lungs with the intention of nausea and judges them to be incompatible. After a number of such comparisons the cogitative may fail to recall the exact image which originally engendered the intention of nausea. Or again, it may succeed in doing so. It may recreate an unpleasant encounter we could have had with our arch enemy of our high school days and along with this encounter the dread fear we had of having to engage him in a fight with bare fists as our only weapons. The cogitative force immediately recognizes the similarity between the nauseating feeling we remembered and the image of the incident which occurred in the past.

D. Conclusion

In the system of Avicenna, it is the imaginative or cogitative force which is responsible for these numerous comparisons or asso-

ciations which accompany the memory in its act of recollection. It is this same faculty which mediates between the imagination and the memory distinct both from the estimative, on the one hand, and the memory itself, on the other. In the system of Averroes, it is the discriminative force which supervises these inquisitive comparisons associating the image with the intention and vice versa the intention with the image. This discriminative or distinctive faculty comprises more than Avicenna's imaginative force. It is a compound of two faculties. It is compounded with Avicenna's estimative as well as his imaginative or cogitative force. Hence, Averroes' discriminative faculty fulfills two roles and although he may call it alternately the discriminative force and the cogitative force, it still surpasses the boundaries of Avicenna's own imaginative or cogitative faculty. This is why we have questioned Peter Hispanus' introduction of this "distinctive faculty" side by side with Avicenna's estimative faculty in the process of recollection, as if the two complimented each other. Averroes' discriminative or cogitative faculty replaces Avicenna's estimative. This substitution was later adopted by St. Thomas himself who opposes the human cogitative force (because of its rationalized cooperation with the intellect) to the animal's estimative faculty. He does not claim that the human cogitative force ceases to be an estimative faculty identical with the estimative faculty found in the brute animal, he merely insists that its activity unfolds itself in a different manner, in a manner compatible with the nature of the intellect. This double role of the Averroian and Thomistic cogitative will become manifest in the subsequent chapter devoted to the doctrine of Averroes.

CHAPTER V

AVERROES: HIS COGITATIVE FORCE

1. Introduction: his life and his influence

Particular attention must be given that eminent Arabian Philosopher, Abou 'l Walid Mohammed ben Ahmed ben Mohammed ben Ahmed IBN ROCHD, known to the Scholastics by the name of Averroes.¹ Born in 1126 in Cordova he died in December of the year 1198 just before the turn of that century to which the impetus of his doctrines contributed in such a high measure to the fructification and realization of the Golden Age of Scholasticism. We have come to associ-

¹Léon Gauthier, Ibn Rochd (Averroes) (Presses Universitaires de France: Paris, 1948), pp. 1-11. L. Gauthier has written a concise, factual biography of his life dissipating many false and invidious stories irresponsibly associated with his philosophical doctrines. The following scholarly works represent a qualitative contribution to the doctrine of Averroes. Maurice Bouyges, S.J., "Notes sur les philosophes arabes connus des latins au moyen age," Mélanges de l'Université St. Joseph, Beyruth, VII (1921), pp. 397-406; also in the same revue, "Inventaire des textes arabes d'Averroes," VIII (1922), p. 54 and also vol. IX (1924), pp. 43-48. Carra de Vaux, Encyclopédie de l'Islam, II, edition of 1927, pp. 435-438; also in his Penseurs de l'Islam, IV, edition 1923. C. Brockelman, Arabische Litteratur, vol. I, pp. 461-462. Léon Gauthier, La théorie d'Ibn Rochd sur les rapports de la religion et de la philosophie (Presses Universitaires de France: Paris, 1909); also his Ibn Rochd (Averroes) already cited. A.F. van Mehren, "Etudes sur la philosophie d'Averroes concernant son rapport avec celle d'Avicenne et Gazzali," Muséum, VII (1888), pp. 613-627, and vol. VIII (1889), pp. 5-20. S. Munk, Mélanges de philosophie juive et arabe (Chez A. Franck, Libraire: Paris, 1859), pp. 418-458. Ernest Renan, Averroès et l'Averroïsme (3rd edition; Michel Levy Frères: Paris, 1866). Last but not least the monumental work of Father Mandonnet, Siger de Brabant et l'averroïsme latin au XIII^{me} siècle (second revised edition; Institut supérieur de philosophie de l'université: Louvain, 1911). For a more exhaustive bibliography, cf. P. Manuel Alonso, S.J., Teologia de Averroes (Consejo superior de investigaciones científicas: Madrid-Granada, 1947), pp. 5-11.

ate Averroes with the acrimonious controversy which infected the University of Paris in the second half of the thirteenth century. The gravity and strength of his opinions concerning the authentic teaching of Aristotle may be best measured by the severity and energy with which they were contested by both the Fransiscans and the Dominicans at the University of Paris. St. Thomas' decisive refutation of the errors inherent in Averroes' interpretation of Aristotle has always been considered as one of the stellar feats in a life replete with numerous, outstanding accomplishments. The fact that this victory was accorded such prominence suffices to give us an inkling of the profound impression the advent of Averroes' rationalism must have made on that period of the Middle Ages. Whether or not he himself taught a twofold truth, the cogency of his rational arguments were convincing enough to persuade certain people in the Univ. of Paris that the mind, unabettèd by extraneous influences, could claim truth as its badge of distinction.¹ The doctrines of Averroes were formally condemned in 1270 by a general convocation of the faculty of the Univ. of Paris presided over by Etienne Tempier, Bishop of Paris.²

¹Cf. L. Gauthier, Ibn Rochd, p. 41. He investigates two treatises where Averroes treats ex professo the problem of religion versus philosophy and he concludes that the Commentator solved the dilemma by reducing religion to a utilitarian level reserving for philosophy alone the vision of truth. In this sense, there is but one truth the acquisition of which is possible in the domain of philosophy alone; religion has the pragmatic purpose of safeguarding and maintaining the social order of the universe, thereby guaranteeing the philosopher the necessary peace and tranquility to pursue his speculative lucubrations.

²Pierre Mandonnet, O.P., Siger de Brabant, p. 111 for a list of the thirteen condemned propositions pertinent to Averroism.

Unfortunately, this condemnation makes it appear that Averroës hampered the progress of latin Scholasticism, that his doctrines fomented a needless controversy and that they constituted the bulkhead, the rallying point for all the errors of the time. Fortunately, his penetrating and illuminating doctrines had become an integral part of the movement of Scholasticism long before a few radical thinkers exploited his major errors upholding them to the detriment of Averroes himself. Although St. Thomas has always been envisioned as the implacable foe of Averroes, he was not ignorant of the more salient features of his thought: he knew how to separate the grain from the chaff. He benefited a great deal from his beligerent contact with the works of this Arabian. A perusal of St. Thomas' "Contra Gentiles" will quickly provide anyone with a series of points on which he takes exception with Averroes' but even while rebuking him, he was bound to come under the general influence of his ideas. These points of fusion are not all documented as faithfully as the ones where St. Thomas differs; but they form a substratum in the mind of the Aquinate permeating and forming his most personal ideas. In fact, it will be shown in this chapter and more especailly in the general conclusion that the Thomistic cogitative force is for the most part an extract lly of Averroes' psychology.

2. The basic writings of Averroes

A. Their groupment

The prolific pen of Averroes treated an astounding number of diversified questions ranging from medicine to theology. The

greater part of his writings revolve about the treatises of Aristotle: he commented nearly all of them. These commentaries may be grouped in three classes:

1) paraphrase or analysis: in which the Commentator summarizes and orders his material without regard for the internal structure of the Aristotelian text;

2) middle commentary: in which the material is developed by paragraphs conforming to the paragraphical division of the Aristotelian text;

3) major commentary: the text itself in its entirety is reproduced following which the details, theories, intentions and expressions of Aristotle are successively elucidated.¹

Manuel Alonso, S.J., through his critical investigations of the works of Averroes in the 1560 edition of Venice and through a comprehensive enquiry into the conclusions of other Averroian scholars has suggested the following chronological enumeration. In general he classifies them into the three groups of commentaries we have already mentioned. The paraphrases represent Averroes' early philosophical essays, the middle commentaries evolving from these first attempts constitute a more detailed exposition of the same texts (written about the middle of Averroes' life) and finally in the latter part of his career he revamped and expanded this same material into his major commentaries. Consequently, it is not surprising to find three distinct tracts commenting the "De Anima" of Aristotle and what appears to be a superfluous duplication of

¹L. Gauthier, op. cit., p. 16.

several other similar writings. In actuality, each successive renewal of the same text and the evolution from his paraphrases to his major commentaries represent a progressive expansion and explicitation of the doctrine of Aristotle.¹

B. Their chronological classification

In the first group Father Alonso includes a series of small tracts paraphrasing the "Organon" of Aristotle. He gives the date of composition as 1159. Within this series, Father Alonso enumerates the following works contained in the 1560 Venetian edition of Averroes' writings:

- Epithome ad librum praedicabilium (vol. 1)²
- Epithome ad librum praedicamentorum (vol. 1)
- Epithome in libros Perihermenias (vol. 1)
- Epithome in libros priorum analyticorum (vol. 1)
- Epithome Averrois Cordubensis in libros Topicorum (vol. 1)
- Epithome Averr. Cord. in libros Elenchorum (vol. 1)
- Epithome in lib. posteriorum analyticorum (vol. 1)
- Epitome in lib. Rhetorices Averr. Cord. (vol. 2)
- Epitome in librum Poeticae Averrois (vol. 2)

In the second group Father Alonso names five opuscles also written in 1159. They are the following:

¹P. Manuel Alonso, S.J., Teologia de Averroes (Consejo superior de investigaciones científicas: Madrid-Granada, 1947), pp. 50-98.

²The 1573-74 Venetian edition of the works of Averroes is undoubtedly a reedition of the 1560 set Father Alonso employs. Father Alonso includes the folios and volumes in which each one of these tracts may be found in the 1560 edition. None of these directional guides coincide with our own 1573-74 edition. Consequently I have indicated in which volume in the 1573-74 edition each one of these works may be located. The pagination has not been included precisely because it would tell the reader nothing unless he has the 1573-74 Venetian edition itself to consult, in which case he may easily find these different tracts in the volume indicated.

De physico auditu (absent from the 1574-73 Venetian edition)
De caelo et mundo (absent)
De generatione et corruptione (vol. 5)
De meteoris (absent)
De anima (absent)
De metaphysica (absent)

In the third class he places the "Colliget", i.e., various books on medical generalities. He sets the date of composition as early as 1162 and not later than 1169. This collection of medical information may be found in the tenth volume of the 1573-74 edition.

In the fourth group he classes the middle commentaries of Aristotle's "Organon". The date of composition is between 1168 and 1175. In our edition we have the following tracts pertinent to this middle commentary:

Porphyrii Phoenicei introductio (Severino Boetho interprete)
cum Averrois Cordu. expositione (first section of vol. 1)
Aristotelis Stagiritae, peripateticorum principis praedica-
menta (Severino Boetho interprete), cum Av. Cord. exposi-
tione (first section of vol. 1)
Aristotelis De Interpretatione (Severino Boetho interprete)
cum Av. Cord. expositione (first section of vol. 1) *
Aristotelis Priorum Resolutoriorum cum Av. Cord. media ex-
positione (Joanne Francisco Burana Veronensi interprete)
(first section of vol. 1)
Aristotelis Topicorum cum Averrois media expositione (third
section of vol. 1)
Aristotelis Elenchorum cum Av. Cord. media expositione (Ab-
ramo de Balmes interprete) (third section of vol. 1)
Besides these works he includes the following tracts not to
found in our 1573-74 exposition:
Middle exposition of the Rhetoric
" " " " Poetry
" " " " Perihermenias or before

In the fifth group he includes three paraphrases. He gives the date of composition as 1169:

De partibus animalium (vol. 6)
De generatione animalium (vol. 6)
De historia animalium (vol. 6)

In the sixth group a paraphrase of the "Parva naturalia".

Date of composition: 1170.

De sensu et sensato (vol. 6)
De memoria et reminiscencia (vol. 6)
De somno et vigilia (vol. 6)
De longitudine et breuitate vitae (vol. 6)

Seventhly, the middle commentary of the "De physico auditu" which is actually the physics of Aristotle. Date of composition: 1170. It is not included in our edition.

Eighthly, the middle commentary of the "De caelo et mundo". Date of composition: 1171. In the fifth volume of our edition this treatise is called a paraphrase.

Ninthly, the middle commentary of the "De generatione et corruptione". Date of composition: 1172 or before. In the 5th vol. of our edition.

Tenthly, the middle commentary of the "De Meteoris". Date of composition: 1172 or before. In the 5th vol. of our edition.

In the eleventh class, the middle commentary of the "De anima". Date of composition: 1173. Absent from our edition.

In the ¹¹twelfth class, the middle commentary of the "De metaphysica". Date of composition: 1174. In the 8th vol. of our edition.
the

In the thirteenth class, "Tractatus de applicatione intellectus et intelligibilis". Date of composition: 1174 or before. Absent from our edition.

Fourteenth, "Commentario in libros decem moral". Date of composition: 1177. In the 3rd vol. of our edition.

Fifteenth, "Sermo de substantia orbis". Date of composition:

1178. In the 9th vol. of our edition.

Sixteenth, "Epistula ad amicum". Date of composition: 1179-80. Edited by Father Alonso in a supplementary chapter of this same book.

Seventeenth, major commentary of the second analytics, i.e., the Posterior Analytics of Aristotle. Date of composition: 1180. Contained in the second section of vol. 1.

Eighteenth, Tahafut al-tahafut, i.e., the "Destructio destructionum Philosophiae Algazelis". Date of composition: 1180. In the 9th vol. of our edition.

Nineteenth, "Quaesita in posteriora analytica". Date of composition: 1186 or before. In the 1st vol. of our edition.

Twentieth, major commentary of the "De physico auditu". Date of composition: 1186. In the 4th vol.

Twenty-first, major commentary of the "De caelo et mundo". Date of composition: 1188. In the 5th vol.

Twenty-second, major commentary of the "De anima". Date of composition: 1190. In the 11th vol.

Twenty-third, the opusculum entitled: "De animae beatitudine". Date of composition: 1190. In the 9th vol.

Twenty-fourth, major commentary of the "De metaphysica". Date of composition: 1190. In the 8th vol.

Twenty-fifth, paraphrase of the "De republica of Plato". Date of composition: 1194. In the 3rd vol.

Twenty-sixth, questions on the Primary Analytics. Date of composition: 1195. In the 1st vol.

In view of the wide divergence of pagination between the 1560

and 1573-74 edition, Father Alonso would have aided scholars more by indicating the "incipit" and "explicit" of each one of these treatises. To my knowledge the following tracts to be found in the 1573-74 edition do not correspond to any of those he has indicated and consequently, it still remains to situate them in the chronological pattern devised by Father Alonso. They are as follows:

Libellus, seu epistola Averrois de connexione intellectus abstracti cum homine, Calo Calonymos, Hebraeo, Neapolitano, Medico, interprete. incipit: "Operam dedi, frater optime, ei quod petisti a me..."; explicit: "Demem perfectio, quam innumus, erit per scientias iuvativas, et opiniones veras, et mores bonos, ac operationes bonas. Vale." (in vol. 9)

Avicennae Cantica ab Armegando Blasiide Montepesulano (ex arabico in latinum translata et ab Andrea Bellunensi cati-
gata) cum Averrois Cordubensis commentariis." incipit:
"(i.e., the commentary of Averroes): "Medicina est conser-
vatio sanitatis, et curatio aegritudinis. Haec est definitio
Medicinae secundum ipsum..."; explicit: "Et in hoc ter-
minatur sermo noster super expositione horum canticorum suf-
ficiente secundum intentionis nostrae exigentiam in eisdem."
(in vol. 10)

ed.

Averrois tractatus de Theriaca. incipit: "Inquit magnus
Medicus Amech Averroes. Postquam Deo gratias egero, dicam
quod quidam de amicis meis, cuius amore teneor, me rogavit,
ut eius dictio satisfacerem via experimenti, et rationis de
ista medicina..."; explicit: "Nunc autem quiescat postula-
tio, et sufficiat satisfactio secundum tempus. Laus sit
Deo qui me comprehendi posse largitus est. Amen."

This chronological catalogue of the works of Averroes will
prove invaluable in the course of this chapter to understand more
fully the problem of the internal senses. To commence with, know-
ing the early date of the composition of the "Colliget" we may bet-
ter appreciate certain statements contained here which conflict
with others present in the "De Anima" (major commentary) and sec-
tions of the "Parvâ Naturalia". We would be at great pains to con-
ciliate the discrepancies involved in these passages if we did not

know that the doctrine of the "Colliget" represents the early thought of Averroes which subsequently suffered an understandable revision and alteration.

3. The internal senses in general

A. Propaedeutic

The doctrine of the internal senses in the systems of Alfarabi, Avicenna and Algazel manifest, despite the differences of nomenclature, an overall transcendent uniformity. Averroes is the first to depart from the intricate classification suggested by Alfarabi, crystallized by Avicenna and reproduced by Algazel. Certainly, he was well acquainted with the authentic classification of the internal senses proffered by Avicenna and the purpose which each faculty fulfilled; his comprehension of the internal senses in his "Colliget" prove this. Yet, he eliminates the estimative force from the animal soul; attributes to the imagination certain powers surpassing those attributed to it by Avicenna; uses the imagination indiscriminately as a faculty of retention and as a faculty executing the second function of Avicenna's cogitative force; suppresses the human estimative force substituting in its place his cogitative force; makes of this same cogitative force a faculty englobing in one place or another activities which Avicenna had assigned to distinct faculties. Despite this overlapping interplay of action which his internal senses exhibit in stern contrast to the neat, decisive role of each of these same faculties in the doctrine of Avicenna, the treatment of Averroes represents in num-

erous places a more profound and penetrating analysis. It is not always clear why he differs from Avicenna and why he prefers to concentrate so many different functions in one faculty. If we had his first two treatises of the "De Anima" we could probably trace with greater clarity and precision his motives and reasons for departing from the orderly and well defined position of Avicenna. However, this 1573-74 edition available to us contains only his last, major commentary of the "De Anima" in which he presupposes that the reader has a thorough knowledge of those faculties, the imagination, cogitative and memory, which he mentions. As tedious as the task may sound, I have made a comprehensive methodical investigation of all the treatises printed in this Venetian edition and aside from a few random, negligible statements to be found in his other works, the substantial development of his internal senses and especially his cogitative force is concentrated in his *De Anima*, *De Memoria et Reminiscentia*, *De Sompno et Vigilia*, *De Destructione Destructionum Philosophiae Algazelis*, *De Beatitudine Animae*, and his *Colliget*. His *Colliget* being the earliest of these, it is only logical that it should be investigated first.

B. The *Colliget*

I. The animal faculties

In this treatise (the *Colliget*) which is devoted to medicine, Averroes condescends to speak of the animal faculties of the soul although he realizes that these faculties as such do not pertain to medicine. He reminds us that the operations of any faculty are

better known than the faculty itself and that the nature of the faculty is ascertained by studying its actions. Consequently, physicists and medical doctors by scrutinizing the numerous actions of man have come to group them in three general categories: those which emanate from a natural faculty, those emanating from a vital faculty and thirdly those productive of an animal faculty. The natural faculties of man are those of nutrition, augmentation and propagation; the vital faculties are those of pulsation located in the heart which manifest themselves in dilating, contracting, inhaling and exhaling, and the automotive force also located in the heart which is also called the electorial power by which animals move themselves to apprehend or flee from things; the animal faculties are the five external senses of touch, taste, smell, sight, hearing and also the power of locomotion plus the internal senses, the imagination, estimative, cogitative, conservative and rememorative. This is the division by which medical doctors classify the various faculties of the soul; although they do not pertain to medicine essentially it does little harm to consider them in this department.¹

¹Decimum volumen Averrois Cordubensis Colliget libri VII (apud Iuntas Venetiis, 1574) or another title, Averrois Cordubensis Liber De Medicina qui dicitur Colliget. Cf. liber secundus, cap. 7, fol. 16 M: "Et scias quod genera operationum sunt notiora quo ad nos quam virtutes, et virtutes apud naturam notiores. Et ideo dicimus, quod Physici et Medici, quando speculantur in operationibus, et dicunt quod virtutes, quae sunt in homine, sunt tres, aut virtus naturalis, aut vitalis, aut animalis. Virtutes naturales apud eos sunt, cum quibus fit nutrimentum, augmentum, et generatio. Et virtutes vitales apud eos sunt virtutes pulsatiles, quae sunt in corde et havent dilatare et constringere, inspirando et respirando. et virtus motiva quae est in corde, quae vocatur electiva, per quam movetur animal ad apprehendum rem vel fugiendum ab ea. Et virtu-

We may ignore the natural and vital faculties which he goes on to examine in more detail; we may also brush aside the external senses which comprise the first part of the animal faculties. The term or expression, animal faculties, is not new to us since it was frequently employed by Avicenna. We must not misunderstand this expression as if those faculties mentioned belonged exclusively to the brute animal. It is a distinction the Arabians wished to make between those faculties of man which are strictly rational, i.e., the two indivisible and isolated intellects, from those faculties which he has in common with brute animals. Consequently, the enumeration of these internal faculties, viz., imaginative, cogitative, estimative, conservative and rememorative are all to be understood in relation with the human soul.

Averroes attributes this doctrine to the medical doctors of his day but the fact remains that these faculties represent the authentic and undiluted classification propounded by Avicenna. Oddly enough the common sense is absent from this classification. I do not believe that Averroes intentionally omitted it because it forms an integral part of his internal senses in other localities. In most probability it is an oversight on his part. If we include it in the animal faculties we may easily recognize the five original internal senses of Avicenna: actually, the conservative and rememorative are one and the same faculty. Furthermore, Avicenna

tes animales apud eos sunt quinque virtutes sensuum, scilicet, tactus, et gustus, et odoratus, et auditus, et visus, et etiam virtus motiva in loco, et virtus imaginativa, et aestimativa, et cogitativa, et conservativa, et reminiscibilis. Et ista est divisio, qua usi sunt Medici in dividendo virtutes animae, et quamvis non sit conveniens, parum tibi potest nocere in hac arte."

was a reputable medical doctor himself and it is not inconceivable that he injected into his medical treatises material relevant to other departments of thought.¹

¹Proof of this is not lacking either. Cf. Avicennae Cantica, ab Armegando Blassii de Montepesulano ex arabico in latinum translata, et ab Andrea Bellunensi castigata. cum Averrois Cordubensis commentariis; in the 10th volume. Prima pars, tract. I, fol. 234 C, commentary 84: "(Avicenna speaking) Insunt autem huic spiritui imaginatio, ratio seu intellectus et memoria, cum complentur, et perficiuntur ipsius species in ventriculis cerebri."---(Averroes) "Hic spiritus, cuius generatio invenitur in cerebro, est illae cuius species perficiuntur tres ventriculi cerebri, digerendo et coquendo ipsum, donec narravit ex eo tres species. Sunt enim tres ventriculi cerebri: et spiritus generatus in anteriori ventriculo ex eis est subiectum imaginationis: qui autem in medio est spiritus rationis: similiter ille, qui est in posteriori ventriculo, est subiectum memoriae et reminiscentiae." The very fact that this reason or intellect is located in the middle ventricle of the brain suffices to establish it as the cogitative faculty. Cf. fol. 234 D, com. 85: "(Avicenna speaking) In quolibet ex spiritibus est virtus propria alia ab illa, quae est in alio."---(Averroes commenting) "In quolibet ex tribus spiritibus supradictis est virtus propria, quae in nullo aliorum existit. Nam in spiritu naturali est anima naturalis, et in vitali vitalis, et in animali animalis scilicet motiva, sensitiva, imaginativa, ratiocinativa, et memoria. Sunt autem proculdubio duo spiritus in corde, et cerebro existentes: ex quibus unus et idem difert multa in actu, sicut unum pomum difert, et habet multa, scilicet colorem, odorem et saporem." Cf. also, fol. 235 D, com. 95: "(Avicenna speaking) Ex eis etiam est virtus, qua imaginantur res (sicut videntur).---(Averroes commenting) "Septima ex praedictis virtutibus est virtus, qua imprimuntur res in imaginatione, sicut cum imaginantur inter species, quae videntur. haec autem est virtus imaginativa, quae in anteriori parte cerebri existit, sicut supra diximus." Cf. also, com. 96: "(Avicenna speaking) Est adhuc ex eis virtus, in qua est ratio, et etiam in qua est memoria."---(Averroes) "Aliae sunt duae virtutes ex praedictis, ex quibus una est ratiocinativa, existens in medio cerebri: secunda est rememorativa, quae in ultima et posteriori parte cerebri existit: et sicut in summa, omnes istae virtutes sunt undecim." The remarkable thing about these passages is the name by which Avicenna calls the cogitative force, i.e., the rational or intellectual faculty. Note also that in the 95th commentary, this faculty which "imagines" things is not decisively called the imagination by Avicenna; yet, Averroes immediately attributes to the imagination this fictive adeptness. Another remarkable thing is the absence of the common sense and the estimative force in the text of Avicenna. This trio, viz., the imagination, cogitative or rationalist faculty and the memory, are a common byword in the texts of Averroes. Throughout his major commentary of the De Anima and many other works he frequently refers to the internal faculties in this same order.

He questions the validity of the subdivisions allotted to the vital and natural faculties but in regards to the animal faculties he acquiesces in the veracity of this classification. He maintains that the division of the animal faculties into the five external senses, the power of locomotion, the imaginative, rational (alias the cogitative), conservative and rememorative is entirely truthful. This power of locomotion is nothing more than a volantaristic movement by which the individual propells either himself or the members of his body when this will is in concordance with the imagination and judicious counsel. Some of these medical doctors preferred to classify this volantaristic movement of locomotion among the vital faculties but Averroes insists that it belongs rather with the animal faculties.¹

II. The faculty of willful locomotion

With which group of animal faculties does Averroes include this faculty of willful locomotion; is it with the exterior or interior senses? In this treatise, he does not state explicitly whether it belongs to the first or second group. He presupposes

¹Averrois, Colliget, lib. secundus, cap. 7, fol. 17 E: "Sed eorum divisio, per quam dividunt virtutes animales ad sensum ed ad virtutem motivam in loco, et imaginativam, et rationalem, et conservativam, et reminiscibilem, est omnino vera: salvo quod virtus motiva in loco non est aliud plusquam elenosoia (sic), scilicet, virtus motiva voluntarie, quando concordatur cum ea imaginatio, et consilium, et ita est declaratum in libro de Anima. Et ipsi numerant virtutem motivam voluntarie in numero vitalium, et ponunt motivam in loco aliam speciem. et istud non est conveniens, quia non est nisi virtus nutritiva, et crescitiva, et sensitiva, et generativa et imaginativa, et appetitiva, et rationalis, et motiva, et lactativa, ex istis, sicut est aestimatio, aut cogitativa, et conservativa, et reminiscibilis."

that this question is perfectly known to the reader since he has already treated it in his commentary on the De Anima.¹ However, we may deduce from the loose division by which he segregates the external senses from the internal that this faculty of willful locomotion is alligned with the latter.²

Unquestionably this faculty was not originated by Averroes himself. His philosophical and medical predecessors, Alkindi, Alfarabi and Avicenna, most probably discussed it each in their turn within the class of vital faculties. The new element introduced by Averroes is his choice to catalogue it among the animal faculties. He rebukes his predecessors for having erroneously deposited it among the vital faculties: "Et ipsi numerant virtutem motivam voluntarie in numero vitalium, et ponunt motivam in loco aliam speciem". This "ipsi" is clearly aimed at several medical doctors existing before his time.

Galen and all other medical doctors localized it in the heart. This being the case, the movement of animals issues immediately

¹This De Anima must be the first treatise composed by Averroes in the year 1159. According to Father Alonso, the Colliget was not written later than 1169 and the only tract of the De Anima composed prior to this date is the paraphrase or opuscle of 1159, the middle commentary being written in 1173. Unfortunately, neither of these tracts are printed in our 1573-74 Venetian edition. We have at our disposal the major commentary written in 1190. This last treatise makes no mention of the problem.

