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THE LOGICAL PART

of

AL-GHAZĀLĪ'S MAQĀSID AL-FALĀSIFA

In an anonymous Hebrew translation  
with the Hebrew commentary of  
Moses of Narbonne, edited  
and translated with notes  
and an introduction and  
translated into English

BY

GERSHON B. CHERTOFF

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TABLE OF CONTENTS

PART I

	<u>Pages</u>
<u>HOW AND IN WHAT FORM THE TEACHING OF ARISTOTLE CAME TO THE ARABS</u> . . . . .	1 - 30
<u>NOTES</u> . . . . .	31 - 50
<u>LIFE AND INFLUENCE OF AL-GHAZALĪ</u> . . . . .	51 - 93a
<u>NOTES</u> . . . . .	93b-104
<u>THE LIFE AND WORKS OF MOSES OF NARBONNE.</u> . . . .	.105- 116
<u>NOTES</u> . . . . .	.117- 120
<u>DESCRIPTION OF EDITION AND TRANSLATION of Kawānōt ha-šālōšim</u> . . . . .	.121- 123
<u>NOTES</u> . . . . .	.124

PART II

<u>HEBREW TEXT</u> . . . . .	1- 110
<u>ENGLISH TRANSLATION</u> - Facing Opposite . . . . .	1- 110
<u>NOTES</u> . . . . .	111- 136
<u>BIBLIOGRAPHY.</u> . . . . .	137- 148

**PART I**



HOW AND IN WHAT FORM ARISTOTLE

CAME TO THE ARAB WORLD

At first glance it might seem strange that so earnest and pious a Jewish savant as Moses of Narbonne should be so interested by and labor so long upon a tractate composed by an earnest and pious Muslim such as Abū Ḥamīd al-Ghazālī, and a tractate on Logic at that. A little inquiry, however, disclosing the community of interest between the two men, makes the connection far more understandable. Both Jews and Muslims were "People of the Book" who had Scriptures which they revered as the word of God and which were their respective ultimate authorities. And both communities had comparative bodies of Tradition, the Talmud for the one and the Ḥadīth for the other, each of which was less authoritative only than Scripture for the practical ordering of one's life since, in a very real way, it represented the voice of God to man. At the same time, being human, both Jews and Muslims were accustomed to invoke reason to guide their daily affairs. But the authoritative voice of reason did not always harmonize with the authoritative voice of revelation, a fact which inevitably raised for them both, as it had for other religious communities, the problem of "Reason and Revelation," which in its ultimate form meant the problem of reconciling reason with revelation.

The injunctions given in revelation were often obscure, and at times they seemed to conflict with what reason showed quite clearly to be right and true. Moreover, revelation was often found to be what reason would call self-contradictory. A classical example is the question of freedom of the will. In both the Bible and the Qur'<sup>an</sup> there are passages in abundance which assume that man has free will, can make his own choices and is responsible for the results of his choice. But at the

same time there are passages which clearly teach that a man's actions are determined by a will outside himself; that in a given situation he did what he did not out of free choice but because that was what God wanted him to do. And reason would judge, because here was no free will, that man was not responsible for the results of his action in that situation.

Within both Judaism and Islam, however, the conviction was strong among thoughtful men, as it had been strong among thoughtful men in other religious communities as well, that these two sources of authority could not possibly be in ultimate contradiction since both, revelation and reason, came from God. Whatever the apparent contradiction or surface variance, it was felt, they could not but be in ultimate harmony. And it was the duty of pious men to seek out and make plain that harmony; to demonstrate how reason and revelation might be reconciled. This has been the major preoccupation of the theologians and philosophers of both Judaism and Islam. But to accomplish this the teachings of both reason and revelation must be examined with equal care, stated with scrupulous exactitude and considered in proper relation to each other. The teaching of revelation was easy to handle since there was a definite Corpus of Scripture, and later of Tradition as well, setting forth what God had revealed. But where was the Corpus giving the teaching of reason? The answer, for the great body of philosophers in both Judaism and Islam, during the period under consideration, was Hellenistic philosophy, and in particular the Corpus of the Aristotelian writings plus some remains of Hellenistic philosophy.

From Philo to Abravanel it is the Hellenistic philosophy which, to the Jewish savants represents the authoritative system of reason, standing over against the authority of revelation, just as it does to the Muslim theologians and the "Arabian" philosophers from al-Kindī to al-Qazwīnī. For most of them it is particularly that Corpus, partly Neoplatonic, partly pseudo-Aristotelian, and lacking some of the genuine Aristotelian writings, which had come to be regarded as the Aristotelian philosophy. There had been philosophers before Aristotle, and there were others after him, whose thought and teaching made an impression on the peoples of the Orient, but in the period under discussion it was the Aristotelian philosophy, as they understood it, which presented a complete reasoned system of thought about the world and man's life in it.

