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Al-Kindī on Psychology

ABSTRACT

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This thesis is an examination of the extant psychological treatises of Abū Yūsuf Yaʿqūb ibn Isḥāq al-Kindī, the ninth century A.D. Arab scholar who was among the first of his race to interest himself in strictly philosophical questions. Al-Kindī's writings were among the first fruits of the translation of Greek philosophical and scientific works into Arabic. It is under that aspect that this thesis approaches his views on soul and intellect - as an instance of the passage of Greek philosophical ideas to the Muslim Arabs. Apart from his specifically Islamic position on the nature and value of divine revelation, nearly all of al-Kindī's ideas on psychology can be traced to Greek sources, and the version of that philosophy with which he was directly familiar was that of the late Greek schools. This thesis is an attempt to understand and present al-Kindī's psychology in the light of the Greek sources from which it was derived.

AL-KINDĪ ON PSYCHOLOGY

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by

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A NOTE ON TRANSLITERATION

The system of transliteration used in this thesis is the system used by the Institute of Islamic Studies at McGill University.

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INTRODUCTION

Since the publication by Muḥammad ʿAbd al-Hādī abū Rīdah in 1950 of the philosophical treatises of Abū Yūsuf Yaʿqūb ibn Isḥāq al-Kindī,[1] there has been a renewed interest in the work of this Arab philosopher who was among the first of his race to interest himself in strictly philosophical questions for their own sake and not merely for theological or apologetical purposes. As a pioneer in a new field, al-Kindī was especially remarkable for the size of his literary output and the range of his interests which not only included speculative philosophy but extended over the whole field of scientific enquiry, and included astronomy, mathematics, meteorology, optics, music and medicine. In fact he could be more accurately described as a natural scientist rather than as a philosopher. Al-Kindī's chief importance lies in the fact that as the first Muslim philosopher he was influential in determining the method to be followed and the problems to be discussed by his successors in the same field. Islamic philosophy as it began with al-Kindī set itself in the mainstream of Greek philosophy and although subsequent philosophers differed considerably as regards emphasis and particular points of doctrine, yet Islamic philosophy for the most part remained true to the Greek tradition and developed within that conceptual framework.

In this thesis we will be concerned with al-Kindī's psychology, that is with those of his treatises in which he treats of the questions of intellect and soul, and the cognitive processes. There are four extant treatises of his which are exclusively devoted to these topics. The most important of these, from a philosophical point of view, is his Risālah fī'l-ʿAql, an analysis of the nature and divisions of the intellect written in the Aristotelian tradition. The second work of his which we will consider is his treatise on dreams and vision entitled Fī Māhīyat al-Nawm wa'l-Ruʾyā. Thirdly, we will examine two writings of his on the soul - Fī'l-Qawl fī'l-Nafs al-Mukhtaṣar min Kitāb Aristū wa Flāṭun wa sāʾir al-Falāsifah and Kalām fī'l-Nafs Mukhtaṣar Wajīz. The former treatise is wholly Neoplatonic in inspiration as regards its concept of the nature and destiny of the soul while the last-named treatise has no great importance, being little more than a page in length and adding nothing to our understanding of al-Kindī's psychology. There are also quite substantial passages in the other philosophical writings of al-Kindī which treat of our topic and which will have to be taken into account.

This dissertation, however, will not merely be an examination and an elucidation of al-Kindī's writings on psychology taken in themselves, our approach to these texts will be an analysis of al-Kindī's psychology as an instance, or a case history, of the passage of Greek philosophy to the Muslim Arabs. Al-Kindī's writings are only intelligible as one of the first fruits

of the impact of Greek thought on the Arabs. This will be the framework of the thesis, so that even as we try to explain the meaning of al-Kindī's psychology treatises we will be particularly concerned to trace his views back to their immediate or original Greek sources. Therefore, the first chapter of this work will be an examiration of the intellectual milieu which produced al-Kindī and will involve a discussion of the growth of rationalism in Islam, al-Kindī's Muᶜtazilite background, the translation movement, the channels through which classical Greek philosophy reached the Arabs, and the version of late Greek philosophy with which al-Kindī would have come into immediate contact. Only when we have established this background will we be in a position to properly evaluate and understand al-Kindī's writings on psychology. The second chapter will be an examination of the history and authenticity of the texts on which we will be basing our analysis and also a general review of the scope of al-Kindī's literary output. The third chapter will deal exclusively with the Risālah fī'l-ᶜAql and will consider in particular the question of its direct, or indirect, dependence on Aristotle's De Anima, and its relationship to the work of Alexander of Aphrodisias on the same subject. In the fourth chapter we will consider the remaining psychology treatises, again, in the light of their possible or probable Greek sources. In this final chapter we will also deal with al-Kindī's views of the relationship between rational and revealed knowledge. Our dissertation, therefore, aims not only at an examination

of al-Kindī's ideas regarding the nature of intellect, soul and knowledge, and their introduction into Islamic thought where they remained central to the whole system of Islamic philosophy, but we will attempt to identify the Greek sources of these ideas and show, in a particular instance, how philosophy in Islam grew out of Greek thought.

NOTES

1. Abū Yūsuf Yaʿqūb ibn Isḥāq al-Kindī, Rasāʾil al-Kindī al-Falsafīyah (Cairo: Dār al-Fikr al-ʿArabī, 2 vols., 1950, 1953) edited with introductions by Muḥammad ʿAbd al-Hādī abū Rīdah. Throughout the thesis this work will be referred to as Rasāʾil.

CHAPTER 1

THE BACKGROUND TO AL-KINDĪ'S PHILOSOPHY

For a proper evaluation of al-Kindī's contribution to Islamic philosophy it is essential to set him in his proper historical and intellectual milieu. We cannot hope to understand his psychology treatises if we isolate them from their context. Al-Kindī is important because he was the first Muslim to attempt to integrate with his Muslim beliefs the scientific and philosophical knowledge which reached the Arabs by way of the Syrian Christian translators during the ninth century A.D.. The works of al-Kindī are not the original productions of an isolated genius, but are the reformulation in Arabic, in summary form, of a later version of Greek philosophy as it had been commentated upon and systematized down the centuries. Al-Kindī was a scholar; he derived his knowledge from the written word rather than from personal reflection. For that reason an accurate interpretation of his writings demands an understanding of the various traditions and influences to which he was subject. We have to examine who were his teachers, where was he educated, what were his sources. Unfortunately, the biographers give us almost no information about his life and intellectual development, nor about the nature of his relationships with his contemporaries.

Ibn al-Nadīm[1] gives an extended genealogy tracing al-

Kindī's descent from the most ancient Arab tribes and thereby justifying his title of Faylasūf al-ʿArab. In the Fihrist, where he gives a very valuable list of al-Kindī's works which we will consider later, he remarks that al-Kindī was unique in his age for the extent of his knowledge of the positive and philosophical sciences, but he gives us absolutely no details regarding the philosopher's life or character, except to say that he was miserly. Qādī Sāʿid ibn Ahmad al-Andalūsī gives us more information in the Tabaqāt al-Umam.[2] According to this source al-Kindī's father, Ishāq ibn al-Sabāh, was governor of Kūfa under al-Mahdī and al-Rashīd, and his great-grandfather, al-Ashʿat ibn Qays, was a companion of the Prophet. Thus al-Kindī was of noble origin and belonged to the ruling classes. Al-Qiftī tells us that al-Kindī was born at Kūfa during his father's governorship but that he received his early education at Basrah and later studied at Baghdād. Ibn abī Usaybiʿah speaks of the prominent position al-Kindī occupied in the court of al-Maʾmūn (813-833 A.D.) and al-Muʿtasim (833-842 A.D.), being in fact tutor to the latter's son Ahmad. Ibn abī Usaybiʿah also mentions that al-Kindī faced a certain amount of opposition from his more traditional co-religionists because of his dedication to philosophy. We have evidence of this opposition in the opening pages of his treatise Fī'l-Falsafah al-Ūlā where he forcefully defends the value of philosophy against those who obviously considered it to be destructive of all true religion. The same biographer tells us that when al-Kindī fell from favour on the

accession of the caliph al-Mutawakkil, a family known as the Banū Mūsā succeeded for a while in appropriating his library. This information is useful as it gives us a glimpse of a scholar who had gathered a precious collection of manuscripts. However, this is about all the information we have regarding the life of al-Kindī. We do not know when he was born, although it is generally accepted that it was sometime around 800 A.D. and that he lived about seventy years although there is no agreement about the year of his death.[3]

We have no direct information regarding al-Kindī's teachers or his intellectual development. As the son of a governor, we may safely assume that he would have received a well-ordered education, at least of the traditional sort. Basrah, where al-Kindī received his earliest education, was at that time, the beginning of the ninth century, a centre of intense religious and intellectual activity. It was the birthplace of Arabic grammar and prose and, besides being a centre of the traditional Arabic and Muslim sciences, it was also here that the Muʿtazilite school had its origin.[4] However, it was at Baghdād that al-Kindī grew to maturity at a time when the capital of the ʿAbbāsid empire was enjoying the most brilliant period of its political and intellectual life. He was patronized by the enlightened caliphs of that time and his intellectual and speculative talents were challenged and nourished by the first translations into Arabic of the masterpieces of Greek scientific and philosophical thought. He must have been in direct contact with

one of the greatest of all the translators, Ḥunayn ibn Isḥāq, who was almost an exact contemporary of his. Nevertheless, we have no direct evidence of his relationship with Ḥunayn or with any of the other notable translators of his day, except for one or two who are reported to have done translations for him and whom we will consider later.

What was the intellectual climate at Baghdād at the time of al-Kindī? In order to answer this question we will first have to examine briefly the causes, both internal and external, which made rational philosophy acceptable and even attractive to certain Muslims. The Arabs, originally, were not given to abstract specualtion, and the Qur'ān which formed the basis of all the religious sciences in Islam was not a theological treatise. In a manner that was in keeping with the concrete genius of the Arabic language and that responded directly to the temperament and needs of those to whom it was addressed, the Qur'ān presented in vivid vigorous imagery a God who was majestic and awe-inspiring, demanding the absolute submission of his creatures. It was a powerful, almost poetic conception of God and his relationship with men; it was not a carefully articulated and balanced presentation. Indeed, some of its impact was undoubtedly due to the tensions inherent in it; the fact that certain elements of the Qur'ānic revelation seemed to contradict each other. It was the effort to explain some of these problems and to elaborate a more systematic presentation regarding the nature of God and his creation that first gave rise to

rational speculation among Muslims.[5] With the establishment of Umayyad Caliphate at Damascus, the Muslims came into direct contact with Christian theologians who over the centuries, with the aid of Greek philosophy, had elaborated a subtle and sophisticated theological dialectic.[6] One of the greatest of these figures was John of Damascus. It was in this situation that kalām, the defence of the traditional revelation by reasoned argument, was born, and it was in discussions with the Christians that the Muslims were first forced to refine some of their theological thinking, although from the very beginning there was powerful opposition in religious circles to any concession to the spirit of rational enquiry.[7] It is generally agreed that the first issue to be discussed was that of free-will and predestination, but it was not a purely speculative discussion; like nearly all theological debates in Islam it had political overtones. The Umayyad Caliphs saw in the theories of the Qādarites (the proponents of free-will) a threat to their own autocratic rule which was presented as the extension of the inescapable will of God.[8] The other problems discussed, the attributes of God and the connected question of the uncreatedness of the Qur'ān may also have had their origin in Muslim-Christian polemic and the Christological problem of Christ as the uncreated Word (λογος) of God.[9]

It is to Umayyad times that scholars have traced the origin of the Mu'tazilite movement which definitively introduced Greek philosophical concepts into the discussion of relig-

ious topics in Islam. According to H.S.Nyberg,[10] the Muʿtazilah was originally a political attitude and the name was applied to those who refused to become involved in the Khārijite controversy, they "stood aside". They were anti-Umayyad, however, and because they adopted Qādarite theories were persecuted by the Umayyads. During the ʿAbbāsid revolution they adopted an ambiguous, rather than a neutral, attitude towards the various Shīʿah groups and worked for the "house of the Prophet" (i.e. the ʿAbbāsids) rather than for the family of ʿAlī. Nyberg sees the Muʿtazilah as the"official theology of the ʿAbbāsid movement", an identification which reached its peak during the reigns of al-Maʾmūn,al-Muʿtaṣim and al-Wāthiq, when Muʿtazilite doctrines, especially those regarding the absolute transcendence of God and the created nature of the Qurʾān, were imposed as the official and only acceptable form of belief. The miḥna, or inquisition, which resulted was a dramatic confrontation between the new rationalizing tendency and the more traditional approach represented by the pious and learned Aḥmad ibn Ḥanbal who branded every attempt to re-interpret the data of revelation according to the principles of philosophical reason as simple heresy - bidʿah. The Muʿtazilite phenomenon is important because its growth as a theological movement, its period of greatest influence and success, and its ultimate defeat at the accession of Mutawakkil in 847 A.D., fall within the life span of al-Kindī. It is against this background of a struggle between a new rationalism and the old orthodoxy that his attempt to reconcile philosophy and revel-

ation must be understood. Muᶜtazilitism, as a doctrinal position, is said to have begun at Basrah with Wāṣil ibn ᶜAtāᵓ (d.748 A.D.) who took up the Qādarite position regarding free-will and also attacked the anthropomorphic interpretation of certain passages of the Qurᵓān, thus coming into collision with those who insisted on keeping to the very letter of the revealed text. The movement developed during the next hundred years and two of the best known Muᶜtazilite theologians, Abū al-Hudhayl al-ᶜAllāf (d.840 A.D.) and his disciple al-Naẓẓām (d.845 A.D.) were contemporaries of al-Kindī at the court of al-Maᵓmūn and al-Muᶜtaṣim. The five basic tenets of Muᶜtazilitism are well known, especially their insistence on the unity and justice of God. They sought to safeguard the simplicity and absolute transcendence of a God totally removed from anything created, but yet a God who was not despotic or tyrannical, who could never wish or do evil. Evil they said came from the free actions of men.[11] We are not here concerned with the different versions of Muᶜtazilite teaching or the efforts to explain these beliefs by various theologians, but rather with the new rationalistic principle which they introduced into Islam - reason as an autonomous and distinct source of truth. The fuqahāᵓ resorted to analogy (qiyās) as a last resort, when there was no explicit statement in the Qurᵓān or the Sunnah, but the Muᶜtazilites had much greater confidence in reasoning "and where the conclusions of reason and tradition were in conflict, they used reason to correct the latter".[12] The Muᶜtazilites viewed reality as orderly and rational, and God too was

rational in his ways. Good and evil were not merely conventional concepts and dependent on the arbitrary will of God; things are not good and evil because God decides that it is so, things are objectively good or evil in themselves. God can only do what is right.[13] For the Muʿtazilah, ʿaql was supreme, even God was bound by the laws of abstract reason. For the "adherents of justice" (i.e. the Mu'tazilites), according to al-Shahrastānī, "all objects of knowledge fall under the supervision of reason and receive their obligatory power from rational insight".[14]

This is the intellecutal attitude which dominated Baṣrah and Baghdād, or at least enjoyed the support of the caliphs, during the greater portion of the career of al-Kindī, and it is clear from his philosophical writings that he shared this confidence in the power and value of reason. Apart from the fact that he could never have enjoyed the patronage of al-Maʾmūn and al-Muʿtaṣim unless he had been a supporter of the Muʿtazilah, from the list of works given by Ibn al-Nadīm we know that he composed treatises of a Muʿtazilite nature on such topics as the unity and justice of God, and also on the freedom of the will. The following three titles, none of which is still extant, are listed in the Fihrist: (1) Kitāb fī anna afʿāl al-Bārī, jalla ismuhu, kulluhā ʿadl lā jawr fīhā, (2) Kitāb risālatihi fī'l-istiṭāʿah wa zamān kawnihā, (3) Kitāb risālatihi fī'l-tawḥīd bitafsīrāt.[15]

So far we have considered the growth of the spirit of rational enquiry in Islam as it manifested itself in the discussion of theological problems. Kalām, the attempt to express the

data of revelation in the categories of speculative thought, was a direct result of the influence of philosophy on the body of traditional Islamic belief. As compared with the sciences of the Qur'ān, ḥadīth, fiqh etc., the new approach was more concerned with understanding than with the mere transmission of a body of knowledge. The introduction of Greek philosophy had a real effect on the formulation of Islamic beliefs, but the influence was not one-sided and philosophy as practised by the Muslims, and applied to solving problems which were peculiar to them, developed its own specific character.[16] This is what justifies the use of the term "Islamic philosophy". Yet falsafah always remained, to some extent, a realm apart, and was viewed with suspicion by those who cultivated the more traditional Islamic sciences. It was never part of the curriculum in the madrasas, but continued as a strictly private venture on the part of individuals.[17] We have said that it is justifiable to speak of "Islamic philosophy" in so far as the Greek tradition as taken up by the Muslim philosophers and reformulated in Arabic and, to some extent, rethought by them, reflects their particular problematique and their religious traditions. Yet Islamic philosophy did not grow immediately out of the Muslim experience nor was it central to its expression; it owes its inception to the fact that from the beginning of the ninth century A.D. at Baghdād the major works of Greek scientific and philosophical thought were for the first time translated into Arabic.

Greek philosophy entered Islam, not as might be expected

from the Byzantine west but from the Sassanian east. The immediate spur to the first translations of Greek works into Arabic came from the contact which was established at Baghdād towards the end of the eight century between the Arabs and groups of Syriac-speaking Christian scholars who for a number of centuries, although cut off from the important centres of Greek learning such as Antioch, Alexandria, Damascus and Edessa, had nevertheless kept alive the tradition of Greek scientific and philosophical thought.[18] Syriac Christianity originated in the region of Edessa which towards the end of the second century was one of the principal centres of Christian activity and worship. Syriac speaking missionaries spread eastwards from there across the Tigris and established communities which developed traditions of their own, especially in matters of worship, and which were quite distinct from the Greek speaking churches of the west. Their sense of having a separate identity was greatly increased by Jovian's cession of the trans-Tigrine provinces of the Roman empire to the Sassanians, as a result of which certain Syriac-speaking Christian communities found themselves a linguistic and religious minority within the Persian empire. The isolation and independence of the Syrian church in Persia was further increased by the fifth century disputes regarding the nature and person of Christ, which to us seem more a matter of terminology and of emphasis rather than of substance. When Nestorius was condemned at the Council of Ephesus (431 A.D.) and Eutyches twenty years later at Chalcedon, some of their followers were

driven from the Syrian schools and sought refuge over the frontier in the Sassanian empire thus adding to the Christian communities there. The importance of these subtle internal Christian feuds for the development of Islamic philosophy lies in the fact that it was the successors of these Nestorian and Monophysite (Jacobite) teachers who were for the most part the middlemen through whom the legacy of Greek thought passed to the Arabs. Although the Syriac-speaking Christians in Persia maintained their own vernacular and ecclesiastical customs, and were hostile to the orthodox Byzantine church, yet their theology was Greek, not only in the sense that they appealed to the early Greek Christian Fathers, but more importantly, from our point of view, in the sense that in their theological debates, in elaborating and defending their theological positions, they made use of Greek philosophical categories and especially of Greek (i.e. Aristotelian) logic. The result was that at the time of the Arab conquest, besides the great centre of Greek theological and philosophical learning at Alexandria, there were also important centres in Syria and Iraq, and it was these latter which proved the more important in the transmission of Greek learning.[19]

Qinnisrīnin northern Syria, a monophysite monastery, was a centre of Aristotelian studies and from the middle of the sixth century to the end of the seventh it produced translations and commentaries on portions of the Organon. The Syrian Christian teachers on the whole restricted their interest to the Isagoge of Porphyry, the Categoriae, De Interpretatione and

Analytica Priora bk.I,1-17,[20] and their interest was largely theological; they studied the logical works of Aristotle as a necessary prelude to the systematic study of theology. The Nestorian school at Nisibis seems to have had the same limited interest. Ḥarrān, like Qinnisrīn, was also in northern Syria close to the less ancient city of Edessa, but it was a pagan rather than a Christian centre and subject to a wider range of intellectual influences, due in part to the fact that it was situated on the silk road between China and the Mediterranean. It was originally a centre of Babylonian astral worship in which the planets were regarded as the intermediaries between man and the Supreme Being. At the time of the Arab invasion they succeeded in passing themselves off as the al-Ṣābi'ā mentioned in the Qur'ān. In Islamic tradition they were identified with the Ḥunafā', the followers of Abraham and true monotheists.[21] This is undoubtedly due to the fact that in the Biblical tradition Ḥarrān was the birthplace of Abraham. Due to its interest in astrology, Ḥarrān became chiefly noted for astronomy and mathematics, and it was in this field that one of its greatest scholars, Thābit ibn Qurra (d.901 A.D.), contributed to the diffusion of Greek science among the Arabs.[22] The third school which we will consider, that of Jundishapūr, was originally a camp for Roman captives and large groups of Greek-speaking peoples were transplanted there. There is evidence that King Shapūr I (241-272 A.D.) tried to incorporate Greek philosophical ideas into Zoroastrianism,[23] and this Hellenic influence on Persian thought was streng-

thened by the welcome given to the teachers of the school of Athens when it was closed by the emperor Justinian in 529 A.D.. There was also a strong Nestorian presence at Jundshapūr from the year 400 A.D. onwards. Under Chosroes I (Khusraw), who came to the throne in 531 A.D., there was a revived interest in foreign learning. During his reign Paul the Persian, or Paul of Nisibis (d.571 A.D.), composed an introduction to logic (perhaps in Pahlavi) and also a commentary on the De Interpretatione of Aristotle which was later translated from Pahlavi into Syriac by Severus Sobokht of Qinnisrīn (d.667 A.D.). This same Severus himself composed commentaries on the logic of Aristotle. Besides Greek learning, Chosroes also showed an interest in Indian wisdom and it was at this time that the collection of Indian fables, which came to be known in Arabic as Kalīlah wa Dimnah, was translated from the Sanskrit into Pahlavi.[24] Jundishapūr eventually developed a medical school with its hospital and also an observatory. Thus at the time of the Arab invasions of northern Syria and Iraq, there was a strong indigenous tradition of Greek learning; not Greek philosophy in its original and pure form, but rather as it had been put to the service of Christian theology by the Syrian churches, and therefore limited in its scope by the specific needs of that theology. We have mentioned one attempt to incorporate the heritage of Greek learning into the religious traditions of Zoroastrianism and there are indications of some instances of fusion with Indian wisdom and the surviving tradition of Babylonian astrology. Finally, mention must be made of

the powerful movement of Manichaeism which, with its gnosticism and doctrine of salvation and purification, made the East particularly receptive not so much to Aristotle as to Neoplatonism. We have, therefore, a rough outline of the intellectual climate of the eastern part of the new empire conquered by the Arabs. Of the various elements mentioned the most important were the centres of Syriac-speaking Christianity. Here groups of scholars were still in immediate contact with a certain limited selection of the works of Greek scholarship, both scientific and philosophical, and had developed a tradition of translating these works into their own Syriac vernacular and sometimes even into Pahlavi.