²In the previous footnote (i.e., fol. 17 E), the animal faculties are enumerated in the following order: the senses (i.e., the exterior senses), faculties of locomotion, imagination, rationalization (i.e., the cogitative force), conservation (i.e., the memory), and rememoration. Consequently, the exterior senses are marked off from the other five and we may conclude that the power of locomotion is included with the internal senses. Cf. also, p. 177, note 1. In this passage, the faculty of locomotion is included among the vital faculties also, the place where other medical doctors classified it.

from the heart and the brain only serves to temper this action.¹ This faculty must not be confused with the intellect's appetancy. It is not a spiritual faculty consequent upon the abstract knowledge obtained by the intellect. It is the soul itself considered as the principle from which movement emanates. But it is convenient to refer to this principle as the voluntaristic faculty located in a member harboring organs of cognition communicating with every part of the body capable of spontaneous movement. And it is evident to the senses that there is no member communicating with the entire body and all the limbs of the body productive of autonomous movement other than the heart itself. Therefore, this cognizant will must be located in the heart, that is to say, within the cardio-muscle centralized within the interior of the heart. And the individual voluntaristic faculties must be located in each individual muscle present in the separate muscles of the body. The brain and the cerebral nerve of the brain have the simple function of tempering the heat generated by the cardio-muscle within the heart in which the common and proper voluntaristic principle of motion is situated.²

¹Averrois, Colliget, liber secundus, cap. 18, fol. 27 B: "Et adhuc, quod Gal. et omnes alii medici confitentur, quod virtus voluntaria est in corde. et si ita est, et apparet quod animalia non moventur, nisi voluntarie: ergo virtus haec est in corde, et cerebrum eius serviens in dando ei temperantiam."

²Idem, fol. 28 A: "...hoc est, quod virtus, quae facit motum in loco, est anima. Et est declaratum etiam, quod conveniens est, quod motus uniuscuiusque corporis fit per virtutem voluntariam fixam in membro cognitioni, quod communicat toti corpori, quod sit mobile per se: et per virtutem propriam voluntariae mentis membrum particularibus, quae moventur per se, et sunt muscoli: et apparet sensui, quod in corpore non est membrum, quod communicet toti corpori, et sit mobile per se nisi cor: ergo virtus voluntaria cog-

Averroes explains that this will, the principle of locomotion located within the heart was created by the medical doctors for the following reason. Our body is comprised of a number of coordinated limbs and from an examination of their movement we may readily perceive that all these movements must be reduced ultimately to one and the same member which is not in turn moved by another member outside of itself but by an intrinsic principle. If this were not the case, this corporeal movement transmitted by our muscles would regress into an infinite series of movers which is repugnant. For this reason we must postulate a principle of motion located within the muscle itself, a principle distinct from the muscle in virtue of which it exercises itself. The muscle intended in this passage is the cardio-muscle located in the heart which communicates its movement to the other muscles of the body through the heat it generates. Those medical doctors are mistaken who contend that the movement of the muscles originate within the nerves. If this were so, the nerves would move either under their own impetus or in virtue of something else, i.e., by some principle of movement located in them. It was emphasized in the "Philosophia Naturalis"

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tionis est in corde, hoc est in musculo qui est in eo, et virtutes particulares voluntariae sunt in quolibet musculo particularium musculorum...ergo cerebrum, et nervus non fuerunt nisi ad temperandum istum calorem, in quo est principium virtutis voluntariae communis, et propriae." Averroes speaks of several faculties of willful movement located in each of the separate muscles of the body. Actually there is but one voluntaristic principle of movement centrally located in the heart. This faculty is multiplied in proportion to the number of muscles of the body which spontaneously initiate movement. But each individual muscle of the body which apparently moves under its own power really moves in virtue of the heat generated by the unique cardio-muscle. Consequently, all muscles act in virtue of this cardio-muscle and as a result all these individual voluntaristic faculties may be reduced ultimately to the proper one located within the heart itself.

that everything mobile has a mover so that bodies which initiate motion depend on something else for their movement. They move insofar as they are moved. If movement issued entirely from corporeal bodies we would have an infinite regression which is an impossibility; consequently, it becomes necessary to have a prime mover which is not moved by something extrinsic to it. This prime mover, therefore, cannot be a body or anything corporeal (which excludes the nerves of the body).¹ Nerves move in virtue of some incorporeal principle, distinct from themselves.

Averroes concludes this argumentation with the following solution. He states that because of the reasons proffered above, the principle by which the animal moves must not be corporeal but rather some faculty of the soul. Furthermore, this faculty must necessarily be located in the cardio-muscle. This faculty is the faculty of the will which precedes the imagination, estimative and confirmation of judicious counsel.² In other words, the imagination or estimative faculty would be ineffectual if its apprehensions of the useful or nocive could not be pursued or rejected by the animal for which purpose the movement of its body prompted by the faculty of the will becomes indispensable.

¹Averrois, Colliget, liber secundus, cap. 18, fol. 26 K-M.

²Idem, libers secundus, cap. 18, fol. 26 M: "Haec est una ratio, per quam videtur, quod qui movet primo animal, non est corpus, sed virtus est animae; et quod hoc sit de necessitate in musculo. Et haec virtus, est virtus voluntaria, quam praecedit imaginativa, vel aestimativa, et confirmatio consilii. Et ideo quia iste motor non est corpus, necesse est ut primum mobile, quod movetur per ipsum, sit corpus, ad hoc ut hoc mobile sit sicut materia."

III. Avicenna's influence

The following passage should leave no doubt that Averroes was intimately acquainted with the classification and description of Avicenna's internal senses. He explains that because universal things apprehended by our reason have particular or individual counterparts we necessarily find in man a faculty which apprehends the intention of these particular things contained under universal ideas and still another faculty which retains these individual perceptions. Finally, because this faculty which apprehends the intention of individual things does not perceive them unless they are clothed in imaginative raiment, it becomes necessary to posit a third faculty. The first faculty apprehending the intention of singular things is the estimative; the memory, the second faculty, conserves these apprehensions; and the imagination, the third faculty, delineates the accidental qualities of the exterior object from which the estimative dilutes its individual intention. Each of these three faculties serve the reason by preparing the material from which the reason abstracts its universal ideas. The imagination, evidently does not prepare the same things as the apprehensive faculties, the estimative and memory. The imagination serves the reason by preparing and operating on the accidental qualities of things, the estimative and memory by extracting and conserving the intentions of these same things.¹

¹Averrois, Colliget, cap. fol. 17 G: "Et quia res universales quae sunt apprehensiones virtutis rationalis, habent particularia, necesse est invenire in homine virtutem, quae apprehendat essentiam illorum particularium contentorum sub universalibus, et virtutem aliam recordantem ista particularia, quae sunt comprehensa a vir-

In this passage we have an accurate recapitulation of Avicenna's internal senses occupying a place within the human soul. Averroes describes the imagination as the faculty concerned with the configuration of things; the estimative is depicted as the faculty by which the individual intentions are extracted from the things delineated within the interior of the imagination, the memory as the faculty retaining these same intentions. The imagination spoken of there is not Avicenna's cogitative force, the power rearranging and reorganizing the forms contained within the formative; it is the formative or imagination itself, the retentive power for the common sense: Averroes certainly takes the pains to distinguish the two separate functions. The position of the estimative force within the human soul only confirms our argument that Avicenna never banished it from the human soul at all.

Subsequent to this, Averroes explains how the internal faculties assist the intellect in recalling something back to mind once it has been forgotten. When a universal idea has been forgotten, it is not the intellect itself which contrives to bring

tute propria eorum apprehensioni. Et ideo, quia ista virtus apprehensiva particularium non apprehendit ea nisi habitudinibus imaginatis fuerunt de necessitate tres virtutes scilicet, aestimativa, quae apprehendit essentiam particularium: et reminiscibilis impressionis aestimatae: et imaginativa, a qua apprehendit aestimativa suam impressionem, sicut servientes virtuti rationali: ideo quia serviens praeparat servito ea quae sunt sibi necessaria, aut studet in aliqua rerum appropriatarum servito. Et manifestum est, quod virtus imaginativa praeparat servito ea, quae non sunt apprehensa, sicut est manifestum quod duae apprehensiones, scilicet, aestimativa, et conservativa appropriantur apprehensioni virtutis rationalis." We have replaced the latin term, "essentiam illorum particularium" with its equivalent, "intentionem illorum particularium" for purposes of practicality and consistency. In the latin translation of the De Anima and the De Memoria et Reminiscencia, "intentio" is preferred to "essentia".

it back.¹ This idea is brought back to the mind by the return of the individual intention within the memory and the image within the imagination. When the individual intention has been restored to the memory, and the form to the imagination, automatically their universal counterpart returns to the mind and the intellectual memory immediately remembers the universal idea anew. Recollection or rememoration is not the work of the intellect, it is the function of the internal senses united in a common effort. This action of rememoration takes place when the rememorative faculty (i.e., the memory) recalls to itself the individual intention, the estimative force apprehends the same intention a second time and the imagination reawakens the imaginative form corresponding to the individual intention apprehended by the estimative. When the imagination finally uncovers this particular form, the reason is immediately reconciled to its forgotten idea. In this manner, Averroes concludes, the three internal faculties minister to the in-

¹Averrois, De Memoria et Reminiscentia, versio vulgata, fol. 196 ra, 69, p. 65: "Et intentiones universales non rememorantur nisi secundum ymaginationes coniunctas cum eis. Et ideo oblivio accidit in eis, sicut accidit in intentionibus particularibus." The transcription of this treatise along with the De Sompno et Vigilia made possible by A. Shields under the auspices of the Medieval Academy of America will be employed in this thesis. Two different latin versions are offered by A. Shields to the reader. The first is called the "common" version generally agreed to have been translated from arabic into latin by Michael Scott and the second is called the "Paris" version. A. Shields has taken the pains to synchronize these two versions but the obvious discrepancies existing between them make it impossible to coordinate them in all their particulars. Wherever these two versions clash, we will favor the "common" version because we believe that it is in closer harmony with the other treatises of Averroes in this Venetian edition. In the references to the De Memoria and the De Sompno we will cite the page in Shield's transcription. Cf. Averrois Cordubensis, Compendia librorum Aristotelis qui parva naturalia VOCantur (recensuit A.L. Shields; The Medieval Academy of America: Cambridge, Mass., 1949), vol. VII.

tellect.¹

This explanation of rememoration is essentially the same as the description repeated twice in the De Memoria et Reminiscentia with the exception that the estimative is replaced with the distinctive or discriminative faculty (another name for the cogitative force).² There is something singularly remarkable about this

¹Averrois, Colliget, cap. 7, fol. 17 I: "Et quando remonentur res universales a virtute rationali, et virtus reminiscibilis facit recordari essentiae particularis (sic), et cognoscit illam virtus aestimativa, et tunc invenit virtus imaginativa habitudinem illius essentiae particularis, quae est recordata a reminiscibili, et cognita ab aestimativa. et quando imaginativa iam venit super suam habitudinem, tunc virtus rationalis reducet ad se illud, quod erat privatum ab ea: ergo istae tres virtutes ex hac parte sunt ministrantes virtuti rationali, et ministrans est lactans, ecce, quia sunt lactantes ex hac parte, sicut dictum est." We have not hesitated to substitute the words, form and image for the latin term, "habitus" since this same Venetian edition clearly employs "forma" and "imago" in the latin translation of the De Anima, De Memoria and De Sompno.

²Averrois, De Memoria et Reminiscentia, versio vulgata, fol. 195 va, 70, p. 53: "Sunt igitur tres actiones trium virtutum, quarum due sunt fixe per duas res simplices, ex quibus componitur forma composita ex eis, quarum una est ymago rei et secunda intentio ymaginis rei; tertia autem virtus componit has duas intentiones adinvicem: in formis enim ymaginabilibus est aliquid quasi subiectum, scilicet lineatio et figura, et aliquid quasi forma, et est intentio illius figure. Individuum enim extra animam, quia est compositum, accidit ei ut sit in anima secundum hoc, et quod receptio duarum partium ex quibus componitur sit duarum virtutum diversarum, et quod compositio earum sit tertie virtutis. Declaratum est igitur ex hoc sermone hic esse tres virtutes: virtutem scilicet que facit presentari ymaginem rei, et virtutem que facit presentari intentionem illius ymaginis, et virtutem que componit illam intentionem cum sua ymagine." Cf. also, fol. 196 ra, 7, p. 60: "Dicamus igitur quod hoc erit per facere presentari intentionem illius rei. Et cum virtus rememorativa fecerit illam praesentari, ymaginans faciet presentari formam illius rei et distinguens componet intentionem quam distinxit et divisit, quoniam ex intentionibus in quas forma dividitur componitur. Intentio igitur forme presentatur a rememorativa; descriptio eius presentatur a rememorativa; descriptio eius presentatur ab ymaginativa; et compositio intentionis cum descriptione fit a distinctiva; et per congregationem istarum trium virtutum presentatur res oblita apud investi-

substitution. It reflects the same difficulty we encountered in our investigation of the doctrine of Avicenna. It appeared in one place that it was the estimative force itself which performed the task of the cogitative in interceding between the imagination and the memory.¹ We demonstrated that the estimative force itself performs this function in virtue of the cogitative force and that, consequently, it is the cogitative itself which separates and combines the imaginative form with the memnomic intention, an operation incumbent on the process of rememoration. Averroes seems to have grasped this in his De Memoria et Reminiscencia where he distinctly appoints the discriminative or cogitative force to execute this task. In doing so, however, he completely suppresses the estimative faculty transferring its duties to the cogitative force; so that in the De Memoria and the De Anima, the Averroian cogitative force not only intercedes between the memory and the imagination it also apprehends the individual intentions, the task Avicenna had allotted to the estimative.²

gationem rememorationis." As we may remember there are two distinct movements in the action of rememoration. One commences with the intention and proceeds to recover the forgotten image; the second commences with the image of the thing with the purpose of recovering the intention which has fallen into oblivion. Averroes is either totally ignorant of the second or for some undisclosed reason chooses to disregard it.

¹Cf. supra, chapter 2, pp. 83-85.

²It has already been demonstrated that Averroes was not ignorant of the position of the human estimative force described by Avicenna. He acknowledges and reaffirms Avicenna's doctrine when he explains that it is the estimative force (the human estimative not the animal's) which apprehends individual intentions. Cf. supra, p. 185, note 1. Despite this affirmation, he effaces this faculty and delegates his own cogitative force to apprehend these same individual intentions later on in his De Anima.

IV. Localization of the internal senses

In another passage of the Colliget, Averroes localizes the internal senses radically in the heart and permanently within the brain. He states that although the faculties of the brain, the imagination, cogitative, conservative and rememorative, are not assigned special members or instruments, they have nevertheless, specific localities within the brain through which their actions become manifest.¹

It is difficult to determine whether there are three compartments of the brain because there are only three internal senses or whether the internal senses are limited to three in number because of the tripartite division of the brain which the medical doctors, particularly Galen, uncovered in their experiments. If the latter is the case, the Arabians are partly justified for insisting on the tripartite division of the brain since their position would be based on a factual analysis however imperfect their examination of the brain may be. However, it appears that this tripartite division was adopted merely through an apodictic argumentation without an actual investigation of the anatomy of the brain to corroborate the hypothesis. This tripartite division may be traced back to Galen.² The Arabians, far from contesting

¹Averrois, Colliget, liber secundus, cap. 20, fol. 30 F: "Et virtutes cerebri, scilicet, imaginativa, et cogitativa, et reminiscibilis, et conservativa, quamvis non habeant membra vel instrumenta, ipsa tamen habent propria loca in cerebro, in quibus manifestantur operationes earum."

²H. Noble, "Note pour l'étude de la psycho-physiologie d'Albert le Grand et de St. Thomas; le cerveau et les facultés sensibles," Revue Thomiste, XIII (1905), pp. 91-109. It is not strange that Galen should choose to divide the brain into three sections since he postulated three genera of internal senses: "Gallien au

or questioning its probability assimilate it into their own physiological doctrines. The only modification of this localization is suggested by Averroes who wishing to be in perfect conformity with the doctrines of Aristotle roots these same faculties in the heart. Averroes had a definite predilection for the heart as the generic seat for all these sensible faculties by reason of the fact that he believed Aristotle preferred it to the brain. In the De partibus animalium and the De generatione animalium, Averroes frequently pits the organ of the heart as he believed Aristotle understood it against the organ of the brain preferred by Galen.

Averroes himself adopts the tripartite division of the brain because the difference in activity accruing from the three different internal senses require distinct chambers and different complexions. In other words, he is not compelled to accept this division of the brain as a conclusion of an aposterioristic in-

contraire a divisé les virtus cognoscitives en distinctive, discrétive et memoriale. A la première correspondent le sens commun et la fantaisie. A la seconde, appartient aussi l'intellection qui est facile quand la substance du cerveau est subtile, lente quand elle est plus épaisse. Cette vertu discrétive correspond à l'estimative d'Avicenne et on dit aussi intellect. Il s'agit d'une vertu corruptible étant liée à la matière. C'est l'élément igné et aérien qui constitue la facilité de l'intellection, c'est-à-dire la faculté de distinguer et discerner sans retard ce qui émerge des divers signes extérieurs. Quelques-uns l'appellent diligence ("facilitas aestimativae"). De même, la bonne mémoire est un indice "substantiae cerebralis fluentis". Selon Gallien donc, le cerveau est divisé en trois ventricules, selon la longueur de la tête, dans le premier dequels il y a la vertu distinctive, dans le second la discrétive, et dans la troisième, la memoriale. De telle sorte que "ad cerebrum a corde transmittitur spiritus vitalis qui in cerebro convertitur ad spiritum animale et postea ad membra sensitiva et motiva transmittitur et prebet illis vim sentiendi et movendi et cum retrahitur tollitur virtus illa..." Cf. G. Quadri, La Philosophie Arabe, p. 186.

vestigation conducted in a medical laboratory; he merely argues in an aprioristic fashion from the distinction of the internal senses to the necessity of positing three distinct ventricles in which to localize them. Consequently, this hypothetical division is still subject to a proper medical verification. The same holds true for the different complexions attendant on these internal senses.¹ Averroes admits himself that these complexions were

¹The senses each possess a special complexion depending on which combination of the four basic elements they exhibit. For example, the characteristic element for the memory is aridity, for the cogitative it is fluidity, etc. These four elements are explained by Léon Gauthier. Cf. Ibn Rochd, p. 97 et seq.: "Chez les Arabes, la médecine théorique, la nosologie, la thérapeutique et particulièrement la posologie, ont pour fondement d'abord les principes généraux de la physique d'Aristote, ensuite certains principes propres à la biologie, qui sont tirés d'Aristote et de Galien; et la théorie centrale, qui sert de pivot à toutes ces doctrines physico-médicales est celle des quatre qualités essentielles: chaleur et froideur, sécheresse et humidité (ou liquidité, fluidité). Chacune des deux premières peut se combiner avec l'une ou l'autre des deux dernières; de là résultent quatre combinaisons de qualités ou complexions: chaleur sèche, chaleur humide, froideur sèche, froideur humide. En informant la matière première préalablement revêtue de corps simples ou éléments: la terre, froide et sèche; l'eau, froide et humide; l'air, chaud et humide; le feu, chaud et sec; et les quatre éléments, en s'unissant à leur tour, tous les quatre chaque fois, en proportions diverses, engendrent, en revêtant une succession de formes hiérarchisées, tous les corps du monde sub-lunaire, minéraux, végétaux, animaux. --- On passe alors de la physique à la biologie. Pour engendrer un organisme animal, en particulier un organisme humain, les quatre éléments forment d'abord quatre combinaisons, qu'on appelle les quatre humeurs: sang, bile jaune, bile noire ou atrabile, flegme ou pituite; de la principale de ces humeurs, le sang, naissent à leur tour les divers tissus et organes. La santé est un certain équilibre des quatre qualités premières dans les humeurs et des humeurs dans l'organisme; mais cet équilibre général peut prendre quatre formes d'équilibre relatif, les quatre tempéraments, dans chacun desquels une des humeurs domine: tempérament sanguin (chaud et humide); tempérament bilieux (chaud et sec); tempérament mélancolique ou atrabilaire (froid et sec); tempérament flegmatique (froid et humide). La maladie est une rupture d'équilibre tempéramental due à un excès anormal de telle ou telle qualité: il y a des maladies froides, ou chaudes, ou sèches, ou humides, d'autres à la fois chaudes et sèches, ou chaudes et humides, etc."

created or conceived to circumscribe the distinctive activities of the internal senses.¹

Averroes argues that because the internal senses exhibit different activities they must be contained in distinct chambers of the head. And because the imagination, cogitative and memory operate in that succession they must be localized accordingly; that is to say, the imagination is contained in the anterior chamber of the brain, the cogitative in the middle and the memory in the posterior.² But, although these same faculties are situated in the brain and complete their action within the interior of the brain, they also stem from the precinct of the heart. For the internal or cerebral faculties function only when they are supported by intrinsic heat and this intrinsic heat is impossible to them unless it be conveyed by measured heat. The power supplying this measured and intrinsic heat being located within the heart, it necessarily follows that each one of the cerebral faculties will also be root-

¹Averrois, Colliget, liber secundus, cap. 20, fol. 30 M: "Et tu vides iterum quod aegrotant istae virtutes apprehensivae propter aegritudinem diaphragmatis: et non fuit aliquis, qui crederet quod istae virtutes apprehensivae essent in diaphragmate, propterea, quia non fuerunt ordinatae istae camerae cerebri, nisi propter istas virtutes. Et fuit ordinata earum complexio ad faciendum illud, quod convenit istis virtutibus." Here we have in unequivocal terms Averroes' admission that the ventricles of the brain along with the distinctive complexions of each internal sense was created to conform to the activities of each.

²Averrois, De Mem. et Rem., Versio vulgata, fol. 195 vb, 44, p. 57: "Et quia ista virtus est diversarum actionum, ideo habet diversa loca in capite. Et quia sentiens sentit primo, deinde ymaginatur ymaginans, deinde distinguit distinguens, deinde recipit conservans, necesse est ut ymaginans sit in orizonte anteriori cerebri, deinde cogitans sit in medio, deinde memorans et conservans in posteriori cerebri." Cf. also De Anima, fol. 154, A, com. 6.

ed there. Furthermore, since the common sense is located within the heart, the imaginative force which acts as its coffer must also be situated there. Likewise, since the imagination by which the animal apprehends the nocive and useful (i.e., Averroes employs the imagination in lieu of the animal's estimative force) depends on the faculty of willful locomotion for its movement, a faculty centralized within the heart, it too must be rooted there. Similarly for the cogitative and the memory; for where the imagination is, there the cogitative is also located and where the cogitative is found, the memory must accompany it.¹ This enracination of the cerebral faculties within the heart is not intended by Averroes to supplant their accepted position within the brain; he

¹Averrois, Colliget, liber secundus, cap. 20, fol. 30 H: "Et non est tradendum bolivioni, quod quanvis camerae cerebri sint membra, in quibus complentur operationes istarum virtutum, tamen inveniuntur earum radices in corde: et quod illa loca non sunt illis nisi sicut instrumenta, in quibus manifestantur eorum operationes. Et sicut virtus visibilis dicitur esse in humore cristallino, quanvis sit in corde, vel in cerebro, sic istae virtutes, et iuvamentum istorum locorum est ad temperandum eas secundum modum, qui dictus est iuvamento cerebri ad alias apprehensiones. Et hoc declarabitur per viam, qua declaratum est illud: hoc est quod virtutes istae non laborant nisi cum calore intrinseco: et calor intrinsecus non advenit eis, nisi cum calore mensurato: ergo virtus dativa et mensurativa de necessitate est in corde: ergo radix istarum virtutum est cor. Item, quia operatio imaginativae non est, nisi in signum, quod remansit ex sensatis in sensu communi, sicut declaratum est in libro de Anima: et ibi declaratum est, quod locus et radix habitationis sensus communis est cor: ergo habitationis locus virtutis imaginativae est in corde necessario. Et iterum, quia imaginatio est, quae movet animal, mediante virtute motiva voluntaria, manifestum est quod motiva voluntaria est in corde. ergo imaginativa est in corde. Et in loco, in quo est imaginativa, de necessitate est cogitativa: quia cogitatio non est nisi compositio rerum imaginativarum, et dissolutio earum. Et in loco, in quo cogitativa de necessitate est, est reminiscibilis et conservativa: propterea quia propter ipsam sunt inventae.

recognizes in a subsequent passage that because these internal senses complete their operation within the brain they necessarily must be identified with it.¹

It is extremely interesting to study the nature of Averroes' medical assertions. It is evident from this bit of argumentation, that this theory he propounds was not accompanied by minute physical or anatomical experiments; on the contrary, it remains simply a theory until such laboratorial investigations are undertaken. The same holds true for his theory of the four humours determining the various complexions of the individual beings and the tripartite division of the human brain. These medical doctrines were adopted through reasons of convenience alone. Consequently, it is begging the question to maintain that because the imagination is of a dry complexion it facilitates retention: it still remains nec-

¹Cf. infra, p. 196, note 1, reference to the Colliget. The noteworthy exception to this rule appears to be the common sense. When the rational individual is awake, its action like the other internal senses is completed and perfected within the confines of the brain. The situation is reversed when the same individual is sleeping: the action of the common sense commences from the brain and culminates in the heart. Whether the individual be sleeping or awake, whether the principle of movement emanates immediately from the brain or from the heart, Averroes insists that either the common sense in either movement must be ultimately traced to the heart, the permanent location for the common sense.² Cf. De Sompno, versio vulgata, fol. 201 rb, 51, p. 84: "Et quia ista virtus necessario habet subiectum proprium, et illud est membrum in quo est ista virtus, perscrutandum est de hoc membro quid sit. Dicamus igitur quod iam declaratum est superius quod sensus communis est in corde et quod cerebrum est unum instrumentorum complementum hanc actionem secundum temperamentum existens in eo. Et cum ita sit, et sompnus est introitus sensus communis in interius corporis, manifestum est quod principium istius motus in vigilia est a corde et finis eius ad cerebrum; in sompno autem principium eius est a cerebro et finis ad cor. Et in rei veritate principium eius in utroque est a corde, sed cerebrum est causa in sompno quoquo modo magis quam in vigilia. Et universaliter utrumque istorum est causa in hoc, sed cor est prima causa et cerebrum secunda."

essary to discover the organ or instrument of the imagination and to substantiate its possible aridity through a number of empirical tests. Similarly for the other arguments often employed by the Arabes and various latin Scholastics who accepted these things as medical certainties. It is falacious to argue that because the different internal senses are localized in separate chambers of the brain that they must be consequently distinct from each other. For they were primarily assigned separate ventricles of the brain because they manifested distinctive actions. Again, it is impudent to argue that a lesion of the anterior part of the brain will disable the imagination whereas a lesion of the middle part of the brain will impair the functioning of the cogitative, etc. These lesions are nothing more than an adverse combination of two or more of the four basic elements by which the original propitious combination becomes disrupted.¹ These elements themselves, such

¹Averrois, De Mem. et Rem., versio vulgata, fol. 195 vb, 51, p. 57: "Et hoc notum est sensui: cum enim complexio anterioris cerebri ledetur, statim ledetur ymaginatio illius hominis, et remanet cogitatio et rememoratio secundum suum modum. Et cum medium fuerit lesum, ledetur cogitatio et cum posterius, memoria." Cf. also, Colliget, liber tertius, cap. 40, fol. 56 B: "Apparet ab his virtutibus, ut non compleantur suae operationes nisi in cerebro. et propterea quia cerebrum aptum est pati, eo quod est frigidum et humidum, ob hoc maior pars causarum accidentium istarum virtutum provenit a passionibus cerebri: aut quod fit primum in hac causa, aut hoc sit propter communitatem illorum membrorum. Et si causa erit in toto cerebro, erunt tunc laesae omnes virtutes. et si fuerint in loco proprio, erit tunc laesa virtus illius loci proprii... et quando fuerit causa in prora cerebri, tunc erit laesa imaginatio. et quando fuerit in parte media, tunc erit laesa ratio, et cogitatio. et quando fuerit in parte posteriori, tunc erit laesa memoria, et conservatio. Et istis virtutibus adveniunt accidentia secundum modum, secundum quem adveniunt aliis, hoc est ut corrumpantur, aut diminuantur, aut permutentur ad malas operationes. et corruptio et diminutio fit a mala complexione frigida et humida, aut frigida solum. etc." Cf. also De Sompno et Vigilia, versio vulgata, fol. 201 rb, 66, p. 86 et seq.

as humidity and aridity, were originally assigned to each individual faculty because of the alacrity or durableness or some such trait which they manifested. Consequently, such arguments cannot be logically employed until it has been ascertained through empirical experiments whether these faculties actually possess within the texture of their material organs the properties of aridity, fluidity, warmth or frigidity. Otherwise we employ with an aposterioristic certitude what we have gained by pure aprioristic inference.¹

V. Averroes' internal senses compared with Avicenna's

It has been pointed out that Averroes makes of the cogitative force a double faculty, i.e., comprising Avicenna's own cogitative and human estimative forces. But Avicenna's cogitative force has

¹An example of this illegitimate inference may be had from St. Thomas, Aristotelis libro De Memoria et Reminiscentia, lectio II, n. 321, p. 93 (ed. Marietti): "...sicut corporalibus videmus quod ad aliud principium pertinet receptio et conservatio: humida enim bene receptiva, sicca autem et dura bene conservativa." However, St. Thomas is merely quoting Avicenna in this passage and he is not actually culpable of using this argument apodictically without previous medical corroboration. He presupposed that the humid and arid organical texture of the common sense and imagination was a medical fact. For an interesting recapitulation and discussion of the question of the localization of the internal senses in the systems of Avicenna and Averroes with numerous anecdotes extracted from the works of Galen, Themistius and Aristotle, cf. Henri Bate de Molines, "Speculum Divinorum et Quorundam Naturalium," Les Philosophes Belges (critical edition by G. Wallerand; institut supérieur de philosophie de l'Université: Louvain, 1931), vol. XI, p. 119: "Quod omnes interiores virtutes et potentiae sensitivae sensui communi subiecto sunt eadem." The approximate date of composition given is that of 1302. The author's birth is conceded to be within the first half of the thirteenth century.

a dual function; that of manipulating the forms contained within the imagination (i.e., the creative imagination) and that of interceding between the imagination and the memory to make possible an act of remembrance. Although the Averroian cogitative force already mentioned englobes only the second function, Averroes was not ignorant of the first. He describes the cogitative force in terms perfectly compatible with Avicenna's cogitative considered as the creative imagination, that is to say, its first function. He explains that cogitation is nothing more than a composition and dissolution of the forms contained within the interior of the imagination.¹

There is further evidence that Ibn Rochd knew the nature of the internal senses in the Avicennian classification.² He makes

¹Cf. supra, p. 193, note 1.