There was good reason for this impression. It was Aristotle (1) who had made the most influential synthesis which brought together the results of earlier reasoning and research into the meaning and significance of life in man's universe. In the Physics, the De caelo, the Meteorologia and the De generatione he had thought out the problems of the natural phenomena in man's physical universe and the general principles of its operation. In the Historia Animalium and the smaller treatises on animals, he had grappled with the problems of organic nature. In the De anima and the Parva naturalia he had studied the human soul and its functions, and in the Politica, man's relations to his fellow men. In the Ethical treatises he had discussed the problems of the moral life, and in the Rhetorica and the Poetica even those of literary composition and criticism. In the Metaphysics, or First Philosophy, he

had faced the ultimate problems of being and reality, while in the Organon he had, for the first time, worked out the problems of the reasoning process itself, i. e., the problems of the very instrument reason must use as it endeavours to think out each individual problem.

It was this Organon, this "tool" or "instrument" for arriving at the truth, which particularly intrigued our Jewish and Muslim scholars, for it offered them not only a guide to the correct and sure use of the reasoning process, but also a method of classifying all the different kinds of knowledge arrived at by reasoning. The method of demonstrative reasoning whereby assured knowledge could be reached was the object of the discussions in the Analytica posteriora. Demonstration, however, is only possible when reached by the aid of the syllogism, so the Analytica priora is devoted to a detailed study of the problems of the syllogism. Each syllogism, in turn, is built from propositions, so the problems of the proposition are studied in the De interpretatione. Each proposition is made up of terms, which must belong to one of the ten categories of the real, and these are expounded in the Categoriae. Besides the demonstrative syllogism, with which the above is concerned, there is also the dialectic syllogism, which is investigated in the Topica. Finally, reasoning may be vitiated by various fallacies (sophisms), which tend to slip into the reasoning process, and these are exposed in detail in the De sophisticis elenchis.

The foregoing is the instrument by means of which one may arrive at assured knowledge, and Aristotle showed how all the bits of knowledge attained by such a method can be built into a

coherent system. He taught that reasoning may be of three kinds:

- (a) theoretical - when it searches for truth as a thing in itself, with no regard for practical applications. Mathematics, Physics, and First Philosophy as well as Rhetoric and Dialectic belong to this kind of reasoning.
- (b) practical - when it seeks knowledge to regulate action. Ethics, Economics and Politics belong to this kind of reasoning.
- (c) poetical <sup>(2)</sup> - when it seeks knowledge of the means necessary to produce a material product. The Crafts and Architecture belong to this kind of reasoning.

Here, then, is a scheme in accordance with which it is possible to arrange all that reason can give us as assured knowledge about ourselves and our world into a clear and coherent system, reason's authoritative system, which may be studied along with, and over against, the data given in revelation.

It is not that either Jewish or Muslim thinkers in the period under discussion had access to a complete or wholly authentic Aristotelian Corpus; still less that they always agreed with the teachings that came to them as Aristotle's philosophy, but whenever and wherever we find them dealing with their two groups of data, those of reason and those of revelation, it is always the figure of Aristotle we discern standing behind what they consider to be the authoritative pronouncements of reason. Even when they are most critical of him they are nevertheless his disciples, for whether it be Saadia, Bahya b. Paquda, Maimonides, Levi b. Gerson, or Joseph Albo, or whether

it be al-Fārābī, Ibn Sīnā, Ibn Tufail, al-Ghazālī or Ibn Rushd, the dialectical method they utilize to set forth their argumentation is the dialectic they learned from Aristotle.<sup>3)</sup> In the fullest sense, he is for both groups il maestro di color che sanno.<sup>4)</sup>

Philo of Alexandria, in the first century A.D., was acquainted with the teaching of Aristotle, as he was with that of most of the other Greek philosophers.<sup>5)</sup> And even earlier, in the thought of the Wisdom of Solomon and perhaps in that of Ecclesiastes, within the Canon,<sup>6)</sup> there is more than a suggestion of Greek influence, though not necessarily Aristotelian. But the later Jewish philosophy, in whose tradition Moses of Narbonne is ~~xxx~~ included, received its Aristotelian doctrine for the most part from the Arabs.<sup>7)</sup> It is thus of some importance to enquire how these Arabs came to know of Aristotle, and what constituted the Corpus of Aristotelian writings they had. It is a somewhat complicated story.

Greek political influence had begun to penetrate eastwards, into Asia, perhaps as early as the VIIIth century B.C., but it was after the conquests of Alexander the Great and the setting up of the kingdoms of the Diadochi that the Hellenization of the Near East and North Africa gained real momentum.<sup>8)</sup> Initially, the chief center of Hellenistic learning outside of Greece was at Alexandria, Alexander's own city, where, ~~xx~~ under the Ptolemies, Greek learning was encouraged and the Museum was set up.<sup>9)</sup> Alexandria housed one of the finest libraries known to the ancient world, and founded Schools whose research and teaching in mathematics, physics, astronomy, botany, medicine, philosophy and literature made it the ~~xxxx~~ outstanding intellectual

centre in the eastern Mediterranean. It was at Alexandria that Jewish savants had translated into Greek the books of the Old Testament and had produced, in Greek, no small amount of literature - religious and secular. <sup>11)</sup>