There is evidence that the translation of Greek works into Arabic began in Umayyad times, mostly of medical works, but it was only with the establishment of the ʿAbbāsids at Baghdād that the translation movement began which provided the foundation for the whole philosophical movement in Islam and which formed the background to all al-Kindī's scientific and philosophical work. In 765 A.D., under the Caliph al-Mansūr, Jūrjīs b. Bakhtīshūʾ, head of the Jundishapūr medical school, was called to Baghdād to act as court physician. Thus was contact established between the Syrian-Christian custodians of Greek learning and the Arabs. Nearly all of the great translators of the next century and a half were Syrians and Christians. Nor was their rôle in passing on Greek learning merely literary, during the reigns of of Hārūn al-Rashīd (786-809 A.D.) and his successor

al-Ma'mūn (813-833 A.D.) they set up the first hospital and observatory at Baghdād, both of which were modelled on similar institutions at Jundishapūr.[25] Al-Mansūr showed a definite and keen interest in matters philosophical and scientific and there were other wealthy patrons at Baghdād who also encouraged the acquisition and translation of works of Greek medicine, mathematics, astronomy and philosophy. The early emphasis seems to have been on the practical sciences of medicine and astronomy. The greatest patron of the translation movement was the Caliph al-Ma'mūn, who appears to have had a genuine personal interest in the sciences. In the description given by al-Mas'ūdī[26] he is presented as an open-minded enquirer presiding over philosophical and theological debates. Against this picture of the liberal seeker after truth must be set the fact of his intolerant persecution of those who would not accept the Mu'tazilite theories which he espoused. It is against this background of free discussion and intellectual enquiry that we must see al-Kindī. Ibn al-Nadīm[27] relates a story of how Aristotle is supposed to have appeared to al-Ma'mūn and commanded him to send a mission to search out and bring back manuscripts from bilād al-Rūm - the Byzantine empire. Among those who formed part of this mission was Yaḥyā ibn al-Biṭrīq who, as we will see later, translated the paraphrase of Aristotle's De Anima which may have been read by al-Kindī. Ibn al-Nadīm mentions a second mission dispatched by the Banū Shakīr which included the greatest of the translators, Ḥunayn ibn Isḥāq, and which brought back "rare manuscripts" dealing

with philosophy, geometry, music, arithmatic and medicine. These Banū Shakīr are the same Banū Mūsā whom we have mentioned earlier as scheming to appropriate the library of al-Kindī when eventually he fell from favour. The fact that scholars were sent to seek manuscripts in the west indicates that the restricted number of Greek works preserved by the Syrian Christians in their Nestorian and Monophysite schools no longer satisfied the expanding interests of their Arab patrons. For this reason they handsomely rewarded their Syriac-speaking translators (the Fihrist mentions the sum of five hundred dīnārs a month) and encouraged them to seek and translate works which up to then had remained outside the scope of their limited interest.

The greatest and most famous of all the translators was the Nestorian Ḥunayn ibn Isḥāq, but before him there were other, less well-known translators, the vetustiores, whose translations were reportedly very literal and studded with transliterations. These are of particular interest to us as al-Kindī relied on these rather than on the improved translations of Ḥunayn and his school. One of the very earliest of these translators, Ibn al-Muqaffaʿ (720-756 A.D.) was of Persian origin and probably a Zoroastrian. He is chiefly famous for his translations from Pahlavi into Arabic, especially the Khalīlah wa Dimnah, a collection of fables originally composed in Sanskrit. His other translations were works which dealt with the ancient history, traditions and culture of Iran. Ibn al-Muqaffaʿ is regarded as a key figure in the history of Arabic as a literary language.[28]

There is a certain confusion as to whether it is to this Ibn al-Muqaffaᶜ or a son of his, called Muḥammad, that certain translations of parts of the Organon are to be attributed. There is manuscript evidence that this Muḥammad translated into Arabic the Isagoge of Porphyry, and also the Categoriae, Analytica and De Interpretatione of Aristotle.[29] A certain Thīadūrus (Theodorus) is mentioned by Ibn al-Nadīm[30] as having translated the Analytica Priora and attempts have been made to identify him with Theodore abū Qurra (d.820 A.D.)[31] but as he is mentioned in the Fihrist as having brought his translation to Ḥunayn to have it corrected this raises chronological difficulties. A more important personage is Ibn Nāᶜimah al-Ḥimsī (d.835 A.D.) whose name is found on the list given in the Fihrist of those who did translations into Arabic.[32] The surviving manuscripts of the Arabic translations of the Theology of Aristotle (a paraphrase of Enneads IV-VI of Plotinus which was to have a tremendous influence not only on Islamic philosophy but also on the medieval Latins) states that it was translated by Ibn Nāᶜimah al-Ḥimsī, and corrected by al-Kindī for the Caliph al-Muᶜtaṣim.[33] This piece of information is valuable as an indication of the influences to which al-Kindī was subject. Ibn Nāᶜimah al-Ḥimsī was one of the older school of translators who were later criticized for the literal style of their translations.[34] Equally important is one Ustāth (Eusthathius) who is mentioned by Ibn al-Nadīm as having translated the greater portion of the Metaphysica of Aristotle specifically for al-Kindī.[35]

Of the earlier translators two of the most important are al-Biṭrīq and his son Ibn al-Biṭrīq.[36] These two translators have sometimes been mistakenly identified, although Ibn al-Nadīm clearly distinguishes them and says that the father was active in the time of al-Manṣūr (754-775 A.D.) and that the son was of the company of al-Ḥasan ibn Sahl the vizier of al-Maʾmūn.[37] We have already met the latter as one of those dispatched to collect Greek manuscripts from the Byzantines. The older al-Biṭrīq is chiefly noted for his medical translations and of the six works he is said to have translated, five of them are works attributed to Galen or Hippocrates. His son Yaḥyā also translated some medical works but we are more interested in the translations which he did of some works of Plato and Aristotle i.e. Plato's Timaeus and the De Caelo and De Animalibus of Aristotle, all of which are said to have been corrected by Ḥunayn.[38] Translations of the Meteorica of Aristotle and of a summary of the De Anima are also attributed to him. This is important, as we have said, because since there is no mention of a complete translation of this work of Aristotle until that done by Isḥāq ibn Ḥunayn, al-Kindī may have depended on this summary for his views of Aristotle's teaching regarding the soul to which he refers in his treatise Fī'l-'Aql. Yaḥyā ibn al-Biṭrīq was also criticised later for the literalness of his translations.[39] The final pre-Ḥunayn translator whom we will consider is Thābit ibn Qurra (836-901 A.D.), a Sabian for Ḥarrān who was patronized by the Banū Mūsā and whose list of translations as given by Ibn al-Nadīm is

almost exclusively composed of works on astronomy and mathematics.[40] Al-Qiftī also attributes to him a commentary on the Physica of Aristotle and paraphrases of the Analytica Priora and the De Interpretatione.[41] Thus even before the time of Ḥunayn a sizeable body of Greek learning had been translated into Arabic. It is not our intention to compile an absolutely exhaustive list of all the scientific and philosophical works translated by either the earlier translators or Ḥunayn and his school, but rather to indicate the range of translated material which was made available. We have mentioned a number of the early translators whose names have been preserved and the works which they are said to have translated, but there were undoubtedly other translators active before Ḥunayn whose translations were superceded by the more accurate and critical versions which he provided.

Ḥunayn ibn Isḥāq (809-873 A.D.)[42] set new standards of critical accuracy in the work of translating. He was not alone but the head of a group which included his son Isḥāq (d.911 A.D.), his nephew Ḥubaysh, and a disciple ʿIsā ibn Yaḥyā. Some of the translations attributed to Ḥunayn were probably the work of these latter. Ḥunayn has himself described the method he followed in his work.[43] He was never satisfied, even when he had finished a translation, but would continue to search out new and better manuscripts. Then he would collate them, and having established a good Greek text would then translate it. The translation into Arabic was normally via a Syriac intermediary, and it seems that the common procedure was for Ḥunayn to prepare the Syriac version

which his son Isḥāq then turned into Arabic.[44] Ḥunayn was attached to the court of Ma'mūn but his most important patrons were the Banū Mūsā.[45] Although he himself was chiefly interested in medical works, he and his school translated many of the works of Plato and Aristotle, together with their commentators. As regards Plato, Ibn al-Nadīm[46] mentions the following works as having been translated by Ḥunayn: Republic (Fihrist in fact says fassarahu, but probably means translated), Laws, Timaeus (he translated it anew or corrected the translation of Ibn al-Biṭrīq). Isḥāq is credited with a translation of the Sophist. Ḥunayn and Isḥāq also translated a large portion of the corpus of Aristotle.[47] Among the works mentioned by Ibn al-Nadīm as having been translated by either Ḥunayn or Isḥāq, or jointly, are: Categoriae, De Interpretatione, Analytica Priora, Topica, Rhetorica, De Caelo, De Anima and the Metaphysica. Badawī[48] mentions a translation of the Physica by Isḥāq and also that Ḥunayn translated Alexander of Aphrodisias' treatise On the Intellect according to Aristotle into Syriac and that Isḥāq provided an Arabic version.[49] A translation of a commentary by Ammonius on part of the Topica is also attributed to Isḥāq. Taking into consideration, then, the fact that al-Kindī and Ḥunayn died within a few years of each other, we can say that during al-Kindī's lifetime a large number of works of Plato and Aristotle were translated into Arabic for the first time and also some of the commentators. Unfortunately, although Ibn al-Nadīm mentions all the later commentators by name, and the works of Aristotle on which they comm-

ented, he is normally not sufficiently interested to give the names of those who translated them into Arabic, so we cannot say which commentators might have been available to al-Kindī. We can say with certainty that a body of commentary material was in circulation from the very beginning of the translation movement, because the version of Plato and Aristotle which we find in the early Muslim philosophers, and clearly in al-Kindī, is not pure Plato and Aristotle, but their teachings as presented by later Greek philosophy.

Greek philosophy as it reached the Arabs in the ninth century was a tradition which had developed and evolved in the thousand years since the time of Plato and Aristotle. This is an obvious point, and yet it is something that has to be constantly borne in mind. When al-Kindī in his treatises says that he is presenting the teaching of Plato or Aristotle, what he is in fact giving us is Platonism and Aristotelianism, or Neoplatonism, as it had developed in Alexandria and Athens, and to a lesser extent in the Syrian schools, in the first six centuries of the Christian era. So to understand al-Kindī and the beginnings of Islamic philosophy, we need to have a general idea of the forms which Greek philosophy assumed in the last centuries of its history; we have to know something of the later Peripatetics, Platonists, and above all Neoplatonists. It is not just an a priori judgement to say that the early Arab philosophers could not have understood Plato and Aristotle in their exact original sense, unaffected by the developments of later centuries, and

uninfluenced by the interpretations of the later commentators. The version of Greek philosophy which reached the Arabs is clear from the Fihrist (the source of nearly all our knowledge regarding the entrance of Greek philosophy into Islam) which not only lists the works of Plato and Aristotle but, more interestingly, in the case of Aristotle gives the names of those who commented on his various works. In the section immediately following that devoted to the two great philosophers most of these later Greek philosopher-commentators are again mentioned separately and their original works (i.e. those which are not merely commentaries) are listed.[50] The interesting fact is that nearly all of these men, apart from Alexander of Aphrodisias and Theophrastus, were Neoplatonists. Plotinus is mentioned by name, and we have already mentioned how al-Kindī was familiar with a paraphrase of the Enneads IV-VI under the title of the Theology of Aristotle. Porphyry, Jamblichus, Proclus, Syrianus, Ammonius and John Philipon are named. We cannot be certain that al-Kindī was familiar with the works of these commentators and philosophers, but they supplied the background to his thought; the problems he faced and the methods he followed, as found in his writings, were those of the tradition he inherited, modified of course by his own intellectual temperament and specifically Islamic beliefs. To ignore this influence would be to demand an originality of the early Muslim philosophers of which none of them were capable.

The Fihrist[51] gives a long list of the works of Plato, but not one of his authentic works has come down to us in its Arabic

translation. Because of this, and as a result of an investigation of the Platonic quotations preserved in the Arabic sources, some scholars doubt that there was ever a complete verbal translation of a work of Plato into Arabic and have suggested that what the Arabs had were paraphrases of some of the dialogues.[52] A reading of the Fihrist, however, gives the impression that at least some of them, e.g. Republic, Laws, Timaeus, were known to Ibn al-Nadīm personally, that they had been translated by Ḥunayn and his son, and that he had himself seen some of these translations. What is certain is that the early Arab philosophers saw Plato through the eyes of his late commentators, especially Plotinus and Proclus. This Neoplatonic version of Plato is very evident in the psychology treatise of al-Kindī which is entitled Fī'l-Qawl fī'l-Nafs al-Mukhtaṣar min Kitāb Aristū wa Flāṭun wa sā'ir al-Falāsifah.

The Arabs had a much more direct contact with the works of Aristotle, most of which were translated and re-translated from the beginning of the translation movement. At the same time the fact that the commentators and their commentaries are listed together with the original work, reminds us that if the Arabs had a thorough knowledge of Aristotle's thought, it was Aristotle as understood by the Neoplatonists.[53] What the Arabs received was Aristotelianism rather than Aristotle; that is a tradition of philosophy deriving from Aristotle but which had been shaped and systematized in the later Greek schools. The version of Aristotle which they received often owed as much to

the work of commentators like Alexander of Aphrodisias as it did to Aristotle.

> By the seventh century, on the eve of its passage from a Byzantine milieu to an Islamic one, Aristotelianism was a fully articulated system which provided a more or less consistent world view and a highly refined methodology developed over the course of the preceding centuries. At the core of the system stood the Aristotelian treatises themselves, arranged in a logical order with the systematic gaps filled in here and there with pseudigraphs. Attached to this central core was a growing body of professorial comment which both elucidated and fleshed out the system, a fusion that would have made - had anyone been interested in the project - any attempt at separating Aristotle from his secondary accretions extremely difficult.[54]

Not only was it hard to distinguish Aristotle from his commentators, but there was also the historical fact that Aristotle survived in later Greek philosophy as an appendix to a more vital Neoplatonism. This was mainly due to the work of Porphyry who was known in the Arabic tradition as a commentator on Aristotle but was in fact the disciple of Plotinus and the one who arranged the Enneads. Interest in Aristotle was mostly confined to his logic and psychology which were tacked on to a Neoplatonist metaphysics; a fact which radically altered the original Aristotelian outlook. Later commentaries on the work of Aristotle take the Neoplatonic framework for granted. One of the immediate results of this fusion was that a common trait of later Greek philosophy, and one that is very evident in al-Kindī,

was the assumption that there was no irreconcilable difference between Plato and Aristotle. This assumption was greatly strengthened by the fact that a paraphrase of the Enneads passed as a work of Aristotle. Richard Walzer has also drawn attention to the fact that the later Greek philosophers and the Arabs may have had access to genuine early Aristotelian dialogues, in which the young Aristotle would have more faithfully reproduced the thought of the master. Walzer has discovered what he considers to be a fragment of such a dialogue, the Eudemus, in one of al-Kindī's treatises on the soul.[55]

The two main centres of Greek philosophical studies in the later period were Alexandria and Athens, and whereas the latter was more speculative, Alexandria while it was basically a Neoplatonic school, interested itself in a technical and rather academic examination of the texts of Aristotle especially, as we have said, those on logic and psychology which were studied as a prelude to Neoplatonic metaphysics.[56] At the beginning of the second century of the Christian era there was a renaissance of Platonism and a much lesser extent of Aristotelianism. Interest was no longer directly focused on man but on a wider vision of the universe as a whole and the question of a universal mind which was seen as the key to the understanding of all reality.[57] This revival renewed a tradition of commentary on Aristotle which went back to the time of his immediate successors and which by concentrating on and emphasizing certain aspects of his doctrine determined the form and content of philosophical

enquiry in the tradition of Aristotelianism for later generations.[58] One such problem was the nature of the human intellect. The starting point of the discussion was that very obscure passage in the De Anima which discusses the nature and division of the intellect and particularly that aspect of the mind which is "in its essential nature activity" and which is according to Aristotle "separable, impassible and unmixed".[59] If we confine our remarks to those commentators whose names figure prominently in the Fihrist of Ibn al-Nadīm, we will be able to understand, at least in broad outline, how the problem was formulated in the tradition of Aristotle which reached the Arabs and which influenced such men as al-Kindī. One of the commentators especially singled out by Ibn al-Nadīm[60] is Theophrastus (c.370-287 B.C.), a contemporary and a disciple of Aristotle, who according to Themistius raised the problem of the active and passive intellect and the question as to how intelligible forms are abstracted from sensible objects.[61] This same question was taken up by Alexander of Aphrodisias who was prominent at Athens c.200 A.D. and was one of the most influential of the Aristotelian commentators. His treatise on the soul, the part of which dealing with the intellect was translated by Ishāq ibn Ḥunayn, is mentioned by Ibn al-Nadīm.[62] He was a disciple of Aristocles who held that there was no real opposition between Plato and Aristotle, and who set out to solve the noetic problem raised by Theophrastus.[63] For Aristocles pure thought, or the divine mind, penetrates all matter and acts through it; the passive (or material)

intellect is merely a certain material combination in man through which the separate active or divine intellect can act as through an instrument. Alexander rejected this explanation as Stoicism and in his treatise on the intellect distinguishes three minds or intellects.

1. The material intellect (νους υλικος ; العقل الهيولانى).
2. The acquired intellect: "intellectus qui intelligit et habet habitum ut intelligat (νους καθεξιν ; العقل بالملكة).
3. The active intellect (νους ποιητικος ; العقل الفعال).[64]

The material intellect is the pure capacity in man to receive intelligible forms. It is "material" not in contrast to spiritual (and here is where Alexander differs from his teacher Aristocles), but in so far as it has no specific formal determination of itself, but is capable of being impressed with the intelligible forms of objects extrinsic to it. It is a faculty of the human soul, and as, according to the psychology of Alexander, the soul is the form or entelechy of the body, and therefore individualized in each case, the material intellect is also individualized and so mortal. The second intellect is called habitual or acquired; it is not mentioned by Aristotle and even with Alexander is a bit vague. It is the state of the material intellect after it has been actuated; the intellect in so far as it has a share of intelligible forms at its disposition, from previous acts of intellection, which it can habitually actuate. The third intellect, the active or agent intellect, is the most important. For Alexander, it is that power which actuates the

potentiality of the material intellect and renders intelligible the forms embedded in the material objects with which the knowing subject has established contact by means of sensation. It is an intellectual "light" which abstracts these forms and projects them as intelligible onto the material intellect. The active intellect is one, it is distinct from individual men, but is the source of all their intellectual knowledge; it is always in act. It is not perfectly clear in either the Arabic or Latin translations, but it is certain that for Alexander this active intellect was divine in the full sense; it is intelligible and intelligizing by its own nature. Alexander identified the "separable, impassible and unmixed" intellect of the De Anima Bk.III with the self-contemplating god of the Metaphysica Bk.Lamda, whose "thinking is a thinking on thinking", whose "thought and object of thought are the same", who is identified with the principle of the universe, the unmoved First Mover, Aristotle's God.[65] It is generally agreed that such an identification was not an accurate interpretation of Aristotle, but it was highly influential and accepted by Plotinus.

Alexander assumes two kinds of intelligibles, those which are the forms of concrete material objects, and have to be abstracted by the process already described, and those which are transcendent and in no way bound up with matter. The latter only exist in so far as they are intelligized, the object of an intelligence actually contemplating them; they are permanently known by the divine active intellect. The same is indeed true

of those forms which are immanent in matter and which only exist as intelligibles in so far as they are known by the material intellect. This doctrine of Alexander that the intelligible is identical with the act of intellection is one of the sources of Plotinus' doctrine that intelligibles have no existence apart from an intelligence.[66] The problem discussed by Alexander, regarding the nature of the intellect, and the general line of his solution, retained its importance for later Greek commentators and occupies a central position in the systems of al-Kindī, al-Fārābī, Ibn Sīnā and Ibn Rushd. We will have to examine later, and in detail, to what extent al-Kindī's treatise Fī'l-ʿAql was influenced directly or indirectly by Alexander of Aphrodisias, but it can be said that the framework of al-Kindī's approach to the problem of the nature and division of the intellect was that laid out by Alexander. The whole incident is a striking example of the truth that the Arabs, on the whole, did their philosophy in the tradition of the later Greek schools.