²Algazel supplied an indirect but invaluable and accurate source from which Averroes could plumb more deeply the psychological tenets of Avicenna. In the Destructio destructionum philosophiae Algazelis a detailed description of the internal senses is forwarded by Algazel. Cf. In Physicis, disputatio secunda, fol. 135 I: "...scilicet istae virtutes intrinsecae vero sunt tres virtutes: quarum una est virtus imaginativa, et est in parte anteriori cerebri post virtutem visivam. et in ea quidem est remanentia formarum rerum, quae videntur post clausuram oculi in eo, quod imprimitur in ea id, quod deferunt ad eam sensus quinque, et congregantur, et appellatur sensus communis, et nisi esset ipse, is quidem qui vidit mel album, non apprehenderet dulcedinem eius, nisi gustu. et, cum viderit id secundo, non apprehenderet dulcedinem eius, quotienscunque non gustaverit id, sicut fecit primo. attamen in eo non est aliquid, quo iudicat quod hac album sit dulce. et non est dubium quod erit apud eum iudex, apud quem congregata sunt ambo, scilicet color, et dulcedo ita quod determinabit cum praesentia unius eorum, quod sit praesens etiam alterum. Secunda vero est virtus cogitativa: et est ea, quae apprehendit intentiones prima vero virtus apprehendebat formas. Et intelligimus per formas id, quod impossibile est ut sit sine materia, scilicet corpus. et intelligimus per intentionem id, quod non requirit esse eius corpus, evenit tamen ei ut sit in corpore. sicut amicitia, et odium, nam agnus apprehendit de lupo colorem, et figuram, et dispositionem eius: et hoc quidem non est nisi in corpore: et apprehendit etiam

the imagination the retentive power for the common sense, the memory the retentive power for the intentions apprehended by the cogitative force. Of course, in the system of Avicenna, the memory was the retentive power for the human estimative force but Averroes to be consistent must refer it to the cogitative since he has endowed this faculty with the ability of apprehending these individual intentions. Actually, the memory serves the same purpose

quod sit eius inimicus. et apprehendit de pecude (sic) figuram matris, et colorem eius, deinde apprehendit amicitiam eius: quare non appropinquatur lupo, et deambulat post matrem. diversitas autem, et convenientia non est de necessitate earum, ut sint in corporibus, sicut est de necessitate figurae et coloris, nisi quod accidit odio, et amicitiae etiam ut sint in corporibus. Et haec virtus est distincta a prima virtute: et locus eius est geniculus ultimus cerebri. Tertia vero virtus est virtus, quae appellatur in animalibus imaginativa, et in homine extimativa. et natura eius est componere formas sensibiles adinvicem, et componere intentiones cum formis: et est in ventriculo medio cerebri inter conservatorem formarum, et conservatorem intentionum. quare poterit homo imaginari equum volentem, et hominem, cuius caput est caput hominis, et corpus eius corpus equi, et alias compositiones, licet non viderit talia. et dignius est ut attribuatur haec virtus virtutibus motivis, quam sit in virtutibus apprehensivis. Sciuntur autem loca harum virtutum in arte Medicinae. nam laesio in capite cum fuerit in his ventriculis, involvuntur hae, quae appellantur virtutes. deinde existimaverunt quod virtus, in qua imprimuntur formae sensibiles in quinque sensibus, conservat illas formas, ideo quod non amittat receptionem, et res quidem conservat rem non cum virtute qua eam recipit. nam aqua recipit figuram, et non conservat eam. et cera recipit figuram cum humiditate sua, et conservat eam cum siccitate sua, aliter quam aqua. Igitur conservator hac consideratione est diversus a recipiente. et appellatur haec virtus conservativa. Et sic intentiones imprimuntur in cogitativa, et conservat eas virtus, quae appellatur memorativa. et erunt apprehensiones intrinsecae hac consideratione cum coniungitur cum eis imaginativa, quinque: quemadmodum fuerunt extrinsecae quinque." In commenting this text, Averroes acknowledges that Algazel is summing up the doctrine of Avicenna and no one else: "Hoc totum non est in eo, nisi recitatio opinionis Philosophorum de his virtutibus, et attributis earum, nisi quod sequitur in hoc Avicenna". Algazel chooses to classify the internal senses in three main groups, probably to conform to the tripartite division of the brain, but actually he develops all five of Avicenna's internal senses. By inverting the term, cogitative, with the term, estimative, the description of each faculty remains essentially the same as that given in his "Metaphysics". Cf. supra, pp. 121-122.

in both systems, i.e., that of preserving the individual intentions. The conservation of the individual intentions by the memory is different from the preservation of the sensible forms by the imagination. The imagination merely preserves these forms and reproduces them in the absence of external stimuli whereas the memory not only preserves and reproduces its individual intentions, it, moreover, retrieves them when they have fallen into oblivion. In this capacity it is better known as the faculty of remembrance. In this same locality we learn that the cogitative force is that faculty by which man deliberates about those things pertinent to cogitation and election until the most convenient path is apprehended and selected. Because of this deliberative power, this faculty is restricted to rational beings; in brute animals it is replaced by the estimative force.¹

Here we have conclusive evidence that the Averroian cogitative force serves the same purpose as Avicenna's human estimative force. It apprehends what is convenient and nocive to the individual rational being and it is placed opposite to the estimative

¹Averrois, Colliget, cap. 20, fol. 30 F: "Et dicimus quod virtus imaginativa stat in priora cerebri: et illa est, que retinet figuram rei, postquam separata est a sensu communi. Sed cogitativa plus manifestatur in media camera. et per hanc virtutem cogitat homo in rebus, quibus pertinet cogitatio, et electio, quousque apprehenderit quod convenientibus est. Propterea non invenitur haec virtus, nisi in homine: et animali bruto concessa fuit aestimativa loco istius. Et locus virtutis reminiscibilis et conservativae est pupis (sic), sive pars posterior capitis. Et inter conservativam et reminiscibilem non est differentia, nisi quia conservativa est conservatio continua, et reminiscibilis est conservatio intercepta. Et differentia, quae est inter conservativam vel reminiscibilem, et imaginativam, est quia imaginativa praestat aliis formam rei sensatae, postquam privata est a sensibus: quare non est sensus. Et virtus conservativa et reminiscibilis non sunt nisi ad conservandum, aut ad faciendum reverti apprehensionem illius figurae."

faculty of brute animals. Averroes also insists that these apprehensions of convenient things to be pursued or elected are preceded by a deliberation or cogitation foreign to the nature of brute animals.

What is the nature of the deliberation or cogitation which suppasses the capacity of the brute animal? In the system of Avicenna, this prior deliberation was also postulated as the conditional prerequisite to the nocive or convenient intentions apprehended by the human estimative force. In other words, the human estimative force apprehended its individual intentions only with the concomitant deliberations enjoined by the cogitative force. These deliberative efforts were shown to be synonymous with the creative capacity of the cogitative force, the power of fashioning unorthodox constructs within the imagination (i.e., its first function). The brute animal being incapable of participating in this creative activity it cannot deliberate or cogitate. This is the gist of Averroes' argument. Consequently, the cogitative force described here by Averroes comprises the first function of Avicenna's own cogitative force (i.e., the creation of fictive constructs) plus the perceptive ability of his human estimative force (i.e., the apprehension of the convenient or nocive).

Before summing up Averroes' classification and comparing it with that of Avicenna's let us quickly jot down one last point wherewith he differs from his predecessor. Contrary to the teaching of Avicenna, Ibn Rochd prefers to eliminate the estimative force from the animal's soul and refer its activity to the animal's imagination instead. In other words, the animal's imagination is not

only passive, retentive power for the integrated impressions gleaned by the common sense; it is also active, apprehending simultaneously the usefulness and harmfulness of things relative to the animal's safety.¹

¹This difference is intimated in the De Mem. et Remin., versio vulgata, fol. 195 va, 65, p. 52: "In aliis autem est natura, et ideo rememorant animalia sed non investigant per rememorationem. Et ista virtus in animalibus non habet nomen et est illa quam Avicenna nocat existimationem. Et per hanc virtutem fugit animal naturaliter nocitiva, licet numquam senserit ipsa". Although Averroes claims that this faculty innate in brute animals has no special name, he does not hesitate to call it the imagination. Cf. Aristotelis de anima libri tres, cum Averrois commentariis et antiqua tralatione (sic) suae integritati restituta. (His accessit eorundem librorum Aristotelis nova tralatio, ad Graeci exemplaris veritatem, et scholarum usum accomodata, Michaelae Sophiano interprete. Adiecimus etiam Marci Antonii Passeri Ianvae disputationem ex eius lectionibus excerptam, in qua cum de horum de anima librorum ordine, tum reliquorum naturalium ferie pertractatur.) Venetiis apud Iuntas, 1574, vol. XI, III, fol. 198 B, com. 57: "Dicit et imaginatio existit in aliis animalibus, cogitatio autem in rationabilibus..." (In this edition there are two translations of the commentary of Averroes. I have ignored the first translation because of its evident inferiority and brevity. The quotations taken from this work will pertain exclusively to this second translation unless otherwise stated.) In this citation, the imagination is clearly placed in counterposition to the cogitative force as the estimative was opposed to the cogitative in the Colliget. In the following passage the imagination indubitably performs all the instinctive functions of Avicenna's estimative force. Cf. De Anima, fol. 135 E, com. 162: "Deinde incaepit narrare utilitatem istius virtutis in animalibus, scilicet, causam final-em, et dixit. Et, quia sensationes figuntur in eo, idest, et, quia sensationes figuntur, et remanent in animali imaginanti post absentiam sensibilium in eo modo, secundum quem erant hanc virtutum apud absentiam sensibilium, multis motibus ad sensibilia et non sensibilia, quarendo utile, et fugiendo nocivum, quemadmodum movebatur per sensus apud absentiam eorum: sed ista virtus remanet in eo modo, secundum quem erat apud praesentiam sensibilium. et universaliter utilitas apud praesentiam sensibilium data est huic virtuti apud absentiam sensibilium, ita quod animal per hoc habet esse nobilissimum in habendo salutem. Deinde dixit. quorum quaedam sunt, quia non habent intellectum, etc., idest, quaedam animalia agunt per hanc virtutem, quia non habent intellectum, et habent istam virtutem, loco intellectus in acquirendo salutem: et quaedam agunt per illam quando intellectus fuerit sincopizatus ab infirmitate, aut alio, et sunt animalia habentia intellectus, ut homin-

4. The internal senses treated individually

A. The common sense

Averroes reduces Avicenna's fivefold classification of the internal senses to four by consolidating the human estimative force with the cogitative force. The first of these internal senses is the common sense. It is situated primarily within the heart apart from the other internal senses located within the brain but this isolation does not exclude it from the group of senses forming a higher network of cognition beyond the scope of the external senses. Its primary occupation is the reception and distinction of the impressions of all the external senses. In

es, tunc, nempe, est eis loco intellectus. Hic igitur est sermo de imaginatione, quid, et quare." The crux of the problem is solved by Averroes in the Destructio destructionum philosophiae Algazelis, Venetiis apud Iuntas, 1573, vol. IX, In Physicis, disputatio secunda, fol. 136 M: "Attamen quod apparet ex opinione Antiquorum est quod imaginativa in animali est ea, quae iudicat quod lupus sit inimicus agno, et quod pecus sit amica. nam imaginativam (sic) est virtus apprehensionis, et iudicat necessario absque eo quod indigeat ingressu alterius virtutis, praeter virtutem imaginativam. esset autem possibile id, quod dixit Avicenna. si virtus imaginativa non esset apprehendens, igitur nihil est addere virtutem praeter virtutem imaginativam in animali, et praecipue in animali, cui sunt multae artes naturaliter. nam imaginationes in istis non apprehenduntur sensu: et quasi sunt apprehensiones mediae inter formas intellectas, et imaginatas." In other words, the ancients taught that it was the imagination itself which apprehended the insensate intentions of nocivity and utility. This imagination judges of its own initiative without additional help from another faculty. If it happened, though, that this same imagination remained completely passive as Avicenna contends it would become necessary to postulate another cognoscitive faculty to perceive these insensate intentions. Consequently, the position of Avicenna is not perfunctorily rejected. Ibn Rochd merely professes to align himself with the ancients making of the imagination a composite faculty englobing two distinct functions. By doing so, however, he presupposes that the same faculty can efficaciously and legitimately execute both operations precluding the arguments which necessitated Avicenna to create two faculties.

this respect, it is basically the same faculty to which Alfarabi, Avicenna and Algazel made claim.¹

The data apprehended by the common sense is turned over to the imagination which preserves it for future reference. This is the only function the imagination fulfills in the system of Averroes. H. A. Wolfson seeks to deduce from the general context of the Tahafut al-Tahafut that this same faculty, the retentive

¹Averrois, De Mem. et Rem., versio vulgata, fol. 195 vb, 56, p. 56: "Et ideo sunt quinque ordines, quorum primus est corporalis magni corticis et est forma sensibilis extra animam. Secundus autem est esse istius forme in sensu communi et est primus ordinum spiritualium. Tertius est esse eius in virtute ymaginativa et est magis spiritualis. Quartus est in virtute distinctiva. Quintus est esse eius in virtute remorativa et est magis spiritualis: recepti enim medullam eius quod distinguunt tres virtutes a cortice." The simple fact of placing the common sense as the first rung in the ladder of spiritual gradations suffices to prove that Averroes included it among the internal senses. Cf. also, De Anima, fol. 154 A, com. 6. He certainly had every desire to reconstruct the philosophy of Aristotle in its pristine state but he did not share his idol's indecision in the classification of the common sense. He placed it irrevocably among the group of internal senses contrary to the opinion of Father Ryan: "For Averroes, as for Aristotle, the sensus communis is not an internal sense faculty in the strict sense but rather a common sensibility, the operation of the sensitive soul as such. As a consequence Averroes actually has only three internal sense faculties: imagination, cogitative power, memorative power. One might wonder whether the common sense in either Aristotle or Averroes is a knowing power, since both localize it in the heart, not the brain." Cf. The Role of the "Sensus Communis" in the Psychology of St. Thomas Aquinas (doctoral dissertation; The Messenger Press: Carthagen, Ohio, 1951), p. 55. I would also like to point out that the question of the localization of the internal senses was purely a medical problem; it had no repercussion on the perceptive ability of any of the senses. Since most Arabian philosophers however, were simultaneously eminent medical practitioners they often indiscriminately reverted to medical arguments in their philosophical tracts. For this reason, it is not strange to find the problem of the localization of the internal senses treated in matters of rational psychology, the proper domain of philosophy.

imagination, was assigned the additional task of creating fictive constructs (i.e., the first function of Avicenna's cogitative force) but there is no justification for this inference.¹ Averroes does not give his imagination a wider meaning or a more ample theater of operation than that accorded to it by Avicenna himself.

B. The imagination

We have already seen in the Colliget that Averroes calls the imagination the common sense's thesaurus.² This retentive imagination is identical with the imagination which figures so prominently in the De Mem. et Rem. collaborating with the memory and the cogitative force to make possible an action of rememoration. First of all, this faculty "que facit presentari ymaginem rei"³ would

¹H.A.Wolfson, The internal senses, p. 107: "This is as much as is definitely stated by Averroes in his Tahafut al-Tahafut. But he does not definitely say there that Avicenna's compositive animal imagination (mutahayyillah) and retentive imagination (hayailiyyah) are considered by him as one faculty, though this may be implied in the emphasis with which he restates Avicenna's view. Nor does he definitely say that he does not use the term fikr rather in its older sense as the equivalent of $\delta\iota\alpha\nu\omicron\eta\tau\iota\kappa\omicron\nu$ or human reason, though indirectly it may be inferred that this is the sense in which he uses that term throughout his discussion in the passage in question." We must take exception with H.A.Wolfson on both counts. Not only does Averroes not say what Wolfson attributes to him, he does not maintain either of these contentions to the hilt. It will be shown in our development of the Rochdian cogitative force that it accomplishes both of these types of cogitation, i.e., it fashions pure imaginative creations (the first function of Avicenna's cogitative force or the compositive animal imagination as Wolfson chooses to call it) and it composes and divides in the manner of the intellect when it assists the memory to make possible an act of rememoration (the second function of Avicenna's cogitative force involving the "dianoetic" ratiocination mentioned by Wolfson).

²Cf. supra, same chapter, pp. 198-199.

³Cf. De Mem. et Rem., versio vulgata, fol. 195vb, 13, p. 54.

be incapable of this resuscitation if it did not originally conserve this image. In the second place, the calling back and the re-presentation of this imaginative form requires no other explanation than the imagination's retentive capacity. Therefore, that faculty of dreams (i.e., the imagination) does not cease to be the retentive imagination and it does not incorporate any additional activity in order to create the impression of actual existence in the absence of external stimuli. In the Colliget, Averroes demonstrates the process by which the data of the external senses is converted into residual impressions retained by the imagination. In moments when the human individual perceives things as if they were actually existing when in reality these same things are absent from the external senses, the procedure is reversed. Instead of the imagination being influenced by the external senses, it is the external senses which become activated by the imagination to such an extent that the individual person "imagines" things which do not really exist. True, this imagination becomes a creative imagination but not in the sense that Avicenna defined the creative imagination. In other words, this imagination "imagines" things which could exist but which "de facto" do not exist. This is a different activity from the cogitative force which imagines things (i.e., invents things) incapable of existence. In the second case an independent compositive faculty is required whereas in the first case the retentive power of the imagination suffices to imprint on the external senses images of things absent

from them.¹

Neither is the imagination understood as a retentive faculty incompatible with the imagination expressed in terms more becoming to Aristotle's vocabulary: "imaginatio est motus a sensu in actu".² Without relinquishing this Aristotelian conception of the imagination, Averroes goes on to speak of its retentive character by reason of which its movement persists in spite of the absence of all external stimuli.³ Consequently, Averroes' imagination is predominantly and consistently depicted as a retentive faculty, the characteristic function it possessed in the system of Avicenna,

¹Averrois, Colliget, liber tertius, cap. 38, fol. 55 A: "Et est istud in vigilando simile uni somno: quia declaratum est in tractatu de Somno et Vigilia, quod somnia attributa sunt virtuti imaginativae. sed ipsa facit in somno contrarium eius, quod facit in vigilia. quia in vigilia primo movet sensatum sensum communem, et postea illud movet imaginationem, et secundum quod dictum est ordinatim superius. Sed in somno fit modo contrario. quia motus incipit a virtute imaginativa propter formam receptam de foris in vigilia quoque tempore, et illa est remota. et ideo primo movet sensum communem, et communis movet particulares sensus, et tunc sentientur res, quasi sicut essent extra. et sicut hoc fit in somno, sic fit in vigilia propter multam sollicitudinem circa aliquam rem. Et propter hoc confirmantur virtutes animae aut propter aliquam aegritudinem fixam in corpore, aut propter timorem, aut propter tristitiam, quia tunc solvitur quidam vapor, et ascendit cerebrum, et imprimitur in ipsum forma rei excogitatae: et ascendendo superius movet spiritum animale, et reducitur iste motus usque ad virtutem imaginativam, et ipsa spiritu mediante movet sensum communem, et ille movet particulares, et sentitur res, sicut esset extra. et populi credunt quod hoc fiat ab Angelis, aut a Daemonibus. et demonstrationes humori declaratae sunt ordinatim ibi. Istae sunt accidentia, quae superveniunt omnibus quinque sensibus." Cf. also De Somno et Vigilia, versio vulgata, fol. 201 vb, 63, p. 96 et seq.

²Cf. Averrois, De Anima, fol. 134 E, com. 161.

³Ibidem, "Primo autem, quia motus, qui fit in imaginatione a sensu, qui est in actu, differt a motu, qui est in sensu, a sensibilibus apud absentiam sensibilibus, et propter hoc accedit falsitas imaginationi." (the underlining is my own).

as we have previously seen.¹

¹The only exception to this is the imagination which forms the object of dreams. Unquestionably this imagination is first of all the retentive imagination but Averroes unhesitatingly attributes to it various activities which Avicenna had reserved for the cogitative force. He explains, for example, that this imaginative faculty is always in motion and may be recognized by its continual suffling of imaginative forms with each other. At one time it delves into the interior of the memory where the individual intentions are retained and at other times, it dips into the residual impressions left over by the common sense. Its movement contains both of these cofferes and it is continually occupied either with one or the other. Cf. De Sompno et Vigilia, vers. vulgata, fol. 201 vb, 52, p. 97: "Et quia iste motus in vigilia incipit a sensibus extrinsecis et pervenit ad virtutem rememorationis, que est in quinto ordine, necesse est ut principium esset ab hac virtute; sed quia virtus rememorationis et cogitationis non agunt in sompno, ideo attribuitur ymaginative. Ista enim virtus est semper in motu et in actione continua et in translatione de una ymagine ad aliam ymaginem. Quandoque igitur facit hoc de intentionibus, que sunt in rememorativa, et quandoque de passionibus, que sunt in sensu communi; et quandoque occurrit intentioni et recipit intentionem illius rei quam ymaginatur a suo principio extrinseco, ut post declarabimus. Et manifestum est ex iis omnibus quod sompna debent attribui virtuti ymaginative, sive fuerint vera sive falsa." Cf. also fol. 203 ra, 43, p. 123: "Et ista sompna universaliter sunt a duabus causis, quarum una est ab actione virtutis ymaginative apud sompnum in passionibus remanentibus in sensu communi de sensibilibus extrinsecis et ab actionibus istius virtutis in intentionibus depositis in virtute rememorativa et cogitativa de illis rebus sensibilibus: motus enim istius virtutis, scilicet ymaginative, semper est in thesauro istius virtutis, scilicet cogitative et rememorative, et thesauro sensus communis." We may easily recognize here the description of the second function of Avicenna's cogitative force. In fact, Averroes acknowledges himself that this imaginative faculty of dreams forms a part of Avicenna's teaching. Cf. Destructio destructionum philosophiae Algazelis, in physicis, disputatio prima, fol. 127 K: {Algazel speaking) "...et hoc quidem in vigilia Prophetis, et aliis hominibus in somno. et hoc est proprium Prophetiae virtute imaginativa." Averroes' reply to this passage: (fol. 128 K) "Id vero, quod recitavit de prophetia ex Philosophis, nescio aliquem dixisse hoc, nisi Avicenna." Averroes knew to some extent Avicenna's theory of dreams and prophecy. I say "to some extent" because he manifests a certain confusion in his treatment of the question, an opaqueness and obscurity foreign to Avicenna's exposition. In considering the problem of dreams and prophecy, Avicenna had substituted the name "imaginativa" for the name "cogitativa". In the chapter devoted to him, we took cognizance of this substitution continuing to regard this imaginative faculty as the cogitative force (i.e., the second function of his cogitative power). Averroes

C. The cogitative force

To obtain a clear, compact picture of the Rochdian cogitative force we will restate the two distinct functions ascribed to this faculty by Avicenna. In the first function, the Avicennian cogitative force resembles a creative imagination since its duties require it to fashion bizaare imaginative products. This unorthodox action, we pointed out, enabled the human estimative force to extract its individual intentions of utility and nocivity. In the second function, it abets the act of rememoration by combining and separating the memnomic intention with the imaginative form. In both capacities it serves the human estimative faculty: in the first directly by executing the analytical comparisons without

evidently failed to make the same equation believing that this imaginative faculty was distinct from the cogitative. This failure to grasp the real situation must have led to the contradiction in which he places himself. This imaginative faculty in the first two passages cited above is depicted as a compositive faculty delving alternately into the coffer of the memory and the coffer of the common sense. Ordinarily, Averroes calls the coffer of the common sense by the same name of imagination. In these two passages, this faculty, the retentive imagination, is suggested but left unnamed. He would have been sorely embarrassed to admit that this compositive imagination and the retentive imagination are the same faculty. Furthermore, by distinguishing this compositive imagination from his cogitative force (as he does in the first passage cited) he finds it necessary to aver that neither the cogitative or the memory function during sleep, a statement which openly contradicts two previous passages. Cf. De Mem. et Rem., ver. vulgata, fol. 196 ra, 41, p. 63: "Et ideo ista adunatio non accidit nisi cogitantibus in solitariis, quando abscindunt a se occupantia sensus: tunc enim re-vertitur sensus communis ad adunandum istas virtutes. Et ideo ad-unantur iste virtutes in sompno et videntur mirabilia mundi; et etiam in dispositionibus similibus sompno." The cogitative force is unquestionably implied in this "iste virtutes". Cf. also, De Sompno et Vigilia, ver. vulgata, fol. 201 ra, 55, p. 79: "Et hoc erit quando cogitaverit maxime de aliquo: tunc enim quiescunt instrumenta anime sensibilis et inducit sensum communem ad interius corporis ad adiuvandum cogitativam: virtus enim cogitativa viget apud quietem aliorum sensuum. Et ideo comprehendit homo in sompno futura, non in vigilia." Due to these inextricable contradictions we have treated this imagination as an exception.

which the estimative force could not apprehend the individual intentions of things, in the second indirectly by ministering to the discursive needs of the memory. In other words, the cogitative force teamed up with the estimative force to complete both of these functions. Averroes retains both of these operations for his own cogitative force but by abolishing and dispensing with the services of the human estimative faculty, he taxes his cogitative force with the additional burden of accomplishing the work of two faculties. Hence, where Avicenna conceived of the cogitative force as a faculty which is in perpetual motion and the estimative force as a faculty of perception, Averroes by combining the two makes his cogitative force a faculty which simultaneously fulfills both functions. The Averroian cogitative force undertakes analytical comparisons, cogitates, deliberates, imagines (in the creative sense) and apprehends the individual intentions of things as well. Bearing this frugal consolidation in mind we will ignore momentarily the apprehensive or perceptive quality of the Averroian cogitative force and concentrate on illustrating how it retains the dual role of Avicenna's cogitative. The first role to be considered will be the second in which the cogitative force acts as the intermediary between the imagination and the memory in an act of recollection.

Without embarking on the problem of recollection again, we may remember that although this action is attributed principally to the memory it is through the cooperation of the faculties of cogitation and imagination that this process is completed. The memory contributes to this recollective process by releasing the

sought-after intention retained in its storeroom, the imagination by restoring the image of this intention and the cogitative by combining the two together.¹ But the action of this cogitative force, Averroes tells us, may be of two types: either compositive or divisive. When the cogitative is involved in the process of recollection it composes or combines the intention with the form. Conversely, it divides or separates by detaching the individual intention of the exterior object from the figurative description of this same object contained within the imagination. This individual intention is finally transferred by the discriminative force to the retentive faculty of the memory. If the memory should happen to forget or lose this intention, the discriminative force will relocate it by again combining the imaginative form with a number of intentions until the right one is uncovered.²

Hence, the cogitative force "composes and divides" or to use the latin terms: "vis distinctiva componit et dividit".³ Avicenna's cogitative force combined and separated images with inten-

¹Cf. supra, same chapter, p. 188, note 2.

²Averrois, De Mem. et Rem., versio vulgata, fol. 195 vb, 32, p. 56: "Et quia actio istarum virtutum in formis sensibilibus est altera duarum actionum, aut compositio aut divisio, quando iam reduxerit formam quam sensit, tunc facit compositionem. Et hoc erit, sicut diximus, quando utraque virtus fecerit presentari utramque intentionem simplicem sibi propriam, et composuerit eas tertia virtus. Divisio autem est in definitione rei sensibilis, dum fuerit sensibilis. Et hoc erit quando sentiens senserit primo rem extra animam, deinde ymaginaverit ymaginans, deinde distinxerit distinguens intentionem illius forme a suo descriptio, cuius est intentio, deinde recipit conservans illud quod distinguens distinguit. Si igitur amiserit ipsam, tunc reductio eius erit secundum compositionem."