The influence of Alexandrian learning spread both eastward and westward. We find Josephus using the Hellenistic books which form part of our LXX with as much freedom as he uses those of the Hebrew Bible. The Pentateuch of the Samaritans shows many traces of the influence of the Alexandrian LXX. <sup>12)</sup> The Ethiopian eunuch, steward of Queen Candace, whom the evangelist Philip met on the road <sup>13)</sup> between Jerusalem and Gaza, was reading the prophecies of Isaiah in a Greek MS, which the Hellenist Philip immediately recognized. The facts that the Jerusalem mob expected the Apostle Paul to address them in Greek (Acts, XXI); that the Hasmonians and Herodians employed Greek on their coinage; and that the oldest synagogue inscriptions in Palestine are in Greek, <sup>14)</sup> do not necessarily indicate a spreading of Greek culture from Egypt, for there were many Greek-speaking centres in Palestine, such as Samaria, Tiberias, Scythopolis and Caesarea-Philippi, from which the Greek language and customs spread to other areas. The many places, however, where the peculiarly Egyptian language of the Greek papyri has provided the solution of puzzles in the language of the Talmud, <sup>15)</sup> give clear evidence of the continuing influence of Alexandria in Jewish Palestine, while the fact that it was Origen of Alexandria who was called upon to deal with the problem arising from the heretical teaching of Beryllus of Bostra, <sup>16)</sup> is equally clear evidence of its influence on the growing Christian community in that country.



But Alexandria was not the only great center from which Greek learning spread eastwards. The Seleucids of Syria were hardly less enthusiastic promoters of Hellenism than the Ptolemies of Egypt, and as Antioch on the Orontes, in northern Syria, developed into the chief center of Seleucid power,<sup>17)</sup> its reputation as a center of Greek learning soon came to rival that of Alexandria. Cicero (pro Archia, 3 & 4) speaks of it as Eruditissimis hominibus liberalissimisque studiis adfluenti, words of praise which the city continued to deserve while it remained the home of such famous men as Malchion the Rhetorician and Longinus, the teacher of Zenobia. The Seleucids had attracted to Antioch, as Alexander had to Alexandria, an important colony of Jewish residents. And just as in the first Christian centuries a center of Christian thought and teaching, adorned by such illustrious names as those of Clement and Origen, had grown up in Alexandria, so in Antioch there developed a similar center whose leaders were Lucian, Eustathius and Diodorus. And as Gnostic teaching had flourished at Alexandria under Valentinus and Basilides, so it flourished at Antioch under Menander and Saturnilus. The teaching at Antioch and at the neighbouring centers<sup>18)</sup> was in Greek, and was particularly concerned with the study and teaching of Greek philosophy.<sup>19)</sup> In fact, as the respective centers developed, Antioch gained a reputation for maintaining the grammatical and literal exegesis of Scripture and the use of the Aristotelian dialectic, as against the figurative exegesis and Platonic speculation favored at Alexandria.<sup>20)</sup>

Mere mention of the names of Theodore of Mopsuestia and Nestorius is sufficient to demonstrate the eastward and south-

ward spread of the influence of Antioch. The school of Edessa, which carried on the Antiochene tradition when the center at Antioch declined after the condemnation of Nestorius, settled at a place already famous for its energetic pursuit of the study of Greek books.<sup>21)</sup> It was also the place where the classical Syriac language had taken on a literary form into which, partly in the Jewish community and partly in the Christian community, a Syriac version of the Scriptures had been made. A later revision of this gave us the Peshitta. When this Edessene School was in turn broken up in 489 by further anti-Nestorian persecution, Barsauma reformed it at Nisibis,<sup>22)</sup> in territory under Persian suzerainty, where once again the Antiochian tradition flourished.<sup>23)</sup>

Persia was another Eastern area where Greek studies were favored. The Parthians, who succeeded the Achaemenides in Persia in 247 B. C., rather prided themselves on their Greek culture and used Greek in inscriptions and on their coins.<sup>24)</sup> But it is difficult to say whether there was much study of Greek philosophy among them. Under the Sassanians, Christian youths from the Persian area came in such numbers to study Greek learning in the schools in Edessa and Nisibis that the school at Edessa was popularly known as "the Persian school."<sup>25)</sup> Many of the students from these schools labored at their life-work in different parts of the Persian Empire, and though the evidence we have deals, for the most part, with Christians from Persia, there is no reason to think that non-Christian youth in Persia had no part in such studies. There was, indeed, a tradition that Shapur I (240-271) had founded, at Gundishapur,<sup>26)</sup> an academy where medical science according to Hippocrates was

to be taught, and though this may be a reading back into the days of the great Shapur what really belonged to the days of Khusrau I, the fact that several Nestorians who fled to Persia from the persecutions to which they were subjected in areas under Byzantine control taught medicine in this city<sup>27)</sup> is evidence that the beginnings of such an academy were there before the reign of Khusrau I (531-579). We are informed that translations of Greek works had been made into Sassanian Pahlavi,<sup>28)</sup> and the Greek philosophy cultivated, so that when, in 529, Justinian closed the Greek schools in Athens, the seven philosophers<sup>29)</sup> of the Neoplatonic School who took refuge at the Court of Khusrau Anushirwan would have come into a circle of students already somewhat familiar with and appreciative of the Greek learning which they represented.<sup>30)</sup>