The figure who dominated the last period of Greek philosophy, the Neoplatonist par excellence, and a thinker who had, perhaps, an equal and in some respects maybe an even more profound influence on Islamic philosophy than Aristotle, was Plotinus (205-270 A.D.), a philosopher who deserves to be ranked with the two great names of Plato and Aristotle because of the originality of his philosophical genius.[67] Although Ibn al-Nadīm mentions a Flotīnūs as the final name of a list of "natural philosophers"[68] no works are attributed to him, and it was as

al-Shaykh al-Yūnānī, a vague rather mysterious figure, that Plotinus figured in Islamic philosophy. One of the strangest events in the whole history of philosophy was that a paraphrase of the Enneads IV-VI, the key work of Plotinus edited by his disciple Porphyry, was accepted by most Muslim philosopher as the Theology of Aristotle, although there were hesitations on the part of al-Rāzī, Ibn Sīnā, and especially Sadr al-Dīn al-Shīrāzī.[69] The effect of his attribution was profound. First of all it provided a basis for harmonizing Plato and Aristotle, and integrated many of the divergent trends which Greek philosophy had developed in the course of its history. More important still, its plainly religious, mystical and ethical character, its lack of clear distinction between philosophy and theology, its emphasis on the higher, contemplative sources of knowledge, its playing down of the material and the sensual, made this version of Greek philosophy especially attractive to the religious minded Muslims, as it had already appealed to the Christians. The Theology was one of the earliest Greek works translated into Arabic, perhaps via a Syriac version, and al-Kindī was familiar with it as he is mentioned in the Fihrist as having corrected it - fassarahu.[70] More explicit still is the attribution of the original Arabic manuscript:

> The first chapter of the book of Aristotle the philosopher, called in Greek Theologia, being the discourse on the Divine Sovereignty; the interpretation of Porphyry of Tyre, translated into Arabic by ʿAbd al-Masīḥ ibn Nāʿimah of Emessa and corrected /aṣlaḥahu/ for

Ahmad ibn al-Muʿtasim billāh by Abū Yūsuf Yaʿqūb al-Kindī.[71]

Plotinus did not merely set out to explain the visible world, its origin and meaning, he wished to give an ordered account of the whole of reality which flowed in an unbroken line from the first principle of all being, the One or the Good, through the realm of Mind and Soul, with increasing complexity, until an attenuated and pale reflection of the truly real reaches the world of matter. However, Plotinus' philosophy is more than a theoretical description of reality; besides this outward movement from the One, he is equally, or perhaps more, concerned to show the way of return; to explain his own mystical experiences of ascent to and union with the One. Plotinus' philosophy is both theoretical and practical, a metaphysics and a way of life.

The first of Plotinus' hypostases, the indivisible One, the source of all being, that from which all things flow, which is their sustenance and support and to which all things return, itself transcends those things which emanate from it. It is beyond all description and in no way determined (i.e. limited) by positive attributes; it is beyond being. That which originates from the One, not because of any reflection or need on its part, but spontaneously, because of its "completion and superabundance", is Mind. There are two stages in this emanation, a being first flows out from the One and in so doing turns to gaze on that from which it has come, and this contemplation of the One achieves that duality of object and knower which is

mind and being. Likewise the Soul flows out from Mind and in turning to contemplate its source acquires form and content which gives it the power to impress order on the world of matter. So in the Theologia are clearly defined the emanation and the nature of the three hypostases of the Plotinian system.[72]

Plotinus uses two terms to refer to the source of all reality - the One and the Good. The first term stresses the transcendence of the first principle which is "complete and above completeness"; "it is the beginning of the thing and is not the things".[73] In stressing the absolute simplicity of the One, Plotinus wishes to deny that it has any determination or limitation; it is beyond being because being means being something. Yet it is not merely a negative concept, what is stressed is the richness of the reality which is beyond the reach of human thought or language. We cannot analyze the First Principle, all our concepts are inadequate and the One cannot be reduced to or confined within anything less that itself. To say that the One transcends being and thought is not to say that it is utterly remote from the other realities which derive from it, rather is it the inexpressible core of all reality, that on which all lesser beings depend and to which they tend. The positive aspects of the first hypostasis is better expressed by the term the Good, which is derived from Plato. This brings out the perfection of the One, which because of the superabundance of its excellence overflows and spontaneously gives rise to the lesser hypostases of Mind and Soul.[74] The Theologia, either because of its

probable Christian Syriac version, or because of its translation into Arabic by the Muslims, constantly uses the term "Creator" when speaking of the First Principle. However, the description it gives of the emanation of the lesser hypostases from the One is radically at variance with the Judaeo-Christian-Islamic notion of the Creator as the Being who by a definite act of his free and sovereign will decides at a certain moment in time to bring particular creatures into existence. This is in fact explicitly denied in the Theologia.[75] Beings simply flow out from their Source leaving it unchanged and undiminished; there is no planning or reflection on the part of the One, it does not choose or will to communicate itself, it is unconscious of the process, there is no activity on its part, it is just that is surpassing excellence necessarily produces something else. They are originated by the mere fact of the One being what it is.[76]

The second hypostasis, as we have said, in emanating from its source turns to contemplate the One. However, normally it does not succeed in rising above itself and re-uniting with its origin in its absolute simplicity, but rather it knows the One as many and produces the world of forms, of real being. However, as according to the Theologia mind and being are identical - "mind and being there do not separate, for mind is mind only because it cogitates about being, and being is being only because it is the objects of the mind's cogitation"[77]- then what we have is a world of minds. It is no longer the static realm of ideas of Plato; the intelligible world is a world of

intelligences, of living minds. Each of these minds knows all the others as it knows itself, and so there is unity and diversity, a community of intellects which forms a single realm of knowing and being, with absolute motion and absolute rest.[78] There is no weariness or toil in this world where true being is contemplation; the beholder never becomes satiated, but life is a continual source of joy and happiness.[79] In these terms the Theologia attempts to express the vitality and perfection of the realm of mind, where all substances are permanent, everlasting, eternally present, yet not frozen, but boundlessly alive.[80]

As being emananates from the First Principle it becomes more diffuse and divided. This is clear in the case of the third hypostasis Soul, which at its highest level lives in contemplation of the world of Mind , of pure being, and together with the intellect can be drawn out of itself into union with the One. At the other extreme, it communicates form and order to matter in the world of sense, and if it is not strong can allow itself to be drawn away from the contemplation of authentic reality to become enmeshed in the world of sense and change which would be a degradation of its true and noble nature.[81] Yet the soul is at the same time an intermediary between the world of intelligible being and the material world of the senses; its rôle in the chain of emanating being is to communicate to the lower world something of the beauty and goodness of authentic being which it has received from the One through the mediation of Mind, so that it becomes an indication or pale reflection of true beauty and good-

ness.[82] In this sense the connection between Soul and sensible matter is something good and necessary, as long as the soul having performed its ontological task immediately slips away from this world and re-enters the world of Mind.[83] We have here a basic tension in the system of Plotinus between his metaphysics, which is the description of the outward flow of being from the First Principle to the lowest thing which can be said to exist, and on the other hand his mysticism which is an effort to describe the path along which the Soul and Mind seek to return to the absolute unity of the One. In an absolute sense, then, the sensible world is really something good, in a relative sense, in comparison with the higher levels, it is vile and evil; it can distract the soul from its true activity which is to derive all its light and joy from the continuous contemplation of the world of Mind. Instead of the eternal, immediate, and simultaneous possession of all objects of knowledge which the soul can achieve by directing its gaze inwards, it may be drawn downwards to the illusory world of the senses, where knowledge is partial, inadequate and successive. For the soul to neglect the world of mind and intelligible being, and become immersed in the world of the senses is impurity and defilement.[84] In the realm of Soul there is the same unity and diversity we discovered in Mind. The Universal Soul is the totality of individual souls, which, however, as living cognitive beings, know each other and so achieve a type of unity, although, because of the tendency of the soul to become involved with what is below it, and to neglect to

direct its gaze constantly towards the one true reality, the world of Forms, Soul does not achieve the same degree of unity in diversity which is found in Mind.

The problem which occupies the greatest portion of the Theologia is the question as to what is the nature of the relationship between soul and body in man. Certainly, for Plotinus, the soul has an identity and existence of its own and he is at pains to show that it in no way depends on, nor is it a result of the body. He utterly rejects any notion that the relationship of soul to body can be described in spatial or quantitative terms, as though the soul were part of the body or in any way contained in the body. It is not a bodily accident nor are body and soul related to each other as matter and form, because in all these cases the decay of the body would entail the destruction of the soul.[85] For the same reason the Theologia rejects the materialist hypothesis that the soul is merely a "subtle and refined body",[86] or that it is the harmony and concord of the body, i.e. that the soul spontaneously results from the felicitous combination of the various elements of the body. On the contrary it is the soul that originates the harmony of the body and governs it; it is not merly an accident which arises from the mixing of bodies.[87] In another Arabic fragment of the Enneads, the Dicta Sapientis Graeci (i.e. al-Shaykh al-Yūnānī),[88] Plotinus prefers to describe the body-soul relationship as that of instrument and agent, the ship and its helmsman. And yet even that analogy is weak because it does not adequately convey

the extent to which the power of the soul penetrates the body, and in the Enneads at this point[89] he expresses the mode of the soul's presence to the body as that of the presence of light to air; "for the air is in the light rather than the light in the air". Plotinus is prepared to accept the Aristotelian notion that the soul is the perfection (entelechy) of the body, not of body qua body, but only of a body that is potentially alive; it is not merely the natural or artistic form by which matter becomes a particular type of body, it is the form whereby body becomes ensouled and it always retains the possibility of separating from, acting independently of, and surviving the corruption of the body.[90] Therefore, the soul is the distinctive element in man, his true nature is spiritual, and the body will eventually corrupt: "man is therefore the soul, for through the soul he is what he is, and through her he is permanent and everlasting, while through the body he is perishing and decaying".[91] For Plotinus, man is not an integrated unity of body and soul but a being whose true nature is intellectual and spiritual, and to this higher life the body has nothing to contribute. Man's whole attention should be concentrated inward, He ought to live in continual contemplation of the highest level of reality and raise himself to re-union with the One. This is not to say that Plotinus despised the body or was utterly indifferent to its demands and those of human living; rather for him the wise man should preserve in the inner core of his being, at the level of soul, an attitude of detachment from this world and of openess to the

world of intelligible and true reality.

One of the distinctive notes of all Neoplatonic philosophy is its ethical character; in this respect it is impossible to disassociate the moral and intellectual aspects of Plotinus' philosophy. What is most characteristic of the Theologia, and the explanation undoubtedly of its great attraction for Christians and Muslims, is its patently religious and mystical tone. The wise man is invited to with_draw himself from immersion in the delights and pleasures of the body, and by moral toil and effort to turn to what is highest in him; by a long process of purification to prepare himself for mystical union with the One.[92] The religious non-philosophical element is evident in the following passage.

> We begin by abasing ourselves before God and asking him for aid and assistance.... We do not ask him in speech alone, nor do we raise toward him our perishable hands alone, but supplicate him with our minds and spread out and extend our souls toward him and abase ourselves before him and ask him importunately and unwaveringly.[93]

It is generally admitted that Plotinus' teaching of the return of all being to its source, of his view of all lesser reality trying to regain the unity of the One, was an expression of his own mystical tendencies. The famous passage in which Plotinus describes his experience of ectasy and union with the One[94] is reproduced in the Theologia and no doubt made the same profound impression on the Muslims that it had made on other readers

of the Enneads.

> Often when I have been alone with my soul and have doffed my body and laid it aside and become as if I were naked substance without body, so as to be inside myself, outside all other things. Then do I see within myself such beauty and splendour as I do remain marvelling at and astonished, so that I know that I am one of the parts of the sublime, surpassing, lofty, divine world and possess active life. When I am certain of that, I lift my intellect up from that world into the divine world and become as if I were placed in it and cleaving to it, so as to be above the entire intelligible world, and seem to be standing in that sublime and divine place. And there I see such light and splendour as tongues cannot describe nor ears comprehend. When that light and splendour overwhelm me and I have not strength to endure it, I descend from mind to thought and reflection. When I enter the world of thought, thought veils that light and splendour from me, and I am left wondering how I have fallen from that lofty and divine place of thought when my soul once had the power to leave her body behind and return to herself and rise to the world of mind and then to the divine world until she entered the place of splendour and light, which is the cause of all splendour and light.[95]

Plotinus was the outstanding figure in later Greek philosophy and although some of his successors, notably Jamblichus and Proclus, introduced substantial changes into his system and transformed it in many respects, yet having examined Plotinus in some detail we have a general sense of the spirit and the method of philosophizing which was inherited by the Muslims in the ninth century

and which had a profound effect on al-Kindī, being especially evident in his longer treatise on the soul. Neoplatonism survived as a definite school at Athens and Alexandria and its exponents propagated their teachings in the form of commentaries on the works of Plato and Aristotle, especially the latter, because since his works were more systematic they provided a better basis for classroom teaching. We have mentioned before that Neoplatonism was largely Aristotelian logic and psychology taught as a prelude to Platonist metaphysics. There was an unbroken series of Neoplatonist teachers from the death of Plotinus 270 A.D. to the closing of the school of Athens by Justinian in 529. All of these commentators and their original works and commentaries are mentioned in the Fihrist of Ibn al-Nadīm.[96] We intend to give a short sketch of these philosopher-commentators since their works were the vehicles through which Greek philosophy passed to the Arabs.[97]

The most important figure after Plotinus was Porphyry (233-305 A.D.), his disciple and editor, who studied under him at Rome. Porphyry, apart from arranging the Enneads, is mostly famous for his Isagoge and his Commentary on the Categories, two introductions to the Categoriae of Aristotle. Although he was a leading Neoplatonist he was accepted by the Arabs as an Aristotelian. As regards his philosophical teaching, Porphyry tended to blur the distinction between the Plotinian hypostases and to be more monistic. For Porphyry the first in any chain and the most universal is the truly real, and the material seems

to have had less reality for him than for Plotinus. The second major figure was Jamblichus (c.250-325 A.D.) a follower of Porphyry, althought it is not certain whether he knew him personally or merely studied his writings. He had in common with his teacher a desire to harmonize Plato and Aristotle, but differed from him fundamentally in his reaction to Plotinus. Whereas Porphyry telescoped the hypostases, Jamblichus tended to make them almost self-subsistent and distinct. He was a religious-minded philosopher and attempted to separate the philosophical approach to God from what he considered the truly religious way of almost magical rites and prayers, which were a common feature of the pagan world in the first centuries of the Christian era.[98]

On the death of Jamblichus the centre of philosophy moved to Athens, where under Plutarch (d.432 A.D.) and his disciple Syrianus there developed a syncretic school of Aristotelian psychology and Neoplatonic Metaphysics, with the emphasis on the latter. It is the disciple of Plutarch and Syrianus, Proclus (410-485 A.D.), who is regarded as the great systematizer of Neoplatonism and is chiefly known for the many additional links which he inserted into the original Plotinian chain of being. Proclus' work the Liber Aristotelis de expositione bonitatis purae or the Liber de Causis (which is derived from his Elementatio Theologica) passed at a later stage as a work of Aristotle, but in the Fihrist of Ibn al-Nadīm[99] it is clearly ascribed to Proclus under the title of Kitāb al-Khayr al-Awwal (not Kitāb al-Ḥayyiz al-Awwal as is found in the Flügel edition of the Fihrist),[100]

and there is also mention of a work entitled Kitāb al-Thālōgīā (Elementatio Theologica?).

When Proclus died Alexandria became the centre of Neoplatonism and the dominant figure was Ammonius who lived in the fifth century and was a disciple of Proclus and Syrianus. Along with Ammonius two of his students, Simplicius and John Philipon (Yaḥyā al-Naḥwī), are mentioned by Ibn al-Nadīm, the latter as having commented on nearly all the major works of Aristotle. John Philipon, a Monophysite bishop, is chiefly famous for his De Aeternitate Mundi contra Proclum in which he rejects what was a basic tenet of Neoplatonism and insisted on the Christian teaching that the world was created in time. He abolished the distinction between celestial and sublunary matter and held that both were corruptible and therefore created. This work was translated by Isḥāq ibn Ḥunayn and Philipon's commentary on the Physica was translated by Ibn Nāʿimah al-Ḥimsī[101] who translated for al-Kindī. Therefore the Arabs came in contact with John Philipon at an early stage in the translation movement and he almost certainly contributed to al-Kindī's refusal to accept the universally held teaching of Greek philosophy that the world was eternal.

Having outlined the version of Greek philosophy which the Arabs inherited and the manner and the channels through which it reached them, what can we say specifically about the sources of al-Kindī's philosophy and especially of his views of soul and mind. It is certain that al-Kindī, in common with most of his

successors, knew neither Greek nor Syriac, and was therefore completely dependent on translations. When we read that he "corrected" Ibn Nāʿimah al-Ḥimṣī's translation of the Theologia it must be understood that he worked on the Arabic text, and that his contribution consisted in trying to find more accurate technical terms to render the Greek or in trying to improve the Arabic.[102] Our survey of the translation movement has shown us that al-Kindī would have had quite a sizeable body of translated material at his disposal even if he restricted himself to the pre-Ḥunayn translators. They translated nearly all the major works of Aristotle and we have a specific reference to a translation of the Metaphysica done at the request of al-Kindī.[103] A reading of al-Kindī's longer treatise on the soul will show that he was heavily influenced by Neoplatonic speculation and we have emphasized his familiarity with the Theologia. One of the mysteries surrounding al-Kindī is the nature of his relationship with Ḥunayn and his school. It is certain that he must have known him personally at the court of Maʾmūn, but as the sources are silent on the matter we have no way of knowing whether al-Kindī was influenced by, or had access to, the large body of new material translated by Ḥunayn and his disciples. The generally accepted opinion is that he did not make use of these later or improved translations.

Abū Rīdah in his long introduction to the treatises of al-Kindī stresses that there were other influences operative in his philosophy besides the Greek tradition and he mentions in particular the Ḥarrānian (Sabian) tradition.[104] He refers to

their teaching on divine unity (they are chiefly remembered in Islamic tradition as the monotheistic followers of Abraham) but probably of much more real importance was their astrological interests which are mentioned by al-Birūnī whom Abū Rīdah quotes in this context. The growth of the sciences of astronomy and mathematics owes a great deal to the cult of astrology and the effect of Ḥarrān on al-Kindī was probably in these fields. As regards the non-Greek foreign influences, Ibn al-Nadīm has the interesting notice that he read and copied a work entitled the Beliefs and Religions of India (Milal al-Hind wa Adyanihā) and that he came across a copy of the same work written in the hand of al-Kindī.[105]

One of al-Kindī's main contributions to Islamic philosophy was in the field of the formation of an Arabic philosophical terminology. Sometimes he made use of words which had fallen from common usage to which he gave new technical meanings, and other times he coined new terms from Arabic roots, some of which were not too successful and were replaced by later translators and philosophers.[106] In general al-Kindī is not noted for the elegance or conciseness of his style and is often criticized for writing Arabic that is involved and marred by frequent digressions which in no way contribute to clarity of exposition.[107] Against this must be set the fact that he was dealing with a subject both abstract and specialized, which had never before been treated in Arabic, and also that he was writing for people who had no previous formation in this field.

The points we have been trying to make about al-Kindī in this chapter have been summed up by a recent writer.

> Al-Kindi is the first of a galaxy of great Muslim thinkers whose humanistic and scientific works helped shape the t rend of the Medieval Arab renaissance. To study him is important not only for tracing the origin of the different tendencies in Arab-Muslim thought, but also for understanding the methodologies and attitudes of a great number of Muslim thinkers. His writings which include works on all current sciences of his time put him in a unique position to help establish the relations of Arab Muslim philosophy with earlier philosophies and with the following generations of Muslim thinkers who deal with metaphysical and scientific problems.[108]

NOTES TO CHAPTER 1

1. Kitāb al-Fihrist, p.255. This and all subsequent references are to the Flügel edition and will be referred to simply as Fihrist.

2. This sketch of al-Kindī's life is based on the detailed examination of the bibliographical sources found in Abū Rīdah's introduction to his edition of Rasā'il al-Kindī al-Falsafīyah, pp.1-9, where he reproduces the statements of the earliest biographers i.e. Sā'id, al-Qiftī, Ibn abī Usaybi'ah.

3. For a discussion of al-Kindī's dates see 'Abd al-Rāziq, Faylasūf al-'Arab wa'l-Mu'allim al-Thānī (Cairo: 'Isā al-Bābī al-Halabī, 1945), pp.19-20; 50-51.

4. S.H.Longrigg, "al-Basrah", Encyclopaedia of Islam (new edit.).

5. Rasā'il I, pp.33-34.

6. Louis Gardet and M.-M.Anawati, Introduction a la Théologie Musulmane (Paris: Vrin, 1948), pp.35ff.

7. Majid Fakhry, A History of Islamic Philosophy (New York: Columbia University Press, 1970), p.58.

8. Ibid., p.57.

9. Gardet and Anawati, opus cit., p.38.

10. H.S.Nyberg, "al-Mu'tazilah", Encyclopaedia of Islam (first edit.).

11. Gardet and Anawati, opus cit., pp.47-51.

12. Francis Edward Peters, Aristotle and the Arabs (New York: New York University Press, 1968), p.141.

13. Arent Jan Wensinck, The Muslim Creed (London: Cass and Co., 1965), pp.61-64.

14. Ibid., p.63.

15. Richard McCarthy, al-Tasānīf al-Mansūbah ila Faylasūfi'l-ʿArab al-Kindī (Baghdād: Wizārat al-Irshād, 1962). The treatises referred to are nos. 11, 153, and 157 in the general listing of works attributed to al-Kindī, pp.9-59.