³Idem, vers. vulgata, fols. 195 vb, 68, p. 59 and 196 ra, 9, p. 60.

tions and conversely intentions with images. But there is one major distinction which differentiates the composition and division of the Avicennian cogitative force from that of Averroes'. The Averroian cogitative or discriminative force divides or separates the individual intention from its descriptive form only when it (the cogitative force) originally apprehends this intention; when this same intention has been momentarily forgotten by the memory, the cogitative force composes or combines its descriptive image with a number of intentions until the forgotten one reappears. In other words, the Rochdian cogitative force composes and divides (componit et dividit) but only at different times: either it combines or it separates the descriptive image with its component intention; the two actions are relegated to two distinct phases of cognition. In the case of the Avicennian cogitative force, the compositions and divisions it displays are executed jointly. It combines and separates within the same global action. For example, the Avicennian cogitative faculty in order to resuscitate the individual intention which has fallen into oblivion finds it necessary to conduct a number of compositions and divisions between the forms contained in the imagination and the intentions contained in the memory. In this same recollective movement, the Rochdian faculty does not divide or separate images from intentions, it merely combines them.

~~we~~ This distinction is vital in view of the heated polemic carried on within the Thomistic and Scotistic schools subsequent to the death of these two gigantic thinkers. St. Thomas expressly

states that his cogitative force "componit et dividit" and since this expression is identical with the definition of a judgment the problem arose whether any internal sense faculty could judge. Many Thomists in defense of their idol maintained the affirmative in opposition to the Scotistic followers.¹ It remains to be proven that the Thomistic cogitative force was derived from the doctrine of Averroes and that St. Thomas borrowed this expression "componit et dividit" in relation to the action of his cogitative force from the works of Averroes, but it would be a belated and presumptuous solution to dismiss the parallel similarity of the two cogitative faculties as a mere coincidence. However, overlooking for the moment whether the Thomistic cogitative force is derivative of the Rochdian faculty called by the same name, we wish to establish by the above distinction that for Averroes, at least, the compositions and divisions undertaken by the cogitative force are not the equivalent of a judgment either intellectual or sensible.

This Rochdian faculty certainly combines and separates (componit et dividit) intentions with images and conversely images with intentions but, as has already been demonstrated, each of these two movements or actions are attributed to two distinct cognitional phases and therefore, they must not be interpreted as joint or complementary operations such as is had in a judgment. Averroes was well aware of the judicial problem involved in the combination effected by the discriminative faculty between the intention and the

¹J. Urraburu, S.J., Institutiones Philosophicae (8 vols.; typis Joseph Emmanuel a Cuesta: Vallisoleti, 1896), V, pp. 742-751.

image. He realized that when the cogitative force in a recollective act combined the individual intention with its component imaginative form that a certain amount of affirmation and negation was involved. The mere fact of combining the intention with its image did not constitute in his mind a valid judgment; the cogitative force was not committed to pass any judgment by merely combining two things together. But since, this unitive act presupposes an affirmation and a negation (the essential element of the judgment) he postulated the intervention of the intellect to insure and complete this work. He was loath to credit any sensible faculty, even in an analogical manner, with the ability of judging (i.e., predicating a quality of something else by affirmation or negation). He distinctly asserts that the action by which an intention is combined or joined with its component imaginative form necessitates an affirmation or a negation and for that reason belongs properly to the intellect.¹

¹Averrois, De Mem. et Rem., versio vulgata, fol. 195 va, 60, p. 52: "Iudicare autem quod ista intentio est istius ymaginati est in homine in intellectu, quia iudicat in eo secundum affirmationem et negationem." He reaffirms this point in the De Anima, III, fol. 173 D, com. 33: "Et iam diximus quod virtus cogitativa non est intellectus materialis, neque intellectus qui est in actu, sed est virtus particularis materialis, et hoc manifestum est ex dictis in Sensu et Sensato. et oportet scire hoc: quoniam consuetudo est attribuere intellectui virtutem cogitativam. Et non debet aliquis dicere quod virtus cogitativa componit intelligibilia singularia: et iam declaratum est quod intellectus materialis componit ea. Cogitatio enim non est, nisi in distinguendo individua illorum intelligibilium, et praesentare ea in actu, quasi essent apud sensum." Cf. also, De Anima, III, fol. 164 D, com. 20. This final quotation places us in a quandry. It appears to reaffirm what Averroes had previously stated in the De Mem. et Rem. (the reference to the De Sensu et Sensato actually englobes the De Mem. et Rem.) that it is the material intellect which assists the cogi-

tative force in combining or joining an individual intention with its imaginative form: the cogitative force executing the union under the guidance of the affirmative or negative judgment of the intellect. Actually, in this quotation, the cogitative force is quietly but firmly eliminated altogether. The only activity it is allotted boils down to its divisive character by which it detaches the individual intention from the descriptive form delineated within the imagination. This being the case, we would have to discount all the sections of the De Mem. et Rem. where Averroes makes the cogitative force "combine" the intention with the image. He would be employing the cogitative force merely in a metaphorical sense. This seems improbable in view of the repeated usage of the cogitative force throughout this treatise. However, such is the unequivocal desire of Averroes and we have no choice but to expose his doctrine as he expresses it himself. Realizing this subtler distinction, we did not elect to substitute the cogitative force with the material intellect in all the passages of the De Mem. et Rem. because Averroes himself persisted in using it.

The Parisian version of the De Mem. et Rem. makes it clear that it is the cogitative force itself which combines by affirmation and negation: "Tercia autem virtus componit duas res simplices predictas; videlicet intencionem representatam a memoria cum ymagine comprehensa a virtute ymaginativa. Et illa virtus dicitur distinctiva sive cognoscitiva que quidem, sicut habet componere per affirmationem, ita habet dividere per negacionem; et quemadmodum affirmando indicat hanc intencionem esse huius ymaginis, ita eciam negando indicet illam non esse illius." Cf. 195 vb, 37, p. 55. This explanation is most probably an interpretation or additional interpolation of some scribe occupied in copying the original translation. It is in open conflict with a previous passage of this same version attributing this composition to the intellect itself. Cf. 195 va, 60, p. 52: "Iudicare autem quod intencio per memorativam virtutem representata sit illius ymaginis que fuit per ymaginativam virtutem comprehensa proprium est hominis, quoniam respicit virtutem rationalem, propter hoc quod iudicium illud fit secundum affirmationem et negacionem, quod non potest esse in aliis animalibus: licet in eis sit aliquod simile huic."

Anthony Zimara prefers to see in this expression, "intelligibilia singularia", universal indivisible terms as opposed to universal complex terms. In a supplementary appendix included in this same volume he offers the following solution: "Decimanona contradictio est in com. 33. dicit Commentator quod cogitativa non componit intelligibilia singularia. Huius oppositum patet in hoc et 3 com. 20 et 22. Confirmatur quia cogitativa apparet intellectus particularis, eo quia homo per ipsam particulariter discurrit. Solvitur, dictum Commentator hic intelligitur sano modo, et sensus est iste: cogitativa non componit singularia, idest terminos simplices, qui tamen universales sunt, quia hoc pertinet ad intellectum, qui est superior cogitativa. singulare hic non sumitur, ut distinguitur contra compositum." Cf. Marci Antonii Zimaræ, Solutiones Contradictionum in dictis Aristotelis et Averrois super tertio de Anima,

If he had thoroughly understood the doctrine of Avicenna he would not have introduced the question of affirmation and negation thereby interposing the intellect in the process of recollection. Avicenna recognized that an analytical investigation accompanied the act of recollection. He also recognized that this analytical investigation entailed numerous comparisons, associations and dissociations involving the imaginative forms and the individual intentions with themselves as well as with each other. He delegated the cogitative force to execute this analytical investigation. But because these associations or dissociations were conducted on a basis of contiguity, simultaneity, causality, similarity or dissimilarity which involved merely the accidental properties of these forms and intentions, the problem of affirming or denying one thing of another by either combining or separating them never entered his mind. These compositions and divisions of his cogitative force never reached a status of rational judgments. Their similarity to the compositions and divisions piloted by the intellect was purely accidental and extrinsic to the essential notion of a judgment.¹

Let us examine how the Rochdian discriminative faculty fulfills the primary function of Avicenna's cogitative force. This

fol. 228, *contradictio decimanona*. His solution is inadmissible, however. The cogitative force does not combine universal terms or ideas in any form whether they be simple or complex. The expression, "*intelligibilia singularia*" may be a bad translation of the original Arabic suggesting a universal element by the usage of "*intelligibile*" but the subsequent statement, "*cogitatio enim non est nini in distinguendo individua illorum intelligibilium*" makes it clear that Averroes has in mind the individual intention and its component imaginative form.

¹Cf. supra, pp. 132-135.

primary function, we remember, makes of the cogitative force a compositive human imagination enabling it to fashion inordinate creations incapable of concrete existence. As worthless and ludicrous as this activity may appear we realized that Avicenna as well as Alkindi, Alfarabi and Algazel employed it for the obtention of higher knowledge imperceptible to the external senses. Averroes following this tradition of thought demands fictive adjuncts from the action of his cogitative force by which the intelligent individual is elevated to a knowledge of future events.

He explains that in some men the coordinated efforts of the internal senses make possible the conception of certain forms which the exterior senses could have perceived only indirectly insofar as their sensations contribute to the material makeup of those same forms. He gives the example of the elephant claiming that we may conceive of just such an animal without ever having previously seen one.¹ The conception of the elephant and similar fabrications comes about through the cooperation of the internal senses subservient to the unifying influence of the reason. But this subservience and mutual cooperation is extremely difficult to attain unless the individual seeks the privacy of solitary confinement and abandons the usage of his external senses; at such moments the common sense reverses itself to assist and consolidate the intern-

¹He realizes that the uninhibited licence of creation engendered through the mutual assistance of these three internal senses (viz., the imagination, cogitative and memory) can culminate in the fabrication of images which actually enjoy a temporal existence despite the exterior senses' ignorance of them.

al senses. And thus during sleep and during moments resembling sleep the mutual concurrence of the internal senses is guaranteed, the result of which is highly compensatory; at such moments the marvels of the world may be uncovered.¹

¹Averrois, De Mem. et Rem., versio vulgata, fol. 196 ra, 27, p. 62: "Sed etiam in quibusdam hominibus praesentantur apud congregationem earum forme rerum sensibilium quas numquam sensit, sed solummodo translate fuerunt dispositiones earum, sicut narravit Aristoteles de quodam antiquo, qui informabat res translatas ad ipsum per auditum, quas numquam vidit; et cum ille forme experimentabantur, inveniebantur secundum veram dispositionem. Et secundum hunc modum potest ymaginari elephantem qui numquam sensit ipsum. Et hoc accidit homini apud adunationem istarum trium virtutum. Et adunatio earum fit per animam rationabilem, scilicet per obedientiam earum ad ipsam, quemadmodum separatio earum est per animam bestialem. Et earum adunatio est valde difficilis homini: et quies anime bestialis est in separatione earum. Et ideo ista adunatio non accidit nisi cogitantibus in solitariis, quando absciunt a se occupantia sensus: tunc enim revertitur sensus communis ad adunandum istas virtutes. Et ideo adunantur iste virtutes in sompno et videntur mirabilia mundi; et etiam in dispositionibus similibus sompno." Cf. also, De Sompno et Vigilia, fol. 202va, 63, p. 114: "Et illa actio similis est actioni eius in qua congregat tres virtutes interiores ad representandum idolum rei que numquam transivit per sensum. Et cum ita sit, necesse est ut actio virtutum ymaginativarum in sompno sit perfecta et magis spiritualis: anima enim in sompno fecit otiari sensus extrinsecos et instrumenta eorum et revertebatur ad sensum interiorem. Et signum eius, quod virtutes interiores sunt perfectioris actionis apud quietem virtutum exteriorum, est quod illi qui multum cogitant intrant sue virtutes sensibiles intra corpus, ita quod accidit eis sompnus magnus; et ipsi etiam sponte faciunt quiescere sensus extrinsecos, ut melius cogitent. Et propter hanc causam illi qui nati sunt sine visu et sine auditu sunt perfectiores secundum virtutes interiores. Ideo prophetia venit in dispositione simili epilepsie; iste enim virtutes interiores, quando movebuntur forti motu, contrahentur virtutes exteriores, adeo quod forte accidet ex hoc synopsis." Cf. also De Anima, III, fol. 164 B, com. 20. It is remarkable that the conception of cogitation originated by Alkindi as a movement of the creative imagination remains intact throughout the entire breadth of the peripatetic tradition in the Orient. Alkindi announced that in order for man to acquire a higher knowledge of things imperceptible to the senses (i.e., a knowledge whose most perfect form occurs in the vision of things, the prophecy) it became imperative to possess a faculty which could cogitate, that is to say create fanciful constructs such as a two-headed man or a talking wolf. Without this constructive activity man could never attain a "vision" of things, he could never prophecize and he

What are these marvels of the world broached here? They are the marvels of divination and prophecy, celestial visions by which man knows future events. God's solicitude towards man saw fit to provide him with a faculty apprehending useful or noxious future events so that man could fortify and prepare himself against such calamities as famines, etc. In this capacity, the cogitative force becomes an integral part of the prophet.¹ It is the faculty of fu-

could never foresee future events. These insights into future things were consequent upon cogitation when the exterior senses became dormant and man's mental activity was centered on the operation of the interior senses. Alfarabi, Avicenna and Algazel all retained this singular conception of cogitation repeatedly defining it as a combining and separating of imaginative forms productive of bizarre constructs. Averroes prolongs this tradition even to the usage of the argument that when a rational being is "cogitating" about prophetic or future events the external senses cease to function.

¹Averrois; De Sompno et Vigilia, versio vulgata, 202 vb, 17, p. 116: "Propter quid vero sunt sompna? Dicamus ergo propter sollicitudinem circa hominem: homo enim quia indiget cognitione et comprehensione in virtute cogitativa, qua sciret res futuras utiles et nocentes; ut sit paratus contra illas, ideo fuit sustentata ista virtus cum hac enuntiatione nobili et comprehensione spirituali. Et ideo dicitur quod est una pars prophetie." And also, fol. 201 ra, 53, p. 79: "Quoniam autem sompnus est introitus sensus communis ad interior corporis, manifestum est. Et signum eius est quod vigilantia accidit simile, scilicet quia transeunt per ipsum sensibilia et non comprehendit ea. Et hoc erit quando cogitaverit maxime de aliquo: tunc enim quiescunt instrumenta anime sensibilis et inducit sensum communem ad interior corporis ad adiuvandum cogitativam: virtus enim cogitativa viget apud quietem aliorum sensuum. Et ideo comprehendit homo in sompno futura, non in vigilia. Et ista virtus cogitativa iuvat presentando illud quod habet de ymagine illius rei et colat ipsam ymaginativa, ut sit presens in virtute cogitativa." Cf. also, fol. 202 ra, 4, p. 120 et seq. The three internal faculties all concur in this act of cogitation or imaginative creation but the cogitative force has the principle role. It is the cogitative force which initiates and supervises the manipulation of the imaginative forms to fashion whatever it pleases. This activity would be jeopardized if the imagination did not reproduce the sensible forms of things culled from the common sense and if the memory did not remember the final product created by the cogitative force. The common sense is pictured as regressing into the interior of the brain to assist the interior senses in this activity. Actually, the fact that it relinquishes the exterior senses and decreases their

ture events.

which Ibn Rochd offers no clearcut distinction between future events pertinent to prophecy and those which form the object of the cogitative force in its less exalted meditations.¹ It is evident, however, that the cogitative force (without entering into the domain of the prophecy) subscribes to a manner of musing or mulling over the probability of certain events materializing in the future. Such an event is elaborately developed in the De Anima.

In this passage, Ibn Rochd undertakes to comment on those things which the intellect seeks either to pursue or shun. He explains that the intellect faces this problem in the same manner as it faces the problem of intellection. Since it comprehends things³ through the medium of the forms contained within the imagination which are in turn obtained through the concrete things themselves present to the exterior senses, it necessarily follows that the intellect will elect to pursue or shun certain things when they are actually present to the exterior senses after the fashion of the senses themselves which react either favorably or

capacity of functioning (and thereby their capacity of detracting from the efficiency of the internal senses) suffices to bring about the atmosphere of concentration and mutual coordination among the internal senses, the condition Averroes had previously stipulated for the purposes of "cogitating".

¹Like his predecessors Averroes maintained a natural and not a supernatural prophecy. The only condition for the prophet was an unusually well balanced disposition of his internal senses, especially the cogitative force. The moment this favorable disposition was obtained the prophet was prepared to receive the divine inspirations emitted by the agent intellect. In fact, these emissions could not be denied him. Possibly, he regarded the preview of future events as prophetic utterances only when they concerned the welfare of the state or similar noble insitutions.

unfavorably to these same things.¹ But there is another mode by which the intellect considering the utility or harmfulness of things elects to pursue or reject them. In this second mode, the intellect scrutinizes the acceptibility or harmfulness of things which are absent to the exterior senses, i.e., things which do not actually exist at the moment when the intellect is examining them. He gives us an example. A prelate is incited to action at the thought that the turrets in his castle are burning while the fact is that the turrets are not burning at all.²

In this example, the principle of movement is the fire. It is the thought of fire which incites the prelate to action. When the prelate "imagines" within the interior of his imagination that his turrets are on fire he immediately considers (cogitabit) the possible methods of extinguishing it. There may be another prelate, a pyromaniac, who is also incited to action at the thought of setting the turrets on fire. In the case of the second prelate as well as in the case of the first, the principle of movement is the possibility of a fire; each reacts to this thought and each cogitates on the prospects of the fire but not in the same manner or with the same sentiments. The common principle for both from which their

¹Averrois, De Anima, III, fol. 172 F, com. 33: "Idest, et ita est de quaesito et de fugito apud intellectum, sicut de comprehensione: quoniam, quemadmodum comprehendit res mediantibus formis imaginum, et sensus comprehendit per praesentiam rerum sensibilium, ita intellectus movetur a rebus quaerendo, aut fugiendo, quando formae imaginum earum sunt praesentes. quemadmodum sensus quaerit, aut fugit apud praesentiam ipsius sensibilis."

²Ibidem, "Deinde, dixit. et quandoque movetur sine usu sensus, etc. idest et quandoque movetur homo ad aliquid, licet non sentiat ipsum, quando imaginabitur ipsum: sicut praeliator movetur, quando imaginatur ignem inflamari in turribus, licet ignis nondum inflammatus sit."

respective conclusions are deduced is the possibility of the turrets being ignited.¹

Each of these prelates cogitates on this problem as though they actually were witnessing a conflagration. In other words, each cogitates over the same problem considering its consequences, the extent of its damage, the question of their safety, etc. as though all these imaginative scenes actually existed. Averroes explains how this is made possible. Man posits as the principle of consideration by which he deduces possible future events the occurrences of his present and past which he has already experienced or seen. In this manner, he continues, it is possible for man to ponder over some thing to the extent that he invent or fashion with it some other individual thing which he could never have sensed in some previous experience (although its simulacrum could have been formerly seen). Thus a true image of extramental reality can be conceived by man although he never experienced it at any time in the past. An example of such an image is the elephant spoken of by Averroes in the De. Mem. et Rem.²

¹Averrois, De Anima, III, fol. 172 F, com. 33: "Deinde, dixit, commune, nempe, est quod movens est ignis, et est principium praeliationis. idest et, cum praeliator intrinsecus imaginabitur ignem in turribus, statim cogitabit in destruendo illum ignem, et praeliator oppositus in inflammando ipsum. et communem habent cogitationem in hoc, scilicet quod ignis est finis positus, et quaesitus apud ipsos, sed secundum modos duos diversos. Et potest intelligi hoc, quod dixit, commune enim, idest propositio enim communis, ex qua possumus scire omnia consequentia, est primum consequens existentiam ignis in turribus. et ideo dixit, est principium per experientias praeliatoris, idest principium considerationis."

²Ibidem, "Deinde dixit, cogitat enim, quasi videns, idest principium enim suae cogitationis in rebus erit praesentando modos

Summing up this activity he explains that this mode of imagination is that by which the cogitative force invents images with the residual impressions of the senses retained within the interior of the imagination proper. For when the cogitative force, as was declared in the De Mem. et Rem. (referred to under the general title of "Liber de Sensu et Sensato", the first treatise of the Parva Naturalia), enlists the aid of the imagination and the memory it is reinforced to create with the residual images of sensible things other constructs never witnessed by the senses and the imagination itself (the usual mode of acquiring images). The sole purpose of this cogitation is to invent and posit images of things absent to the exterior senses as if they actually existed and actually effected an active impulse on these same senses.¹

imaginum imaginationum possibilium esse in illa re, de qua cogitat, adeo ac si videret illum, de quo cogitat. Deinde dixit. et cogitatio eius in rebus futuris, etc. idest, et causa in hoc est, quia homo ponit principium suae considerationis in rebus possibilibus de rebus praesentibus, quas videt. et deinde possibile est ut homo cogitet in alia re, adeo quod inveniet ex eo aliquod individuum, quod ante non sensit: sed sensit ei simile, non ipsum idem. Et innuit per hoc modum, secundum quem potest inveniri per cognitionem imago vera: cuius individuum nunquam fuit sensatum aliquo cogitante. Iam enim posuerat quod imagines verae sunt numeratae secundum individua sensibilia." Averroes seems more concerned with the veracity of the images invented by the cogitative force rather than with the possibility of fashioning some grotesque, preposterous thing. His anxiety to invent images in harmony with reality certainly suppasses his attempt to corroborate their veracity. The fact that true images are numbered after the manner of sensible things is no guarantee that they are in conformity with them. It may be well to note that this privilege of the cogitative to view something absent as if it actually invested the exterior senses is not an original idea. Avicenna had previously spoken of the combined ability of the imagination and cogitative to treat imaginative forms as if they were an integral part of sensation. Cf. supra, chapter 2, pp. 67-68.

¹Averrois, op. cit., fol. 173 D, com. 33: "Et quasi declaravit

D. The memory

The fourth internal sense is called the memory when it exerts the simple function of retaining the individual intentions extracted by the cogitative force. It becomes the rememorative or recollective faculty the moment that the same intention becomes lost or forgotten. At such times, it instigates and supervises an intricate investigation with the aid of the cogitative and the imagination to retrieve the intention fallen into oblivion. Without question, Averroes does little more than repeat the doctrine of his predecessors. If we halted here limiting our survey to those internal faculties professed by Avicenna, Alfarabi and Algazel, the number of internal faculties in the system of Ibn Rochd would number four. But we have seen that he transfers the faculty of willful locomotion from the category of a vital faculty (where his predecessors had classified it) to that of an animal faculty. Consequently the fivefold classification of his predecessors is maintained with the inclusion of this willful internal faculty.¹ He may have recanted this position later on in his life, but the lack of any positive statement to this effect in any of his later works examined in the 1573-74 Venetian edition compells us to abide by his early

quod iste modus imaginationum invenitur a cogitatione ex imaginationibus quae sunt individua sensibilia. Virtus enim cogitativa, sicut declaratum est in lib. de Sensu et sensato, quando iuvabit se cum informativa, et rememorative innata est praesentare ex imaginibus rerum aliquam, quam nunquam sensit in ea dispositione, secundum quam esset, si sensisset eam fide et informatione, tunc intellectus iudicabit illas imagines iudicio universali. Et intentio cogitationis nihil est aliud, quam hoc, scilicet, ut virtus cogitativa ponit rem absentem a sensu, quasi rem sensatam."

¹In the brute animal the number of internal senses is reduced to four since its imagination comprises both the estimative force as well as the retentive imagination itself.

wishes.

5. The cogitative force in particular

A. Its general characteristics

Having dismissed these more or less general considerations of the internal senses, we may turn our attention once again towards the cogitative force with the intention of delineating more clearly the nature and functioning of this faculty. Without entering into the different phases of the material or possible intellect, we may take cognizance of three types of intellects mutually and locally distinct from each other. The first is the agent intellect, the second is the material or possible intellect and the third is the passive intellect. The agent and the material intellect each indivisible units distinct and separate from the individual rational beings which employ them, constitute the incorruptible and the indestructible element in the human soul. There is but one material intellect and there is only the unique agent intellect in which all men participate unequally in proportion to their capacity to be illuminated by its transforming light. The passive intellect constitutes the personal element in each individual, rational soul; it is the only intellect among the three mentioned which rightfully pertains to the individual as such.

The agent intellect is the power by which the forms of our imagination become transformed and elevated to the universality of ideas. The material intellect is the receptor of these same ideas once they have been universalized. The passive intellect is the

imagination from which the universal concepts are abstracted. Consequently, the passive intellect no less than the agent and material intellects is indispensable to the rational individual if he wishes to think or ratiocinate; this faculty must contribute its share to the process of reasoning. This is brought about when the agent intellect illuminates the imaginative contents of this passive intellect which in turn through this spiritual elevation are transferred to the interior of the material intellect. In this process, the agent intellect remains aloof from the corporeal passive intellect, but the material intellect must in some manner not only come in contact but become fused with this bodily, corruptible faculty. Thus, the material intellect remains essentially an eternal, immutable, spiritual faculty common to all men losing these qualities only momentarily and accidentally by reason of its objective dependence on the passive intellect in the obtaining of its ideas. Thus the material intellect becomes fatigued indirectly with the tiring of the passive intellect; it ceases to function only accidentally with the cessation of this same passive intellect; it is corruptible and susceptible to extinction only insofar as the latter is corporeal and transitory.

Averroes explains that one man is constituted more intelligent than the next by reason of the diversity and different qualitative functioning of his internal senses determined by this (passive) intellect. Furthermore, it is this passive intellect which distinguishes the rational animal from the brute animal since it insures the continuation of the human individual with the agent intellect. Finally, since whatever enters the material intellect

must be abstracted from the passive intellect, it is the diversity of the preparation of the matter to be transformed into abstract ideas which is responsible for the existence and difference between the speculative and practical subdivisions within the material intellect.¹

¹Averrois, De Anima, III, fol. 165 D, com. 20: "Et debes scire quod usus, et exercitium sunt causae ejus, quod apparet de potentia intellectus agentis, qui est in nobis ad abstrahendum, et intellectus materialis ad recipiendum: sunt (dico) causae propter habitum existentem per usum, et exercitium in intellectu passibili, et corruptibili, quem vocavit Arist. passibilem. et dicit aperte ipsum corrumpi. et si non contingeret ut virtus, quae est in nobis agens intellecta esset materialis, et similiter virtus passibilis. Et ideo nullus potest ratiocinari per hoc super hoc quod intellectus materialis admiscetur corpori. Illud enim quod dixit opinans ipsum esse admixtum responsione istius sermonis in intellectu agente, dicimus nos in responsione eius in intellectu materiali. "t per istum intellectum, quem vocat Arist. passibilem, diversantur homines in quatuor virtutibus dictis in Topicis, quas Alfarabius numeravit in Elenchis. "t per istum intellectum differt homo ab aliis animalibus. et si non, tunc necesse esset ut continuatio intellectus agentis et recipientis cum animalibus esset eodem modo. Intellectus quidem operativus differt a speculativo per diversitatem praeparationis existentis in hoc intellectu." Cf. also, De Anima, III, fol. 151 A. Léon Gauthier in a significant examination of the material and agent intellect reduces to three all the intellects mentioned by Averroes in the course of the De Anima: "Nous avons relevé, avec références, jusqu'à vingt-sept noms d'intellec[t]s...et nous ne saurions garantir que notre relevé soit exhaustif; mais tous ces intellects se réduisent, en somme, à trois: intellect actif, intellect passif, intellect acquis." Unfortunately, this simplification excludes the passive intellect identified with the cogitative force (for it is evident that L. Gauthier employs the term passive intellect in relation to the material intellect). Cf. Ibn Rochd, p. 238, note 3. However, he rectifies this oversight by recognizing an intellect which is corruptible, and better known as the imagination: "A cet effet, en outre des trois intellects auxquels se réduit, en fin de compte, la trentaine d'intellec[t]s qu'on trouve nommés couramment dans les ouvrages d'Ibn Rochd, intellect actif, intellect passif, intellect acquis, Ibn Rochd en introduit épisodiquement un quatrième, qu'il appelle aussi 'mais au sens large' intellect, et qui n'est autre que l'imagination. C'est ce quatrième intellect, générable et corruptible, qui intervenant entre les deux intellects éternels, résout la présente difficulté, rend possible la formation de l'intellect acquis, et donne ainsi la clef de toute la théorie. L'imagination, sous l'influence des organes sensitifs, fournit des images individuelles et momentanées à l'intellect matériel; celui-

In another passage of the De Anima, Ibn Rochd gives us a more precise definition of the passive intellect. He states that he understands by this intellect the imaginative forms of things inasmuch as these forms are under the domination and compositive supervision of the cogitative force proper to man. In other words, for practical purposes Averroes equates the passive intellect with the cogitative force. Then he repeats the position of the cogitative which he had already forwarded in the De Mem. et Rem., namely that the task of this faculty centers in two different operations. In the operation of rememoration, it unites the intention with its component image by combining the two; in the operation of conceptualization (apud formationem) this procedure is reversed: it disengages the individual intention from its imaginative form. Once this demarcation has been effected and the intention is separated from its component image the material intellect is prepared to receive this same intention universalized through the spiritual light of the agent intellect.¹

ci, sous l'action indéfectible de l'intellect actif, peut alors en tirer, par abstraction et généralisation, des concepts généraux, des jugements, des raisonnements; et tous ces intelligibles spéculatifs s'emmagentisent sous forme d'intellect acquis. C'est grâce à l'intervention de ce 'quatrième intellect', générable et corromptible, et grâce à elle seulement, que les deux intellects éternels peuvent remplir leur commun office, la production dans l'âme des intelligibles spéculatifs. Car si c'est sans images que l'on pense par concepts généraux, c'est-à-dire si une représentation conceptuelle n'est point, par elle-même, une image, ce n'est cependant qu'à l'occasion des images sensibles, en elles et par elles, que l'esprit humain peut penser les intelligibles spéculatifs." Cf. op. cit., p. 244. It is regrettable that L. Gauthier insisted on calling the material or possible intellect by the name of passive intellect. Averroes more frequently reserves the term, passive intellect, to identify the cogitative force.