It is important to remember that this interest in Greek culture affected the whole life of those areas which it touched. The use of the Greek language became widespread, Greek forms of political organization were adopted, Greek customs, fashions and styles were followed, Greek games were instituted at a great many centers, and the people grew fond of adopting Greek names, often translating their oriental names into what seemed to them Greek equivalents (e. g. Wahballāt = Athenodoros), and even equating the names of their deities with those of the Greek pantheon. Youths from these lands went to the West to study and often remained to teach. It is sometimes forgotten that Zeno, the founder of the Stoic School, was an Oriental from Cyprus; that Poseidonios, who built up the Stoic school in Rhodes, was a native of Apamea in Syria,<sup>31)</sup> that Antiochus, who came to lead

the New Academy, was a man from Ascalon in Palestine; that the other Zeno who became the head of the Epicurean School was from Sidon; that Diodorus, who came to head the Peripatetics, was from the neighbouring city of Tyre, and that the great Nemesius was a native of Emesa. Nor was the interest in this Greek culture confined to the educated few in the great cities of Africa and western Asia. While it is true that the masses continued to use their own vernacular in daily intercourse, it is clear that they had a sense of the importance of Greek learning. The citizens of Palmyra, as their inscriptions show, used their Aramaic dialect both in private and in public life, but when they came to reorganize their municipal government they gave its officials the usual Greek titles of  $\pi\rho\acute{o}\epsilon\delta\rho\omicron\varsigma$ ;  $\gamma\rho\alpha\mu\mu\alpha\tau\epsilon\upsilon\varsigma$ ;  $\sigma\upsilon\rho\delta\iota\kappa\omicron\iota$ ;  $\delta\epsilon\kappa\lambda\eta\rho\omega\tau\omicron\iota$ . Their neighbours, the Arab Nabataeans, were fond of Greek names and titles, and not only they but the chieftains in far off South Arabia used Greek on their coinage. The Monumentum Adulitanum from the coast of Ethiopia is in Greek. Silko, the first Christian king of Nubia, has his inscription at Talmis cut out in the best Greek that could be managed in his remote kingdom. Even the semi-settled Arabs, who frequented the Jebal aṣ-Ṣafā at the edge of the basaltic plain south-east of Damascus and whose early rock scrawlings are in a form of South Arabian script, are, by the IVth century A. D., writing their scrawls in Greek and naming their chief deity  $\text{Ζεὺς Σαφᾶθῆν}$ .

What interests us particularly is the spread among these peoples of a knowledge of Greek science and Greek philosophy. Obviously the pre-Christian schools at such centers as Alexandria and Antioch would have studied this science and philosophy, and that the "pagan" tradition was carried eastwards is evident from

the fact that right down to the days of the Abbāsīd Caliphate there was a center of "pagan" Greek learning at Harrān, whose leaders claimed from the Caliphs the right to the same protection as the Jews and Christians, since they were also "People of the Book" and thus were the Ṣābians referred to by Muḥammad in the Qur'an.<sup>33)</sup> One famous scholar of this community, as we shall see later, is said to have translated a number of Greek works into Syriac and Arabic.<sup>34)</sup> There are also traces of the work of "pagan" philosophers and teachers in other places in Syria.<sup>35)</sup> Of more importance for us, however, is the fact that both the Gnostic and the Christian schools which flourished in the Near East made great use of this philosophy as they began to work out their teaching systematically, just as Philo had made use of it in working out his teaching. What strikes one first in the Gnostic treatises is their numerous affinities with the teaching of Plato, but Origen sees them as Aristotelians. Of Basilides, in particular, he says that he drew all his heresy from the teaching of a Aristotle, who had fascinated him, so that what he sets forth is the doctrine of the Stagirite, not that of Christ.<sup>36)</sup> It is the same further east where we find developing the systems of Bardesanes (Bardaisan, d. 222) and Mani (d. 277), the "last of the Gnostics", both of whom were strongly influenced by Greek speculation.<sup>37)</sup>

It is in the writings of the teachers of the Christian schools, however, that this becomes more evident. Clement of Alexandria (d.c. 215) had a high appreciation for the philosophy of the Greeks,<sup>38)</sup> judging that philosophy was what God had given

them to be their paedagogus to lead them to the true religion,<sup>39)</sup>  
as the Law had been given to the same end to the Jews.