16. Rasāʾil I, pp.35-37.

17. Peters, opus cit., p.74.

18. Ibid.,pp.35ff.

19. Fakhry, opus cit., pp.12ff.

20. Peters, opus cit., p.58.

21. Rasāʾil I, pp.38ff.

22. G.Fehervārī, "Harrān", Encyclopaedia of Islam (new edit.).

23. Peters, opus cit., p.46.

24. Ibid., p.48.

25. Fakhry, opus. cit., p.15.

26. Masʿūdī (Maçoudi), Læs Prairies d'Or (Murūj al-Dhahab), Arabic text and French translation in 4 vols. by C.Barbier and Pavet de Courtelle (Paris: L'Imprimerie Impériale, 1861-1877), VII, pp.38ff.

27. Fihrist, p.243.

28. Francesco Gabrieli, "Ibn al-Mukaffaʿ", Encyclopaedia of Islam (new edit.).

29. ʿAbdurrahmān Badawi, La Transmission de la Philosophie Grecque au Monde Arabe (Paris: Vrin, 1968), p.75. In future references this work will be referred to as Transmission.

30. Fihrist, p.249.

31. Richard Walzer, Greek into Arabic (Oxford: Bruno Cässirer, 1963), pp.78ff.

32. Fihrist, p.244.

33. Badawi, opus cit., p.85.

34. Peters, opus cit., p.63.

35. Fihrist, p.251.

36. D.M.Dunlop, "The Translations of al-Bitrīq and Yaḥyā (Yuḥanna) b. al-Bitrīq", Journal of the Royal Asiatic Society (1959), pp.140-150.

37. Fihrist, p.244.

38. Dunlop, opus cit., pp.144-147.

39. Peters, opus cit., p.63.

40. Fihrist, p.272.

41. Fakhry, opus cit., p.29.

42. Fihrist, p.294.

43. Badawi, opus cit., p.18.

44. Fihrist, pp.249-252.

45. Ibid., pp.243, 271.

46. Ibid., p.240.

47. Ibid., pp.248-251.

48. Badawi, opus cit., p.79. Bawawi has himself edited and published this translation of the Physica by Ishāq, in two volumes, Cairo, 1964-1965.

49. Ibid., p.97.

50. Fihrist, pp.248-253.

51. Ibid., pp.245-246; see also Raymond Klibanski, The Continuity of the Platonic Tradition (London: The Warburg Institute, 1939), pp.14-18.

52. Peters, opus cit., p.169.

53. Walzer, opus cit., p.5.

54. Peters, opus cit., p.xx.

55. Walzer, "Un frammento nuovo di Aristotele", Greek into Arabic, pp.38ff. The passage in question is found in the Rasā'il p.279.

56. A.A.Lloyd, "The Later Neoplatonists", The Cambridge History of Late Greek and Early Medieval Philosophy edited by A.H. Armstrong (Cambridge, England: The University Press, 1967), pp.314ff.

57. Émile Bréhier, The Hellenistic and Roman Age, trans. by Wade Baskin (Chicago: University of Chicago Press, 1965), p.168.

58. Ibid., p.175.

59. De Anima bk.III, c.5; 430a,10-19, The Works of Aristotle Translated into English, under the editorship of W.D.Ross.

60. Fihrist, p.252.

61. Bréhier, opus cit., p.176.

62. Fihrist, p.253. The Arabic translation by Ishāq exists in manuscript in the Escorial Library, Arabic Ms.794; see James Finnegan, "Al-Fārābī et le Peri Nou d'Alexandre d'Aphrodise", Mélanges Louis Massignon II (Damascus: Institut Français de Damas, 1957), n.2, p.136.

63. P.Merlan, "Greek Philosophy from Plato to Plotinus", The Cambridge History of Late Greek and Early Medieval Philosophy, pp.116ff; see also Bréhier, opus cit., p.176.

64. G.Théry, Autour du Décret de 1210 - II: Alexandre d'Aphrodise. Bibliothèque Thomiste no.7 (Paris: Vrin, 1926), pp.74ff.. See also Badawi, Aristūtālīs fī'l-Nafs (Cairo: Maktabat al-Nadat al-Misrīyah, 1954), pp.1-5.

65. De Anima, 430a,10-19; Metaphysica, 1074b,28-35; 1072b,5-21. The translation used here and in all subsequent references to the works of Aristotle is that edited by W.D.Ross.

66. P.Merlan, opus cit., p.117.

67. Badawi, Transmission, p.47; see also A.H.Armstrong, "Plotinus", The Cambridge History of Late Greek and Early Medieval Philosophy, pp.195-263.

68. Fihrist, p.255.

69. Badawi, Transmission, pp.57-59.

70. Fihrist, 252.

71. Plotinus, Opera, edited by Paul Henry and H.-R.Schwyzer (Paris: Museum Lessianum series philosophica, 2 vols., 1951-1955). Vol.II contains an English translation of the Theologia quae dicitur Aristotelis and of the Epistola de Scientia Divina which was originally attributed to al-Fārābī, but is now accepted as as a paraphrase of parts of Ennead V

which was translated by the same Nā'imah al-Ḥimṣī who translated the Theologia. The English translation is by Geoffrey Lewis. As we are concerned with Plotinus in so far as he influenced Muslim philosophers, and specifically al-Kindī, we will confine our exposition of his thought to those doctrines which are found in the Theologia and all references will be to the English translation found in the second volume which in future references will be referred to as Theologia. The Arabic version has been edited and published by A.Badawi, Plotinus apud Arabes (second edition, Cairo, 1966). See also Paul Kraus, "Plotin chez les Arabes", Bulletin de l'Institut d'Égypte XXIII (1941), pp.263-295.

72. Theologia, pp.291-293.

73. Ibid., p.291.

74. Ibid., p.263.

75. Ibid., p.231.

76. Ibid., p.393.

77. Ibid., p.269.

78. Ibid., p.385.

79. Ibid., p.385.

80. Ibid., p.269.

81. Ibid., p.239.

82. Ibid., p.245.

83. Ibid., pp.243, 247.

84. Ibid., pp.249, 273.

85. Ibid., p.45.

86. Ibid., p.181.

87. Ibid., p.207.

88. Ibid., p.47.

89. Plotinus, Enneads IV; 3,32. The English translation and all future passages in English from the Enneads are from The Enneads, translated into English by Stephen MacKenna, 2nd edit. (London: Faber and Faber, 1956).

90. Theologia, pp.209-211.

91. Ibid., p.179.

92. Ibid., p.221.

93. Ibid., p.273.

94. Enneads IV; 8,1.

95. Theologia, p.225.

96. Fihrist, pp.248-255.

97. A.C.Lloyd, "The Later Neoplatonists" and I.P.Sheldon-Williams, "The Greek Christian Platonist Tradition from the Cappadocians to Maximus and Eriugina", The Cambridge History of Late Greek and Early Medieval Philosophy, pp.272-325; 477-483. See also Bréhier, opus cit., pp.182-214; Badawi, Transmission, pp.60-73; 100-115.

98. Bréhier, opus cit., pp.197ff.

99. Fihrist, p.252.

100. Badawi, Transmission, p.66.

101. Fihrist, 250

102. Badawi, Transmission, pp.30ff.

103. Fihrist, p.251.

104. Rasā'il I, p.38.

105. Fihrist, p.345.

106. Rasā'il I, pp.20-23.

107. Fakhry, opus cit., p.108.

108. George N.Atiyeh, Al-Kindī, the Philosopher of the Arabs, (Rawalpindi: Islamic Research Institute, 1966), p.viii.

CHAPTER 2

AL-KINDĪ'S WRITINGS

The bibliographical sources bear striking testimony to the scope and encyclopaedic character of al-Kindī's intellectual interests. Ibn al-Nadīm in his Kitāb al-Fihrist[1] lists two hundred and forty one titles of works attributed to al-Kindī. He groups them according to subject matter, and the headings include philosophy, logic, arithmatic, the science of spheres, music, astronomy, geometry, heavenly bodies, medicine, astrology, polemical writings, psychology, politics, meteorology, magnitudes and divination. This list, and similar lists such as those of al-Qiftī in his work Tarīkh al-Ḥukamā',[2] which lists two hundred and twenty eight titles, and that of Ibn Abī Uṣaybi'ah in the 'Uyūn al-Anbā' fī ṭabaqāt al-Aṭibbā',[3] which gives two hundred and eighty one, all clearly show that the title "philosopher" is not to be applied to al-Kindī in any restricted sense. He was also a scientist. In fact, an examination of the lists of his writings show that he might more properly be called a scientist than a philosopher, if we are to decide by the relative number of treatises he devoted to each discipline. As regards the bibliographical lists, an examination of them clearly shows that the Fihrist is the basic source and that the catalogues of al-Qiftī (d.1248 A.D.) and of Ibn Abī Uṣaybi'ah (d.1270 A.D.) are additions or modifications of that

of Ibn al-Nadīm (d.997 A.D.) whose work is generally praised for its accuracy and historical prudence.[4] Thus the basic source for our knowledge of al-Kindī's writings is a list drawn-up by a writer, accepted as reliable, within a hundred years of al-Kindī's death, and at Baghdād where the philosophical tradition initiated by al-Kindī was still flourishing. This is not to say that the list in the Fihrist is to be accepted without qualifications, some of the titles which are very similar undoubtedly refer to a single work, and probably some are the titles of works by lesser known authors. Nor must we be too impressed by the actual number of titles, some are quite short, not much more than a page in length, others are longer. Al-Kindī's treatise on metaphysics Fī'l-Falsafah al-Ūlā occupies over sixty pages of Abū Rīdah's edition of the philosophical treatises.

In recent times attempts have been made to compile an accurate list of al-Kindī's writings. Two such efforts can be mentioned, that of Gustav Flügel[5] and of Albino Nagy[6]. The latter drew up a comparative table of the titles listed in Ibn al-Nadīm, al-Qiftī and Ibn abī Uṣaybi'ah. Basing himself on Flügel's article, Nagy distinguished three hundred separate titles. These recent works have been superceded by an excellent and comprehensive study of the writings of al-Kindī by Richard McCarthy.[7] Having thoroughly examined the sources, McCarthy has assembled references to three hundred and sixty one titles of treatises ascribed to al-Kindī. Of these he has discovered

only eighty three of them to be still extant, some in manuscript form. His work gives complete references to manuscript sources, printed editions, and translations of the extant works.

The majority of al-Kindī's philosophical treatises which are now available were only rediscovered in the last forty years. In 1932 Hellmut Ritter published a description of a manuscript which he had discovered in the library at Istanbul, Aya Sofya codex 4832.[8] The manuscript consisted of two parts, the first was a collection of mathematical treatises, mostly by Thābit ibn Qurrah, but the second section, which began with a new enumeration of the pages, indicated on its title page that it was the first part of a collection of al-Kindī's writings, of which it said it contained sixty. In spite of this description on the title page the collection in fact only contains twenty nine treatises by al-Kindī, not sixty. Mixed in with these genuine works of al-Kindī there are a number of short mathematical writings belonging to other authors, which, however, because of the script used, are clearly distinguishable. It is a mediocre manuscript, carelessly transcribed,[9] but from an examination of the script and because of the colour of the paper, Ritter was able to conclude that it indeed dates from the twelfth century A.D.; the manuscript states that it passed into the hands of its owner, Ibn al-Ḥamāmī abī Zayd ibn ʿAlī, in the year 568 h. (i.e. 1172 A.D.).[10] There is no doubt that these really are the works of al-Kindī. Apart from the fact that the titles correspond to writings listed in the Fihrist, we have here the Arabic originals

of two important writings on psychology which were only available in Latin translations since the Middle Ages - De Intellectu and De Somno et Visione.[11] The collection discovered by Ritter forms a unity, not only externally as regards script, but they have an inner consistency as regards terminology, which is what we would expect from al-Kindī, as it indicates a first effort to find Arabic equivalents for technical Greek philosophical terms, and at the same time echoes the terminology of the early Mutakallimūm.[12]

Of the twenty five treatises edited and published by Abū Rīdah in two volumes,[13] twenty three are from the manuscript discovered by Ritter. In the preface to his edition Abū Rīdah relates how with the help of some Egyptian diplomats he managed to secure a photo-copy of the manuscript described by Ritter. Working with this one, admittedly defective, text, Abū Rīdah frankly admits the deficiencies of his edition which cannot be called critical in any strict sense of the word, especially as the editor has in places "corrected" the text and style of the original without always clearly indicating the emendations he has made.[14]

The editor of the Rasā'il was faced with a text which was in places wholly unintelligible due either to the carelessness of the copyist, or to the fact that he did not understand the material he was transcribing. The text is sometimes without diacritical points, in other places they are misplaced, so that even when he settles for one reading Abū Rīdah honestly

admits that others are possible. He has attempted as far as possible to leave it to the reader to decide on the proper reading. Along with these emendations of substance, the printed text has attempted to make al-Kindī's writings more easily readable and intelligible, by breaking it into paragraphs and by suitable punctuation. Part of the basic problem is not only a poor manuscript, but al-Kindī's own style which is notoriously diffuse and longwinded. What we have in the Rasā'il, therefore, is not a critical text, but an attempt to render an obscure and difficult manuscript intelligible, and to present to the general public for the first time a large number of al-Kindī's writings on philosophy and natural science, which up to then were merely titles.

In this thesis, which is concerned with al-Kindi's writings on soul and intellect, we will be concentrating on four of his treatises in particular. Three of these are part of the Aya Sofya collection.

1. Risālah fī'l-ʿAql.[15]
2. Risālah fī Māhīyat al-Nawm wa'l-Ruʾyā.[16]
3. Kalām fī'l-Nafs Mukhtaṣar Wajīz.[17]
4. Al-Qawl fī'l-Nafs al-Mukhtaṣar min Kitāb Aristū wa Flāṭun wa Sāʾir al-Falāsifah.[18]

The last mentioned treatise is not found in the Istanbul collection but is derived from a manuscript preserved in Cairo of which there is also a copy in the British Museum.[19] Of these four treatises only the first two are listed in the Fihrist or in the

other bibliographical sources which we have mentioned. The Fī'l-ʿAql is listed under the "philosophical" works and a similar title is found under the heading of writings on "politics"![20] The treatise on dreams and visions is found among the works on psychology.[21] Both of these works have been familiar in the west in the medieval Latin translations which have been edited by Albino Nagy. The De Somno et Visione was translated by Gerard of Cremona at Cordova between 1167 and 1187 A.D. and the translation of the Fī'l-ʿAql under the title De Ratione is also probably by him.[22] The other translation of this latter work, under the title De Intellectu, is attributed to John of Spain. In his editing of the Arabic text of these works, Abū Rīdah has at times had recourse to the Latin translations in trying to establish the correct reading. Both the Arabic and the Latin texts, as edited, remain in places obscure and difficult, so when we come to analyze these texts, we too will make use of both versions.

Besides the writings of al-Kindī on psychology which have survived, other titles are listed in the Fihrist under the heading Kutubuhu al-Nafsīyāt which throw some light on al-Kindī's teachings. Among the titles are:[23]

1. On the soul that it is a simple substance, eternal and active on bodies.
2. On the reminiscences of the soul in the intelligible world before her descent into the sensible world.

These last two titles clearly belong to the more Platonic, or rather Neoplatonic element in al-Kindī.

NOTES TO CHAPTER 2

1. Fihrist, pp.255-261

2. Ibn al-Qiftī, Tarīkh al-Ḥukamā', edited by Julius Lippert (Leipzig: Dieterich'sche Verlagsbuchhandlung, 1903), pp.368-376.

3. Ibn abī Usaybi'ah, ʿUyūn al-Anbā' fī Ṭabaqāt al-Aṭibbā', edited by Nizār Riḍā (Dār Maktabat al-Ḥayāt, Beirut:1965), pp.289-293.

4. Peters, Aristotle and the Arabs, pp.277-278.

5. Gustav Flügel, "Al-Kindī, gennant der 'Philosoph der Araber'", Abhandlungen für die Kunde des Morgenlandes, vol.I, n.2, Leipzig (1897), pp.1-54.

6. Albino Nagy, "Sulle opere di Jaʿqūb ben Isḥāq al-Kindī", Rendiconti della Reale Accademia dei Lincei (classe di scienze morali, storiche e filologiche) serie 5, vol.4 (1895), pp.157-170.

7. Richard McCarthy, Al-Tasānīf al-Mansūbah ila Faylasūfi'l-ʿArab al-Kindī (Baghdād:Wizārat al-Irshād, 1962).

8. Hellmut Ritter and Martin Plessner, "Schriften Jaʿqūb ibn Isḥāq al-Kindī's in Stambuler Bibliotheken", Archiv Orientalni IV (1932), pp.363-372.

9. Abū Rīdah, Rasā'il I, p.ف.

10. Abū Rīdah, Rasā'il I, p.ل, and Walzer, Greek into Arabic, p.11, both state that this manuscript probably formed part of the library of Ibn Sīnā, but I have been unable to find their authority for this statement. It is not Ritter's article as Abū Rīdah seems to imply.

11. Albino Nagy, "Die Philosophischen Abhandlungen des Ja'qūb ben Ishāq al-Kindī", Beiträge zur Geschichte der Philosophie des Mittelalters, Band 2, Heft 5, Münster, 1897.

12. Rasā'il I, p. ل.

13. Abū Yūsuf Ya'qūb ibn Ishāq al-Kindī, Rasā'il al-Kindī al-Falsafīyah 2 vols., edited with introductions by Muhammad 'Abd al-Hādī abū Rīdah (Cairo: Dār al-Fikr al-'Arabī, 1950, 1953).

14. Georges Vajda, "Rasā'il al-Kindī al-Falsafīyah", Revue des Études Islamiques, XIX (1951), pp.125-126.

15. Ritter, opus cit., n.14, p.367; Rasā'il I, pp.353-358. Ahmad Fu'ād al-Ahwānī working on the same manuscript has also edited and published a version of the Fī'l-'Aql with a short introduction as an appendix to Talkhīs Kitāb al-Nafs l'ibn Rushd (Cairo: Maktabat al-Nahdat al-Misrīyah, 1950), pp.176-181.

16. Ritter, opus cit., n.6, p.365; Rasā'il I, pp.293-311.

17. Ritter, opus cit., n.19, p.368; Rasā'il I, pp.281-282.

18. Rasā'il I, pp.272-280.

19. McCarthy, opus cit., p.69.

20. Fihrist, p.260.

21. Ibid., p.259.

22. Nagy, "DiePhilosophischen Abhandlungen des Ja'qūb ben Ishāq al-Kindī", opus cit., pp.xiv-xv.

23. Fihrist, p.259.

CHAPTER 3

AL-KINDĪ'S TREATISE FĪ'L-ʿAQL

The most important of al-Kindī's writings on psychology is his treatise on the intellect - the Fī'l-ʿAql. It is extremely short and were it not for the lengthy footnotes inserted by the editor would occupy no more than three pages in Abū Rīdah's edition of al-Kindī's philosophical writings.[1] We have mentioned that one of the criticisms levelled against al-Kindī is long-windedness, but his exposition in this instance is disappointingly brief, almost incomprehensibly concise. He presents his treatise as a short informative account of teachings regarding the intellect derived from those among the ancient Greeks whose views he considered worthy of esteem; especially Plato and Aristotle.[2] The opening paragraph is particularly illuminating. That al-Kindī was writing under the influence and in the tradition of the later Greek commentators is obvious, not only from the stated intention of the treatise, which was to summarize the views of various authorities on one particular topic, i.e. the intellect, but also from his untroubled assumption, indeed his explicit assertion, that in the matter of the intellect Plato and Aristotle held identical viewpoints. Both of these phenomena were a characteristic of the later school-tradition of Greek philosophy which exhibited a basic tendency to organize and systematize, and especially to harmonize Plato and Aristotle.

Al-Kindī's treatise is of great importance and interest. It was the first of a series of writings in Islamic philosophy which dealt with the problem of soul and intellect. Even more importantly, it is a link in the chain of commentaries and writings on psychology which stretch from Aristotle to the Latin middle ages; a tradition which, in the view of Étienne Gilson, can be seen as nothing more than an attempt to elucidate and develop ideas obscurely implied in the De Anima of Aristotle, especially in the classic passage Book III, chapter 5, to which we earlier referred.[3] This tradition, which was formed over the space of more than sixteen centuries, was undoubtedly subtly, and sometimes even profoundly, altered as it passed through successive translations from Greek to Syriac to Arabic to Latin, and an attempt was made to harmonize the views of the original pagan Greek philosophers and commentators with the demands of Christian dogma in its Greek, Syriac and Latin versions, or to bring it into line with the teachings of Islam. The most important developments were due, however, not so much to language or to religious influences, but to the personal genius and the unique contributions made by original thinkers. In this chapter we are primarily concerned with that stage of the tradition where it first passed to the Muslim Arabs in the person of al-Kindī. We are not going to concern ourselves with subsequent developments of the notion of soul and intellect in Muslim philosophy in the writings of al-Fārābī, Ibn Sīnā, Ibn Rushd, or as it finally passed to the Latin medieval scholastics. The main focus of this

dissertation is the psychological theories of al-Kindī as an instance of the passage of Greek philosophy to the Muslims. Therefore, this chapter will not only be an examination of the text of the Fī'l-ʿAql, but will attempt to identify the origin of the views which al-Kindī presents as those of Aristotle. The treatise is undoubtedly Aristotelian in inspiration, but in the sense that it is part of a tradition of philosophy deriving from Aristotle which had been shaped and systematized over the centuries and which often owed as much to the commentators as it did to Aristotle.[4] In the case of the De Anima Ibn al-Nadīm besides mentioning the translations of Ḥunayn and his son Isḥāq, together with the summary of Ibn al-Biṭrīq, also mentions commentaries by Themistius, Simplicius and Olympiodorus together with a paraphrase or condensation (talkhīṣ) by the "Alexandrians".[5] The Fihrist also refers to the treatise on the soul by Alexander of Aphrodisias and another work of the same topic by Porphyry.[6] The purpose of this chapter is first of all to examine the text of the Fī'l-ʿAql and to summarize and explain it. Secondly we will compare it with the teaching on the intellect found in the original works of Aristotle, especially the De Anima, in order to determine to what extent al-Kindī's views are truly those of the master, and to what extent, if any, they differ. Thirdly, we will examine al-Kindī's treatise in the light of Alexander of Aphrodisias' work on the same topic, as it has often been held that he is the primary source of al-Kindī's teaching. Finally, we will indicate other possible sources which may have more

directly influenced the views presented by the "Philosopher of the Arabs".