¹Averrois, De Anima, III, fol. 164 C, com. 20: "Et intendebat

Summing up this cogitative force, Averroes records its following characteristics. It may be called an intellect but its activity is not identical with that of the material intellect. It is corruptible and generable by reason of the fact that it is lo-

hic per intellectum passibilem formas imaginationis, secundum quod in eas agit virtus cogitativa propria homini. Ista, nempe, virtus est aliqua ratio, et actio eius nihil est aliud quam ponere intentionem formae imaginationis cum suo individuo apud rememorationem, aut distinguere eam ab eo apud formationem. Et manifestum est quod intellectus, qui dicitur materialis, recipit intentiones imaginatas post hanc distinctionem. Iste igitur intellectus passibilis necessarius est in formatione. Recte igitur dixit, et non rememoratur, quia iste est non passibilis. et intellectus passibilis est corruptibilis, et sine hoc nihil intelligit, idest, et sine virtute imaginativa, et cogitativa nihil intelligit intellectus qui dicitur materialis. hae enim virtutes sunt quasi res, quae praeparant materiam artifici ad recipiendum actionem artificii." We have not yet ascertained the nature of this individual intention which the cogitative force separates from the imagination but it would be extremely interesting to determine definitively whether the universal concept is abstracted immediately from it or not. Ibn Rochd insists that the universal idea is not inserted into the material intellect by the illuminating action of the agent intellect until this distinction by the cogitative force has been effected. This would imply at first sight that the agent intellect abstracts from the individual intention and not from the imaginative form, the universal concept. However, it is somewhat disconcerting to have this intention immediately called the "imaginative intention". On the other hand, we could conceive the possibility of the agent intellect transforming the imaginative form itself once it had been delivered from the individual intention. But the expression "intentiones imaginatas" gives us no indication as to which alternative is the conclusive one. In treating the same problem of the origination of our ideas in another passage of the De Anima he offers us no satisfactory solution: fol. 1155 B, com. 7: "Virtus enim cogitativa est de genere virtutum sensibilium. Imaginativa autem, et cogitativa, et rememorative non sunt nisi in loco virtutis sensibilis, et ideo non indigentur eis nisi in absentia sensibilis. et omnes iuvant se ad repraesentandum imaginem rei sensibilis, ut aspiciat eam virtus rationalis abstracta et extrahat intentionem universalem, et postea recipiat eam, idest comprehendat eam." This "imaginem rei" could be either of three possibilities: 1) the individual intention considered apart from the imaginative form, 2) the imaginative form shorn of the individual intention or 3) a combination of the two disjoined one from the other and later reunited in their separate roles. The first possibility seems to be the most logical one since it is the cogitative force which dominates the preparation of the contents of the phantasm and since the individual intention is the most spiritualized element of the two. Either way, however, we must recognize here that Ibn Rochd had a higher conception of the contents of the phantasm than the mere impressions recorded by the external senses.

cated within the middle ventricle of the brain. It is the cause for the decomposition and generation of the human being. Without this faculty, the material intellect could not comprehend anything. Finally, because rememoration is consequent upon the operation of this faculty in conjunction with the imagination and the memory, the rational being cannot exercise any privilege of rememoration after death.¹

¹Averrois, De Anima, III, fol. 173 D: "Et ex hoc declarabitur quod actio intellectus est alia ab actione virtutis cogitativae, quam Arist. vocavit intellectum possibilem (sic), et dixit eam esse generabilem et corruptibilem, et hoc est manifestum de ea, cum habet instrumentum terminatum, scilicet medium ventriculum cerebri: et homo non est generabilis et corruptibilis nisi per hanc virtutem: et sine hac virtute, et virtute imaginationis nihil intelligit intellectus materialis, et ideo sicut dicit Arist. non rememoramur post mortem: non quia intellectus est generabilis et corruptibilis, sicut aliquis potest existimare." In another locality he gives a more ample explanation of why the action of the cogitative force is different from that of the intellect and he discounts, at the same time, the theory of Galen and Albelfarag of Babylon intimated here by the indefinite "aliquis potest existimare". Cf. III, fol. 154 B, com. 6: "Virtus enim cogitativa apud Arist. est virtus distinctiva individualis, scilicet quod non distinguit nisi individualiter, non universaliter. Declaratum est enim illic quod virtus cogitativa non est nisi virtus quae distinguit intentionem rei sensibilis a suo idolo imaginato. et ista virtus est illa, cujus proportio ad has duas intentiones, scilicet ad idolum rei, et ad intentionem sui idoli, est sicut proportio sensus communis ad intentiones quinque sensuum. virtus enim cogitativa est de genere virtutum existentium in corpore. ...licet igitur homo proprie habeat virtutem cogitativam, tamen hoc non facit hanc virtutem esse rationabilem distinctivam. Illa enim distinguit intentiones universales non individuales. et hoc fuit aperte dictum ab Arist. in illo libro. Virtus igitur distinctiva rationalis, si esset virtus in corpore, contingeret ut esset una istarum virtutum quatuor. quapropter haberet instrumentum corporale: aut esset alia virtus individualis distincta ab istis quatuor, sed iam declaratum est illic hoc esse impossibile. Et, quia Galenus existimavit quod virtus cogitativa est rationalis materialis, fecit ipsum errare in hoc locus consequentis quia enim virtus rationalis appropriatur homini, et cogitativa appropriatur ei: existimatur propter conversionem affirmativae universalis quod cogitativa est rationalis. et unus eorum, qui erraverunt in hoc, est Albelfarag Babylonensis, in suo commento in lib. de Sensu et Sensato." We have already explained the meaning of this "distinguit nisi individualiter" on p. 210 et seq. of this same chapter. It denotes the action

B. Its specific nature

I. The formal object of sensitive faculties in general

This gives us a rather lucid idea of what Averroes had in mind when he refers to the cogitative force. However, these details are only accidents; they may equal a nominal definition by which we may recognize and differentiate it from other internal senses but as such they do not render the essential aspect, the ultimate criterion for judging the distinctive character of our senses. All of our senses contain a twofold aspect: they are organic with a spiritual or immaterial counterpart. The organs of the exterior senses are intricate mechanisms designed to fulfill the unique purpose of hearing, smelling, seeing, etc. If the organ of the eye is impaired the individual ceases to see. The organ itself remains but its purpose for existence is flouted and the higher activity for which it was created no longer renders service to the individual. The organ itself is no asset to the individual, it is the activity emanating from its interior which is all important. We do not boast of having two organs called eyes, we boast of the sight they procure. Consequently, although we may know infinitely more

by which the cogitative force extracts the individual intention from its component image. The universal distinction effected by the intellect would be nothing more than the illuminative power of the agent intellect abstracting and universalizing its concepts. This analogy between the cogitative force and the common sense is not strange. We have already demonstrated that the cogitative force operates singularly well on both the intentions and the images combining and separating them, the peculiar prerogative of the common sense in face of the proper object of each of the external senses.

about the organical structure of the eye than about the nature of sight itself, the latter is immeasurably more revealing. We know the nature of our senses only indirectly through examining the nature of the activity they manifest. We know that the organ of sight is the eye because an injury to this delicate organism leaves us blind. This is an aposterioristic approach. Medical doctors, even today, are still confounded as to how the eye records and transmits its impressions to the brain to be later transformed into the objects we perceive. This natural miracle will never be solved in a medical laboratory. The scientist may take cognizance of the stimulus activating the retina and he may successfully trace the course of this stimulus through the divers nerves leading to the brain but even these advanced experiments fail to explain how this sensible stimulus becomes transformed into the visual perception of the book resting on my desk, for example. A complete adequate explanation will be wanting until the element of the spiritual or immaterial is brought into the investigation. Beyond the physical stimulus exciting the eye there is an immaterial influx by which the object becomes intimately fused with the faculty on a plane transcending the material or organical. Because of its degree of immateriality it defies an experimental analysis with instruments employed in the scientific laboratory but this does not impugn its vitalizing necessity and reality. It is by studying this inorganical infusion of the eye that we obtain a glimpse of its real nature. This second aspect may be studied indirectly by scrutinizing the eye's activity, its visual rendition. From an examination and analysis of the action of seeing we acquire a definitive know-

ledge of the power of sight.

The same indirect, aposterioristic method is employed to determine the nature of the internal senses. Organically speaking they are most probably diffused throughout the length and breadth of the brain contrary to the opinion of Averroes and the other Arabians who assign each faculty a special ventricle. Each of the internal faculties are interdependent but as is the case for the external senses which require a unique, separate mechanism or organ, this interdependence need not require that they be located in individual chambers of the brain. The organical counterpart of the memory or of the imagination because of the complexity of their actions could not be identified with any one cerebral nerve or network of nerves. Furthermore, these internal senses are superior to the external faculties; their organical needs are, consequently, not as compelling. Even if we could ascertain with scientific certitude that the imagination or cogitative force occupies a certain region of the brain, this knowledge would not present us with the essential element by which we could define and differentiate the two. To do this we must have recourse to the inorganical counterpart of the internal senses which manifests itself in the effusion of their respective activities. By studying this activity we come to learn the object of each faculty and by crystallizing this object the real nature of the faculty is discovered. Consequently, the final criterion for determining the distinctive character of the cogitative force is the object to which its action is ordained. The discovery of this object will lead us to its true nature.

II. The cogitative and the individual intention

Because the individual being is a composite of matter and form, it is altogether fitting that whenever it enters the intellectual soul via the senses that it be dissected in just this proportion. Consequently, the image of this individual being contains a subjective or material element (i.e., the outline of this figure or its lineation) and also a formal element (i.e., the intention of this figure or lineation).¹ This decomposition of the individual

¹Averrois, De Mem. et Rem., versio vulgata, fol. 195 vb, 5, p. 53: "...in formis enim ymaginabilibus est aliquid quasi subiectum, scilicet lineatio et figura, et aliquid quasi forma, et est intentio illius figure. Individuum enim extra animam, quia est compositum, accidit ei ut sit in anima secundum hoc..."; fol. 195 vb, 27, p. 55: "Quod igitur virtus ymaginativa comprehendit desubiecto est illud quod pictor describit in pariete. Et illud quod comprehendit virtus rememorativa est intentio illius picture; et ideo quod existit in rememorativa magis est spirituale quam quod in virtute ymaginativa." This comprehension of the memory must be understood in a metaphorical sense. It is actually the cogitative force which extracts the intention from the imaginative form and subsequently comprehends it. The memory has the sole function of preserving this intention.

Averroes' final conclusion that what exists in the memory is more spiritual than what exists in the imagination entails a provocative polemic. Between the spirituality of the intellect and the spirituality of the senses there is a sharp break. No one doubts that the intensity of spirituality consequent on the intellect suffices to warrant a completely distinct realm of knowledge from that of sensible cognition. But within the domain of sensible cognition itself, there is less conviction as to whether diverse degrees of spirituality prevail. This timidity hinges on the fear that if the senses themselves partake of varying degrees of spirituality, the notion of spirituality itself loses all semblance of a well balanced hierarchical order. Instead of proposing a neat line of demarcation between the spirituality of the intellect and that of the senses in general (as is proposed between the human intellect and the angelical intellect) we would, somehow, be necessitated to oppose the intellect to the senses taken individually. Hence, the problem would not be dismissed as easily as saying that the cogitative force is a sensitive faculty; hence, it is distinct from the intellect. It would remain to determine whether the degree of

being into its component parts assumes the aspect of a definition on the plane of sensibility. For this dichotomy attains the substantial principles constituting the nature of the sensible individual, and such a resolution is tantamount to a definition although confined to the realm of the senses.¹

Averroes partially amplifies this description of the individual intention which the cogitative force culls from the imaginative form. In fact, nowhere either in the De Memoria, the De Somno, the De Anima, the Colliget or any of his other treatises of our 1573-74 Venetian edition does he provide an adequate, satisfactory explanation of the signification and content of this individual intention. This reticence is indeed regrettable since with-

spirituality incumbent on the cogitative force justifies its classification among the category of senses since we presuppose that it differs both from the memory and the imagination.

We may find a solution to this question by examining the notion of spirituality itself. The pure conception of spirituality does not necessarily entail any imperfection. God's degree of spirituality is infinite and repudiates all imperfection. However, our conception of spirituality is partially negative inasmuch as we think of it in its remoteness from matter. A thing is spiritual insofar as it is immaterial; the farther removed from the material it may be the more its spirituality increases. Consequently, the less dependent a faculty is on its material counterpart, the greater becomes its degree of spirituality. This is a relative principle based on a positivo-negative concept. The positive constituent of the concept is matter, the negative is the negation of matter. Hence, the more pronounced hierarchical order of spirituality is not in the least undermined by admitting that the interior senses are of a higher degree of spirituality than the exterior senses or that the cogitative force is more spiritual than the imagination. If, de facto, the interior senses are less dependent on an organical mechanism than the external senses and if in like manner the cogitative force demands less assistance from the neurological components of the brain, it must necessarily follow that they are in a higher degree of immateriality.

¹Averrois, De Meml et Rem., fol. 195 vb, 38, p. 56: "Divisio autem est in definitione rei sensibilis, dum fuerit sensibilis."

out this knowledge we cannot fashion anything of a clear idea of the true nature of this faculty. This indigence probably would be dispelled if we could consult either his paraphrase or his middle commentary of the De Anima. In each one of these he may have sufficiently delineated the cogitative's intentional appurtenance and the jejune exposition which his major commentary contains may be nothing more than a deleted summation of these previous treatments. However, our plight is such that we must content ourselves with the sparse annotation Ibn Rochd has deigned to include in his major commentary. Actually, it will be the marvelous acumen of St. Thomas which will supply the discerning exegesis we require to fully explicitate this section. We will briefly record in this chapter the meagre words of Ibn Rochd and refer the reader to the general conclusion for a more satisfying interpretation.

ca Following an exposition of the proper object of the external senses, concerning which they enjoy an indefectible judgment incapable of error, Averroes passes on to the discussion of other things accidentally connected with their formal object. These are better known as accidental sensibles and in perceiving them the exterior senses are very liable to err. This entire passage deserves to be incorporated within the main body of this thesis:

Deinde dixit. Quod igitur est tale dicitur proprium, idest, sensibilia autem, quae inveniuntur alicui soli sensui, qui non errat in eis, in maiori parte dicuntur propria. Et, cum dixit, sed in colorato quid est, et ubi est: et in audito quid est, et ubi est, non intendebat quod sensus comprehendit essentias rerum, sicut quidam existimaverunt: hoc enim est alterius potentiae quae dicitur intellectus: sed intendebat quod sensus cum hoc, quod comprehendunt sua sensibilia prop-

ria, comprehendunt intentiones individuales diversas in generibus et in speciebus comprehendunt igitur intentionem huius hominis individualis, et intentionem huius equi individualis et universaliter intentionem uniuscuiusque decem praedicamentorum individualium. et hoc videtur esse proprium sensibus hominis. Unde dicit Arist. in lib. de sensu et sensato quod sensus aliorum animalium non sunt sicut sensus hominis, aut simile huic sermoni, et ista intentio individualis est illa, quam distinguit virtus cogitativa a forma imaginativa, et expoliat eam ab eis, quae sunt adiuncta cum ea ex istis sensibilibus communibus et propriis, et reponit ea in rememorativa. et haec eadem est illa, quam comprehendit imaginativa. sed imaginativa comprehendit eam coniunctam istis sensibilibus, licet eius comprehensio sit magis spiritualis: ut alibi determinatum est.¹

When the external senses apprehend their proper sensibles, they comprehend concomitantly the individual intentions of diverse genera and species. In other words, they comprehend the intention of this individual man and the intention of this individual horse, and generally speaking the intention of every individual which can be classified as a real being. It is a sensitive faculty which apprehends this individual intention, a sensitive faculty proper to a rational being, however. This sensitive faculty is the cogitative or discriminative force which confides this individual intention, but not in the same manner as the cogitative force since it is restricted to its descriptive images immersed in sensible properties (i.e., the proper and common sensibles).

Several questions prick the mind as we scrutinize this passage. Is the intention of this individual man and the intention of this individual horse and the intention of any individual being denote

¹Averrois, De Anima, II, fol. 82 F, com. 63.

the individual being taken in its individuality? Is it the individual qua individual? If we were to let ourselves be guided by the expression "individual intention" which recurs often enough we might be quickly persuaded to accept the affirmative. Or is the intention of this individual man denote rather some aspect relevant to his individuality but not his individuality itself? Furthermore, what would be the significance of knowing this individual man in his individuality? If we give this man a name, let us say Peter, does not his individuality comprehend something which individualizes and sets him aside from all other men? It must, for Peter understood as an individual (not necessarily in the metaphysical conception of oneness consequent upon the idea of being) possesses certain qualities by which we may distinguish him for Anthony or Edward. Beyond personal characteristics Peter also possesses something common to Anthony and Edward, his human nature. But precisely because he is an individual he possesses this human nature as his own. It is a personalized human nature, it is Peter's and it belongs to him in his individuality just as much as his other accidental traits. Consequently, the inevitable question arises if the cogitative force apprehends Peter, (this individual man), in his individuality whether this includes the essence of Peter as well as his personal accidents. Immediately the adherent to Thomism repudiates such a thought. He would argue that it is the mind alone which intuitis the essences of things. For Averroes, too, the essences of things are known to the material intellect alone and he clearly rebukes those men who interpret this passage of Aristotle which he is commenting as if Aris-

totle had imbued the senses with the perception of essences. Yet, it does not solve our problem to simply dismiss the matter without further investigation. Averroes, realizing that the senses could not of themselves attain the essences of things, nevertheless endows the cogitative force, a sensitive faculty, with the perception of this individual man or this individual horse or, for that matter, any individual being through the medium of the external senses.

Yet, in so doing, Averroes does not assign this function to a sensitive faculty alone. He assigns it to a faculty imbued with reason, a faculty which he prefers to call a "human" faculty. Is this elevation or sublimation of the cogitative force sufficient to warrant what his individual intention seems to imply? Let us revert momentarily to the De Sompno et Vigilia to which he refers when he explains that human faculties although predominately sensitive like their counterparts in brute animals are, nevertheless, on a much higher plane. The following passage appears to be the point of reference:

Intentio enim, que comprehenditur per cogitationem, est spiritualis. Et hoc non accidit alicui animalium nisi homini, quia non habent intellectum, et tantum comprehendunt descriptiones et cortices rerum. Et signum eius est, quia transeunt per nocitium et non cedunt, et per utile et non querunt ipsum.¹

It is certainly a strong statement to assert that the intention comprehended by the cogitative force is spiritual. Of course

¹Averrois, De Sompno et Vigilia, versio vulgata, fol. 201 ra, 65, p. 80.

we must understand this superlative adjective in the manner Averroes is accustomed to using it. He frequently distinguishes all of his internal senses from the external by identifying their respective functions as varying grades of spirituality. He has no intention either here or elsewhere to completely transform any of his internal senses into intellectual faculties. However, the mere fact that he chooses to employ the term "spiritual" is emphasis enough to demonstrate his belief in their propensity and propinquity to the material intellect. But, although, this degree of spirituality may not be commensurate with that of the material intellect, it is of such a disposition to transcend the descriptions apprehended by this same faculty transplanted within brute animals. And the proof of this lies in the fact that whereas animals are motivated exclusively by the utilitarian or nocive character of the objects surrounding them to which they must act or react without choice, the human being may pass by objects either detrimental or favorable to his own nature and remain impervious to them. In other words, whereas the animal apprehends only those things which are either useful or beneficial for him, man apprehends these same objects under a spiritualized aspect surpassing these pragmatic considerations. But just how spiritual must the conception of a sensitive faculty be to rise beyond the descriptions of individual objects and yet remain distinct from intellection? St. Thomas later capitalizes on this doctrine and elucidates it by explaining that the animal apprehends an object simply as a point of action whereas man apprehends this same object "ut sub natura communi". By

reason of this "communal" view, the rational being is capable of perceiving this man precisely as this man and this line as this line, the individual intention already attributed to the cogitative force by Ibn Rochd. Consequently, we have deferred a more profound treatment of this problem to the general conclusion of this thesis where a critical examination of Averroes and St. Thomas is undertaken simultaneously.

How is this individual intention of Averroes to be reconciled with the elaborate process of memory and rememoration outlined by Avicenna? Averroes inserts this individual intention in the act of rememoration claiming that the cogitative or discriminative faculty must combine it with its component image before the individual is brought about to remember what he had momentarily forgotten. This is basically the same doctrine as that expounded by Avicenna who had enlisted the estimative's (i.e., the human estimative) intention to complete an act of rememoration. But Avicenna's intention of the exterior object was a relative value: it hinged on the compositive and divisive convolutions of his cogitative force. His estimative faculty did not immediately and spontaneously extract its intention from the formative's images as Averroes implies. These images had to be conditioned and prepared by the comparative analysis initiated and supervised by the cogitative force. And when the estimative force finally apprehended its intention, this perception remained essentially the same as that apprehended by the brute animal's estimative force, i.e., the utility or nocivity of the exterior object. In our study of Ibn Sina we uncovered three

distinct types of perception proper to the estimative force. We easily identified the first in relation to the human soul. The two others were illustrated exclusively with examples taken from the brute animal kingdom but despite this we extended them to the functional mechanism of the human soul with the results that the human estimative force did not probe any deeper into the exterior object than the animal's estimative force. In other words, both faculties were limited to the perception of the superficial accidents of the exterior object, its nocivity, beneficence or utility. We were forced into this position through an analysis of Avicenna's intricate act of rememoration. For if the intention apprehended by the human estimative force did not resolve itself into an appreciation of the utility or nocivity of the exterior object, the restoration of this same intention to its imaginative counterpart, incumbent on those who rememorate, would be inexplicable. But, although the human estimative force was constrained to the nocive or beneficent aspect of the exterior object, its apprehensions surpassed those of the brute animal by reason of the fact that the human cogitative force (which prepared the groundwork for these apprehensions) enjoyed a creative liberty foreign to the animal.¹

Strangely enough, Averroes retains the mechanical operations involved in recollection previously announced by Avicenna. He specifies that the intention must be restored to its image from whence it was extracted in order for recollection to be complete.

¹Cf. supra, chapter 2, p. 97 et seq.

Yet, by investing this intention with a new meaning, a more profound interprid content reaching beyond the utility or nocivity of the object, he immediately alters the complexion of this act...to what extent we cannot divine since Averroes himself never fully explains or exemplifies what he understands by rememoration. He repeats incessantly in his De Memoria et Reminiscentia the functional movements of each faculty involved in this operation but he never once supplies the concrete example which would immediately clarify the meaning of these actions. In fact, his reduction of the act of rememoration into four different movements oversimplifies the doctrine of Avicenna and suggests to the reader that the image and the intention of the image immediately reappear when evoked by their respective retentive powers. On the contrary, Avicenna found it necessary for his cogitative force to instigate numerous comparisons within the cofferes of the imagination and the memory to resuscitate the forgotten image or intention. In my estimation, Ibn Rochd never did fully comprehend the meaning of these movements involved in recollection. His profound respect and admiration for his predecessors compelled him to reproduce their doctrine as faithfully as he knew how. What appears in his De Mem. et Rem. and in his De Sompno et Vigilia as a closed system possibly originated by himself is in reality a stinted summation or recapitulation of his predecessors, especially Ibn Sina.

It has benn demonstrated that the contents of the individual intention proper to the Rochdian cogitative force transcends such pragmatic notions as utility, beneficence and nocivity which formed the object of Avicenna's human estimative force. Yet, Ibn Rochd

does not find it incompatible or incongruous to impose on this same faculty the power of evaluating concrete objects and selecting one in preference to another because of its superiority or convenience. Averroes transforms Avicenna's human estimative force with an intellectual transfusion but not to such an extent apparently that it is rendered incapable of fulfilling the same task allotted to it by Avicenna, that of determining the most convenient and the most beneficial thing to be pursued. He announces this task in his Colliget when he states that man employs this faculty to deliberate about those things which demand cogitation and choice so that by this deliberation the most convenient among these things may be selected.¹ If this same statement were transferred to Avicenna's Sextus Naturalium it would immediately be understood in reference to the cogitative's inventive genius. For Avicenna postulated that his human estimative force was completely dependent on the groupings, regroupings, associations and dissociations --- in the course of which numerous fictive images could be created --- of the cogitative force in order to apprehend the things most beneficial to the human individual. However, this statement would pertain exclusively to the cogitative, not to his estimative force which is responsible for the perception itself. The Rochdian cogitative force is a combination of both of these faculties. Consequently, it is to that same faculty which passes by things unaware of their inner nocive or useful potentialities that Averroes attributes this utilitarian func-

¹Cf. supra, same chapter, p. 200, note 1.

tion. Evidently, here again is an obvious case where he accepted the doctrine of Avicenna without mature reflection or ponderate understanding but simply on the basis of the latter's prestige.

III. The cogitative and cogitation

Cogitation is the prerogative of the rational soul. Animals who lack an intellect do not cogitate. What is this cogitation in the eyes of Ibn Rochd? Is it synonymous with the lucubrations of the inventive imagination as Ibn Sina maintained? Strangely enough it is not. Averroes forwards an original explanation to account for this activity. In his major commentary of the De Anima he stipulates that this cogitation proper to man is replaced in animals with the imagination. But to choose one imaginative form in preference to another, to elect to adopt one thing and not to adopt another is the work of cogitation, not the work of the imagination. To judge and decide that one imaginative form is more perfect than another is the task of that faculty which necessarily enumerates these images considering the most delectible among them. This enumeration, Averroes continues, is similar to the act by which unequal numbers are compared and classified in the order of their inequality so that the highest number may be easily recognized and distinguished from the rest. Thus in the process of cogitation we enumerate various images and we compare these images and we compare these images with each other and from this comparison we consent to adopt the most perfect, the most convenient among them.¹

¹Averrois, De Anima, III, fol. 198 B, com. 57: "Dicit, et imaginatio exsistit in aliis animalibus, cogitatio autem in rationali-

This explanation of cogitation appears to differ somewhat from the two notions or two distinct operations we have previously recognized, viz., the cogitation attending the act of rememoration and the cogitation identified, more or less, with the creative imagination. This type of cogitation consists mainly in an enumeration designed to unearth the most beneficial course or image to be pursued in order to attain the goal we have aimed at. Averroes insists that the cogitative is the faculty of enumeration, that is to say, it multiplies or juxtaposes a series of images with the view of comparing them and pursuing the most favorable among them. What does this multiple enumeration entail? Does it presuppose that all the possible images already exist intact within the retentive imagination and that on a moment's notice they all reappear to be scrutinized by the cogitative force? Hardly. The cogitative force in enumerating these images as imminent paths to be selected according to their inherent qualities must "create" or invent a number of them which the retentive imagination could never have previously known. This image invented by the cogitative force does not necessarily have to be in discord with reality. For example, a young man contemplating a trip from Ottawa to Montreal will unquestionably have to decide on the mode of transportation. If he has never

aut.

bus. Eligere enim facere hoc imaginatum et non hoc, est de actione cogitationis, non de actione imaginationis. Iudicans enim quod hoc imaginatum est magis amabile quam hoc, debet esse eadem virtus de necessitate, quae numerat imaginationes. et in quibusdam iudicat magis delectabilius. Et hoc intendebat, cum dixit et numerat ipsum unum de necessitate. et est secundum quod reputo, et necesse est ut ista virtus numeret illas imagines, donec comprehendat ex eis magis maiorem. Similiter cogitatio numerat imagines, et comparat inter eas, donec possit pati ab imaginatione alicuius earum."

conceived of flying there by plane, his retentive imagination could not very well suggest that possibility. It would be left to his cogitative force (according to Averroes) to conceive or invent this type of travelling and to meditate on its practicality and its other advantages. Thus, we may indirectly reduce this type of cogitation or enumeration to the creative resourcefulness Avicenna's cogitative force so artfully displays.