Though his own leaning is towards the teachings of Pythagoras  
and Plato,<sup>40)</sup> it is the dialectic perfected by Aristotle which

he hails as the stairway whereby one may mount up even to the  
Lord of the universe.<sup>41)</sup> Origen's training had made him

familiar with Plato's philosophy and with the Aristotelian  
logic, too.<sup>42)</sup> But what is perhaps more important is that the

early adversaries of Christian teaching, Celsus, Iamblichus,  
Porphyry and Proclus, made use of the Aristotelian dialectic

in their polemic against Christianity, so that the Christian  
apologists, in turn, made use of it in their defence of

Christianity against the attacks of its enemies.<sup>43)</sup> What could  
be more natural, then, than that the Christians, when they came  
to writing polemic treatises among themselves - heretics against

orthodox and orthodox against heretics - should draw their dia-  
lectical weapons from the same armory? Arius, whose aberrant

teaching had threatened to split the Church, and was the main  
issue at the Council of Nicea in 325, had a reputation for his  
close acquaintance with the Aristotelian dialectic,<sup>44)</sup> and

Athanasius, his opponent from the orthodox side, used the same  
dialectic in his treatise against Arius. It was held against

the heretic Artemon that he placed Euclid above Christ and  
abandoned Scripture for dialectic and mathematics,<sup>45)</sup> while the

more famous Paul of Samosata, who "renewed the heresy of Artemon,"<sup>46)</sup>

and who had the esteem and support of the Arab queen, Zenobia,

was so renowned for his dialectical powers that at the Synod con-  
vened at Antioch, in 269, to enquire into his teaching, a skilled,

professional dialectician, named Malchion, was chosen by the assembled Bishops to conduct the discussion with him.<sup>47)</sup>

The polemic of the succeeding centuries, and in particular that of the Christological controversies, followed the same pattern. Monophysites, Dyophysites, Monothelites - all used the Greek dialectic in their treatises in defence of their views, while the orthodox used it, in turn, in their polemics against the heresies. Jacobites, Nestorians and Melkites were, in this matter, equally disciples of Aristotle, and were all equally indebted to the Greek philosophy, however widely their theology may have come to differ from that of Athens. The Monophysites in particular seemed to their opponents to base their entire structure of theology on a statement in Aristotle's *Metaphysics* (*Metaphysica*, VII, 13), and as a result, John of Damascus accuses them of considering Aristotle a thirteenth Apostle and of giving more credit to his statements than to those of Scripture.<sup>48)</sup>

Both Monophysites and Nestorians were regarded by the orthodox Church at Constantinople as heretics, and heretics were subject to persecution. Their strength was always among the non-Greek-speaking population,<sup>49)</sup> and as persecution waxed hotter there naturally developed an anti-Greek feeling, one result of which was that the leaders of both the Monophysite and the Nestorian communities ceased writing in Greek and labored at developing all necessary literature - Bible, Liturgy, Theology, etc. in the vernacular.<sup>50)</sup> The case of the Monophysites in Africa<sup>51)</sup> is outside our present field of interest, but the Christians in Syria, Palestine and Mesopotamia were, for the most part, Aramaic speaking communities. Their Aramaic differed dialectically from area to area, but in one

dialect, that of Edessa (East Aramaic dialect) there were already beginnings of a literature. A beginning with the translation of the Bible into this Edessan dialect had been made, perhaps as early as the end of the first century. It was called Syriac, and by the fourth century a vulgate version of this Syriac Bible, the Peshitta, was in circulation and had been widely accepted by Aramaic speaking Christians not only in Mesopotamia but in Syria, Palestine and Persia.<sup>52)</sup> It was this Syriac which the persecuted groups in these areas now used as their medium of cultural expression,<sup>53)</sup> both composing in it original works and translating into it everything they thought they might need of Greek writings. This practical motivation explains why there was so little translation of purely literary or historical works, and so much theology, philosophy, science and medicine.

The honors for these translations were shared. The West Syrians were for the most part Monophysites (Jacobites) and the East Syrians, by and large, Nestorians (Dyophysites), but in both cases their literary language is Edessan Syriac, with only minor dialectical differences. The oft-quoted rhyme from 'Abdīshōs (Ebedjesu's) Catalogue says:

"Hībhā and Kūmī and Prōbhā  
From Greek into Syriac  
Translated the books of the Commentator  
And the writings of Aristotle,"

a rhyme which represents the popular tradition of the Nestorian schools. Hībhā (Ibas: d. 457) was known as "the translator" (methargemana)<sup>55)</sup> and both he and Kūmī (or Kōmāī) may well have translated the works of Theodore of Mopsuestia,<sup>56)</sup> "the Commentator," but it is with Prōbhā (Probus) in that same Vth



century that the work of translating Greek scientific and philosophical works got its real start. He is said to have translated Aristotle's Analytica priora i-vii, and perhaps the De interpretatione, and he certainly wrote commentaries on both and on the Isagoge of Porphyry.<sup>57)</sup>