Al-Kindī begins his exposition with a fourfold division of the intellect which he attributes to Aristotle.[7] The first intellect is that which is "always in act" (الذى بالفعل ابدًا); the second is the intellect that is "in potency" (بالقوة) regarding which al-Kindī adds that "it belongs to the soul" (وهو للنفس), which could be understood as implying a closer relationship between it and the soul than exists between the soul and the first intellect mentioned. At this point both of the medieval Latin translations edited by Albino Nagy have "in anima", which indicates that their Arabic texts had فى النفس which is a little weaker than our reading.[8] The third intellect is that "which has passed from potency to act in the soul". The fourth intellect is called in the Latin texts "demonstrativus". At this point there is an obscurity in the Arabic. Abū Rīdah reads الثانى (the second); this is certainly wrong and would give rise to innumerable complexities. Richard McCarthy in his edition reads الناتى , which would literally mean that which is "jutting out", or as he translates it "the emergent (appearing) intellect".[9] Another possible reading is offered by Badawi in his introduction to the Arabic translation of Aristotle's De Anima where he suggests that we should read البيانى or البائن , both of which are more in keeping with the description of the fourth intellect which occurs towards the end of the treatise where it is described as that which is "appearing" (الظاهر) from the soul.[10] What we

have, therefore, in the opening paragraphs of the Fī'l-ʿAql is a description of the mind as originally potential, a mere capacity for knowledge, but which is moved to actual knowledge by a mind which is always in act. In the mind, then, there are two basic principles; a potential principle which is a capacity to receive abstract intelligible forms, and an active principle which actuates this potency in the mind. There are two possible states of the mind after it has passed from potency to actuality, and to these two different states al-Kindī has given the names third and fourth intellects. The third intellect is either the intellectual memory, the storehouse of ideas, derived from previous acts of knowledge, which are present in the soul although not being used; or the habit of science or art, also acquired through previous acts of knowledge, but not now being used. These are a real perfection or actualization of the soul, because it can draw on them at any time it wishes. The fourth intellect is when the soul exercises an actual conscious act of knowledge either for the first time or by drawing on the memory or by exercising its acquired habit. The actuality of the third and fourth intellects is essentially different from the actuality of the first intellect, because their actualization depends ultimately on the activity of this first intellect which is always in act.

After presenting his fourfold division, al-Kindī elaborates in the latter half of his treatise on the nature and function of these various intellects. The nearest he comes to a description of the intellect "which is always in act" is when he

describes it as "the cause and first principle of all intelligibles and second intellects".[11] The first intellect is not described in itself, it is postulated because whatever is in potency (in this case the second intellect) can only pass into a state of actuation under the influence of something other than itself which is already in act.[12] The first intellect is always in act, it was never in a state of potency, otherwise we would have an infinite regression by having to explain what moved the first intellect from potency to actuality etc. etc.. Al-Kindī describes this first intellect as a cause and a first principle (both words are indefinite). In the Latin translations the first intellect is not said to be the cause of the second intellects, but only of the intelligibles. Gerard of Cremona's translation reads.

> Ratio igitur prima est instrumentum omnium rationatorum et rationatum. Ratio vera secunda est animae potentiā. Igitur ratio aut est prima et instrumentum omnium rationatum, aut est secunda et est animae in potentia.

The second translation attributed to John of Spain has:

> Intellectus igitur primus causa est omnium intellectorum. Sed intellectus secundus est animae in potentia. Intellectus igitur vel est primus omnibus intellectibus, vel est secundus, et tunc animae est in potentia, interim dum anima non est intelligens in effectu.[13]

Thus, al-Kindī says almost nothing about the nature of this first intellect. The only hint, or perhaps echo, which we have that this intellect might possess a certain distinct exist-

ence of its own, or be in some way independent of the other intellects or faculties of the soul, is the fact that when al-Kindī comes to mention the second and third intellects he remarks that these "belong to the soul" or are "in the soul". In fact all the treatise clearly says is that the first intellect has a certain priority over the second, and this in so far as what is in act is always, in the order of being, superior to what is still in potency; it has a priority at least of nature, in so far as it is the cause which actualizes the potentiality. There is no indication whatsoever that al-Kindī considered this first intellect, which is always in act, to be a divine being. He describes it in terms of its function and if he genuinely thought it was God this would have been evident.

So far we have seen that for al-Kindī there is in the soul of man a potentiality or a capacity for intellectual knowledge, which if it is to be actualized, demands that there be an active principle (the first intellect) under whose influence the potential intellect will move to actual acts of knowledge. But what does al-Kindī mean by intellectual knowledge? Referring to his authority, Aristotle, al-Kindī claims that he "compared the intellect (al-ʿaql) to sense (al-ḥass)", or probaly more accurately, he compared intellection to sensation.[14] The justification he gives for this comparison of the two forms of knowledge is because of the "nearness of sensation to the living and because it is common to them all". If this is the correct reading then what al-Kindī is probably saying is that of the two forms of

cognition, sense knowledge is the more evident phenomenon, as a common and clear characteristic of all living things, and that intellectual knowledge, which is not so easy to examine, is to be understood by analogy with sensation. This would explain his procedure in the sections which follow, where he first carefully explains the process of sense knowledge and then says that intellectual knowledge is somewhat similar but on a higher level of abstraction and universality. However, in the corresponding passage in the Latin translations we find the reason given for the comparison of the two modes of cognition as "propter propinquitatem sensus ad veritatem" - "because of their nearness, close connection with truth". They read حق where the Arabic versions we have before us read حي. This alternative reading would be more philosophically meaningful, because it is saying that the object of all knowledge, both of the senses and of the intellect, is what exists - the real (al-ḥaqq). This comparison of the functions of sense and intellect is found in Aristotle, where he says that "mind must be related to what is thinkable, as sense to what is sensible".[15] In an earlier passage Aristotle gives the reason for the similarity: "thinking both speculative and practical, is regarded as akin to a form of perceiving [i.e. sensation]; for in one as well as the other the soul thus discriminates and is cognizant of something which is".[16] This passage from Aristotle, from whom al-Kindī's ideas are certainly, though indirectly, derived, would support the reading ḥaqq in place of ḥayy. There is obvious room for confusion between these

two words in their Arabic form.

Of the two processes, as we have said, sensation is the more easily examined. Knowledge comes about when the knower possesses the form of the object known, and corresponding to the two types of knowledge there are two types of form; the material form which falls under sense perception, and the immaterial form which falls under intellect. Al-Kindī does not elaborate, but implicit in this division of forms is Aristotle's theory that all types of knowledge demand that the cognitive potency should receive the form of the object known, and in so far as it is informed by it, becomes that object. But he warns that we must be careful with this statement that the potency "becomes the object", as, he says, when we know a stone, it is not the stone which is in the soul, but its form.[17] In the case of sensation, what happens is that the external object, by means of a medium, e.g. air, flesh,water etc., sets up a sympathetic response in the sense in question so that the quality is reproduced there. Each sense organ is sensitive to a particular quality within a certain range from one extreme to the other, e.g. light-darkness, heat-cold, etc.. If the stimulus is too intense, e.g. too bright, or too hot, the sense is incapable of dealing with it. The sense itself occupies a certain middle position with regard to the quality, so when it is stimulated it reacts by taking up the proper position on the scale and thus the external quality is reproduced in the organ. This is what is meant by saying that the sense becomes the quality it perceives. Again, Aristotle stresses that the

sense receives the sensible form without matter. It does not receive the object in its total concrete external reality, but a particular aspect which corresponds to the sense in question, and only the form of it.[18]

The cognitive faculties, or the power to know, then, are simply the capacity to receive the forms of existing objects, because as Aristotle says, and al-Kindī repeats,[19] the soul could only receive these forms in fact (in act) if before this it had a potency or a capacity for receiving them. Al-Kindī speaks of sensation being the reception of a material form as distinct from intellectual knowledge which is the reception of an immaterial form. However, al-Kindī says that the soul does not receive the matter of the object sensed (i.e. the total material concrete reality of the object) but only a form. What is meant by a material form is better explained in another psychological treatise of his, Risālah fī Māhīyat al-Nawm wa'l-Ruʾyā,[20] where he deals with the objects of sensation and intellection in more detail, and the differences between the sensible and intelligible form. The sensible form is the form of one particular individual object - a particular colour, shape, taste, sound, smell or feel. It is material in so far as the sense which perceives it is material and receives it as one particular sensation. Intellectual knowledge on the other hand has a universality and timelessness about it.

The form of an object is that which, with Aristotle, makes a thing to be what it is, whether in the larger meaning of its

intelligible essence or in the more restricted meaning of an accidental form which makes an object to be, for example, black, rough, hot etc. As we have seen, according to the Aristotelian theory of sensation, when the sense faculty is stimulated by a particular quality, that quality is reproduced in the sense, and to that extent the sense becomes the quality; the form of the object is present in the knower, not in its concrete reality, or spatially (not in a vessel as al-Kindī says), but it is present psychically. This is the meaning of the strange phrases used by al-Kindī when he states that as regards the sensing subject (al-ḥāss) it is identified with the object sensed (al-maḥsūs) and there is no "otherness" (ghayrīyah).[21] The potency to know is the capacity to receive the forms of external objects, in this specific psychical sense, and to that extent to become those things in so far as the form of the object known is actually informing the soul.[22]

As in the case of sensation where the potentiality is the capacity to receive sensible forms, and actual sensation is the actualization of that potency by a particular form, so too intellectual knowledge is the actualization of a potency to receive intelligible forms by the reception of such a form, so that the intellect (or the soul as al-Kindī says) and the intellectual form become one thing. There is no distinction of mind and form, but rather they become a unity - a mind informed. The Latin medieval schoolmen expressed this phenomenon in the phrase "cognoscens, cognoscendo fit cognitum". For al-Kindī, following

Aristotle, the potential aspect of the mind is nothing more than a capacity to receive the intelligible forms of all things according to this psychic mode, and in that sense a capacity to become all things. When it is informed by an intelligible form that form constitutes the whole nature of the mind, on an analogy with form and matter in the ontological order. This intelligible form differs from the sensible in that it is not just the form of a particular individualized quality, but a universal idea - naw'īyat al-ashyā' - the specific nature of the thing. It is in no way material, nor is it merely an image in the imagination. In the Māhīyat al-Nawm wa'l-Ru'yā al-Kindī adds that the intelligible corresponds to the species of things, their specific differences (tamyīzāt anwā'ihā) and what is proper to them (mā laḥaqahā). It is the possession of these general and universal ideas by the mind which make it pass from potential to actual knowledge. In the Risālah fī'l-Falsafah al-Ūlā al-Kindī states that these universals (kullīyāt) are what moves the mind from potency to actuality; these are he says the soul's "acquired intellect" (hiya 'aql al-nafsi'l-mustafād).[23] There is need for some clarification here. Al-Kindī has described the first intellect as that which moves the potential intellect from a state of potential to actual knowledge. Here he assigns that function to the universal ideas. The passage in the Fī'l-'Aql is difficult and translated reads as follows.

> When the soul joins the intellect, I mean with the forms which have neither matter nor an image (fanṭāsīyā),

> they unite. I mean they were present in it in act, after not being present in it in act but in potentiality. This form which has not matter nor an image is the intellect acquired by the soul from the first intellect, being [the following clause can, gramatically, refer either to the acquired intellect, or the first intellect] the species of things that are always in actuality.[24]

The main lines of the argument are clear. The intellect which was in potency becomes an intellect in act when it apprehends, or acquires, the intelligible forms which are abstract and universal. In the paragraph which follows the one quoted above, the first intellect is described as that thing which is in act and is the cause that moves the potential intellect from potency to act. The seeming contradiction which arises from the fact that in one place al-Kindī says that the intellect in potency is moved to a state of actuality by the universal ideas and in another by the first intellect, is easily solved if, in Aristotelian fashion, we distinguish two types of causality - the formal cause and the efficient. The efficient cause in this instance is the first intellect, it is that which initiates the process; the formal cause is the universals, which constitute the second intellect in act, after it had been in potency, by the acquisition or possession of the intelligible forms, i.e. the universal ideas. So both the universal ideas and the first intellect are causes, each in their own sphere. But this does not solve the ambiguity in the text regarding the original locus of the "species of things that are always in actuality". When the second intellect passes

into actuality then it acquires these universal ideas and they are identified with the intellect which has passed from potency to act. but before that were they found in the first intellect? The text, as we have said,is ambiguous in so far as it can be read as saying that the abstract form is acquired from the first intellect which (first intellect) is the species of things that are continually in act. This reading which identifies the universal notions with the first intellect is supported by the Latin translations, both of which describe the "intelligencia prima" or the "ratio prima" as the "specialitas rerum quae est semper in actu".[25] Richard McCarthy in his translation prefers the reading which would identify the acquired intellect and the "kindness of things which is in act perpetually".[26] He bases himself on a parallel passage in the Risālah fī'l-Falsafah al-Ūlā [27] where the universals (kullīyāt) are clearly stated to be the soul's acquired intellect. But the universals are here also described as "the intellect which is in act and which moves the soul from potency to act". This intellect which is in act must refer to the first intellect, because the second intellect cannot move itself from potency to actuality as al-Kindī has already clearly pointed out. This confusion between the intellect which was in potency, but has now been actualized by the reception of the intelligible forms, and the intellect which is always in act, appears clearly in the Arabic and Latin translations of the Περὶ Νοῦ of Alexander of Aphrodisias, where the agent intellect (the active or first intellect) and the acquired intellect

(مستفاد ;adeptus) are identified.[28] I am inclined to the view that the position which al-Kindī is reproducing here, and presenting as that of Aristotle, is one which held that the universal ideas of the things which are "always in act" were, before they were acquired by the second intellect, identified with the first intellect which is "always in act". The use of the phrase "always in act" (بالفعل ابدًا) for both is, I think, significant. The classic passage in Aristotle's De Anima regarding the active and passive intellect, to which we have already referred, and indeed other passages to which we will refer later, clearly imply that the active mind (the first intellect of al-Kindī) has an activity of its own over and above that which is proper to it in so far as it is active in a particular individual.

> Mind in this sense of it [the active element] is separable, impassible, unmixed, since it is in its essential nature activity (for always the active is superior to the passive factor, the originating force to the matter which it forms). Actual knowledge is identical with its object in the individual, potential knowledge is in time prior to actual knowledge, but in the universe as a whole it is not prior even in time. Mind is not at one time knowing and at another not. When the mind is set free from its present conditions it appears as just what it is and nothing more: this alone is immortal and eternal (we do not, however, remember its former activity, while mind in this sense is impassible, mind as passive is destructible), and without it nothing thinks.[29]

Clearly implied in this whole passage is the theory of an

impersonal mind which precedes and survives the individual soul and is continually knowing. What are the objects of its knowledge? It is no straining of the text, especially when we remember that Aristotle never completely freed himself from Plato's theory of ideas, to see these as the intelligible and universal essences of things. It is because the active intellect already knows all intelligible objects that it becomes possible for the intellect which is in potency actually to know the specific nature of things, and for the object to be known in its intelligible reality. Al-Kindī has already stated that "everything which is in potency emerges into act only by an other which is that thing in act".[30]

An immediate and cogent objection to our interpretation of the relationship between the universals and the first intellect in al-Kindī, is the subsequent passage where he clearly states that the intellect which is always in act and its intelligible, i.e. the form intellected by it, are not one and the same thing.[31] In the theory of knowledge which we have expounded this would imply that the first intellect does not really know, because knowledge is the union of the knowing potency and the form of the object known, which in this case, according to al-Kindī, only takes place in that intellect (the second) which was originally in potency in the soul and is now in act through the apprehension of the intelligible universal forms. In this interpretation the second intellect, or the passive mind, once it has passed from potency to actuality, is mind in the true sense, because it is

there that knowledge takes place. What we call the first intellect would only be a mind by association, it would not itself know, but would be merely the power which makes the soul pass beyond the sensible and the particular and grasp the intelligible forms of things. This would be a valid interpretation of al-Kindī's remarks.

If we wish to maintain the other interpretation, which I think is implicit in Aristotle, viz, that the first intellect is truly an intellect and always in act as an intellect, that is continually knowing, how can this be reconciled with the statements of al-Kindī? The whole purpose of al-Kindī's treatise is to attempt an explanation of the nature and genesis of an act of human knowledge, understanding as it occurs in a particular indivual. Certainly this knowledge takes place in the second intellect, which is in the soul, when by the acquisition of the intelligible forms it passes from potency to actuality. Human knowledge is not merely a sharing in the unchanging knowledge of the first intellect; the acquired intellect is distinct from the first. It really possesses the intelligible form of the object known and becomes that object. The first intellect,on the other hand, is in no way changed by the individual's acts of intellectual knowledge, it is impassible and unchanging, eternally knowing, it is in no way affected by the soul's particular acts of knowledge, it lends its eternally active power of intelligizing to the passive particular intellect (the second) and enables it to know in

in actuality, but itself remains unaltered; it does not receive new forms or new knowledge. It cannot, because it is already perfect and impassible. In that sense there is no union between it and the form of the object known by the human intellect. This would explain al-Kindī's assertion that the intelligible in the soul and in the first intellect, with respect to the first intellect are not one and the same thing. However, the statement that the first intellect and its intelligible object are not identified remains unintelligible.

Before we go on to say what al-Kindī means by the third and fourth intellects there is another very obscure remark of his which needs clarification. Having given his exposition of the relationship between the first and second intellects he concludes: "and this [referring either to the intelligible form, about which he has been speaking, or the intellect itself] in the intellect, by reason of the simple, is more like to the soul and much stronger than it is in the sensible object".[32] Such a rendering does not make much sense. The Latin translations are more intelligible, especially that attributed to John of Spain which reads: "intellectus autem, qui in simplicitate est similior animae, est multo fortior quantum ad intellectum, quam sensus ad sensatum".[33] The meaning seems to be that intellectual knowledge is far superior to sensation, either because the mind, or the intelligible form which it apprehends, has a simplicity or a directness which makes the intelligible form stronger and clearer than the sensible form which is still closely bound up with matter.

It is not clear whether al-Kindī is referring to the intellect or to its object, but he ascribes to whichever of them he has in mind a simplicity (bi'l-basīṭ) which is similar to that of the soul. in this he is probably referring to the fact that just as the soul as form and act is superior to the body, which is the material element in the human composite, so too intellection is superior to sensation.

As for the third and fourth intellects, these are merely two states of the mind which has passed from potency to actuality.[34] The third intellect is the state of the intellect which as a result of previous acts of knowledge, has the power to recall these ideas at will; they are recalled from within the soul, from the intellectual memory. Al-Kindī also includes within the third intellect the habit of science; the example he gives is the ability to write, which, even when it is not being used, is a permanent perfection or actualization of the soul, to be exercised at will. It has become a possession of the writer because of previous particular acts of the intellect. The fourth intellect is when the intellect which is in the soul is actually exercising an act of intellectual knowledge; either for the first time, or when it is drawing on the intellectual memory, or exercising an intellectual habit which it has acquired through repeated acts. This seems the obvious and clear meaning of these intellects which are numbered three and four by al-Kindī. Aristotle speaks of two stages of actuality corresponding respectively to the possession of knowledge and the actual exercise of knowledge.[35] There is a

passage in the De Anima which clearly speaks of the three stages of knowing which are schematically enumerated by al-Kindī as intellects two, three and four.