But is it sufficient for the Rochdian cogitative force to enumerate these imaginative forms and to compare them with each other to determine their advantages? Averroes offers the analogy of the inequality of numbers. Is this analogy adequate? I am inclined to doubt it. The inequality of numbers is a quantitative affair; one number is greater than another because of its relative value. In other words, the number 2 is greater than the number 1 because it is twice the value of number 1. But the enumeration of imaginative forms and the judgment that one image is superior to another or that one image possesses more advantages than another is a qualitative judgment. It is based on the inherent qualities of each individual image independent of the other. In other words, to revert to our adopted example, the young man can consider the merits of flying to Montreal without ever conceiving of driving there in an automobile or walking there or thumbing there or taking a train. And even if he does compare the luxury of a plane trip with other possible modes of travel and after this comparison elects to take a plane, this choice stems from the intrinsic advantages the plane has to offer qua plane, not the comparative advantages it has because it is not a train or because it is not an automobile. In other

words the advantage of travelling by plane must be debated within the perspective of the plane itself. We do not have to have recourse to the automobile or the train to discuss the distinctive merits of an aeroplane. The aeroplane is not a number. Its value does not depend on the value of the automobile or the train. Consequently, it requires more than an enumeration or comparison of a possible number of images in order for the cogitative force to select one in preference to another. The cogitative force must know the plane qua plane. It must somehow understand the essence of the plane in its singularity. For to know the advantages this plane has to offer is tantamount to knowing the plane in its constituent being, that by which it is a plane. Immediately the sincere Thomist revolts. It is only the mind which perceives the essences of things, the senses are limited to the accidents of the exterior object. This objection will be discussed to some length in the general conclusion. For the moment, we will be content in recognizing the logic of this argument. If Ibn Rochd insists that it is the cogitative force which takes cognizance of the individual things we choose, he must somehow demonstrate that a sensible faculty imbued with intellection discerns the individual essences of things.

IV. The cogitative and two final points

Another point remains to be discussed. What is the nature of this "judgment" and comparison by which the cogitative suffers itself to be moved by some individual image? Certainly it could not be a judgment in the intellectual sense of the term since Ibn Rochd

explicitly reserves this action for the intellect. Averroës does not reply to the question. If we are to be guided by his¹ wishes expressed elsewhere we must presuppose that he is consistent and the usage of the term, judgment, in this particular instance is strictly metaphorical.¹

Avic² Averroes concludes this exposition by clarifying the meaning of "estimation". He states that estimation is a consent evolving from a previous meditation or cogitation. That is to say, it would be the consent by which the individual being chooses to accept one special image and put aside the rest. Consequently, only the rational animal possesses this estimation. Brute animals since they are lacking in reason cannot cogitate and since they cannot cogitate they cannot estimate. Their movement is determined purely by the motivation of delectation and for that reason their movements are uncomplicated and constant. They are repelled by what displeases them and attracted to what appeals to their taste of delectation.²

6. Conclusion

To sound a final note of conclusion at this moment would be premature. When the question of the nature of the individual intention has been properly weighed in the general conclusion itself we will be in a better position to pass judgment on Averroes. In summing up this chapter, we may note the profound influence Avicenna

¹Cf. supra, p. 214, note 1.

²Averrois, De Anima, III, fol. 198 C, com. 57 and also fols. 193 B, com. 48 and 197 D, com. 56.

exerted. A cursory glance at each of their classifications of the internal senses evidences a number of divergences on the basis of which we might be prepared to deny anything but the remotest relation between the two. However, we have ascertained that even the most radical innovations introduced by Averroes are permeated with Avicenna's doctrine. Above all, the Rochdian cogitative force, our primary interest, has been shown to be firmly enracinated in Avicenna's internal senses. We may successfully compare it to the plant or flower which belongs to the horticulturist on whose land it is planted but below the surface of the ground its roots point directly the source of its nourishment without which it could not have emerged from the soil. In this chapter we have probed beyond the surface of the soil and we discovered that the roots of Averroes' cogitative force pointed directly towards Avicenna.

CHAPTER VI

GENERAL CONCLUSION

A general conclusion is not intended to be a recapitulation of the entire body of the thesis. It is intended to pounce on the predominant theme and to sum up the exposition and development of this point. Our preoccupation during the breadth of this thesis concerned the cogitative force as it was conceived and treated by each Arabic philosopher before it arrived in the doctrine of St. Thomas. Consequently, this summation will confine itself to the evolution this particular faculty underwent in the Islamic world and will briefly include its transition into the Occident in the system of St. Thomas.

We traced this faculty back to the treatise of Alkindi, the "de somno et visione". He identified cogitation with the creative skill of his formative force. For him cogitation was nothing more than the unhampered power of creating what the external senses never experienced or witnessed directly. Without this power no human being could ever attain the vision of prophetic and divine things hidden to the external senses. In other words, he was less concerned with the products of this inventive imagination than he was with its sheer power of being able to mould into tangible forms those things hidden to the external senses.

This conception of cogitation reappears in the doctrine of Alfarabi who describes one of his internal faculties which cooperates with reason as capable of directly operating on the impressions retained within the imagination. Through this operation it can re-

arrange and regroupe these impressions in any manner it chooses. By so doing, of course, strange unrealistic constructs would inevitably be formed.

Avicenna in his turn adopts this same conception of cogitation. But by a minute investigation of his doctrine and through the exegetic guidance of St. Albert we were able to determine the purpose of this creative license. It existed for Avicenna merely as an inescapable condition for the preparation of the matter from which the human estimative force could extract its intentions of utility, nocivity and beneficence. So much so that he maintained that even animals possess a certain amount of this compositive and divisive action. Not to the same degree as the rational animal, of course, since they are incapable of fashioning imaginative constructs imperceptible to the external senses; but, at least in a sufficient manner to insure them a fruitful and active participation in the complex operation Avicenna called an experience.

Beside this conception of cogitation we uncovered another function Avicenna attributed to this faculty. He extended its compositive and divisive activity to the interior of the memory in which the intentions culled by his human estimative force were preserved. Hence, his cogitative force not only combined and separated imaginative forms amongst each other it combined and separated forms with intentions and conversely intentions with forms. This second operation constituted an integral part of the movement of remembrance or recollection. It constituted the investigation which was designed to recapture either the form or the intention depending on which had fallen into oblivion. This second function of the

Avicennian cogitative force enlisted in its service the first function already explained. In other words, this retrospective investigation or research intended to resuscitate the forgotten form or intention could not be properly executed without the aid of a faculty uninhibited by conventionalities and indifferent to the true forms and configurations of individual things, viz., the creative freedom of the cogitative, its first function. Furthermore, Avicenna explicitly defined this compositive and divisive action which juxtaposed forms with intentions as a movement proceeding from the known to the unknown.

Prologning our investigation into the doctrine of Averroes we discovered that he preserved these two main roles of Avicenna's cogitative force delegating his own cogitative force to fulfill them. We also took cognizance of the fact that he could not possibly have fully understood the second function of Avicenna's cogitative force although he apparently invested his own faculty with the same role. Averroes isolates the action of composition from the action of division attributing the latter to the manner by which the cogitative force conceives its individual intention and relegating the former to the part the cogitative plays in recollection. We had previously demonstrated that Avicenna understood these two actions in a complimentary sense positing them both as the indispensable conditions for the apprehension of the intention and for its subsequent remembrance.

It became evident, also, that the Rochdian cogitative force comprised two of Avicenna's internal senses, namely his human estimative power as well as his cogitative power. Not having Averroes'

two earlier commentaries of the De Anima we could not ascertain his reasons for contracting these two distinct functions into one faculty. Certainly, it was not his ignorance of Avicenna which caused him to adopt this view since a perusal of his Colliget disclosed a faithful reproduction and understanding of his predecessor's doctrine. He never explicitly states that his cogitative force accomplishes in the rational soul what the blind instinct (which he identified with the animal's imagination) fulfilled in the animal's. But the mere fact that his cogitative determines what is most convenient for each human individual is sufficient evidence to infer that he assimilated the task of Avicenna's human estimative power within the operation of this cogitative faculty. This consolidation finally erupts in the manifold duties St. Thomas' cogitative force exhibits.

The paramount problem which has repeatedly beset us throughout this thesis has been the determination of the contents of the "intention". It was called by Avicenna the insensate intention to underline its remoteness from the imagination, common sense and external senses. By Averroes it was called the individual intention to denote the individuality of its makeup. Neither of these adjectives successfully convey the adequate explanation we have been seeking.

In the case of Avicenna, we were able with some degree of satisfaction to gauge the depth of its significance. Approaching the question from the perspective of the brute animal he made of this intention a pragmatic, purposive seizure by which the animal was necessitated to either pursue or flee the exterior object due

to its utility or nocivity. He distinguished three stages in this intentional seizure: 1) that which corresponds to the instinctive activity of the animal, 2) that which evolves through experience, 3) that which the animal apprehends by the similitude of things. Without basically altering this conception of the insensate intention he transferred it to the human estimative force so that even man appears to be endowed with a faculty which apprehends the nocive and the beneficent qualities of the exterior object on these same three levels without interference from the intellect. Taking extreme precaution to preserve this pragmatic conception of the intention we presented a more ample explanation and exemplification of it in the chapter entitled, Peter Hispanus. In the case of Averroes we were not so successful. Unlike his predecessors he minimizes the problem of the animal instinct completely ousting the estimative from the animal as well as the human soul without simultaneously banishing the activity which had been assigned to each by Avicenna. He did not visualize the problem of the individual or insensate intention in terms relevant to the animal's estimative; he explains it exclusively in relation to the human soul. Rather than run the risk of misinterpreting his all too curt exposition of the contents of this intention, we elected to enlist the exegetical assistance of St. Thomas. With such an unwavering light as our guide, the possible margin of error should be greatly diminished.

Averroes' Parva Naturalia (which he prefers to call the De Sensu et Sensato, the first treatise in this group) as well as his De Anima was made available to the latin Scholastics of the

thirteenth century by Michael Scott.¹ It was principally from the latter commentary that St. Thomas acquired his conception of the cogitative force. There is ample testimony throughout his works to substantiate this. As early as 1254 there is evidence that St. Thomas must have consulted Averroes' major commentary of the De Anima. In his "Commentum in quattuor libros Sententiarum magistri Petri Lombardi", Averroes is explicitly cited in regards to the cogitative force:

Ad tertium dicendum quod passivus intellectus, de quo Philosophus loquitur, non est intellectus possibilis, sed ratio particularis, quae dicitur vis cogitativa, habens determinatum organum in corpore scilicet mediam cellulam capitis, ut Commentator ibidem dicit; et sine hoc anima nihil modo intelligit; intelligit autem in futuro, quando a phantasmatibus abstrahere non indigebit.²

A short time later in the composition of his "Contra Gentiles", St. Thomas again acknowledges Averroes as the source of his doctrine concerning the cogitative force:

Dicit enim praedictus Averrhoes, De anima, III, quod homo differt specie a brutis per intellectum quem Aristoteles vocat passivum, qui est ipsa vis cogitativa quae est propria homini, loco cujus alia animalia habent quandam aestimativam naturalem. Hujus autem cogitativae virtutis est distinguere intentiones

¹Aristoteles Latinus (codices descripsit Georgius Lacombe; corpus philosophorum medii aevi; La Libreria dello Stato: Roma, 1939), p. 106, nos. 111 and 112-115.

²Divi Thomae Aquinatis, Opera Omnia, (studio ac labore sac. Stanislai E. Fretté; 33 vols.; apud Ludovicum Vivès: Parisiis, 1874), Commentum in Libros IV Sententiarum, dist. 50, quaest. 1, art. 1, ad 3^{um}, vol. XI-XII, p. 556a. Notice in this text that St. Thomas attributes the passive intellect to the "Philosopher", i.e., Aristotle. In so doing, however, he must be basing himself on the statements of Averroes.

individuales et comparare eas ad invicem, sicut intellectus, qui est separatus ex immixtus, comparat et distinguit inter intentiones universales; et quia per hanc virtutem simul cum imaginativa et memorativa praeparantur phantasmata ut recipiant actionem intellectus agentis a quo fiunt intelligibilia in actu, sicut sunt aliquae artes praeparantes materiam artifici principali, ideo praedicta virtus vocatur nomine intellectus et rationis, de qua medici vocatur nomine intellectus et rationis, de qua medici dicunt quod habet sedem in media cellula capitis; et secundum hujus dispositionem virtutis, differt homo unus ab alio in ingenio et in aliis quae pertinent ad intelligendum; et per usum hujus et exercitium acquirit homo habitum scientiae; unde habitus scientiarum sunt in hoc intellectu passivo sicut in subiecto; et hic intellectus passivus a principio adest puero, per quem sortitur speciem humanam, antequam actu intelligat.¹

It is not the proper place here to develop these passages and to compare them with what we have been able to ascertain in the chapter of Averroes. Suffice it to say that St. Thomas was well acquainted with Averroes' major commentary of the De Anima from which he transplanted the Rochdian cogitative to his own psychological terrain. Without further ado let us proceed to the De Anima where St. Thomas describes more fully what he understands by these "intentiones individuales" which this faculty distinguishes and compares.

These individual intentions are apprehended by the estimative faculty in brute animals and by the cogitative in rational

¹D. Thomae Aquinatis, Contra Gentiles, lib. II, cap. 60, in principio (ed. Vivès, vol. XI-XII, p. 180b). Cf. also cap. 73, p. 197, no. 3; De Veritate, quaest. X, art. 5, corpus art. (ed. Vivès, vol. XIII-XIV, p. 551); quaest. XIV, art. 1, ad 9^{um} (ed. Vivès, vol. XV-XVI, p. 46; Quaestio disputata unica de spiritualibus creatoribus, art. IX (ed. Vivès, vol. XIII-XIV, p. 45 b)).

animals. But each of these faculties apprehend these individual intentions differently. The cogitative apprehends the individual as existing under a common nature (ut existens sub natura communi) which is made possible through its association with the intellect in the unity of the same subject. Therefore the cogitative knows this man as this man and this line as this line. The estimative, on the other hand, does not apprehend the individual as existing under a common nature but only insofar as it is a point of action or passion. Thus the estimative of the sheep does not know the lamb as this lamb but simply as a point of action, something to be pursued, something delectable.¹

A wealth of knowledge lies in this paragraph. In these few phrases, St. Thomas demonstrates forcibly enough the fundamental line of demarcation by which the rational soul is distinguished from the brute animal. Let us probe a little further into this passage in order to plumb it exhaustively. The animal apprehends

¹Divi Thomae Aquinatis, In Aristotelis libro de Anima commentarium (editio secunda; cura ac studio P. F. Angeli M. Pirotta, O.P.; ex officina libraria Marietti: Taurini, 1936), lib. II, lect. 13, n. 398, p. 138: "Differenter tamen circa hoc se habet cogitativa et aestimativa. Nam cogitativa apprehendit individuum, ut existens sub natura communi; quod contingit ei, inquantum unitur intellectivae in eodem subjecto; unde cognoscit hunc hominem prout est hic homo, et hoc lignum prout est hoc lignum. Aestimativa autem non apprehendit aliquod individuum, secundum quod est sub natura communi, sed solum secundum quod est terminus aut principium alicujus actionis vel passionis; sicut ovis cognoscit hanc agnum, non inquantum est hic agnus, sed inquantum est ab ea lactabilis; et hanc herbam, inquantum est ejus cibus. Unde alia individua ad quae se non extendit ejus actio vel passio, nullo modo apprehendit sua aestimativa naturali. Naturalis enim aestimativa datur animalibus, ut per eam ordinentur in actiones proprias, vel passiones, prosequendas, vel fugiendas."

a thing as an evil or as a good, nothing more. In other words, the dog does not apprehend this bone as a bone, it apprehends a bone as something delectable, a delectation; the lamb does not apprehend the wolf as a hungry wolf or even as an evil wolf but rather simply as an evil object, an evilness; the bird does not apprehend the piece of straw as a useful piece of straw but simply as a useful object, a usefulness. These things which form the object of the animal's estimative force do so under the unique formality of nocivity and utility. Wherefore, St. Thomas concludes, if there are any individual objects to which the animal's estimative force does not have an immediate relation of nocivity or utility, it cannot apprehend these.

This conclusion at its face value and in view of the action ascribed to the estimative force is inescapable. Even the wide variety of actions which our dog manifests, its ability to adapt itself to the numerous situations arising in its life, its ability to recognize its master's voice, face, personal odor, etc., may be reduced to these two pragmatic qualities of utility and nocivity. For, actually all the other sensations of which the animal is capable such as delectation and physical harm may be reduced to these two capital points. Avicenna has already demonstrated how this is accomplished. By associating the pain derived from sticks and stones with these objects themselves, the dog comes to regard them as evil. In the final analysis, the dog does not know that these sticks and stones are sticks and stones or that they are capable of inflicting pain; it simply knows that these objects are harmful. Similarly, the dog by associating the delectation derived from a

piece of raw meat with the meat itself comes to know the meat as a useful object; it does not know that this object is meat or that it is delectable but simply that it is useful.¹

As we have seen, Avicenna conserved this principle of utility and nocivity within the human estimative force. By describing the human estimative force exactly as he had conceived the animal's estimative force he posited in man a faculty capable of perceiving the useful and the harmful element of the exterior object. The only practical example he offers to illustrate this conforms to the animal's immediate apprehension of a thing as either harmful or beneficial, i.e., the first mode of estimation. The other two modes of estimation, i.e., that by experience and that by association, he illustrated exclusively with examples pertaining to the animal kingdom. However, we felt justified in inserting a plausible example of the two latter modes taking extreme precaution to retain this vital pragmatic note of utility and nocivity. Since he taught that the rational animal possessed a human estimative force and he insisted in the first mode of estimation in proving that it served the human individual in the same manner as the animal's estimative force by "instinctively" apprehending the harmfulness or the beneficence within the exterior object it became clear to us that in transferring this faculty to the human soul he had not altered the nature of its perceptive content. We disproved his theory that such actions as the inadvertent closure of the eyes

¹Cf. supra, chapter 2, p. 106 et seq.

in face of imminent danger could not be traced to the estimative force's presence within the human soul. In this passage just quoted, from the De Anima of St. Thomas, there is unmistakable proof to disprove the additional two modes of estimation understood exclusively in terms of utility and nocivity associated with the propitious or injurious sensations of the body.

This will become clearer by taking the example of the spoon. The animal can never know more about the spoon than what it is capable of associating with the effects it has on its senses. If a spoon is used to feed a dog, for example, the dog may come to know the spoon as a useful or harmful object depending on whether the dog responds favorably or unfavorably to the taste of the food. Again, the dog may come to know the spoon as a harmful object if its master insists on rebuking it or punishing it with the spoon. Thus the dog associates the pain derived from the spoon with the spoon itself and eventually judges that the spoon is harmful. Retaining the same example and transferring its application to the human soul we would be obliged to limit man with this meagre knowledge of the spoon if we accepted Avicenna's conception of the human estimative force. Thus the human individual would know nothing more about the spoon than what his capacity for sensation would tell him. True, within the limits of Avicennian psychology, the human soul would be capable of dissecting the spoon in a number of ways surpassing the animal's capacity. The creative ability of the human cogitative force permitted the individual to distort, decompose and associate the spoon with any number of things. But if these analytical comparisons do not rise beyond a knowledge bearing

on the harmful or useful quality of the exterior object, this composite and divisive decomposition of the spoon does not and cannot be perceived in its essential individuality qua spoon. The human estimative force, if it is constrained to knowing simply that this spoon is nocive or beneficial by associating it with the pleasant or obnoxious effects it produces on our sensitive faculties; cannot ever come to know that this object is a spoon and not simply a usefulness or a harmfulness. But the fact remains that we do know the spoon qua spoon; we do know that this object lying within our hand is a spoon and that it is not simply a useful object. This is the gist of St. Thomas' argument. Whereas the animal knows the spoon simply as a point of action or passion depending on whether the spoon is discovered as pleasant or unpleasant, the human being knows the spoon qua spoon: the essential element of the spoon. This knowledge he describes as that by which the cognitive force knows the individual as existing under a common nature.

In the first level of sensorial perception the external senses and the common sense divest the external object of all the proper, common and accidental sensibles which fall within the scope of their formal object. Thus the complex image of the exterior object contained within the imagination includes all these accidental characteristics of the spoon such as its size, shape, color, magnitude, taste, form, its oneness, its motionless, etc.¹ When these qualities have been conveyed to the imagination by the common sense, the soul is ready to commence its second degree of

¹Cf. supra, chapter 4, p. 151, for a more complete exemplification of this first level of sensorial perception.

sensorial perception under the surveillance of the estimative (for Avicenna) and the cogitative (for St. Thomas). Up to this point, the exterior object may be as accurately and as elaborately transcribed in the animal's soul as well as the human's. The dog may have the image of a spoon which is of such a form, such a color, such a feeling, such a figure, etc. But the second level of sensorial perception is not the same for each. The animal apprehends this complex image as being either useful or nocive, nothing more; the human being apprehends this same complex image "ut existens sub natura communi", this spoon qua spoon --- contrary to Avicenna's assumption that the human estimative force apprehends the spoon qua nocive or beneficent. Such are the terms that St. Thomas has chosen to employ. What is the exact significance of this expression "ut sub natura communi"? What does it mean actually to assert that the cogitative apprehends the spoon qua spoon or this man precisely as this man? The answer to these questions will provide us with the formal object of the cogitative force.

"De facto" we know that the object which we hold in our hands is a spoon. We know that it is cold, that it is metal, that it is comparatively light along with its other proper and common sensibles. But beyond this, we know that it is a spoon. It is not simply a harmfulness (if someone chooses to use it as a weapon), it is not either simply a beneficence (if it provides us with nourishment), it is a spoon: it is an implement for conveying food to the mouth. The vital point remains to be determined, however: which of our faculties apprehends this spoon as an implement for conveying food to the mouth? Briefly, which of our faculties perceives that this ob-

ject is a spoon? Unquestionably, this apprehension probes beyond its superficial characteristics; it grasps its essential element, its substance, its nature. Consequently, the logical solution would be that only the intellect is capable of perceiving that this object is a spoon. For no sensitive faculty can perceive the essence of things. Each sensible faculty is constrained to the accidental qualities of the object by reason of its immersion in matter. Only a faculty as immaterial as the intellect can grasp the essence of things. Such is the orthodox doctrine of St. Thomas and of Avicenna and Averroes for that matter. But there is one vital point which makes this logical conclusion questionable. The intellect by reflecting on the phantasm does know that this object is a spoon but only after it has ascertained what a spoon (any spoon) is. Hence, where did it originally obtain this knowledge? The object of the intellect is the universal and not the individual. It knows the individual only indirectly through reflection. Consequently, how could the intellect ever know that all spoons are impliments for conveying food to the mouth until it could determine that at least one spoon, this spoon, is such an impliment? Furthermore, when the intellect reflects on the phantasm comprising all the accidental traits of the spoon it does not know this spoon as this spoon but rather it knows this spoon as a spoon. Consequently, the objection remains: how did the intellect come to know that this object is a spoon in the first place? By abstracting this idea from the phantasm? Certainly. But here we must distinguish. If we presuppose that the contents of the phantasm contains nothing more than the proper, common and accidental sensibles of the spoon,

the intellect could never attain this idea that a spoon (any spoon and every spoon) is an impliment for conveying food to the mouth. The intellect does not know the individual directly. Hence, by abstracting from the individuality of the spoon, the intellect immediately prescind from this concrete spoon. By doing so it precludes the possibility of knowing that this individual object is a spoon (i.e., an impliment for conveying food to the mouth). Such being the case, it could never conclude that a spoon is an impliment for conveying food to the mouth. If the intellect derives its knowledge from individual things, we must presuppose to be consistent that it cannot know that a spoon (hence, any spoon) is an impliment to convey food to the mouth prior to knowing this capacity in one individual spoon. And since it cannot know the individual directly, it could not possibly derive this knowledge from a phantasm which contains nothing more than the accidental traits of the spoon. (And it cannot be argued, neither, that it derives this knowledge by reflecting on the phantasm since we have already pointed out that this reflection presupposes that it already has a precise conception of a spoon).¹ Consequently, the phantasm must con-

¹Cornelio Fabro, "Knowledge and Perception," The New Scholasticism, XII (1938), p. 352: "It is clear that by means of the data of introspection my apprehension of a singular substance is immediate and the object treated of does not imply a reflex intervention of the intellect. The concrete substance can be called therefore 'sensible', and this holds good in a particular way in the 'homistic position which denies that the intellect apprehends immediately the concrete singular. But on the other hand it is just as clear that sensibility in man can achieve this, not inasmuch as it is the sensibility of the given animal, 'man', that is, of an animal in which sensibility touches the level of intelligence." The underlining is my own. C. Fabro is well aware that if the intellect cannot apprehend immediately the concrete singular that some other faculty, preferably a sense faculty must accomplish this. Furthermore, since

tain an element of the spoon which simultaneously pertains to its essence (not necessarily universal since the essence of a thing may be concretized) and does not transcend the realm of individuality. This element must be the knowledge that this spoon is an impliment conveying food to the mouth; it is a knowledge of the spoon qua spoon; it is the perception of this spoon precisely as this spoon; it is the individual spoon recognized "ut existens sub natura communi". This is the second degree or second level of sensorial perception proper to the cogitative force. It is the preliminary perception without which the intellect could never possibly adduce any idea. But immediately the objection crops up in the mind, even if the phantasm does contain an element of the spoon's intimate substance in its individualized state, the intellect still cannot know that this object is a spoon (since it cannot know the individual directly) and hence it cannot know that a spoon is an impliment for conveying food to the mouth. And the problem would still remain to determine how it acquires this knowledge. The objection overlooks the entire purpose which the phantasm serves in offering the material element from which the agent intellect abstracts the universal idea. This phantasm of the spoon contains its proper, common and accidental (i.e., accidental must be understood here as regards the proper object of one external sense being accidental to the proper object

the intellect cannot apprehend the concrete singular immediately it cannot, therefore, apprehend the substance of this individual. Hence, it becomes incumbent on this same sense faculty which perceives the individual immediately to perceive simultaneously the individual's substance or essence.

of another) sensibles plus its individualized essence, perceived precisely as such by the cogitative force. The spiritualizing illumination by the agent intellect merely relieves this phantasm of its individual element. When this is accomplished the phantasm (the essence of the individual spoon) is universalized and infused into the possible intellect. The content of the phantasm is essentially the same as that of the concept apprehended by the intellect; what differentiates them is their respective individuality and universality. When I state that the content of the phantasm is essentially the same as that of the concept apprehended by the intellect, this must be understood cognitively and formally. The cogitative force judges that this complex imaginative form is an impliment for conveying food to the mouth (i.e., that this is a spoon), the intellect judges that a spoon (any spoon, all spoons) is an impliment for conveying food to the mouth. Subsequent to this knowledge it can reflect on the accidental qualities of the spoon contained within the phantasm and recognize that this complex imaginative form is the incarnation of a spoon.¹

¹Julien Péghaire, C.S.Sp., Regards sur le Connaître (Fides: Montréal, 1948), p. 358: "La formule thomiste, 'la cogitative et l'imagination préparent le phantasme à devenir plus facilement intelligible en act' peut s'entendre de deux façons. La première: une fois le phantasme reçu dans l'imagination, celle-ci, avec la collaboration de la cogitative, agirait sur lui, le disposerait à recevoir de l'intellect agent un influx, grâce auquel le phantasme intelligible en puissance, serait transformé et mis en acte d'intelligibilité. La seconde: le phantasme est d'autant plus apte à devenir intelligible en acte que l'organe de la cogitative et de l'imaginative dans lequel il est reçu, est plus parfaitement disposé. La première glose est totalement à rejeter, déclare le Ferrarais. Comment en effet concevoir que le phantasme, entité matérielle, constituée par et dans une faculté organique, puisse se transformer, pour ainsi dire, en quelque chose de spirituel? Il faut

This is pure Thomistic doctrine. St. Thomas was well aware of the problem of how our intellect contrives to abstract its ideas from the phantasm elaborated by the external and internal senses. Moreover, he was well aware that unless we possess a sensitive faculty which somehow perceives the "universal" immediately in the individual, the intellect could never derive an abstract idea from the senses:

Qualiter autem hoc unum accipi possit, manifestat consequenter. Manifestum est enim quod singulare sentitur proprie et per se, sed tamen sensus est quodammodo etiam ipsius universalis. Cognoscit enim Callian non solum in quantum est Callias, sed etiam in quantum est hic homo, et similiter Socratem in quantum est hic homo. Et exinde est quod tali acceptione sensus praexistente, anima intellectiva potest considerare hominem in utroque. Si autem ita esset quod sensus apprehenderet solum id quod est particularitatis et nullo modo cum hoc apprehenderet universalem naturam in particulari, non esset possibile quod ex apprehensione sensus causaretur in nobis cognitio universalis.¹

donc se rabattre sur le second sens." This passage shows more than anything else why the inestimable role of the cogitative force apprehending the individual essence of things has been so long ignored. How is it conceivable that an organical faculty can transform a thing to a higher degree of spirituality, a degree which is more compatible with the illumination of the agent intellect? Yet, this is precisely what is required of the cogitative force before the agent intellect can "universalize" the contents of the phantasm. St. Thomas as well as Averroes whom we shall presently see, realized that the phantasm is a construct of the cogitative force as well as of the imagination and perhaps pertains more properly to the former. The cogitative force does render the phantasm more spiritual but not without overstepping the boundaries of materialism. This individual intention or individual essence grasped by the cogitative force is a fusion of spirituality and materiality. It is simultaneously both. It is the lowest ebb of spirituality and the highest peak of materiality. Without this previous preparation of the cogitative force on the phantasm, it could never become intelligible in act, not even after the illumination by the agent intellect.