The earliest translators among the Jacobites are unknown to us by name. Anterior to the work of Sergius of Theodosiopolis, however, we find Syriac translations of John Philoponos' commentary on the Isagoge and of the Scholia of Olympiodoros to the Organon of Aristotle.<sup>58)</sup> Perhaps a little later, chronologically, are the texts studied by Furlani.<sup>59)</sup> Sergius himself (Sargis of Rēsh'ainā, d. 536)<sup>60)</sup> was the most famous of all the Jacobite scholars, a physician, astronomer and philosopher whom Barhebraeus called "the most outstanding medical authority among the Syrians."<sup>61)</sup> In Philosophy, he was a Neoplatonist, and translated the tractates of the Pseudo-Dionysius Areopagita, which were to have so great an influence on the mystical theology of the Orient. He composed a work in seven books on Aristotelian logic; an essay on genus, species and individuum; an epistle concerning the De interpretatione iii; an essay on the relation of the Analytica priora to Aristotle's other writings; tractates on the use of the terms ousia and schema,<sup>62)</sup> and a work on Aristotle's idea of the universe. He translated the Categories of Aristotle, the Isagoge of Porphyry, two pseudo-Aristotelian treatises, the de Mundo and the de Anima,<sup>62b)</sup> and part of the medical works of Galen.

Translation continued into the Islamic period. At the Jacobite center associated with the monastery at Qinneshrin,

south of Aleppo on the left bank of Euphrates, Severus of Sēbōkht (d. 667), who was skilled in both Pahlavi and Greek,<sup>63)</sup> translated Aristotle's Analytica priora, De interpretatione and Rhetorica, while his pupil Athanasius of Balad, in 645, translated the Isagoge of Porphyry and wrote an introduction to Aristotelian logic.<sup>64)</sup> Jacob of Edessa (d. 708), who had also studied at Qinneshrin, made a fresh translation of the Categories, studied the Metaphysica and wrote a handbook explaining the philosophic terms used in works of this nature.<sup>65)</sup> George, the so-called "Bishop of the Arabs," (d. 724)<sup>66)</sup> who was the Monophysite Bishop at Kūfa and a pupil of Athanasius of Balad,<sup>67)</sup> translated the Categories, the De interpretatione<sup>68)</sup> and the Analytica priora with introductions and commentary. Theophilus of Edessa (d. 785), the astronomer who had won the esteem of the Caliph al-Mahdī, and who translated the Iliad and the Odyssey into Syriac, also busied himself with the translation of philosophical works.<sup>69)</sup>

As will have been noticed, the activity of these writers in Syriac was not confined to translation, for they studied and wrote on the scientific and philosophic matters they learned from the Greeks. Nestorians were early active in the exposition of Greek philosophy. Abhā of Kashkar, who was an important figure at the court of Khusrau II from which he was sent as ambassador to the Emperor Maurice (582-602), was a man learned in medicine, astronomy and philosophy, and wrote an exposition of the Aristotelian logic.<sup>70)</sup> His contemporary,<sup>71)</sup> Budh, wrote an exposition of Book I of the Metaphysica, and one Michael, also a Nestorian, is credited with a tractate on

man as a microcosm - which shows, interestingly enough, that Neoplatonism was active in the school at Nisibis.<sup>72)</sup> Ahūdemmeḥ (d. 575) wrote several philosophical works, among which was one concerned with questions of Logic.<sup>73)</sup> Silvanus of Qardu, early in the VIIth century, was writing against astrology, and produced a work on Greek philosophy which shows a knowledge of the Categories and De interpretatione of Aristotle, the Isagoge of Porphyry, and the Prolegomena used in the Neoplatonic schools as introductory to the study of Logic.<sup>74)</sup> 'Enanīshō', as a monk at Mt. Izlā, composed in his cell a collection of philosophic ἔργα and διαπίστεις,<sup>75)</sup> while the Catholics Henanīshō I (d. 700)<sup>76)</sup> wrote a commentary on the Analytics and a work De causis. His pupil, Ishō' bokht of Rēwardashīr, wrote on meteorological matters, on Aristotelian logic and tractates on such problems as "possibility" and "fate."<sup>77)</sup> Theodore bar Kōnai of Kashkar even wrote a general sketch of the Greek philosophy.<sup>78)</sup> Among the Jacobites we find the VIIIth century writer David bar Paulus writing on the Categories,<sup>79)</sup> and Moses bar Kepha (d. 903) wrote a commentary on the Aristotelian logic, a book of Prolegomena to the Categories,<sup>80)</sup> and a treatise De anima.

The advent of Islam early in the seventh century made almost as great a change in the intellectual life of the Near East as it did in the political life. In the first years of Muslim expansion the lands where both the Jacobite and the Nestorian churches flourished came under Arab control, and under the Caliphate the Arabic language quickly superseded both Greek and the Aramaic dialects throughout the Near East. In the Iranian area the use of Arabic spread so widely that though the vernacular was not superseded by Arabic, the language be-