> But we must now distinguish not only between what is potential and what is actual but also different senses in which things can be said to be potential or actual; up to now we have been speaking as if each of those phrases had only one sense. We can speak of something as a knower, as when we say man is a knower, meaning that man falls within the class of beings that know or have knowledge, or as when we are speaking of a man who possesses a knowledge of grammar; each of these is so called as having within him a certain potentiality, but there is a difference between their potentialities, the one being a potential knower, because his kind or matter is such and such [al-Kindī's second intellect which is pure potentiality], the other, because he can in the absence of any external counteracting cause realize his knowledge in actual knowing at will [third intellect]. This implies a third meaning of a 'knower' one who is already realizing his knowledge - he is a knower in actuality and the most proper sense is knowing, e.g. this A [fourth intellect].[36]

In our exposition of al-Kindī's treatise Fī'l-ʿAql we have shown how all the major themes are definitely Aristotelian and can be traced back to the De Anima. Does this mean that the Fī'l-ʿAql is a summary of the De Anima or that al-Kindī had immediate access to Aristotle's work. We have no evidence that al-Kindī had available to him a complete translation of the De Anima. Ibn al-Nadīm states that the first complete translation of this work into Arabic was by Isḥāq, although his father Ḥunayn had previously

translated it into Syriac. He does, however, mention a summary (jawāmi^{c}) by Ibn al-Biṭrīq, a contemporary of al-Kindī.[37] Nevertheless a comparison of the text of the Fī'l-^{c}Aql with that of the De Anima, in spite of the definite derivation of al-Kindī's ideas from Aristotle, leaves one with the clear impression that the Arab philosopher had not a copy of the De Anima hand when he wrote his treatise on the intellect. The whole t one is different. In al-Kindī we have a schematic extremely concise and organized presentation of the nature of intellect, according to a fourfold division. Apart from the fact that this division, and the terminology used, is nowhere found in Aristotle, although the substance of the division is, there is not in al-Kindī's writing that sense of searching and reaching for a solution which is so characteristic of Aristotle's work. Where Aristotle is vague and tentative, and one can see through the text an original mind grappling with problems, in al-Kindī's Fī'l-^{c}Aql everything is cut and dried, and schematized; we are presented with an organized system of ideas. This as we saw is typical of the later Greek commentaries on the works of Aristotle and the result of their being used as texts in the schools. One could say that al-Kindī himself organized and systematized Aristotle's exposition. This is extremely unlikely. Al-Kindī omits all reference to the empirical investigations regarding the various faculties of the soul which occupy the larger portion of the De Anima. He concentrates on the relationship between the active and potential intellects but in no part of his treatise does he betray any sign

of having read the text of Aristotle. There is no echo of the important and crucial passage in Bk.III, c.5, where Aristotle discusses the nature of the active intellect, nor does al-Kindī show any evidence that he is aware of the passages where Aristotle clearly ascribes to the active aspect of the mind an existence which precedes and survives the individual soul; that it is "separable, impassible, unmixed",[38] that it is "an independent substance implanted within the soul and incapable of being destroyed".[39] There is no hint in al-Kindī that Aristotle suggests that the mind, or at least part of it, "was a widely different kind of soul, differing as what is eternal from what is perishable; it alone is capable of existence in isolation from all other psychic powers".[40] Here too I would suggest that Abū Rīdah is hardly to be followed when he tries to persuade us, in an effort to show how close al-Kindī is to Aristotle, that for Aristotle there was no real distinction between the active and passive intellects.[41] For Aristotle there was a very real distinction, although he does not elaborate on the consequences of the independence and impassibility which he ascribes to the mind. He does not raise nor answer the question as to whether there are many active intellects or only one, or the nature and extent of the individuality which such an intellect might possess. However, these quasi divine qualities of the soul were constantly at the back of Aristotle's mind in the elaboration of his psychology and were also an important element in his ethics. This aspect of the De Anima is missing from the Fī'l-ᶜAql.

Finally, it seems to me impossible that al-Kindī could have read the classic passage in the third book of the De Anima, which deals explicitly with the relationship of the active to the passive intellect, and not himself have used the analogy of light which Aristotle used to explain the influence of one on the other. For all these reason I conclude that al-Kindī did not make use of the De Anima of Aristotle, and that the elements of that work which are found in the Fī'l-ᶜAql were derived indirectly from later Greek commentators for whom these questions were no longer burning issues but theses to be classified and taught in the schools.

Who were these commentators from whom, according to our hypothesis, al-Kindī derived his views on Aristotle's theory of intellectual knowledge? Undoubtedly, the most influential commentary on the De Anima was that written by Alexander of Aphrodisias who was prominent in Athens c.200A.D., an outline of whose theories and influence we have given in the first chapter of this thesis. The work in which he chiefly expounded his ideas was his treatise on the intellect - Περι νοῦ - a section of a larger work of his on the soul - Περι ψυχης.[42] The Περι νοῦ was translated into Arabic by Ishāq ibn Ḥunayn and into Latin by Gerard of Cremona, who seemingly not only had a copy of Ishāq's Arabic translation before him but also the original Greek.[43] The Latin transcription of this work was careless, the scribe who copied the manuscript on which Théry bases his edition does not seem to have had much understanding of what he was

copying.[44] The Arabic translation of Ishāq is still extant,[45] but as this is in manuscript form and inaccessible I have based my exposition of Alexander as he was understood by the Arabs, on the Latin translation of Gerard of Cremona edited by G.Thery, which seems accurately to have reproduced the Arabic including those places where it departs from the Greek original of Alexander. Some passages of the Latin translation which are particularly unintelligible have been corrected by Étienne Gilson in the light of the Greek.[46]

Certain scholars have seen Alexander's treatise as the immediate source of the views found in al-Kindī's Fī'l-ᶜAql. This, for example, is the opinion of de Boer and al-Ahwānī,[47] but has been most cogently argued in a long article by Étienne Gilson on the Greek-Arabic sources of Averroism in the Latin middle ages.[48] This view that al-Kindī's treatise is a confused and weakened version of Alexander, who was his immediate source, is completely unacceptable to Abū Rīdah who in his introduction to his edition of the Fī'l-ᶜAql devotes many pages to a summary of Gilson's views and tries to show that al-Kindī's work, in terms of its sources, is wholly explicable as the work of someone who had direct access to the De Anima and other works of Aristotle.[49] James Finnegan, in an article which examines the influence of Alexander on al-Fārābī, agrees with Abū Rīdah that in spite of Gilson's article the exclusive or predominant influence of Alexander on al-Kindī is by no means proved.[50]

In treating of Alexander of Aphrodisias as part of the

Greek tradition we outlined the threefold division which he gives of the intellect.

1. The material intellect - العقل الهيولانى
2. The habitual intellect - العقل بالملكه
3. The agent intellect - العقل الفعال

Alexander is careful to stress that when he speaks of the intellect as material, he in fact uses the phrase "quasi materia", he does not mean corporeal, and that what he is stressing is the completely potential aspect of the human mind, which is no particular thing in itself, but is capable of becoming, i.e. knowing, all things. Alexander elaborates on the parallel between intellection and sensation and clarifies the theory of sense knowledge which is found in the De Anima.[51] The material intellect is the human intellect in the proper sense; "intellectus materialis est in omni habenti animam integram, scilicet homine".[52]

The second intellect is described as "qui intelligit et habet habitum ut intelligat" - "that which understands and has the ability (habitus) to understand".[53] "Ability" is here understood not in the sense of a mere undifferentiated potency or capacity, but in the sense of a quality or perfection acquired through previous acts of knowledge; the "habitus artificiorum" by which one has of oneself a mastery in a particular science or art.

The third intellect is the agent intellect (intelligencia agens), that which actuates the potentiality of the material intellect. The influence of the agent intellect on the material

intellect is described in terms of Aristotle's analogy of light. It is this intelligizing power which allows the material intellect to apprehend intelligible forms by a process of abstraction from the matter in which they are found in their concrete reality.[54] This agent intellect is described as in no way dependent on matter, nor does it acquire its knowledge by abstraction from matter. It is separate from the human soul and only acts on it from outside. It is self-sufficient in itself and contemplates its own essence, it is immaterial, incorruptible and immortal.[55] Here we see clearly reflected the attributes which Aristotle predicated of the active intellect. However, Alexander goes beyond Aristotle and makes the agent intellect into a self-subsistent intelligence which contemplates its own essence, i.e. Aristotle's God.[56]

We know that Alexander's teacher, Aristocles, tried to solve the problem of how the active intellect, which Aristotle described as impassible, could be involved in particular acts of knowledge without in some way being changed. He proposed that the active intellect is continually present in the body, and that the material intellect was nothing more than a particular harmonious combination of the elements in the body which when it occured made the body a suitable instrument for the active intellect. The change involved in knowledge, therefore, took place in the body.[57] Alexander rejected this explanation as Stoicism.[58] However, in the Arabic and Latin translations the name Aristocles was changed to Aristotle, and so the very theory which Alexander had

rejected was attributed to Aristotle and so, indirectly, to Alexander himself. The agent intellect acquired the new name of the "instrumental intellect", since the material intellect (reduced in this theory to a certain bodily equilibrium) served as its instrument. Obviously when this Stoic theory was found alongside Alexander's own exposition of the nature of the material intellect, in which he explicitly rules out that material is synonymous with corporeal, it gave rise to an accusation of inconsistency.

A second point where Alexander's thought was altered in translation was regarding the question of the acquired intellect - intellectus adeptus. In the Arabic and Latin translations the agent intellect, which for Alexander was something strictly separate and extrinsic - θυραθεν, received the added qualification of "acquired" (; adeptus) when it is considered as actuating the potentiality of the material intellect. Gilson in his article raises a great problem about this, but it is clear that in the Arabic and Latin versions nothing of the independence or separateness of the agent intellect is taken away. The terms "intellectus adeptus agens",[59] or the more striking combination "intellectus generatus adeptus extrinsecus immortalis",[60] refer to the agent intellect in so far as it is actuating the potentiality of the material intellect and making it an intellect in act. It is the extrinsic agent intellect as participated by the material intellect when under its influence it passes from potency to actuality and has actual intellectual knowledge.

Cum [intelligencia in effectu] sit causa intellectui

> materiali ad abstrahendum et intelligendum et ymaginandum singulas formas materiales, et fiunt intellectum in effectu secundum illas formas, dicitur de ea quod ipsa est intellectus adeptus agens, qui nec est pars nec virtus anime in nobis; sed fit in nobis ab extrinsecus scilicet cum nos intelligimus per illam. /When the intelligence in act becomes the cause by which the material intellect abstracts, understands and imagines individual material forms, and they become an intellect in act with regard to those forms, then the intelligence in act is called an acquired agent intellect, which is neither a part nor a faculty of the soul which is in us; but it acts on us from without, namely when we understand by means of it./ [61]

Having expounded Alexander's theory of intellect, what conclusions can we draw about it as a possible source for al-Kindī's treatise? In comparing the Περι Νοῦ with the Fī'l-ʿAql we can say that the former is much nearer to the De Anima of Aristotle, a work with which Alexander was clearly very familiar. We find in Alexander Aristotle's theory of sensation[62] and he also elaborates on and develops those passages where Aristotle indicates that the active element in intellectual knowledge has a certain independence and immortality, especially the passage where Aristotle qualifies the active intellect as "separable, impassible and unmixed". We also find in Alexander that the relationship between the active and passive intellects is described according to Aristotle's analogy of light. But although Alexander is clearly commenting on the actual text of the De Anima he goes beyond a mere explanation of Aristotle; his work is more a per-

sonal interpretation. He not only reorganized and systematized Aristotle's treatise, which like all the extant works of Aristotle is not very orderly, but rather a collection of reflections and notes. At times Alexander goes beyond a mere rearrangement and gives definite solutions to questions which Aristotle had left vague. His solutions are not necessarily the conclusions the Master himself had in mind. The most obvious example is when Alexander identifies the active intellect, a reality that is quite obscure in Aristotle, with God. In this he is probably not true to Aristotle who may have considered the active principle in intellectual knowledge as something "divine", an extremely elastic term in Greek philosophy,[63] but hardly as God in the sense of the First Mover. Likewise, although the threefold division of the intellect accurately sums up Aristotle's view of the genesis of intellectual knowledge, yet nowhere in his works do we find such a division nor the terminology used by Alexander: νους ὑλικος (material intellect); νους καθ'εξιν (habitual intellect); νους ποιητικος (agent intellect).

As regards the relationship of Alexander to al-Kindī, we can certainly concede that there is at least an indirect influence, not only because both of them are ultimately dependent on Aristotle, but in so far as the later Greek commentators, whom we believe to be the immediate source for al-Kindī's work, were probably more directly influenced by Alexander. He was probably influential in so far as he gave rise to the tradition of writing treatises "on the Soul", On the Intellect", and to the practice of

classifying the intellects numerically. As regards the substance of the two treatises one can agree with Gilson that al-Kindī's work contains nothing that is not more clearly contained in Alexander, but this is easily explained by their common source in Aristotle; much more indirect in the case of al-Kindī. There is no evidence internal or external, that al-Kindī was familiar with Alexander's work, the first translation of which into Arabic was made by Ishāq. Besides the fact that the terminology used by al-Kindī is quite different from that used by Alexander, who in place of al-Kindī's fourfold division names three intellects,[64] there are also important elements in Alexander's exposition which find no echo in al-Kindī, as for example Alexander's clearly expressed views on the separateness and independence of the active intellect, his theory of abstraction according to which sensation provides the material from which the mind draws the intelligible forms through the action of the active intellect. There is also the absence of the famous analogy of light which again strikes me as the type of metaphor upon which a philosopher like al-Kindī would have seized in his effort to express the truths of philosophy in a language and for a people which had not yet developed an abstract vocabulary. For these reasons we conclude that al-Kindī was not familiar with, nor directly influenced by Alexander of Aphrodisias to whom there is not a single reference in his writings. As to the common use of the term mustafād to describe the active intellect as participated by the intellect which was formerly in potency, when it passes into actuality, this term,

or at least its Greek equivalent, does not occur in the Greek original, but only in the Arabic and Latin translations. In that case it is more likely that the Arabic version of Alexander was influenced by al-Kindī rather than vice versa. We conclude that the origin of al-Kindī's Fī'l-'Aql was a late Greek work which set out in summary form what, it claimed, were the views of Plato and Aristotle on the intellect. However, we cannot indicate precisely what the sources were. It would be profitable for someone well-versed in philosophical Greek to investigate the commentaries on Aristotle which were produced at Alexandria in the sixth century A.D.. Here there developed a rather detached and academic type of commentary on Aristotle's logic and psychology, which was not very original in character, but drew heavily on the earlier and better commentaries; in the field of psychology the commentary of Alexander would have occupied an important place.[65] Three sixth century commentators of this school, Simplicius, Olympiodorus, and John Philipon, are all mentioned, along with Themistius, in Ibn al-Nadīm's note on the De Anima of Aristotle.[66] In the same place there is a reference to a hundred page summary (talkhīs) of the De Anima by the"Alexandrians". Perhaps it is in that circle that one day the immediate source of al-Kindī's treatise on the intellect will be found.

NOTES TO CHAPTER 3

1. Rasā'il I, pp.353-358.

2. Ibid., p.353.

3. Étienne Gilson, "Les sources Gréco-Arabes de l'Augustinisme Avicennisant", Archives d'Histoire Doctrinale et Littéraire du Moyen Âge IV (1929), p.6. See also De Anima, 430a,10-19.

4. Peters, Aristotle and the Arabs, p.xx.

5. Fihrist, p.251. Badawi had edited and published what he regards as the second improved translation of the De Anima by Ishāq under the title Aristūtālīs fī'l-Nafs (Cairo,1953), and in a long introduction to the text he discusses the exact meaning of the obscure and somewhat ambiguous passage to which we are referring, where Ibn al-Nadīm lists the various translations and commentaries on the De Anima which were available to the Arabs; see pp.14-21. Ahmad Fu'ād al-Ahwānī, in an appendix to his edition of the Talkhīs Kitāb al-Nafs l'Ibn Rushd, besides a version of al-Kindī's Fī'l-ʿAql (pp.178-181) has also published a summary of the De Anima which is attributed to Ishāq (pp.128-175) but which he believes to be more likely the summary by Ibn al-Bitrīq, or even the text of the commentary of Themistius; see Talkhīs, pp.125-127.

6. Fihrist, p.253

7. Rasā'il I, p.353.

8. Albino Nagy, "Die Philosophischen Abhandlungen des Ja'qūb ben Ishaq al-Kindī", Beiträge zur Geschichte der Philosophie des Mittelalters, Band 2, Heft 5 (Munster 1897), p.1.

9. Richard McCarthy, "Al-Kindī's treatise on the intellect: text and tentative translation", Islamic Studies (Karachi) III (1964), p.130.

10. Badawi, Fī'l-Nafs, pp.6-7.

11. Rasā'il I, p.357.

12. Ibid., p356.

13. Nagy, opus cit., pp.6-9.

14. Rasā'il I, pp.354-355. See also McCarthy, opus cit., p.131.

15. De Anima, 428b,15.

16. Ibid., 427a,15.

17. Ibid., 431b,30.

18. Ibid., 423b,26-424a,25.

19. Rasā'il I, p.354.

20. Ibid., p.302.

21. Ibid., p.355.

22. "Risālah fī Māhīyat al-Nawm wa'l-Ru'yā", Rasā'il I, pp.301-302.

23. Rasā'il I, p.155.

24. Ibid., pp.355-356. The translation of the passage is based on that in Atiyeh, Al-Kindī: Philosopher of the Arabs, p.213.

25. Nagy, opus cit., pp.4-5.

26. McCarthy, opus cit., pp.126 and 135.

27. Rasā'il I, p.155.

28. Gilson, opus cit., pp.14-15.

29. De Anima, 430a,10-15.

30. Rasā'il I, p.356. See also William David Ross, Aristotle (London: Methuen, 1960), pp.148-153.

31. Here we follow Abū Rīdah and McCarthy in substituting ma'qūl for the word 'āqil which is found in the Arabic manuscript. This is the only reading which makes sense and, besides, it is the reading found in the Latin translations where we read "rationatum" and "intellectum". See Rasā'il I, p.357; McCarthy, opus cit., pp.127, 137; Nagy, opus cit., pp.6-7.

32. Rasā'il I, p.357.

33. Nagy, opus cit., p.7.

34. Rasā'il I, pp.357-358.

35. De Anima, 412a,22.

36. Ibid., 417a,21-29; see also 429b,5-10.

37. Fihrist, p.251. This summary of the De Anima by Ibn al-Bitrīq is probably the one mentioned by Badawi in La Transmission de la philosophie greque au monde arabe, p.80, as still existing in manuscript form in the Escorial Library. In an appendix to his edition of Talkhīs Kitāb al-Nafs l'Ibn Rushd (pp.128-175) Ahmad Fu'ād al-Ahwānī has published a summary of the De Anima attributed to Ishāq which he thinks might well be that of Ibn al-Bitrīq.

38. De Anima, 430a,17.

39. Ibid., 408b,18.

40. Ibid., 413b,24-25.

41. Rasā'il I, pp.340-343.

42. Théry, Autour du décret de 1210: II- Alexandre d'Aphrodise, p.20.

43. Ibid., pp.82-83, also footnotes a and b, p.77.

44. Ibid., pp.74-75, footnotes.

45. Escorial, Arabic ms.794. See Finnegan, "Al-Farabi et le Peri Nou d'Alexandre d'Aphrodise", Mélanges Louis Massignon, II. Damascus (1957), p.136.

46. Gilson, opus cit, footnotes p.12.

47. T.J.de Boer, "Zu Kindi und seiner Schule", Archiv für Geschichte der Philosophie, XIII (1903), p.172. See also al-Ahwani, Talkhīṣ Kitāb al-Nafs l'Ibn Rushd, pp.42-44.

48. Gilson, opus cit., pp.5-158.

49. Rasā'il I, pp.346-347.

50. Finnegan, opus cit., pp.133-134.

51. Théry, opus cit., pp.74-76; also De Anima, 423b,26ff.

52. Théry, opus cit., p.76.

53. Ibid., p.76.

54. Ibid., pp.76-77.

55. Ibid., pp.77-78.

56. Metaphysica, 1074b,28-35; 1072b,5-21.

57. Thery, opus cit., pp.80-81.

58. Gilson, opus cit., p.18; see also The Cambridge History of Late Greek and Early Medieval Philosophy, p.117.

59. Théry, opus cit., p.77.

60. Ibid., p.80.

61. Ibid., p.77.

62. Ibid., p.75.

63. The Cambridge History of Late Greekand Early Medieval Philosophy, p.222.

64. Badawi, Fī'l-Nafs, pp.6-7.

65. The Cambridge History of Late Greek and Early Medieval Philosophy, p.316.

66. Fihrist, p.251.

CHAPTER 4

AL-KINDĪ'S TREATISES FĪ MĀHĪYAT AL-NAWM WA'L-RU'YĀ AND AL-QAWL FĪ'L-NAFS

Having examined the Fī'l-ʿAql, which we have seen to be basically Aristotelian in inspiration, in this chapter we will examine al-Kindī's two other main treatises on psychology, the Fī Māhīyat al-Nawm wa'l-Ru'yā and Al-Qawl fī'l-Nafs, al-Mukhtaṣar min Kitāb Aristū wa Flāṭun wa Sā'ir al-Falāsifah. We will likewise consider a short note entitled Kalām fī'l-Nafs Mukhtaṣar Wajīz. Al-Kindī's longer treatise on the soul is completely in the Neoplatonic tradition with a heavy ethical and mystical emphasis. The treatise on sleep and vision occupies an intermediate position, being on the whole logical and analytic in tone and attempting to give a rational explanation of the phenomenon of dreams, especially of those which predict future events. At the same time it hints at the theory of prophecy which is found in other writings of al-Kindī which we will examine. In so far as it plays down the rôle of the senses in knowledge, it anticipates, or echoes, the doctrine found in the treatise on the soul which holds that sense knowledge is not only inferior but deceptive and corrupt. In this chapter, then, we will first examine the treatise on dreams and vision, which as we have seen in the previous chapter, is to some extent based on Aristotle's theory

of knowledge as being the reception by the knower of the form of the object known. We will be particularly interested in those elements in this treatise which seem to be associated with al-Kindī's notion of prophecy and of the position he takes regarding the relationship between rational and revealed knowledge. The second part of the chapter will consider his treatise on the soul.

The question of dreams and the interpretation of dreams was an important element in the life and religion of the civilizations of antiquity, and a belief in their divine prophetic character was universal throughout Greek literature. This belief was central to the Orphic religion and was taken over by the Pythagoreans; there are also many references to dreams in the dialogues of Plato.[1] In the Timaeus, however, Plato indicates that the dream in itself is of no great value, what is important is the interpretation; it is the man who can interpret dreams who is blessed with special insight.[2] Aristotle wrote three short treatises on the topic of sleep and dreams.