¹D. Thomae Aquinatis, Opera Omnia (16 vols.; ex typographia Polyglotta: Romae, 1882), Commentaria in Aristotelis libros Posteriorum Analyticorum cum synopsis et annotationibus Fr. Thomae Mariae Zigliara, lib. II, cap. XV, lect. 20, vol. I, p. 14, p. 402 b; Zig-

without mincing words, St. Thomas recognizes in his imperturbable manner at the end of this passage that if the "sensus" apprehended solely what is particular and in no manner whatsoever attained the "universal nature" in its particularity, it would be impossible for a universal idea to be transmitted from the senses.

liara in an explanatory footnote entitled, "sensus est quodammodo etiam ipsius universalis" emasculates this profound truth of all its meaning: "Ergo eo ipso quod sensus attingit singulare in concreto, attingit aliquo modo etiam universale, non quatenus formaliter est universale, sed quatenus in singulari est universale; et eo ipso quod singulare est praesens animae, etiam universale est praesens, non quidem formaliter et in ratione cognoscibilitatis, sed materialiter et in ratione realitatis, quatenus realiter est in singulari. Habetur autem universale formaliter et praesens praesentia cognitionis, quando ab intellectu consideratur praeter illum singulare. Sed ex his manifestum est quod non posset universale considerari praeter singulare in quo est, si sensus non exhiberet in singulari ipsum universale." His interpretation of this statement that the "sensus" does not know the "universal" within the singular formally but only materially insofar as the singular "de facto" contains the universal element still leaves us with the problem of how the intellect extracts its universal idea from this singular which it cannot know directly. Even though the universal idea of humanity is actually present (in an individualized state) in the representation the phantasm possesses of Peter, the intellect cannot possibly attain this idea of humanity until it is somehow previously known that this individual, Peter, is human. This knowledge must be formal, not merely material and since the intellect cannot know the individual immediately it falls on some sensitive faculty to formally recognize that Peter is human (i.e., to formally recognize the essence of Peter in his individuality). Zigliara like so many scholastics places too much emphasis on the illumination of the phantasm by the intellect. Too many exponents of St. Thomas solve the problem of the transition of extramental reality from the phantasm to its elevation as a universal idea by summarily insisting that it is the agent intellect which effects this passage. St. Thomas provides a more conclusive answer. He maintains that it is a sensitive faculty (the cogitative force) which formally perceiving the "universal" in the individual, which is tantamount to saying that the cogitative force perceives the individual qua individual, provides the previous data without which the illumination of the agent intellect would be ineffacious and impotent.

What an exiguous statement and yet, what a profound truth! If the phantasm contained solely what is particular, the illuminative action of the agent intellect would have nothing to abstract since the particular itself repudiates abstraction and universalization. Hence, the phantasm must contain a universal element. How? St. Thomas explains how in the first part of this passage. He states that it is manifest that what is singular is sensed properly and "per se" but that the "sensus" (in the perception of the singular) must somehow attain the universal itself. He then describes how this "universal" is attained immediately in the singular by distinguishing two modes of knowing the singular. Callias, an individual being, may be known in his singularity in two manners: 1) as he is Callias, i.e., a being with the name of Callias, weighing 180 pounds, having a dark complexion with sharp, piercing eyes, etc.; 2) as he is this man and similarly Socrates may be known as he is this man. The former remains on the level of accidental qualities, the latter penetrates the essence of the individual. To know that Callias and Socrates are each human is tantamount to knowing the nature of each. This intuition by the "sensus" of the individual's essence is what St. Thomas understands by the "sensus" perceiving the "universal" in its individuality and singularity.

I have been placing "sensus" and "universal" in quotations for a special reason. This "sensus" cannot be any other faculty than the cogitative force. We have already seen in the De Anima that it is the cogitative which perceives the individual qua individual, that it perceives this man precisely as this man, the same expression

employed here.¹ Secondly, this "universal" is ambiguous. The notion of humanity, for example, is indifferent to a universal or individual existence. If such were not the case, the notion of humanity would have to exist either individually (in which case it would repudiate a universal state) or universally (and conversely it could not be individualized). Hence, when the "sensus" or cogitative force perceives that Callias is human by perceiving that Callias is this man, it formally comprehends humanity in its individual existence. But the fact remains that the cogitative force perceives humanity, that which is susceptible of later being universalized by the action of the agent intellect. In this fashion it perceives the universal in the singular, not the universal qua universal (i.e., it does not know what humanity itself is) but the universal qua individual. It apprehends in a particular manner that which is capable of existing in a universalized state. St. Thomas could have avoided this momentary confusion by substituting essence or nature for the term, universal.²

¹There can be no doubt of this when we recall the words of St. Thomas himself: "et per usum hujus et exercitium acquirit homo habitum scientiae; unde habitus scientiarum sunt in hoc intellectu passivo sicut in subjecto; et hic intellectus passivus a principio adest puero, per quem sortitur speciem humanam, antequam actu intelligat." Cf. supra, p. 257. When we realize this, we can appreciate properly the tremendous value this cogitative faculty renders the intellect in the words of Averroes: "Intellectus quidem operativus differt a speculativo, per diversitatem praeparationis existentis in hoc intellectu", i.e., the passive intellect. Cf. supra, p. 227, note 1.

²In case it may have escaped the reader, I would like to make an important distinction. The quest which has been undertaken in this thesis to determine the nature and activity of the cogitative power and the manner in which it contributes to the material from which our ideas are culled, must be carefully segregated from the psychological problem of how something material is transformed into

Is this then, what Averroes understood by the expression, individual intention? Would he have consented to substituting the term, intention, for the term, essence, using individual intention and individual essence interchangeably? In our analysis of this individual intention in the chapter devoted to Averroes we concluded that if Ibn Rochd insists that it is the cogitative force which takes cognizance of the individual things we choose, he must somehow demonstrate that a sensible faculty imbued with intellection discerns the individual essences of things.¹ The conclusion is inescapable. If the cogitative force knows the individual qua individual it must somehow penetrate into the individual's nature. To know Peter or Paul or this horse in their individuality is to know not only their personal traits but moreover to know that Peter is a man, Paul is a man, this horse is an animal. The cogitative force does not know that Peter is part of humanity or that this horse is only a part of animality, for this faculty does not appre-

the immaterial. The derivation of our ideas may be examined from two angles. If we consider how something material, the exterior object, is capable of infusing an immaterial faculty we are obliged to posit an agent intellect, then a material or possible intellect and afterwards explain how this fusion of the material and immaterial occurs bringing in the question of the impressed and expressed species. This could probably be called the psychological derivation of universal concepts since it is about the only aspect of the problem which receives any consideration today. Aside from this we may ponder how the intellect abstracts its ideas by examining the content of these ideas and comparing them with the content of the phantasm; by explaining methodically how the material content of an idea, such as the idea of man, evolves within the phantasm and eventually becomes crystallized within the mind; such would be the problem of the derivation of the primary principles of art and science. This latter treatment could be called the phenomenological derivation of universal concepts.

hend universal notions such as humanity or animality. However, if it knows Peter as an individual, it is obliged to know him precisely by the elements which make him to be Peter. These elements include his nature as well as his personal characteristics. To know that this is Peter it is necessary to know more than that this individual is 5'6", has blond hair, is wearing a blue suit, walks with a slight limp. All these things are Peter certainly, but they do not constitute the sum total; Peter is also a human being. He is this human being no doubt, but more than anything else he is a human being. Hence, to know Peter in his individuality by reason of the fact that he is individual, it is absolutely necessary to apprehend the essence of him.¹

¹To avoid confusion, it may be well here to distinguish four ways of knowing the individual: 1) Intellectually: a) By knowing the essence of individuality, i.e., such as the definition that an individual is that which is indistinct in itself and distinct from other things; b) inasmuch as the individual is the accidental object of the intellect, i.e., Peter is known under the universal element of humanity as partaking of this idea; hence, Peter is known as being a man; 2) Sensitively: a) Peter is known as a composite of his personal traits by which we distinguish him from another individual (this knowledge may be reduced ultimately to the common sense insofar as all the exterior senses which perceive the proper and common sensibles of Peter are rooted in the common sense); hence, Peter is known as being of a white complexion with blond hair, wearing a blue suit, etc; b) Peter is known under the individual element of humanity by which we distinguish him from the species of animality such as is found in the horse (this knowledge is proper to the cogitative force); hence, Peter is known as being this man. If Peter in his individuality is taken in the sense of 2a, surely this excludes his human nature for that by which Peter is Peter and not Paul may be summed up in his personal characteristics. Furthermore, if his human nature were one of these personal characteristics, it would be different from the human nature of Paul and the two would pertain to two different species. If Peter in his individuality is taken in the sense of 2b, we cannot exclude his human nature from his individuality. True, Peter's human nature is identical with Paul's by reason of its essential constituency, but inasmuch as it is Peter's human nature and not Paul's it forms an integral part of

How is this to be reconciled with Averroes' statement that it is only the intellect which intuites the essence of things? Must we suppose that Averroes is inconsistent? Or must we suppose that this individual intention after all represents an aspect of individuality which is strictly accidental? Averroes does not partake in either of these suppositions. His individual intention is the exterior object viewed in its individual essence. In his Colliget he explicitly substitutes essence for intention: "et tunc invenit virtus imaginativa habitudinem illius essentiae particularis, quae est recordata a reminiscibili, et cognita ab aestimativa."¹ In his

his individuality. Hence, to know Peter in his individuality qua individual in this manner entails a knowledge of his essence, not his essence known universally (which is the proper work of the intellect) but his essence known individually. Hence, the contents of our phantasm for which the agent intellect abstracts the universal idea contains two major aspects of Peter. It is a complex image of Peter grasped by the external senses under the supervision of the common sense by which we know Peter to have a white complexion with blond hair, wearing a blue suit, exhaling an odor of shaving talc, walking with a slight limp, etc. All these traits are the common and proper sensibles perceived by the external senses. To know Peter in this fashion we do not have to possess a special faculty since it is the mutual task of all the exterior senses to apprehend these qualities. This is part of the phantasm which could very well be called "Peter" (for even Peter's name belongs to this group); it is only another one of his personal accidents). Besides being a complex image of Peter, the phantasm is a representation of Peter's individual essence, his human nature individualized. Moreover it is not only a representation of his individual nature materially, but also formally for the cogitative force apprehends formally that Peter is a man (i.e., rational). This is part of the phantasm which could very well be called "Paterness". The entire difference between the first (2a) and the second (2b) is this. To know Peter as a composite of a number of individual traits is to know him as he is individual but not under the formality of individuality; to know Peter as "Paterness" is precisely to know him in his individuality qua individual. As such, Peter is not only distinct from Paul by reason of his oneness which is rooted in his materiality, he is moreover, this human being.

¹Cf. supra, p. 188, note 1. In this statement, he must be quoting Avicenna since he describes this "particular essence" as be-

De Mem. et Rem., he proposes a remarkable explanation of the "division" by which the cogitative force extracts this individual intention from the proper and common sensibles which constitute the content of the imaginative form. He states that this "division" is equivalent to defining a sensible thing taken in its sensibility:

"Divisio autem est in definitione rei sensibilis, dum fuerit sensibilis."¹ A definition of anything connotes its essence since it determines that by which a thing is what it is. Again, reverting to the passage in the De Anima where he undertakes to expose the nature of this individual intention, he ascribes to it the diverse genera and species of things: "comprehendunt intentiones individuales diversas in generibus et in speciebus".² One cannot attain the genus or species of a thing without ascertaining its nature or

ing apprehended by the estimative force. Averroes, as we have seen, replaces Avicenna's human estimative force with his own cogitative power. If this is the case, this brief utterance provides probative evidence that Avicenna assigned to his human estimative force a perceptive knowledge transcending that of the animal's. If the Avicennian human estimative force intuits the individual essences of things, it is in a more legitimate position to assist the intellect in the procurement of science as he claims in one place of his De Anima. Cf. supra, p. 118. However, there is no justification for this in his De Anima itself. As we have seen, his explanation of the first mode of estimation in respect to the human estimative force retained the same pragmatic, utilitarian percept as that of its counterpart in the brute animal. In the same manner as the animal's estimative power, it was described as functioning spontaneously without a purposive knowledge of its action. Cf. supra, p. 97 et seq. To be consistent, we extended this same notion of the human estimative force to his second and third modes of estimation. Thus, it became apparent that the human estimative faculty remained essentially the same as the animal's.

¹Cf. supra, p. 235, note 1.

²Cf. supra, p. 237.

substance. Finally, in the De Sompno et Vigilia he recognizes that this individual intention possesses a cognitive content which transcends the mere notions of utility and nocivity attributed to the animal's instinct, a content which surpasses the mere descriptions of things: "Intentio enim, que comprehenditur per cogitationem, est spiritualis. Et hoc non accidit alicui animalium nisi homini, quia non habent intellectum, et tantum comprehendunt descriptiones et cortices rerum."¹ Here also, we have the explicative reason why the cogitative force can perceive the essence of things: it is a human faculty; it is under the jurisdiction of the intellect. And from this association with the intellect it becomes more than just a sensitive faculty; it is partially elevated to the realm of the intellect; it participates in the intellect's activity. Averroes repeats again and again that this cogitative force is called the passive intellect by Aristotle. Hence, although it remains true that a sensitive faculty as such cannot perceive the essence of things, the cogitative force is no ordinary sensitive faculty, it is not a sensitive faculty "tout court"; it is a human faculty. Being a human faculty it participates to some extent in the rational nature of the intellect (to be human means to be rational). To underline this aspect, Averroes does not hesitate to call it an intellect although it is only a passive instrument of the human soul not requiring anything more than the presence of the exterior object to actuate it.

¹Cf. supra, p. 239.

At the same time we can understand why Galen and a certain Albelfarag Babyloniensis could confuse this passive intellect with the material or possible intellect. If both comprehend the the essence of things, it is remotely conceivable that one as well as the other belongs exclusively to the intellectual realm. With methodical sollicitude Averroes rebukes these two philosophers by his insistence that the cogitative or passive intellect "distinguishes" (i.e. extracts the individual intention from the imaginative form which comprises the sum total of the proper and common sensibles of the exterior object) individually whereas the intellect proper "distinguishes" universally (i.e. extracts the universal idea from the phantasm). The cogitative force may comprehend the essence of things but this essence does not cease from being individual and particular. It is only the intellect which can comprehend the universal essence of things¹.

We can well understand also why the material intellect could not possibly comprehend anything without the previous action of the cogitative force. The material intellect exists apart from the individual and it knows things purely in their universal and abstract natures. These universal natures are abstracted from the phantasm by the agent intellect but not before the cogitative force separates or extracts this individual intention from its component image. In fact, although the phantasm is a composite of the imaginative form (the complex image of the proper and common sensibles) and this individual intention,

¹Cf. supra, p. 230.

it is the latter which properly speaking constitutes the material from which the agent intellect abstracts the universal idea. The illumination of this phantasm has only one purpose, that of universalizing it to the degree whereby it may be comprehended by the material intellect. The only element in this phantasm which can be elevated to a degree of spirituality consonant with the altitude of universality is the individual intention, the individual essence of the exterior object. The individuality of this essence is cast aside by the agent intellect and the essence itself immediately becomes universalized. The mere fact that the agent intellect ignores everything which is wholly individual excludes that part of the phantasm which is a representation of all the incidental and particular qualities of the exterior object (i.e. the proper and common sensibles, the image of the intention)¹. Furthermore, the material intellect could not obtain the essence of a thing (since it is confined to the universal) prior to the knowledge of the essence of this thing. It could not know that man is a rational animal prior to knowing that this man (Peter) is a rational animal. If universal ideas are acquired from the singular, they must also be preceded by the singular. Hence, there must be a faculty apprehending the individual essence of things preceding the intellect's caption of these same essences. This faculty is the cogitative force. And, as Averroes clearly states, the agent intellect cannot abstract its universal intention until this same faculty has extracted its

¹Cf. supra, p. 228, note.

individual intention.

St. Thomas was well aware of this precedence of the individual essence. In his inimitable, clairvoyant manner he explains the limits of intellectual and sensitive cognition:

Nunc ergo restat ostendere, ubi separatur cognitio sensus et intellectus a se mutuo. Manifestum est enim intellectum incipere ubi sensus desinit. Sensus autem exteriores ipsa sensibilia accidentia, communia scilicet et propria, habent pro suis per se objectis. Quidditas autem rei particularis in particulari non spectat ut per se objectum ad illos sensus exteriores, cum quidditas ista substantia sit et non ~~accidens~~, nec ad intellectum pertinet ut per se objectum ejus propter suam materialitatem. Ideo quidditas rei materialis in ipsa sua particularitate est objectum rationis particularis, cujus est conferre de intentionibus particularibus, loco cujus in brutis aestimativa naturalis est; quae potentia per sui conjunctionem cum intellectu, ubi est ratio ipsa quae confert de universalibus, participat vim collativam: sed quia pars sensitivae est non abstrahit omnino a materia. Unde objectum suum proprium manet quidditas particularis materialis.

He states that it is manifest that intellection commences where sensation ends. Following this he subdivides the various types of sensation. The external senses have for their proper object the accidental, common and proper sensibles. With this he dismisses all the accidental qualities we apprehend from an object, the first level of sensorial perception. Immediately he proceeds to the second level of sensorial perception, the quiddity of particular things understood precisely in their particularity. Such a quiddity does not enter into the proper object of the external senses since this quiddity is substantial and not accidental, neither does it pertain essentially to the

¹D. Thomae Aquinatis, Opera Omnia, (25 vols.; typis Petri Fiaccadori: Parmae, 1865), opusculum 25, De Principio Individua-

intellect since it is material. Hence, the quiddity of a material thing taken under its formality of individuality is the proper object of the "particular reason" another name for the cogitative force.

This is a magnificent summation of the cogitative force. It immediately underlines its two apparently contradictory extremes. The senses cannot apprehend the essence of things precisely because of their materiality which restricts them to the accidental structure of the exterior object. Consequently, they cannot possibly apprehend the individual quiddity of material things. The intellect, on the other hand, is spiritual, and precisely because of this remoteness from matter it cannot apprehend the individual quiddity of material things either. This individual quiddity comprehends two elements which make it impossible for the external senses, on the one hand, and for the intellect, on the other, to comprehend directly. These two elements are its character of substantiality and its character of materiality. By reason of its substantiality it would immediately be leagued with the intellect and by reason of its materiality it would immediately be associated with a sense faculty. But when these two

tionis, vol. XVI, p. 329 a. Martin Grabmann accepts this opus-
cule as an authentic work of St. Thomas but he gives no date of
composition. Cf. Martin Grabmann, Die Werke des hl. Thomas von
Aquin (Beiträge zur Geschichte der Philosophie und Theologie des
Mittelalters; Band XXII, Heft 1/2; Aschendorffsche Verlagsbuch-
handlung: Münster Westf., 1949), p. 342. Gallus M. Manser O.P.,
also accepts this opusculum as authentic and he gives its date of
composition as early as 1255. Cf. Gallus M. Manser, O.P., Das
Wesen des Thomismus (3rd edition revised by P. Wyser, O.P.; Pau-
lusverlag: Freiburg in der Schweiz, 1949), p. 22.

elements are inextricably cemented to each other they repudiate comprehension by either. The paramount problem is not whether the cogitative force can comprehend an individual substance but whether the intellect can comprehend a substantial form immersed in matter and individuality. To effect this comprehension there is required a faculty which simultaneously partakes of rationality or intellection (in order to comprehend the substance of individuals) and sensation (in order to perceive this substance in its individuality, in its materiality). The only faculty which fills this bill is the cogitative force: it is a rationalized sense faculty, insofar as it is rational it attains the essence of material things, insofar as it is sensitive it attains this essence immersed in its individuality. Furthermore, not only does intellection commence where sensation ends, intellection would be impossible without this previous sensation. This is how this assertion must be understood. Unless we possess a faculty which grasps the essence of things in their individuality, we cannot pass onwards to the higher realm of intellection.

To further clarify this exposition he proposes an important distinction:

Hoc autem non est quod illa potentia apprehendat materiam in se, cum ipsa non possit sciri nisi per analogiam ad formam; sed quia collatio de materia in ordine ad formam per ipsam materiam individuatam spectat ad hanc potentiam; sicut considerare de materia in communi in ordine ad formam speciei spectat ad rationem superiorem.¹

¹D. Thomae Aquinatis, loc.cit.

Someone could erroneously deduce from this that the cogitative force apprehends materiality directly and essentially without reference to the substantial form. Matter, such as prime matter, possesses no form of its own right. It is a principle by which individual beings are constituted in their substantial nature. It does not exist apart from the individual and it cannot be known except in relation with the other formal principle comprising a being's substantial nature. Hence matter is not known directly, it is known indirectly as the negation of form. But it would appear that since the cogitative force apprehends an essence cloaked in its material individuality that it apprehends matter directly without relation to the substantial form. St. Thomas replies that this cannot be so. The cogitative force apprehends the essence of the individual being not the essence of the individual being's substantial principles. It is one thing to know that this individual, Peter, is a rational being and still another to know what rationality itself is. It is one thing to know Peter as an individual qua individual and yet another to know what individuality itself is. The one pertains to the particular reason, the other to the intellect. Consequently, the cogitative force deals with substantial forms as they are individualized by matter and thus it attains concrete matter in relation with the singular substantial form while the intellect considers the essence of matter itself (de materia in communi) in relation to the substantial form. Neither the intellect nor the cogitative

force know matter immediately without associating it with the substantial form.

Let us explain it another way. The cogitative force attains that matter which is the root of the being's individuality. That is to say, the cognitional perception of the cogitative force terminates in that matter which individualizes the substantial form. Actually, it attains this matter only via the individual substantial form but the fact remains that its cognitional perception attains the matter itself which individualizes the form. It does not attain this matter formally (i.e. cognitively) by which it could fashion an essential notion of matter. It is the intellect which knows matter in this light as a correlative substantial principle of the individual being¹.

¹This position of the individual essence which forms the object of the cogitative force gives us a vitally interesting insight into the principle of individuation. The fact is that this individual essence is individual and yet is not quantified. It is not quantified precisely because quantity is an accident, it does not enter into the substantial constituency of a thing. The problem then would arise, where does it obtain its individuality. Certainly not from the "quantitas determinata" actually informing it. Hence, although quantity may be a condition for individuality, it is not a condition which demands to be present actually within the individual. In the words of Cajetan, it would be more exact to state that it is "materia signata" and not "materia quanta" which is the principle of individuation. Hence, this individual essence is individual in every sense and its individuality stems from the material element which makes up a distinct part of this essence: not this matter actually quantified (materia quanta) but rather this matter understood as demanding a certain quantity in preference to any other (materia signata). Even though this material element of the individual intention is actually separated from the quantity which invests it in extramental reality, it still retains its capacity to be quantified (precisely by this particular quantity from which it is segregated). If

One vital point remains to be clarified. Does the cogitative force apprehend the individual intention ~~of~~ its own power or is this apprehension rather the essential object of the intellect occasioned by the former? Father Klubertanz senses this problem and decides in favor of the second alternative:

There are then two distinguishable kinds of activity of the cognizant sense: after the intellect has been actuate, and before. After the intellect has been put into act, it can direct, modify, and extend the activity of this sense -- this is the refluentia spoken of by St. Thomas, the reaction of the intellect upon and with the sense gives quite a reasonable meaning of the elevation of the latter power. But in the first acquiring of knowledge, this reaction is as yet impossible. Hence, at this stage, the cognizant sense acts only according to its proper functions: in virtue of its structure as an organic sense power, it apprehends the individual as individual, not immediately, but by a discursive movement in which the important moments are experimental perceptions of value (conveniens and nocivum). In virtue of its proximity to the intellect, this apprehension contains the natura communis actually but not cognitively. The common nature, though actually present, is only potentially intelligible; it is rendered actually intelligible by the agent intellect whose funct-

we were to insist that the principle of individuation is quantified matter, matter actually united with quantity to form an aggregate, it would be impossible to conceive of this individual essence which forms the object of the cogitative force. In the words of St. Thomas: "Illud ergo quod cadit sub ratione particulari, est hoc aliquid per naturam materiae; quod autem cadat sub sensu exteriori, est per quantitatem." Cf. op.cit., p. 309 b. What the particular reason perceives is the individual in its materialized nature, the external senses perceive the same individual in its quantified nature. The latter repudiates the notion of essence, for if Peter, for example, were to be constituted in his substantial nature by that which flows from his quantity, humanity would be the prerogative of Peter and there would be as many species as there are individuals. The former demands the notion of essence, for Peter, even in his individuality, does not cease to be a human being, which is his nature, his essence.

ion it is to "abstract".¹

To follow Father Klubertanz, we would have to deny that the cogitative force apprehends the individual essence of things until the intellect has been previously informed with the universal essence. And even subsequent to the intellect's cognitional infusion, the cogitative would not properly speaking attain the individual essence per se, as neither the external senses attain this insensate intention unless they do so in virtue of the intellect itself. This question involves the problem of the accidental sensibles. When a thing is perceived by a sensitive faculty which is beyond the scope of its proper object, it is considered as sensible only accidentally. Hence the sense faculty only perceives this object in virtue of some other faculty distinct from itself and, in some instances, more elevated than itself. Let us examine in detail this problem of the proper, common and accidental sensibles.

The proper sensible is that which is immediately and properly perceived by the external senses (i.e. such as the formal object of the eye is color). The common sensible is that which is mediately and properly perceived by the external senses also (such as the quality of figure and magnitude perceived by the eye through its formal object color).²

¹George P. Klubertanz, S.J., "The Internal Senses in the Process of Cognition", The Modern Schoolman, XVIII (1941), p. 29, 3rd note.

²Both the common sensible as well as the proper sensible is sensed properly by the external senses but the latter being that by which the external sense derives its specific nature

The accidental sensible is a little more complex.

For something to be an accidental sensible, first of all it must be extrinsic or fortuitous to that which is sensible per se; secondly, it must be perceived (at least accidentally) by the external sensitive faculty, otherwise it would not be sensible in any part; and thirdly, if it is accidental to the proper object of one external faculty it must be essentially perceived by some other faculty. Thus it must be essentially perceptible either to another external sense faculty, the intellect or the cogitative force (and in the case of the brute animal, the estimative force)¹.

With this introduction, St. Thomas announces the three distinct types of accidental sensibles along with the three conditions

it must follow that it enjoys a slight precedence. Cf. D. Thomas Aquinatis, De Anima, lib. II, lect. 13, n. 387, p. 136 (editio Marietti): "Quamvis autem sensibilia communia et sensibilia propria sint per se sensibilia, tamen propria sensibilia sunt propter per se sensibilia; quia substantia uniuscujusque sensus et ejus definitio est in hoc, quod est aptum natum pati a tali sensibili. Ratio autem uniuscujusque potentiae consistit in habitudine ad proprium objectum".

¹D. Thomae Aquinatis, De Anima, lib. II, lect. 13, n. 395, p. 137 (ed. Marietti): "Visio igitur quomodo dicantur per sensibilia, et communia et propria, restat videndum, qua ratione dicatur aliquid sensibile per accidens. Sciendum est igitur, quod ad hoc quod aliquid sit sensibile per accidens, primo requiritur quod accadat ei quod per se est sensibile, sicut accidit albo esse hominem, et accidit ei esse dulce. Secundo requiritur, quod sit apprehensum a sentiente: si enim accideret sensibili, quod lateret sentientem, non diceretur per accidens sentiri. Oportet igitur quod per se cognoscatur ab aliqua alia potentia cognoscitiva sentientis. Et hoc quidem vel est alius sensus, vel est intellectus, vel vis cogitativa, aut vis aestimativa".

without which none of them could be realized. The first accidental sensible is that which is perceived essentially one exterior sense faculty and accidentally by another; the second is that which is perceived essentially by the intellect and accidentally by some exterior sense faculty; the third is that which is perceived essentially by the cogitative force and accidentally again by some exterior sense faculty. Let us examine each in turn as St. Thomas develops them.