came so modified by contact with Arabic that it passed from the Middle Persian Pahlavi to the development of what we know as modern Persian. Into those areas of older culture the Arabs came as the teachers of a new religion, but in all else they had everything to learn. They had their Scripture, the Qu'ran, but when they were confronted by the necessity of explaining it and working out the grammatical structure of their own language, the model they used was that of the grammatical concepts said to be derived from Aristotle.<sup>81)</sup> When they found it necessary to formulate their doctrines and defend them,<sup>82)</sup> there developed the famous kalam, in the discussions of which the opposing parties in Islam used the dialectic methods learned from the Greeks, just as the opposing parties of the Monophysites, Dyophysites and Orthodox in Christianity had done before them.<sup>83)</sup> The Courts of the Caliphs, however, were interested in things other than theological argument. They were eager to make use of the teachings of Greek science, and in particular of Greek medicine. As a result, their Courts, and especially that of the 'Abbāsīd Caliphs at Baghdad, gave a new impetus to the task of translation and interpretation - only now these were in Arabic. There was some translation done directly from Greek texts, and there was some from Pahlavi versions of Greek texts,<sup>84)</sup> but for the most part the new translations were from the Syriac versions which, as we have already seen, were available in considerable numbers.

Among the Arabs at the Courts of the Caliphs there would have been few, if any, who had a sufficient knowledge of Greek or even Syriac to read books in these languages, and so for

translation and exposition the Muslim rulers had to depend very largely on men of learning in the older religious communities.<sup>85)</sup> The full story of this translation process is yet to be written.<sup>86)</sup> It must suffice here to mention some of the more important names concerned.

The most famous translators into Arabic were Ḥunain b. Ishāq<sup>87)</sup> (d. 875) and his school. Ḥunain had occupied himself with translation into Syriac from Greek,<sup>88)</sup> but with his son Ishāq b. Ḥunain and his nephew Ḥubaish b. al-Ḥasan, he translated from Greek and from Syriac into Arabic, and this was their chief work. Between them,<sup>89)</sup> they translated most of the Organon of Aristotle, the De anima, the De gener. et corr., the Physica and Metaphysica, the Ethica and the commentaries of Alexander of Aphrodisias, Porphyry, Themistius and Ammonius on the Aristotelian writings, the Republic and Timaeus of Plato, the Quadripartitum of Ptolemy<sup>90)</sup> and numerous mathematical, medical and other scientific works.

Ḥunain and his immediate successors were Nestorians. There had been translators in this community before him,<sup>91)</sup> important among whom were Yahyā b. al-Baṭrīq (fl. 830),<sup>92)</sup> the physician Yahyā b. Māsawih (d. 857),<sup>93)</sup> and Abū Nuḥ of Anbar, who translated the Aristotelian Topics.<sup>94)</sup> Ḥunain also had successors not of his own School, notably Abū Bishr Matta b. Yūnus (d. 940), known as "the Logician" (al-mantiqī),<sup>95)</sup> but mostly famous for his translation of Aristotle's Poetica. The other communities also shared in this work. Among the Melkites were Qusṭa b. Lūqā<sup>96)</sup> (c. 912) and another Yuhanna b. al-Baṭrīq (c. 850).<sup>97)</sup> Among the Jacobites were Ibn Nā'ima (fl. 835), who translated, among other things, the so-called "Theology of Aristotle,"<sup>98)</sup> and Yahyā b. 'Adī<sup>99)</sup> (d. 974), whose work has been especially studied by Graf and Pérrier.<sup>100)</sup> To these Christian translators must be added the

names of Thābit b. Qurra and his fellow students at the "pagan" schools of Ḥarrān.<sup>101)</sup>

In the Xth century, as a result of this contact with Greek science and Greek philosophy and under the stimulation of men of learning of the older religions, an independent Muslim development of this body of knowledge began. It made some notable contributions to the study of astronomy, medicine and mathematics, and produced the series of "Arabian" philosophers. It is with these latter that we are here concerned. Beginning with the association of the "Faithful Brethren" at Baḡra, it developed on this philosophical side at the hands of al-Kindī (fl. 850), al-Fārābī, Ibn Māskawaih, Ibn Sīnā,<sup>102)</sup> Ibn al-Ḥaitham, al-Ghazālī, Ibn Badja, Ibn Ṭufail and Ibn Ruṣd,<sup>103)</sup> in that form of Oriental Aristotelianism which was to have so profound an effect on Scholasticism in the West. For their knowledge of the Greek philosophy, all these "Arabian" philosophers were dependent on the translations which came to them through the labors of the above-mentioned translators. In this connection there are five matters of some importance to be kept in mind:

1) The extreme literalness of the translations which had been made into Syriac and later into Arabic. This fact is commented on by almost every scholar who has had to deal with them. On the one hand, it has been useful in enabling scholars to see fairly clearly the type of Greek text on which the translators worked, but on the other hand so literal translations made for unidiomatic Syriac and unidiomatic Arabic, and often led to passages which are hardly intelligible without reference to the Greek which they are supposed to represent. Part, at least, of the mistaken ideas some of the

"Arabian" philosophers had of the teaching of Aristotle may be laid to the charge of the translations they used. Tkatsch, in his two volumes on the Poetica, began a detailed study of the translation methods of these translators,<sup>104)</sup> a study which has been carried to the Categories in the recent work of Kh. Georr.<sup>105)</sup>

2) The fact that the interest of Muslims, in these texts, was long a purely practical interest. They had no cultural-aesthetic interest in them, no desire to read them just for enjoyment. What they were after was the content of the texts, the material of which they could make immediate practical use. To some extent this had been true of their immediate predecessors, and it explains why we have in Syriac, and more particularly in Arabic, so many epitomes. In the case of medical, mathematical or similar scientific works it was hardly practical to epitomize, but with works of a philosophic nature the epitome, which gave the gist of the treatise, and the commentary, which expounded the meaning, were in much greater favour than complete translations of treatises.<sup>106)</sup> It was doubtless this practical interest which led to their preoccupation with Aristotle, and in particular with the Organon.