1. De Somno et Vigilia.
2. De Somniis.
3. De Divinatione per Somnum.

Certain elements of al-Kindī's treatise can be found in Aristotle, who was prepared to examine the belief that it is possible to foresee the future in dreams.[3] We find in both Aristotle and al-Kindī the basic definition of sleep as the suspension of the exercise of the external faculties of sensation.[4] For Aristotle, however, sleep is not merely the separate or special senses each

ceasing to function idividually, but is brought about by a change in the common controlling organ of sense perception to which all the special senses are tributary and subordinated.[5] Aristotle's explanation of the physical causes of sleep is identical with that found in the Fī Māhīyat al-Nawm wa'l-Ruʾyā, where it is ascribed to the fact that after eating, heat tends to sink and concentrate deep within the body while the external parts of the body cool; at the same time damp cool vapours rise to the brain. It is this latter phenomenon which brings on sleep.[6] Yet although there are agreements as to the physical mechanism of sleep, when it comes to the discussion of the value to be placed on dreams there is no such agreement. Al-Kindī devotes the larger part of his treatise to an explantion as to why some dreams do not predict the future, as though this were the normal situation, whereas Aristotle, although not willing to reject out of hand the possibility of divination through dreams, is highly sceptical as to their value.[7] His view is that most so-called prophetic dreams are to be classed as coincidences - he does not accept that they come from God.[8] It is clear, therefore, that al-Kindī's work is not merely a rearrangement of Aristotle's writings on the same theme, and although it contains elements derived from Aristotle, in the opinion of Albino Nagy, it is probably more directly influenced by Galenic and Neoplatonic writings.[9] Once again, however, it is not possible to indicate exactly the immediate sources on which al-Kindī drew. It may very well be largely an original work of his own.

In his treatise on the intellect al-Kindī clearly distinguished between the faculties of sensation and the intellectual faculties; here in the Fī Māhīyat al-Nawm wa'l'Ru'yā, he introduces a new faculty, al-qūwat al-masawwarah, which the Latin translates as virtus formativa, and which we will call the "representative faculty". This new power occupies an intermediary position between external sensation and intellection. The form which is proper to this faculty has not the abstract universality of the intelligible form, it is still particular and individual (shakhsīyah), but is not tied to the presence of an actually present real material object; it has a higher degree of immateriality than the external senses which are only stimulated by a form or quality embedded (inhering) in actual matter - صور محسوساته محمولة في طينة.[10] The representative power, which al-Kindī says was known to the ancient Greek philosophers as the phantasy (φαντασία), receives a form which is still sensible and individual but without those specific quantitative and qualitative accidents which come from the particular material in which it inheres - مجردة بلا حوامل تخطيطها جميع كيفياتها وكمياتها.[11] This is what al-Kindī means when he says that it receives the form "without matter" (bi-lā tīnah). It does not mean that it is a form without any of the sensible accidents, this would be an intelligible form akin to substance, whereas the form in the representative faculty is still a sensible form, but without the limiting particular determinations which would come from its inhering in individualized matter.

The representative faculty is located in the brain which

was for al-Kindī the primary organ of cognition in both sense and intellectual knowledge.[12] It is here that we see dreams or visions. The distinctive feature of this faculty is that it is independent of the exercise of the external senses. It can be at work whether the subject is awake or asleep, but is is stronger when it is not distracted by the sensations which flow continually from the external senses.[13] That is why visions are especially associated with sleep which is defined as the suspension of the activity of the external senses (or the non use of them), but not because of a sickness or a malfunction.[14] By abandoning the immediate exercise of the external senses the representative faculty acquires a clearer and more perfect grasp of the form - it sees it directly and not through the intermediary of the senses.[15] Al-Kindī gives three reasons why the sensible individual form which is grasped directly by the representative faculty is stronger and clearer than the form which comes through the intermediary of the external senses. Firstly, the external organs, which al-Kindī refers to as the secondary instruments (of knowledge), as distinct from the central organ which is the seat of the representative faculty, are subject to variations in their performance, but the central faculty which grasps the form directly is spared these fluctuations.[16] Secondly, the representative faculty acquires the form "without matter". As all matter is not equally and perfectly receptive of form, this means that the representative faculty receives the form without the limitations which might be imposed on it because of the imperfections of the matter in which

it inheres.[17] Thirdly, not only does the matter in which the form inheres inhibit the fulness of the form by not permitting it to be seen in all its perfection, but, positively, it attaches certain accidents to it which falsify it. Also, whereas the external senses are restricted to grasping those objects which really exist, the representative faculty can produce images of things which have not real existence, e.g. a man with horns or with feathers.[18] For all these reasons the representative faculty is superior to the external senses.

Having explained the nature of the representative faculty, al-Kindī comes to the central portion of his treatise; how is it that sometimes visions or dreams reveal the future clearly or symbolically, while other dreams have no prophetic significance.[19] It is clear from the text that al-Kindī considers divination through dreams to be normal, he has none of Aristotle's hesitations. For al-Kindī the basic reason why the soul can see things before they are is because it is "a place (mawdi') of all species of things both sensible and intelligible".[20][21] That the soul is a place of all things sensible and intelligible is, according to al-Kindī, a view of Plato reported by Aristotle in his remarks on the soul. There is such a reference in the De Anima where Aristotle says that "it was a good idea to call the soul 'the place of the forms', though this description holds only of the intellective soul and even this is the forms only potentially, not actually".[22] Aristotle does not explicitly attribute this phrase to Plato, although a footnote in the English translation

edited by J.A.Smith and W.D.Ross adds that the idea is certainly Platonic but that the actual expression is not found in any of the extant works of Plato. Al-Kindī goes on to explain what he understands by the phrase. It is based on the theory of knowledge which we examined in detail in the last chapter, and indeed this section of the Fi Māhīyat al-Nawm wa'l-Ru'yā closely parallels the description of the nature of sense and intellectual cognition which is found in the Fī'l-ʿAql. All knowledge is the reception by the knowing faculty of the form of the object known and this form becomes psychically identified with the knower so that we can say, in the sense explained in the last chapter, that the knower is the object known. Therefore, we have within the soul both the sensible, which is the forms of individuals, and the intelligible, which is the forms of what is above the individual species and genera. Thus al-Kindī concludes:

> Now genera and species and individuals comprise all cognoscibles /the Arabic has maʿqūlāt, intelligibles, but this would not include individuals which al-Kindī obviously means to do/. So these when they are had by the one sensing and intellecting, i.e. when they are present to his soul, then they are all in his soul. For that reason Plato said that the soul is a place (makān) of all thing sensible and intelligible. Hence the soul is very knowing (ʿallāmah) by nature, because all knowledge belongs only to sense and intellect and what is akin to them and includes them.[23]

Al-Kindī's explanation of the soul as the locus of all cognitive forms does not answer our basic question as to how the

representative faculty acquires the images or forms which directly or by interpretation foretell future events. The whole emphasis in the first section of the treatise, where he speaks about the difference between the representative faculty and the senses, is on the fact that this faculty acquires its images independently of the senses, directly and immediately. This would imply that the knowledge which comes to the representative faculty in sleep, or when the senses are at rest, is either innate or is infused knowledge which is not acquired through the channels of the external senses. However, when al-Kindī comes to explain what he means by the soul as the locus of all forms, he resorts to an Aristotelian theory of knowledge, and for Aristotle the phantasia, or imagination, is very closely bound up with the external senses and ultimately depends on them for the images it produces.[24] It seems clear that although al-Kindī accepted Aristotle's theory regarding the nature of sense knowledge, he did not follow him in his teaching on the nature of the imagination, at least in so far as it is the faculty of dreams and visions. This is why we have purposely avoided the term "imagination" as a translation of the Arabic al-qūwat al-musawwarah. For al-Kindī, certain gifted people have the power to produce, or receive, images which are similar to the images of the Aristotelian imagination, individual and sensible, but not restricted to a real concrete externally existing object, as the forms of the external senses are. However, whereas for Aristotle such images are ultimately dependent on previous particular sense data, al-Kindī does not say that. It

may be what he means by the soul as the place of all cognitive forms, that it is the memory as the storehouse of all previous acts of knowledge, both of sense and intellect; images or ideas which can be recalled at will, or which revive spontaneously without any activity on the part of the external senses, as when the person is daydreaming or asleep. However he seems to imply more than that.

I would be inclined to interpret him in a more Neoplatonic sense, in the spirit of his treatise on the soul which we will next consider. If that is the background to this theory of dreams and visions, then these images could be regarded either as innate or as infused. If we consider them as in some way innate, it would mean that they are always present in the individual, but lying at a deeper level of consciousness and only accessible to those with especially penetrating minds and refined souls, when the senses are dormant. The fact that al-Kindī lays such stress on the soul as the place of all knowledge would support the view that he holds that all knowledge is innate and contained in the soul of each individual to be discovered by those who have the power and purity of soul to turn inward and discover it, freed from the distractions of the senses. This would recall Plato's theory that all learning is but remembering[25] and we also recall that among the titles of works attributed to al-Kindī by Ibn al-Nadīm was one entitled: On the reminiscences of the soul in the intelligible world before her descent into the sensible world.[26]

The second possible explanation would be on the lines of

the discussion of dreams and visions in al-Fārābī's Al-Madīnat al-Fādilah which closely parallels what we find in al-Kindī, but which is far more detailed and clear.[27] Al-Fārābī uses Aristotle's analogy of light to describe the relationship of the active intellect (العقل الفعال) to the material intellect (العقل الهيولانى), but the whole framework of the discussion is Neoplatonic; the active or agent intellect is a separated intelligence, the tenth and lowest in a series of separated substances (al-ashya' al-mufāriqah) emanating fron the First Cause.[28] This agent intellect is the immediate source of all intelligible knowledge and it is from it that the passive intellect (the intellect in man) acquires the first principles of reasoning. In speaking about dreams and visions, al-Fārābī says that the agent intellect supplies the imagination (al-qūwat al-mutakhayyilah) with intelligible forms of either present realities or future events, which the imagination re-expresses in images derived from previous acts of sensation. In this interpretation, the imaginative faculty indeed occupies a middle position between reason and sensation, being open to both; expressing the knowledge derived from the higher intelligence in terms derived from the material sensible world.[29] Al-Fārābī attributes the varying clarity of visions and ability to receive divine revelations to degrees of perfection in the imaginative power, and his treatment of this aspect of the question, especially the various types of dream, is very similar to what we find in al-Kindī's treatise.[30]

For al-Kindī, the reason why some visions and dreams are

prophetic and clear, and that others foretell the future only in a symbolic fashion, or are completely erroneous, is due to the subjective dispositions of the individual. If the soul is really prepared and purified of those accidents which weaken its receptive power, and if it is particularly strong and effective in formulating images, then it will be able to produce visions of things before they actually occur. The clarity of the vision is due to the strength and purity of the soul, which, however, in the same individual can vary from one time to another.[31] When the receiving faculty is weaker or less receptive, because less prepared, then the future event is not clearly seen but is represented symbolically and needs to be interpreted. The example al-Kindī gives is a dream of someone flying from place to place as symbolizing a journey.[32] Al-Kindī compares these two forms of vision to two types of reasoning. The clear vision of a future event is similar to a reasoning process which from true and certain premisses derives a true and certain conclusion. The symbolic vision he compares to a conclusion drawn from premisses which are not certainly true. In that case the conclusion may be true or false, it is no more than an opinion.[33] Other factors have to be taken into account to determine whether the conclusion is true or false. If the person is notoriously weak as regard his power of receiving or formulaing visions or dreams then we can say that his visions are always false and the contrary is always true.[34] However, there are some people whose power of representation is so weak and confused that their dreams are of no value and no conclusion

can be drawn from them.

In his treatise on sleep and vision al-Kindī, as we have seen, speaks of especially gifted individuals who because of the purity and power of their souls are able to see things in visions before they take place. The whole treatment of the problem is rationalistic and naturalistic; nowhere does al-Kindī mention revelation or God as the source of this special insight into the future, although al-Fārābī does. If we define a prophet as a man who sees things in vision before they actually occur, then the type of prophecy which al-Kindī here describes is natural prophecy. In another writing of his, Fī Kammīyat Kutub Aristū,[35] al-Kindī treats of the difference between natural knowledge laboriously acquired, and the revelation which comes from God. Although the topic lies outside the scope of this thesis, especially as he does not treat of the psychology of revelation, it is close enough to warrant a few remarks. In the first chapter of this work we discussed al-Kindī's Muʿtazilite background and his great respect for rational knowledge. In fact al-Kindī's outstanding contribution to Islam was his wholehearted acceptance of the value of philosophy and rational thinking, a position, however, which in no way lessened his respect for revelation. In his attempt to maintain both the rights of philosophy and revelation as two valid paths to truth, al-Kindī was probably unique in the whole intellectual history of early Islam. His better known successors, whether philosophers or theologians, opted for either reason or revelation as the only sure way to truth.[36] In the passage in

the introduction to the works of Aristotle, to which we have referred,[37] al-Kindī stresses, however, the superiority of divine knowledge over merely human knowledge. "Human knowledge" in the context means the syllabus of late Greek philosophy which al-Kindī was eager to introduce into Islam.[38] Thus although al-Kindī in many of his writings manifests the highest regard for the power of reason, and for philosophy, yet in this treatise he clearly shows that in his opinion revelation is superior to philosophy, and that the knowledge of the prophets, which comes by divine illumination, is of a higher type than that which can be obtained by human effort. In contrast to human rational knowledge which is acquired through research and the effort and industry of man, and after long years of study, divine revelation is received without any effort on the part of the individual, but by the free will of God "through the purification and illumination of their souls so that they are turned towards the Truth, through God's support, his assistance, his inspiration and his messages". Al-Kindī does not say explicitly that knowledge which comes by divine revelation is essentially different from naturally acquired human knowledge, nor does he say that a man could never by his own efforts attain to such knowledge, but he seems to imply that in fact such clarity and insight into the inner secrets of reality can only be attained by divine illumination. That al-Kindī, even in such a technical and Greek-inspired treatise as the Fī Kammīyat Kutub Aristū, still remained a Muʿtazilite mutakallim, is very obvious from the section which follows the passage we

have just discussed, where suddenly the whole focus is Islamic - the exegesis of a verse from the Qur'ān in support of such dogmas as the creation of the world ex nihilo and the resurrection of the body. The whole argument presupposes that one accepts a revealed text as more cogent and binding than any merely human rational argument.[39] This brief excursus regarding the relationship of reason and revelation in al-Kindī will serve as a suitable bridge between the first two psychology treatises of our philosopher which we have discussed, and which are logical and rational in tone, and the final major treatise which we will consider, Al-Qawl fī'l-Nafs, which is mystical and owes a great deal more to the Neoplatonists than it does to Aristotle.

In contrast to the first two treatises which we have considered in detail and which were logical and analytic in their approach, the Al-Qawl fī'l-Nafs, al-Mukhtaṣar min Kitāb Aristū wa Sā'ir al-Falāsifah is simply descriptive. In a style that is repetitious it states that the soul is by nature, and in dignity, superior to and independent of the body; that its true goal is to free itself from being dominated by bodily passions and pleasures. It must strive to escape from the world of sense and concentrate on the world of true reality where it will discover true spiritual joy in communion with God, even in this life, but more so when in death it separates definitively from the body. The work is patently Neoplatonic in its constant recourse to such notions as purification and illumination, and in its concept of the soul. We do not find in it any echo of the Aristotelian

definitions of the soul which we find in al-Kindī's book of definitions Fī Hudūd al-Ashyā' wa Rusūmihā[40] where he defines the soul as "the completion (tamāmīyah) of a natural organic body which is apt to receive life" and as the "first perfection (istikmāl) of a natural body which possesses life in potency".[41] There is a reference to the body-soul relationship in al-Kindī's note on the soul (being little more than a page in length it hardly qualifies to be called a treatise) entitled Kalām fī'l-Nafs Mukhtasar Wajīz. There al-Kindī describes the soul as having neither length, depth, nor breadth, but while the soul is said to be simple it is stressed that it acts through the body, and this opinion is said to be that of Plato and Aristotle.[42] The remainder of the note is devoted to a discussion of the distinction between jism and jirm. In the two definitions of the soul which we have just given both terms are used interchangeably to denote the body.

The Al-Qawl fī'l-Nafs introduces itself as being in part "a summary of Aristotle's book on the soul" (ikhtisār li-kitāb Aristū fī'l-nafs),[43] but then proceeds in Neoplatonic fashion to exalt the dignity and excellence of the soul; it is simple, and its essence (jawhar) is of the essence of the Creator. That the is distinct from the body is clear for al-Kindī from the fact that it has power to control the bodily passions and the irascible appetite. The fact that there is tension and opposition between them is proof that they are distinct. Indeed the function of the soul is to rule and dominate the body. It is only if we overcome

and control the baser corporeal desires, especially our love of eating and drinking, that we will attain to our higher calling - the contemplation of the divine and the sublime. This, however, demands the effort of asceticism, which al-Kindī compares to the process of cleaning a mirror so that it will more accurately and clearly reflect the true reality of things.[44] In this treatise the passions or sensual appetite, is compared to a pig, the irascible to a dog, while he in whom the intellectual element predominates is said to be a king, a perfect man who is very similar to God.[45] A man ought, therefore, to disdain the material world and even in this life strive to free himself from his body by means of contemplation and study so that we will come to understand the true essences (haqā'iq al-ashyā') of things and all mysteries will be revealed to him.[46] This separation from the body can sometimes be achieved in sleep when the soul abandons the use of the senses, and if the individual has achieved a high degree of purification it will see in sleep marvellous dreams.[47] Al-Kindī says that Aristotle mentions a king who in a state of ectasy remained suspended for a number of days between life and death and who on his return to consciousness foretold many events all of which occurred exactly as he had predicted. Aristotle concludes that if the king saw all this while he was only temporarily and, as it were , half-separated from the body, what greater wonders would he have seen had he completely abandoned it.[48] It is therefore after death that a man can hope to attain to the closest assimilation (tashabbuh) to the Creator.[49] However,

it may happen that at death the soul will not enter directly into the divine world (ʿālam al-rubūbīyah), there may be need for further purification so that it can be stripped of its last vestiges of attachment to what is material and sensual, so that having passed through the final stages it will be worthy to enter into the most glorious and noble abode where in the light of the Creator it will know all things perfectly.[50]

This final treatise which we have just summarized, contains nothing but the commonplaces of Neoplatonism. We are immedreminded of Plotinus' teaching of the return of the soul to its source. We find here the same emphasis on the soul as the distinctive element in man which Plotinus expressed in the words: "Man is therefore the soul for through the soul he is what he is, and through her he is permanent and everlasting, while through the body he is perishing and decaying".[51] For Plotinus man was not a composite of body and soul, but a being whose true nature was spiritual and whose body had nothing to contribute to his inner life. Many of the passages in the Al-Qawl fī'l-Nafs of al-Kindī recall Plotinus' description of his experience of ectasy which we quoted from the Theologia in an earlier part of this thesis.[52] However, it is important to note that although there are many passages in this treatise which reflect ideas found in the Theologia, a work with which we have shown al-Kindī to be familiar, yet there is no hint of Plotinus' theory of emanation.

Giuseppe Furlani in some brief comments which he appended to an Italian translation of the Al-Qawl fī'l-Nafs[53] is of the opinion that the whole work is directly and almost exclusively influenced by the Theologia.[54] This is probably an exaggeration. Some of the ideas in this treatise are also closely paralleled by passages found in the dialogues of Plato to whom al-Kindī attributes some of the views found in the treatise. This is not to say that al-Kindī had direct access to the Platonic dialogues, but parts of them were undoubtedly incorporated in his sources. Some of the basic ideas on the treatise clearly bring to mind the Phaedo, an early dialogue in which Plato expresses a highly intellectual and spiritual view of the soul and uses the phrase "the release of the soul from the chains of the body".[55] The views propounded in this dialogue imply an almost complete opposition between the body and the soul, and although they were later modified by Plato in favour of a more unified view of human nature[56] they were nonetheless extremely influential in late Greek philosophy. We can quote a representative passage.

> In this present life, I reckon that we make the nearest approach to knowledge when we have the least possible intercourse or communion with the body, and are not surfeited with the bodily nature, but keep ourselves pure until the hour when God himself is pleased to release us. And having got rid of the foolishness of the body we shall be pure and hold converse with the pure, and know ourselves the clear light everywhere, which is no other than the light of Truth.[57]

We also find in Plato the division of the soul attributed to him

by al-Kindī, i.e. that the soul is composed of three parts; the passions (the sensual appetite), the feelings (the irascible appetite), and reason. The reason is the controlling power and can harness the feelings, but the passions are continually unruly. To describe the situation Plato used the metaphor of a charioteer and two horses, one which is fine and responsive, the other "a crooked, lumbering animal, put together anyhow".[58] This same image is used by al-Kindī to describe the control which the soul should exercise over such feelings as anger.[59]

It also seems that Furlani was wrong when he said that the story which al-Kindī attributes to Aristotle, regarding the king who foresaw the future in a state of ectasy, could in no way be Aristotelian but was clearly Neoplatonic.[60] Richard Walzer in an article entitled "Un frammento nuovo di Aristotele"[61] holds that this passage is a fragment of a lost dialogue of Aristotle written in his early period when he was still under the influence of his teacher Plato. If this is so, it would explain how al-Kindī could claim to be summarizing "a writing of Aristotle on the soul", because according to Walzer the full title of the work was Εὔδημος ἢ Περὶ ψυχῆς and it was sometimes cited simply as Περὶ ψυχῆς - De Anima.[62] It is interesting to note that of the eight fragments of the Eudemus which have been discovered, six were found in writers of the late Greek period i.e. Themistius, Proclus, Simplicius, John Philipon and Elias. Here we have another indication, perhaps, as to the immediate sources from which al-Kindī his knowledge of Greek philosophy, especially of Plato and Aristotle.

There is one final point to be made before we bring to a close our examination of the psychological treatises of al-Kindī. In his Italian translation of the al-Qawl fī'l-Nafs Furlani translates a proper name which appears in the manuscript as افيقورس as "Epicuro".[63] He accuses al-Kindī of a colossal blunder because he attributes to Epicurus, who was well known for his materialism and his denial of the immortality of the soul, views which were highly spiritual. However, in the manuscript which Abū Rīdah edited, the name appears as افسقورس and he holds that it probably refers to Pythagoras فيثاغورس.[64] This would be much more likely as the Pythagoreans were noted for their cultivation of the soul and their practice of purification through asceticism. It is probably from them that the conception of the soul as the noblest and immortal part of man derived, a conception that influenced Plato and the mainstream of Greek philosophy, and which we find so enthusiastically propounded by al-Kindī in this treatise.