In the first type, one exterior sense faculty, viz., sight, perceives through its proper object (color) what transcends this object and furthermore what is proper to another external sense (i.e., sweetness): our gustatory faculty apprehends sweetness per se. Hence, the eye in perceiving a ripe, red apple perceives in this color something which properly belongs to the sense of taste, i.e., it perceives that this red apple is sweet. This perception fulfills the three conditions previously stipulated: it is accidental to the proper object of sight, despite this it senses (i.e., the faculty of sight) this sweetness and finally, it is perceived essentially by some other faculty.¹ However, this is not what St. Thomas understands as being fundamentally an accidental sensible. Truly, it is accidental to sight to perceive sweetness but the fact that the perception of sweetness still becomes a sensitive faculty, this accidental sensible still remains in the realm of

¹D. Thomae Aquinatis, loc. cit., "Dico autem quod est alius sensus; sicut si dicamus, quod dulce est visibile per accidens inquantum dulce accidit albo, quod apprehenditur visu, et ipsum dulce per se cognoscitur ab alio sensu, scilicet a gustu. Sed, ut proprie loquamur, hoc non est universaliter sensibile per accidens, sed per accidens visibile, sensibile autem per se."

sensation. Hence, this perception is not properly speaking accidental to sensation itself (i.e., the sensation of the exterior senses) and it does not merit the name, accidental sensible, for this reason. This distinction may be understood in the following scheme:

Sensible per accidens:

improperly understood: Both the accidental element (the first condition) and the essential element (the third condition) remain in the realm of sensation.

properly understood: The accidental element (the first condition) pertains to the sensation incumbent on the external senses, the essential element (the third condition) pertains either to intellection or to another sensation in a higher order.

In the second type, that which is accidental to the exterior sense must be perceived essentially by the intellect. But immediately St. Thomas adds that it is not everything which the intellect apprehends which can be considered as an accidental sensible. Only that which is apprehended concurrently with something that is sensed by some exterior sense faculty may be called an accidental sensible. He suggests the following example. When one sees someone else speaking or moving about, the intellect apprehends the notion of life which makes it possible for the eye to see this person "living".¹ St. Thomas insists on this concomitance because without it

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¹D. Thomae Aquinatis, op. cit., lib. II, lect. 13, n. 396, p. 138 (ed. Marietti): "Quod ergo sensu proprio non cognoscitur, si sit aliquid universale, apprehenditur intellect; non tamen omne quod intellectu apprehendit potest in re sensibili, potest dici sensible per accidens, sed statim quod ad occursum rei sensatae apprehenditur intellectu. Sicut statim cum video aliquem loquentem, vel movere seipsum, apprehendo per intellectum vitam ejus, unde possum dicere quod video eum vivere." X

the second condition would not be fulfilled. Only the intellect can apprehend the essence of life (the third condition), a notion transcending the proper object of sight (the first condition) but, nevertheless, we must be able to visualize or see this "life" before we can exclaim that we sense it accidentally (the second condition). This does not mean that the intellect acquires the universal notion of life by abstracting it immediately from the locomotion and speech we see present in some individual. It means precisely that while the intellect is considering the abstract notion of life concomitantly while the sense of sight sees an individual man walking and talking, this concomitance makes it possible for the eye to perceive that this man is living. Consequently, this perception is effected in virtue of the intellect.

In the third type, that which is accidental to the exterior sense must be perceived essentially by the cogitative force. The basic difference between this accidental sensible and the former is the individuality and universality of their makeup. In the former case, that which the external sense of sight perceived accidentally was a universal essence, in this case, it is an individual essence. Hence, when we see a colored thing and we perceive that it is this man or this animal, this perception is made possible by the cogitative force.¹ The eye perceives through its formal object

¹D. Thomae Aquinatis, loc. cit., "Si vero apprehendatur in singulari, ut puta cum video coloratum, percipio hunc hominem vel hoc animal, hujusmodi quidem apprehensio in homine fit per vim cogitativam, quae dicitur etiam ratio particularis, eo quod est collativa intentionum individualium, sicut ratio universalis est collativa rationum universalium." As a reminder to those who might be inclined to make of this cogitative force a spiritual faculty since it not only apprehends individual essences but is capable of collating these individual intentions in the same manner as the intellect

(the second condition) that this colored object is this man (the first condition stipulated) in virtue of the fact that this cognition is apprehended directly by the cogitative force (the third condition). Fortified with this exposition of the accidental sensible we are in a better position to judge whether the individual essence is apprehended by the cogitative force in virtue of the intellect in the same manner as the exterior sense, the eye, perceives an accidental sensible. But prior to coming to a conclusion, an enlightening commentary of this same passage by Cajetan will greatly facilitate our task.

The passage in question is the following one:

Iste igitur est etiam alius modus modorum secundum accidens, scilicet, quod accidit sensibus comprehendere differentias individuorum secundum quod sunt individua, non secundum quod sunt sensus simplices, sed secundum quod sunt humani: et praecipue differentiae substantiales, videtur enim quod comprehensio intentionum individualium substantiarum, de quibus intellectus consyderat, est propria sensibus hominis. Et debes scire quod comprehensio intentionis individui est sensuum: et comprehensio intentionis universalis est intellectus: et universalitas et individualitas comprehenduntur per intellectum, scilicet definitio universalis, et individui.¹

In this passage, Averroes is asserting that it belongs to the senses to apprehend the differences of individuals viewed in their individuality. Or, in other words, it pertains to the senses to comprehend the substantial differences of individuals, to penetrate

collates universal ones, St. Thomas immediately cautions the reader that this faculty is still organical: "Nihilominus tamen haec vis est in parte sensitiva; quia vis sensitiva in sui supremo participat aliquid de vi intellectiva in homine, in quo sensus intellectu conjungitur."

¹Averroes, De Anima, II, fol. 83 D, com. 65.

into their essential constituency. Not that the senses by reason of their sensibility are capable of this perception but it is due rather to the fact that they are located within a human soul. Furthermore, they do not attain this essence in its universality. It is the proper work of the senses to comprehend the essence individually just as it is the proper work of the intellect to comprehend the essence universally. To prove this he demonstrates that it is only the intellect which attains the substance of a thing in its universality, for to know what universality and individuality are in themselves (i.e., a definition of each) belongs to the intellect. Hence, the problem is whether the human senses apprehend the individual essence of things as an accidental sensible in virtue of the intellect or whether they apprehend it as their proper object. Cajetan provides us with the necessary distinction to solve the dilemma. In commenting this section, he raises the following doubt:

Circa divisionem sensibilis dubitatiuncula occurrit: an divisum sit sensibile absolute et in communi prout comprehendit sub se obiectum omnis virtutis cognoscitivae pertinentis ad partem sensitivam, an sit sensibile ut comprehendit in se tantum cognoscibile a sensibus exterioribus. Verba siquidem Aristotelis secundum translationem praecipue arabicam sonant sensibile absolute; et Averrois in commentis 64 et 65 hoc videtur tenere, dum exponit sensibile per accidens esse illud quod a nulla virtute sensitiva inquantum talis percipi potest, sed si percipitur a sensu hoc erit inquantum sensus ille erit coniunctus intelligenti....ideo Aristoteles absolute sensibile proferens de sensibile a sensu exteriori intelligi voluit. Averrois quoque non aliter intellixit, nec restrinxit sensibile per accidens ad perceptibile a cogitativa hominis; sed declaravit singularem modum quo aliquid dicitur sensibile per accidens, non solum quia accidit sensibili extrinseco, sed quia (etiam accidit) virtuti sensitivae cognoscere illud; unde in commento 65 ad denotandum utrumque modum accidentis dixit iste igitur est alius modus modorum secun-

um accidens scilicet quod accidit sensibus comprehendere differentias individuales...¹

The entire problem of whether an essence in its singularized state can be properly or only accidentally apprehended by a sense faculty may be reduced to this question: are the accidental sensibles to be understood strictly in regards to the external senses or are they to be related with the internal senses also? If the former is the case, only those perceptions which are incidental to the formal object of the external senses merits the name, accidental sensible; if the latter is the case, we must extend this phenomenon to the cogitative force: certain perceptions which would enter into its cognitional field would do so in virtue of the intellect (since it is the only faculty which is more elevated than itself). Consequently, the individual essence which enters into the scope of the cogitative force would do so only accidentally; actually the perception of the individual essence would be proper to the intellect alone. Or, to put it another way, if the perception of the individual essence is accidental to the cogitative force, an internal sense faculty, as well as to all the external senses, it must follow that it is accidental to every form of sensation and proper only to intellection.

Cajetan notes that in this latin translation of Arisitotle's De Anima taken directly from the arabic, the "Philosopher" relates all accidental sensibles to the external senses and that Averroes

¹Thomas de Vio Cardinalis Cajetanus (1469-1534) Commentaria in De Anima Aristotelis (Editionem curavit P.I.Coquelle, O.P.; 2 vols.; Apud Institutum "Angelicum": Romae, 1938), vol. II, pp. 168-169.

seems to abide by this practice also. However, he recognizes in the commentary of Averroes one exception to this rule. It appears that the apprehension of essences in their singular existence transcends completely the realm of sensation and that if the senses attain this perception they do so in virtue of their intimate connection with the intellect (which apprehends these individualized essences per se). Hence, the proper object of the cogitative force must be something other than the individual essence of things.

This interpretation of Cajetan is perfectly justified in view of the ambiguity of the term, "senses", which Averroes employs. If we understand this term, senses, to include all of the senses we have no choice but to accede to Cajetan's conclusion. For Averroes is discussing the problem of an accidental sensible and he distinctly states that it is accidental to the senses to comprehend the differences of individuals under the formality of their individuality: "accidit sensibus comprehendere differentias individuorum secundum quod sunt individua". On the other hand, if we understand this term, senses, to include strictly the external senses, it follows that the perception of individual essences is accidental to the external senses but not necessarily accidental to the sphere of sensation itself, i.e., not accidental to the cogitative force. It seems to me that "senses" must be understood as possessing this second connotation. Cajetan recognizes himself that Averroes treats the accidental sensibles after the fashion of Aristotle exclusively in relation to the external senses. We must not look at this assertion here as an exception. If this were not the case, the second assertion made by Averroes would be unintelligible. For immediately after

stating that the perception of essences in their singularity is accidental to the senses (i.e., the exterior senses), he asserts that this same perception is proper to the senses: "videtur enim quod comprehensio intentionum individualium substantiarum, de quibus intellectus considerat --- it must not be inferred that the intellect considers individual substances in their individuality since immediately following this statement Averroes explains that the object of the intellect is the universal intention, i.e., the universal essence or substance --- est propria sensibus hominis". From this point onward, despite the usage of the plurality of senses, he must be speaking of the cogitative force. In other passages of the De Anima he allots the perception of the individual intention to the cogitative force, not to the senses in general.¹ And in other passages he distinguishes the perception of the cogitative force from that of the intellect precisely in the same fashion as he does here to illustrate what is proper to the senses and what is proper to the intellect: "Et debes scire quod comprehensio intentionis individui est sensuum: et comprehensio intentionis universalis est intellectus". At any rate, there can be no doubt that St. Thomas makes the individual intention the proper object of the cogitative. As we have previously seen, the focal point for all accidental sensibles is the exterior senses; the only manner that

¹By the usage of the plural, senses, he may have in mind the imagination as well as the cogitative force. The imagination also perceives the individual intention but not in the same manner as the cogitative. Whereas the cogitative perceives the individual intention apart from the imaginative form from which it is separated, the imagination perceives this same intention immersed in its imaginative raiment.

the individual essence may be perceived accidentally is by one of the exterior senses. The cogitative force apprehends it formally and per se. The problem is not so much whether an organical faculty can apprehend the essence of things, as it is the impossibility for our universal intellect to comprehend the essence of an individual under the formality of individuality. Consequently, when Averroes adds that such a perception is possible to the cogitative force because it is a human faculty and when St. Thomas reaffirms this by maintaining that the cogitative participates in reason because of its propinquity to the intellect we must not interpret these statements to mean that it perceives the individual nature of things accidentally. The proper object of the cogitative force, contrary to Father Klubertanz's opinion, is the individual perceived "ut sub natura communi existens" before and after the intellect has been actuated. Hence, it attains the individual essence cognitively and formally.

Since Father Klubertanz denies this, he has to search for another apprehension which would be the formal object for this faculty. He decides that the "experiential perceptions of value (conveniens and nocivum)" would be its proper object. He adopts the same solution as Avicenna with the result that he falls in the same insupportable trap. The cogitative force does not apprehend a thing as a usefulness or as a harmfulness, this is how the animal's estimative apprehends things. The comprehension of the individual qua individual includes a value note of usefulness and harmfulness but not these qualities as such as would be the case if the cogitative did not apprehend the essence of things as Father Klubertanz affirms.

The whole question is occasioned, no doubt, by a passage in the "Quaestio disputata de Anima" of St. Thomas:

Ad perfectam autem sensus cognitionem...quarto autem requiruntur intentiones aliquae quas sensus non apprehendit, sicut nocivum et utile et alia hujusmodi. Ut ad haec quidem cognoscenda pervenit homo inquirendo et conferendo; alia vero animalia quodam naturali instinctu...unde ad hoc in aliis animalibus ordinatur aestimativa naturalis, in homine autem vis cogitativa, quae est collativa intentionum particularium: unde et ratio particularis dicitur, et intellectus passivus...¹

Here St. Thomas exclaims that the cogitative force perceives the useful and the nocive through enquiry and comparison whereas the estimative apprehends these qualities instantaneously without reflection. Unquestionably the cogitative like the estimative apprehends the useful and the nocive but with this major difference. The estimative in apprehending the exterior object knows this object as a usefulness or a harmfulness, a point of action or passion, nothing more. The cogitative force in apprehending the exterior object knows its individual essence and as such recognizes that this individual could be employed for such a use or again to inflict harm on something else. Reverting to the example of the spoon again, the estimative can apprehend the spoon only as a harmfulness or as a usefulness. But when the cogitative determines the essence of the spoon in its singularity and knows that it is this implement for conveying food to the mouth, it recognizes its purpose, its usefulness. When the cogitative perceives the essence of a gun, understood in its individuality, and knows that this object is a weapon

¹D. Thomae Aquinatis, Quaestio disputata de Anima, art. 13, vol. XIII-XIV, p. 120 b (ed. Vivès).

to destroy, again it recognizes its purpose, its harmfulness. To know the final object of a thing is tantamount to knowing its essence and at the same time this knowledge does not cease to be pragmatic. It is for this reason that Averroes could maintain that the cogitative force like the estimative force (but not in the same manner) is a perceptive faculty of evaluation despite the fact that its formal object surpassed that of the latter. It is only in the realization of this purposive percept that the little truth the philosophy of pragmatism contains may be justified.

Now the problem of whether the cogitative force can judge in the proper sense of the word, the problem which has made so many eminent Thomists tremble and adduce a slew of ingenious distinctions and contradistinctions, remains perfectly clear. St. Thomas realized that we do not apprehend the essential nature of things instantaneously. He realized that we do not apprehend the purpose or value of a spoon, for example, and hence, that we do not apprehend its individual nature simply by gazing at a spoon --- present day professors and expositors of Thomism create this impression by glossing over this problem with the reply that such an operation is effected by the agent intellect which abstracts the essence of things. He realized that an enquiry and an analytical comparison involving judgments precedes this perception of the essence. Accordingly he saw the necessity for the cogitative force to investigate, analyse, compare and even pass judgments before it apprehends its individual intentions. Does he not assert that it is the cogitative force which supervises and elaborates the "experimentum" from which our "prima principia"

are derived?¹ He plainly asserts that the cogitative force collates and judges: "componit et dividit" using the conventional formula by which we usually define a judgment.² And now that we know that the proper object of the cogitative force is the individual essence of things we can immediately discern that St. Thomas must have understood this formally and not merely materially or metaphorically. If we understand by a judgment a compositive and divisive action by which a faculty perceives that two extremes are identical or disparate, apprehending these two terms formally and cognitively, this action does not suppass the cogitative force. For the cogitative apprehends formally and cognitively the individual essence of things. That is why St. Thomas repeats over and over again that the cogitative collates individual intentions whereas the intellect collates universal ones. Probably the greatest reason why this simple fact has remained hidden to so many Thomists is the consistent usage of the term, intention, in place of the term, essence or substance or nature. In this, St. Thomas remains the faithful disciple of Averroes. But we must remember that Averroes does not concede a judgment to the cogitative. He reserved this action exclusively for the intellect proper. In this, St. Thomas without altering one iota of the wording of Averroes' doctrine, suppasses his teacher.

¹D.Thom.Aquinatis, In duodecim libros Metaphysicorum Aristotelis expositio (cura et studio P. Fr. Raymundi M. Spiazzi, O.P.; Marietti: Taurini, 1950), lib. I, lect. 1, n. 15, p. 8: "Supra memoriam autem in hominibus proximum est experimentum, quod quaedam animalia non participant nisi parum. Experimentum enim est ex collatione plurium singularium in memoria receptorum. Hujusmodi enim collatio est homini propria, et pertinet ad vim cogitativam quae ratio particularis dicitur: quae est collativa intentionum individualium, sicut ratio universalis intentionum universalium."

²Julien Péghaire, S.S.Sp., Regards sur le Connaitre, pp. 340-344.

At best, this exposition of St. Thomas' doctrine is a very sketchy resumé. We had originally undertaken to investigate the import of the cogitative force in the Islamic world in order to enhance and facilitate a comprehension of the doctrine of St. Thomas. In this general conclusion we find ourselves resorting to St. Thomas in order to comprehend the position of the Oriental Philosopher from Cordova. This seems like a contradiction at first sight. My only reply to this is that "*causae sunt ad invicem causae*". St. Thomas guided us in forming a conclusive appraisal of Averroes, but we could never have understood the former without encountering the numerous doubts which arose in the course of our investigation of the latter. We now bring this thesis to a close with the hope that the additional light shed on the cogitative will transmit an impetus and an incentive to other scholars to probe a little deeper into its paradoxical nature. For, truly, if we knew with certitude that the organ of the cogitative was located in the vertex of the brain, it would be only fitting in the administration of the sacrament of Extreme Unction to anoint the top of the head in place of the forehead:

Videtur quod non debeat fieri linitio chrismatis tantum in fronte. Quia vertex est nobilior pars corporis quam frons, quia ibi est organum cogitativae, hic autem organum phantasiae.¹

¹D. Thomae Aquinatis, Comm. in IV Sententiarum, dist. 7, quaest. 3, art. 2, ad lum, vol IX-X, p. 172 (ed. Vivès).

SPECIAL APPENDIX

Peter Hispanus, Scientia libri de Anima (edition of Manuel Alonso, S.J.), tract. II, cap. 5, fol. 9^v, col. 1, p. 99 et seq.: "Interiores vero virtutes apprehensive sunt quinque: sensus communis, ymaginatio, ymaginativa, estimatio et memoria. Virtutum enim interiorum quedam suam exercent apprehensionem circa formas sensibiles que per se cadunt in sensum, sicut sunt color, odor, et relique. Quedam vero circa intentiones per se in sensum non cadentes set cum formis sensibilibus concurrentes, ut sunt amicitia, inimicitia, et cetera virtutum. Item interiorum quedam apprehendunt primo et principaliter; que in sua apprehensione adquirunt noticiam formarum que rei sensibili per se accidunt, ut per se aspectu intimo recipiant cognitionem rerum per se sensibus particularibus obiectarum. Quedam vero apprehendunt secundo; que in sua apprehensione adquirunt noticiam formarum que non per se sensui sunt obiecte set cum per se sensibilibus aliquando inquisitionis modo inducuntur, ut sunt intentiones formas sensibiles consequentes sicut bonum, malum, amicitia, inimicitia. Virtutum item harum quedam apprehensionem absolutam exercent absque operis interventu que formas primo sensibiles recipiunt et intentiones insensibiles eas consequentes que eis presentantur et ad ipsarum noticiam, discretionem ac iudicium earum officium terminatur. Set ad ipsarum collationem, compositionem ac divisionem earum actio non precessit. Alie vero apprehensionem exercent cum operis interventu; que formas sensibiles vel intentiones comprehendentes, discernentes ac iudicantes circa ipsas compositionem ac divisionem et collationem inducunt. Harum item virtutum quedam sunt apprehensive que ad cognitionem ordinantur. Alie conservative que ad receptorum obiectorum retentionem deputantur. Apprehensivarum vero quedam ad formas per se sensibiles habent aspectum que obiecta per sensibilia apprehendunt. Alie ad intentiones insensibiles extenduntur ea que in sensum non cadunt set cum sensibilibus formis concurrunt, apprehendentes; apprehensivarum formarum et intentionum quedam apprehendunt abseuq opere que nec compositionem nec divisionem circa formas et intentiones exercent. Alie comprehendunt formas et intentiones circa ipsas compositionis ac divisionis opus exercentes. Conservativarum vero quedam ad formarum sensibilibus retentionem originantur; quedam ad intentionum consequentium conservationem deputantur. Sensus igitur communis, ymaginatio et ymaginativa sunt virtutes solarum formarum per se sensibilibus receptive; estimatio et memoria ad intentionum receptionem extenduntur. Sensus communis, ymaginatio et ymaginativa secundum primum ac principale officium sunt apprehensive; estimatio et memoria officio secundo ac consequenti procedunt. Sensus communis, ymaginatio et memoria ad apprehensionis actum absolutum absque opere deputantur; Ymaginativa et estimativa cum apprehensionis actu compositionis ac divisionis opus exercent. Ymaginativa vero circa formas per se sensibiles actualiter sibi presentatas opus compositionis ac divisionis inducit. Estimatio vero ad intentiones elevata circa ipsas compositionis ac divisionis opus exercet. Sensus vero communis, ymaginativa ac estimatio apprehensionis officio deputantur; ymaginatio ac memoria conservationis officio destinantur. Sensus vero communis absque compositionis ac divisionis opere apprehendit; ymaginativa vero cum apprehensione compositionis ac divisionis opus exercet. Set ymaginativa compositionis ac divisionis opus circa formas sensibiles tractat. Estimativa circa intentiones ipsum deducit. Ymaginatio vero ad formarum per se sensibilibus que in sensu communi recipiuntur et eius iuditio presentantur, conservationem ordinatur. Memoria vero ad intentionum, que estimationi presentantur et eius iuditio ac opera per-

tractantur, retentionem deputantur. Est igitur sensus communis virtus omnes formas per se sensibiles circa obiecta propria et communia consequentes omnibus sensibus particularibus exterioribus prima impressione presentatas secundum indifferentiam comprehendens. Hec autem virtus sensus communis, fantasia, formativa et ymaginatio quedam secundum diversa officia nominatur. Sensus vero communis dicitur, eo quod ab ipso omnes particulares sensus emanant et ad ipsum reducuntur, quia in omnibus et cum omnibus et per omnes operatur, quia omnia sensibilia forme in exterioribus impresse ad ipsum concurrunt et eius iudicio presentantur et ipse omnium operationes apprehendit, et quia obiecta communia in eius cadunt apprehensionem. Vocatur autem fantasia eo quod ad interiora cum comitatur formas sibi relictas in sensibilibus absentia tanquam presentes diiudicat et quia hec virtus erroneas efficit acceptiones interius apparentes, que quia fantasmata iudicantur hoc ei convenit sub officio fantasie. Dicitur autem formativa eo quod fantasmata et ydola sensibilia tanquam res sibi presentes ad proprias transformat effigies. Vocatur autem quedam ymaginatio eo quod rerum ymages anime aspectui representat. Ymaginatio vero est virtus formas sensibiles sensui communi presentatas et ei impressas conservans et aspectui anime sub permanentia commendat. Ymaginativa vero est virtus formas sensibiles interiorum virtutum aspectibus presentatas sub actu compositionis ac divisionis conferens et per diversa officia pluribus nominibus denominatur. Dicitur enim ymaginativa eo quod formarum ymages ymaginationi commendatas discernit, de earum compositione ac divisione pertractans. Dicitur autem cogitativa cum circa opus compositionis ac divisionis quod circa formas exercet intellectui non subicitur et inest brutis, cogitativa cum ei subiecitur et soli inest homini. Vocatur autem distinctiva eo quod circa formas quarum compositionem ac divisionem pertractat, distinctionem exercet. Estimativa vero est virtus intentionum insensibilium formis sensibilibus connectarum apprehensiva circa ipsarum compositionem ac divisionem exercens, sicut ymaginativa circa formas per se sensibiles. Memoria vero est virtus intentionum insensibilium que estimationis presentantur aspectui, retentiva et ipsa cum continua conservatione formas retinet. Dicitur virtus conservativa; cum vero oblivionis lapsu intercidente eius retentio discontinuatur, dicitur memorativa. Est autem inter has quinque capitales virtutes ordo naturali industria dispositus. Nam due prime, sensus communis et ymaginatio ex una parte, due postreme, estimatio et memoria, ex altera collocantur. Ymaginativa vero medium ordinis situm tenet. Due ergo prime formarum sensibilibus receptioni deputantur, due postreme ad intentiones insensibiles ordinantur. Media vero ad formarum sensibilibus compositionem ac divisionem operans est terminus primarum et initium posteriorum. Nam ex compositione ac divisione quas circa formas sensibiles exercet resultat in estimativa intentionum noticia. Sensus vero communis in formarum susceptibne precedit et ad ipsum ymaginatio in earum retentione consequitur. Et similiter estimatio in intentionum acceptione prima concurrat. Memoria vero ad ipsarum retentionem succedit. Ymaginativa vero formas sensibiles pertractat que a sensibilibus obiectis distantes intentionibus insensibilibus sunt vicine et ideo per compositionis ac divisionis sue discussionem estimativa ex illis intentiones elicit sicut granum ex palea elicitur. Est autem comparatio memorie ad estimationem conformis comparationi ymaginationis ad sensum communem. Nam sicut memoria intentiones insensibiles estimationi dedita conservationi commendat. Similiter ymaginatio formas sensibiles sensui communi collatas retinere probatur. Ymaginativa vero medium situm retinens ad extremas consimilem habet comparationem. In hoc autem

ordine semper virtus precedens ministrat consequenti et posterior ex prima aliquid accipit et super hanc acceptionem additionem inducit. Sensus igitur exteriores sensui communi ministrant ei formas sensibiles receptas offerentes et eas eius aspectui presentantes, ipse formas receptas discernit et ipsas ymaginationi exhibet retinendas. Hec autem eas retinens ymaginative prestat cuius aspectui describuntur. Hec autem ipsas discernit, circa ipsas actum compositionis ac divisionis exercens et eas estimationi reddit, que ex eis intentiones elicit eo quod prius per actum ymaginative multa discussione ac deliberatione forme sensibiles distinguuntur, ex ipsis intentiones primo velate ad actum detectionis emergunt, sicut grana corticibus elatis et estimationis iudicio offeruntur, quas cum estimatio considerat, eas conservationi memorie commendat, quas ipsa recipiens retinet, et conservat. In operibus vero eiusdem virtutis diversis, iuxta quorum officia diversa contrahit nomina, accidit ordo consimilis ut semper primum opus posteriori ministret. Unde opus sensus communis fantasie dicitur ministrare eo quod formas sensibiles a sensibus extrinsecis susceptas ei offert, quas oblatas ipsa pertractat. Ipsa vero formative famulatur, cum ei fantasmata representat que ipsa ad diversas similitudines transformat, et ipsa ymaginationi deservit, cum ei rerum similitudines redat, quarum ymages ipsa diiudicat et ymaginationi conservative conservandas committit. Similiter autem ymaginativa cogitative in homine famulatur, cum ei similitudines sub actu compositionis ac divisionis prius discussas tribuat circa quas iuxta intellectus nutum meditationis sollicitudinem exercet et hec distinctive subministrat simulacra meditatione constituta, quorum actus ipsa distinguendo discernit. In his vero virtutibus gradus maioris et minoris spiritualitatis ut abstractionis multiplices attenduntur. Omnes autem in cerebro site sunt, a quo omnium sensibilibus virtutum emanat origo. Set ipse, cum sint principales et interiores in interiori parte cerebri ac principali collocantur. Sensus vero particulares exteriores in organis exterioribus que quasi rami egredientes a radice ex cerebro precellunt. Organum igitur sensus communis et fantasie est anterioris ventriculi cerebri pars prima, ymaginationis eius pars postrema, ymaginative organum est prima pars medii ventriculi, estimationis postrema pars eiusdem, ventriculus vero posterior memorie deputatur.

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