NOTES TO CHAPTER 4

1. A.E.Taylor, "Dreams and Sleep", The Encyclopaedia of Religion and Ethics, edited by James Hastings (New York: Charles Scribner's Sons, 1955), vol.5, pp.30-32.
2. Timaeus, 71-72.
3. De Somno et Vigilia, 453b,21-24.
4. Ibid., 454b,25-26.
5. Ibid., 455a,13-455b,13.
6. Ibid., 457b,1-458a,10; also Rasā'il I, pp.306-307.
7. De Divinatione per Somnum, 462b,11-20.
8. Ibid., 463b,1-10.
9. Nagy, "Abhandlungen des Ja'qūb ben Isḥāq al-Kindī", opus cit., p.xxiii.
10. Rasā'il I, p.295.
11. Ibid., p.295.
12. Ibid., p.297.
13. Ibid., p.296.
14. Ibid., pp.294-295.
15. Ibid., p.296.
16. Ibid., p.297.
17. Ibid., p.299.

18. Ibid., pp.299-300.

19. Ibid., p.301.

20. In a later passage, p.302, he uses the word makān.

21. Ibid., p.301.

22. De Anima, 429a,26-28.

23. Rasā'il I, p.302. The translation is that of Richard Mc Carthy in his article in Islamic Studies III (1964) to which reference has already been made, p.146.

24. De Anima, 428b,10-429a,5.

25. Meno, 81.

26. Fihrist, p.259.

27. Ibn Nasr al-Fārābī, Risālah fī Ārā' ahl al-Madīnat al-Fādilah, edited by Friedrich Dieterici (Leiden: Brill, 1895), chs.24-25, pp.47-53.

28. Ibid., pp.44-45.

29. Ibid., pp.50-51.

30. Ibid., p.52.

31. Rasā'il I, p.303.

32. Ibid., pp.303-304.

33. Ibid., pp.304-305.

34. Ibid., p.306.

35. Ibid., pp.363-384.

36. Louis Gardet, "Philosophie et religion en Islam avant l'an 330 de l'hégire", L'Élaboration de l'Islam (Paris: Presses Universitaires de France, 1961), p.51.

37. Rasā'il I, pp.372-373.

38. Walzer, "New Studies on al-Kindī", Greek into Arabic, pp.177ff.

39. Rasā'il I. p.273.

40. Ibid., pp.165-180.

41. Ibid., p.165.

42. Ibid., p.281.

43. Ibid., pp.272-273.

44. Ibid., p.276.

45. Ibid., pp.274-275.

46. Ibid., p.274.

47. Ibid., p.277.

48. Ibid., p.279.

49. Ibid., p.274.

50. Ibid., p.278.

51. Theologia, p.179.

52. Ibid., p.225.

53. Giuseppe Furlani, "Una Risālah di al-Kindī sull'anima", Revista Trimestrale di Studi Filosofici e Religiosi (Perugia), III (1922), pp.50-63.

54. Ibid., ppp.59-61.

55. Phaedo, 67.

56. G.M.A.Grube, Plato's Thought (Boston: Beacon Press, 1968), pp.129-131.

57. Phaedo, 69. The translation is from The Dialogues of Plato, translated into English with analyses and introductions by B..Jowett, 4vols.(Oxford: Clarendon Press, 1953).

58. Phaedrus, 253.

59. Rasā'il I, p.273.

60. Furlani, opus cit., p.69.

61. Walzer, Greek into Arabic, pp.38-47.

62. Ibid., pp.38-39.

63. Furlani, opus cit., p.56.

64. Rasā'il I, p.276.

CONCLUSION

In so far as in this dissertation we did not set out to prove any particular thesis, this final section will be in the form of some general remarks which will tie together the separate parts of our work. The goal we set before us was a detailed examination and explanation of al-Kindī's theory of mind and soul, as found in his treatises on psychology, as a specific instance of the passage of Greek philosophy to the Muslims. This we have done; we have separately examined and summarized the views found in the three major psychology treatises which are still extant. However, as the views which we have found expressed range from an analytical Aristotelian logical approach in the Fī'l-ʿAql, to an almost mystical description, in the Neoplatonic manner, of the nature and glory of the soul, in the Al-Qawl fī'l-Nafs, with the treatise on sleep and vision occupying an intermediate position, the question arises as to whether al-Kindī himself had a personal or consistent viewpoint. One of the main problems associated with our study is the lack of information which would allow us to establish even the outlines of a chronology of al-Kindī's writings. The order in which we have chosen to treat these treatises is arbitrary in so far as it makes no claim to trace the development of al-Kindī's thought, if there was such a development. We have examined the treatises separately according to an order

of what we regard as their philosophical importance. What conclusions can we draw from a comparison of them with one another? The conclsuion which forces itself upon us is that the range of views is so wide and disparate that it would be very difficult to combine them into one coherent system. The treatises indicate that al-Kindī was eclectic in his choice of material and on the whole reproduced the ideas he found in his sources. We do not find very much in al-Kindī in the line of an original synthesis on the theme of mind and soul.

This reinforces the general picture which has emerged in this study, that the birth and early growth of philosophy in Islam was almost exclusively due to the influence of Greek science and philosophy which at the time of al-Kindī was first translated into Arabic, and that Greek philosophy as it reach the Arabs was a philosophy which had been in a constant state of evolution and sytematization from before the time of Plato. Plato and Aristotle as found in al-Kindī was rather Platonism and Aristotelianism; al-Kindī saw these two philosophers through the eyes of the late Greek commentators who were his immediate sources. One of the most important of the works of al-Kindī which has survived is an introductory treatise to the study of Aristotle - Risālah fī Kammīyat Kutub Aristū wa mā Yuḥtaju ilayhi fī Taḥṣīl al-Falsafah.[1] Although this work is mainly concerned with mathematics and logic as the necessary preparation for a study of philosophy, it not only lists all of Aristotle's major works on logic and physics but also mentions his two major psychology treatises, the De Anima

and De Sensu et Sensato. The fact that al-Kindī lists almost the whole corpus of Aristotle, is, of course, no guarantee that he was familiar with all these writings or had access to them. The Risālah fī Kammīyat Kutub Aristū is certainly based on later Greek introductions to the s tudy of Aristotle, if it is not a mere paraphrase of such a work. Richard Walzer is of the opinion that this work is a clear indication that al-Kindī's Greek source was an introduction to Aristotle of a Platonic character and that he was most influenced by the Neoplatonic tradition that traced its origin back to the school of Athens, rather than to Alexandria, and that it reached al-Kindī via Christian sources.[2] He bases this conclusion on the position which al-Kindī assigns to mathematics in his discussion of the sciences. For Aristotle, logic was the necessary propaedeutic to philosophy, and mathematics came between physics and metaphysics in an order of increasing abstraction. For Plato, mathematics was the prerequisite and the foundation of philosophy. It is said that over the door of the Academy were written the words: "Whoever is not a mathematician should not enter here". Although almost all the commentators from Porphyry onwards attempted to harmonize Plato and Aristotle, mathematics still retained its position in the Aristotelian classification of the sciences. The fact that al-Kindī places it among the introductory sciences relates him to a clearly defined tradition.[3]

Summing up, we can say that although there is a great deal of Aristotelian material in al-Kindī, his view of Aristotle was

greatly influenced by the Neoplatonic sources from whichit was derived. In this tradition both Plato and Aristotle tended to lose their philosophical identity, and were fused in a new systematic unity. The later Greek habit of paraphrasing works, and the doxographical approach, which listed the opinions of various authorities under specific headings, involved the loss of textual accuracy and inevitably lead to syncretism, as we have seen in al-Kindī. We need only mention his treatise on the soul in which he claims to be presenting the views of Plato and Aristotle and other philosophers on the topic of the soul. Likewise in this connection we can mention his treatise on definitions. We have stressed the Aristotelian, Platonic and especially Neoplatonic elements in al-Kindī because we have dealt with his psychology which nevertheless formed only a small portion of his total output. Nicholas Rescher has said thattaking an overall view of al-Kindī's work:

> .....he drew indescriminately on various Greek schools. Plato or Aristotle, the philosophers or the mathematicians, the rationalistic natural scientists or the new Pythagorean number mystics, all provide grist to his mill. His purview is definitely not restricted to the confines of any sect, discipline or school.[4]

We have considered the background and the sources of al-Kindī's philosophy and we have seen that most of his ideas were drawn from the philosophical tradition which he inherited, what then is his importance or originality. Ibn al-Nadīm says of him that he was unique in his age for the extent of his knowledge of the

"ancient sciences",[5] and he was recognized as the greatest thinker of his age becaue of the breadth of his interests and his influence on succeeding generations of philosophers.[6] Al-Kindī is important not so mcuh for the originality of his ideas but as the one who introduced pure philosophy (falsafah as distinct from kalām) into Islamic thought. He is entitled to a special place because he began the philosophical movement among Muslims which was to produce original thinkers of the first rank, and because he was one of the first to overcome a basic aversion in Islam to the free use of reason. We have to judge the success of al-Kindī's achievement against the newness of philosophy for Arabs and Muslims, who had no real tradition of either speculative or practical science. Judged in that context, al-Kindī was exceptionally original and daring.

In the opening lines of his treatise on metaphysics Fī'l-Falsafah al-Ūlā al-Kindī defines philosophy as:

> The sublimest and noblest of human arts is the art of philosophy which is defined as the knowledge of things in their realities to the limit of human power. The purpose of the philosopher in his knowledge is to arrive at the truth and in his action to act in accordance with the truth.[7]

Al-Kindī freely admits that he has drawn extensively on his predecessors and recorded "in complete quotations all that the ancients have said on this subject, but he claims that he has made his own personal contribution and "completed what the ancients have not fully expressed and this according to the usage of our

Arabic language, the customs of our age and our own ability".[8] One of the most striking and attractive features of al-Kindī is his respect for truth no matter where it comes from, and the stress he puts on the cumulative character of philosophy. He quotes with approval words attributed to Aristotle: "It is fitting to acknowledge with gratitude the contributions of those who have added anything to truth; they have prepared for us the road by which we can reach the truth". Therefore, says al-Kindī, "it is fitting for us not to be ashamed to acknowledge truth and to assimilate it from whatever source it comes to us, even if it is brought to us by former generations and foreign peoples".[9]

There were two points on which al-Kindī refused to compromise with the general tendency of Greek philosophy; he maintained the orthodox Islamic position that the world was created ex nihilo and in time. He was also a stannch defender of prophecy. It is this second point which is most distinctive of al-Kindī, his attempt to reconcile his Muslim faith with Greek philosophy. He was a Mu'tazilite, but he refused to completely subordinate his Islamic beliefs to reason and attempted to maintain a balance between revelation and philosophy. He attacked those who rejected the value of philosophy but he himself remained a believing Muslim. This concern with revelation and prophecy adds a new, and specifically Islamic, dimension to al-Kindī's teaching regarding the origin and nature of true knowledge. At any rate he was one of the first to deal with a problem which was to be central for all Islamic philosophers, as indeed it was for the

later Latin theologian-philosophers.

We bring this work to a close, then, conscious that a great deal of research still needs to be done in the area of the late sixth century Greek commentators if we are to discover the immediate inspiration of al-Kindī's psychological treatises. There is also need for a study of the influence of al-Kindī's writings on similar treatises by al-Fārābī, Ibn Sīnā and Ibn Rushd, and also on the Latin middle ages. However, such a study lies outside the scope of this dissertation.

NOTES TO CONCLUDING SECTION

1. Rasā'il I, pp.363-384; see also Nicholas Rescher, "Al-Kindī's sketch of Aristotle's Organon", The New Scholasticism XXXVII (1963), pp.44-58; also Guidi and Walzer, "Studi su al-Kindī I: Uno Scritto Introduttivo allo Studio di Aristotele", Memorie della Reale Accademia Nazionale dei Lincei (classe di scienze morali, storiche et filologiche), Serie VI, Vol.VI, Fasc.V; (Rome 1940). pp.375-419.

2. Richard Walzer, "Arabic Transmission of Greek Thought to Medieval Europe", Bulletin of the John Rylands Library XXIX, p.174.

3. Guidi and Walzer, opus cit., pp.376-378.

4. Nicholas Rescher, Studies in Arabic Philosophy (Pittsburg: University of Pittsburg Press, 1967), p.4.

5. Fihrist, p.255.

6. Abū Rīdah, Rasā'il I, p.33.

7. Rasā'il I, p.97.

8. Ibid., p.103.

9. Ibid., p.103; quotations as translated by Richard Walzer in his article "Arabic Transmission of GreekThought to Medieval Europe", opus cit., p.172.

BIBLIOGRAPHY

ᶜAbd al-Rāziq.
Faylasūf al-ᶜArab wa'l-Muᶜallim al-Thānī. Cairo: ᶜIsā al-Bābī al-Ḥalabī, 1945.

Afnan, Soheil M.
Philosophical Terminology in Arabic and Persian. Leiden: Brill, 1964.

Al-Ahwānī, Aḥmad Fuᵓād.
Talkhīṣ Kitāb al-Nafs l'Ibn Rushd. Cairo: Maktabat al-Nahḍat al-Miṣrīyah, 1950.

Allan, D.J.
The Philosophy of Aristotle. Second edition. Oxford: Oxford University Press, 1970.

Aristotle.
The Works of Aristotle. Translated into English under the editorship of J.A.Smith and W.D.Ross, 12 volumes. Oxford: Clarendon Press, 1908-1952.

Armstrong, A.H.
Plotinus. London: Allen and Unwin, 1953.

Armstrong, A.H. (editor).
The Cambridge History of Late Greek and Early Medieval Philosophy. Cambridge, England: The University Press, 1967.

Atiyeh, George N.
Al-Kindī, the Philosopher of the Arabs. Rawalpindi: Islamic Research Institute, 1966.

Badawi, ʿAbdurrahmān.
Aristūtālīs fī'l-Nafs. Cairo: Maktabat al-Nahdat al-Misrīyah, 1954.

------ La Transmission de la Philosophie Greque au Monde Arabe. Paris: Vrin, 1968.

Bréhier, Émile.
The Hellenistic and Roman Age. Translated by Wade Baskin. Chicago: University of Chicago Press, 1965.

Carra de Vaux, Bernard.
"Aflātūn", The Encyclopaedia of Islam. First edit.. Leiden: Brill, 1913-1938.

Cruz Hernandez, Miguel.
La Filosofia Arabe. Madrid: Revista de Occidente, 1963.

de Boer, Tjitze J.
"Zu Kindī und seiner Schule", Archiv für Geschichte der Philosophie, XIII (1903), pp.153-178.

------ "Al-Kindī", The Encyclopaedia of Islam. First edit.. Leiden: Brill, 1913-1938.

------ The History of Philosophy in Islam. Translated by E.R.Jones. London: Luzac, 1961.

Dunlop, D.M.
"The Translations of al-Bitrīq and Yahyā (Yuhannā) b. al-Bitrīq", Journal of the Royal Asiatic Society of Great Britain and Ireland. (1959), pp.140-150.

Fakhry, Majid.
A History of Islamic Philosophy. New York: Columbia University Press, 1970.

al-Fakhūrī, Sanā and al-Jurr, Khalīl.
Tarīkh al-Falsafah al-ʿArabīyah. Beirut: 1958.

al-Fārābī, Ibn Nasr.
Risālah fī Ārāʾ ahl al-Madīnat al-Fādilah. Edited by Friedrich Dieterici. Leiden: Brill. 1895.

Fehervārī, G.
"Harrān", The Encyclopaedia of Islam. New edition. Leiden:Brill, 1960-1969.

Finnegan,James.
"Al-Fārābī et le Peri Nou d'Alexandre d'Aphrodise", Mélanges Louis Massignon, II. Damascus: Institut Français de Damas, 1957. pp.133-152.

Flügel, Gustav.
"Al-Kindi, genannt der Philosoph der Araber", Abhandlungen für die Kunde des Morgenlandes. Vol.I, n.2. Leipzig: 1897. pp.1-54.

Furlani, Giuseppe.
"Una Risālah di al-Kindī sull'anima", Revista Trimestrale di Studi Filosofici e Religiosi (Perugia), III (1922). pp.50-63.

Gabrieli, Francesco.
"Ibn al-Mukaffaʿ", The Encyclopaedia of Islam. New Edition. Leiden: Brill, 1960-1969.

Gardet, Louis.
"Philosophie et Religion en Islam avant l'an 330 del'hégire", L'Élaboration de l'Islam. Paris: Presses Universitaires de France, 1961. pp.39-60.

Gardet, Louis and Anawati, M.-M.
Introduction a la Théologie Musulmane. Paris: Vrin, 1948.

Gilson, Étienne.
"Les Sources Gréco-Arabes de l'Augustinisme Avicennisant", Archives d'Histoire Doctrinale et Littéraire du Moyen Âge, IV (1929). pp.5-158.

Grube, G.M.A.
Plato's Thought. Boston: Beacon Press, 1968.

Guidi, M. and Walzer, Richard.
"Studi su al-Kindī - I: Scritto Introduttivo allo Studio di Aristotele", Memorie della Reale Accademia Nazionale dei Lincei (classe di scienze morali, storiche et filologiche). Serie VI, Vol.VI, Fasc.V. Rome (1940), pp.375-419.

Ibn abī Usaybi'ah.
'Uyūn al-Anbā' fī Tabaqāt al-Atibbā'. Edited by Nizār Ridā. Beirut: Dār Maktabat al-Hayāt, 1965.

Ibn al-Nadīm.
Kitāb al-Fihrist. Beirut: Maktabat al-Khayyat. No date. Reprint of 1872 Flügel edition.

Klibanski, Raymond.
The Continuity of the Platonic Tradition. London: The Warburg Institute, 1939

Kraus, Paul.
"Plotin chez les Arabes", Bulletin de l'Institut d'Égypte, XXIII (1941). pp.263-295.

Longrigg, S.H.
"al-Basrah", The Encyclopaedia of Islam. New edition. Leiden:Brill, 1960-69.

al-Masᶜūdī (Maçoudi).
Les Prairies d'Or (Murūj al-Dhahab). Arabic text and French translation in 4 volumes by C.Barbier and Pavet de Courtelle. Paris: L'Imprimerie Impériale, 1861-1877.

McCarthy, Richard.
Al-Tasanīf al-Mansūbah ilā Faylasūfi'l-ᶜArab al-Kindī. Baghdād:Wizārat al-Irshād, 1962.

------ "Al-Kindī's Treatise on the Intellect: text and tentative translation", Islamic Studies (Karachi), III (1964). pp.119-149.

Nagy, Albino.
"Sulle Opere di Jaᶜqūb ben Ishāq al-Kindī", Rendiconti della Reale Accademia dei Lincei (classe di scienze morali, storiche et filologiche). Serie V, Vol.IV (1895). pp.157-170.

------ "Die Philosophischen Abhandlungen des Ja'qūb ben Ishāq", Beiträge zur Geschichte der Philosophie des Mittelalters. Band 2, Heft 5, Munster (1897).

Nyberg, H.S.
"al-Muᶜtazilah", The Encyclopaedia of Islam. First edition. Leiden: Brill, 1913-1938.

Peters, Francis Edward.
Aristotle and the Arabs. New York: New York University Press, 1968.

Plato.
The Dialogues of Plato. Translated into English with analyses and introductions by B.Jowett. 4 volumes. Oxford: Clarendon Press, 1953.

Plotinus.
Opera. Edited by Paul Henry and H.-R.Schwyzer. 2 volumes. Paris: Museum Lessianum series Philosophica. 1951-1955.

------ The Enneads. Translated into English by Stephen MacKenna, second edition. London: Faber and Faber, 1956.

al-Qiftī.
Tarīkh al-Ḥukamā'. Edited by Julius Lippert. Leipzig: Dieterich'sche Verlagsbuchhandlung, 1903.

Rescher, Nicholas.
"Al-Kindī's sketch of Aristotle's Organon", The New Scholasticism, XXXVII (1963). pp.44-58.

------ Al-Kindī: an annotated Bibliography. Pittsburgh: University of Pittsburgh Press, 1964.

------ Studies in Arabic Philosophy. Pittsburgh: University of Pittsburgh Press, 1967.

abū Rīdah, Muhammad ʿAbd al-Hādī.
Rasā'il al-Kindī al-Falsafīyah. 2 volumes. Cairo: Dār al-Fikr al-ʿArabī, 1950-1953.

Ritter, Hellmut and Plessner, Martin.
"Schriften Jaʿqūb ibn Isḥāq al-Kindī's in Stambuler Bibliotheken", Archiv Orientālnī, IV (1932). pp.363-372.

Ross, William David.
Aristotle. London: Methuen, 1960.

Taylor, A.E.
Aristotle. Revised edition. New York: Dover Publications, 1955.

------ "Dreams and Sleep", The Encyclopaedia of Religion and Ethics. Edited by James Hastings. New York: Charles Scribner's Sons, 1955.

Théry, G.
Autour du Décret de 1210 - II: Alexandre d'Aphrodise. Bibliothèque Thomiste n.7. Paris: Vrin, 1926.

Walzer, Richard.
"Arabic Transmission of Greek Thought to Medieval Europe", Bulletin of the John Rylands Library, XXIX. Manchester, 1945. pp.160-183.

------ "Aristūtālīs", The Encyclopaedia of Islam. New edition. Leiden: Brill, 1960-1969.

------ Greek into Arabic. Oxford: Bruno Cassirer, 1963.

Wensinck, Arent Jan.
The Muslim Creed. London: Cass and Co., 1965.