3) The fact that the Aristotelianism which came to the Arabs was strongly tinged with Neoplatonism. This was apparently inevitable. From the third century A. D. it was the Neoplatonic School which dominated Greek philosophy. In Alexandria, indeed, there had been a Platonic tradition before Plotinus, the pupil of Ammonius Saccas, made it the dominant School in Egypt. The labors of Iamblichus show it was well

domiciled in Syria. In the Christological controversies of the fourth and fifth centuries the technical terms used make it clear that the philosophical background of the disputants on both sides was the current Neoplatonism. At the time the work of translation into Syriac was at its height the only living philosophical tradition among the Greek speaking peoples was Neoplatonism, which will explain why in the literary histories there is so often mention of the Neoplatonic connections of one and another of the translators.<sup>107)</sup> The Arabs who studied their Aristotle, for the most part through the medium of the Alexandrian commentators,<sup>108)</sup> had no means of distinguishing what was the original Peripatetic teaching and what was Neoplatonic interpretation, and so they treated the Isagoge of Porphyry as though it were actually a part of the Organon,<sup>109)</sup> accepted the excerpts from the Enneads of Plotinus which passed under the name of the "Theology of Aristotle" as Aristotelian, and attributed the Stoicheiosis theologike of Proclus to Aristotle under the name of Liber de Causis.<sup>110)</sup> Even the earlier kalam of the Muslim theologians had been strongly affected by the Neoplatonism they learned from their contact with Christians of the Eastern Churches,<sup>111)</sup> and the teaching of the Bāṭiniyya sects was even more deeply colored by Neoplatonic ideas.<sup>112)</sup>

4) That the Arab interest in medical writings, in particular in those of Galen, was important for their understanding of philosophy, since Galen himself had strong Aristotelian leanings. A great many of the Muslim philosophers were also physicians, and so were imbibing Aristotle through two channels.

5) The fact that for the Arabs the name of Aristotle



came to cover practically the whole of Greek philosophy. <sup>113)</sup>

It was not that they did not know the names of Hermes, <sup>114)</sup>  
Empedocles, Democritus, Socrates, Plato, <sup>115)</sup> and Plotinus

but that Greek philosophy as the body of reason over against that of revelation was to them ta'lim Aristū (the teaching of Aristotle). One reason for this was that even in pre-Islamic days the name of Aristotle was known to Arab legend as one of the "Masters of Wisdom." Aristotle had been the friend and tutor of Alexander the Great, and as the legend of Alexander spread and grew in the East, the name of Aristū the mentor of <sup>116)</sup> Dhū'l-Qarnain was included in it. And so it is not at all strange that in the widely known story of the dream of the Caliph Ma'mūn <sup>117)</sup> it was Aristotle who appeared to him and gave him explicit assurance that there was essential agreement between the authoritative pronouncements of reason and the equally authoritative pronouncements of religious law and of common sense, so that the Caliph need have no qualms about encouraging the study of the ta'lim Aristū at his Court.

This led to the Arabs having a curiously exalted idea of <sup>118)</sup> the importance of Aristotle, which in its turn may have had some influence on the reverential regard for Aristotle characteristic of Europe in the Middle Ages. Not only did this lead to a number of non-Aristotelian treatises being ascribed <sup>119)</sup> by the Arabs to Aristotle, but it made them easily accept the harmonizing notions of the Alexandrians and believe that the philosophy of Aristotle was in essential agreement with that of the earlier Greek philosophers. So we find that al-Kindī compounds the teaching of Plato and Aristotle with <sup>120)</sup> regard to the "Intellect," and al-Fārābī devotes a whole tractate to expound the essential harmony of Aristotle's

philosophy with that of Plato,<sup>121)</sup> and in the great *Shifā'* of Ibn Sīnā<sup>122)</sup> we find Aristotelian teaching mingled with, supplemented by and brought into harmony with Platonic, Stoic and Neoplatonic ideas.

It is rather remarkable how this ta<sup>l</sup>īm Aristū affected the whole area of Muslim intellectual endeavour. That it should have affected their theology and philosophy, even though they were compelled on dogmatic grounds to oppose certain teachings of the Greeks,<sup>123)</sup> is not surprising. What is surprising is the extent to which it moulded so many other fields of "Islamic science." (al-<sup>l</sup>ūm al-islāmiyya). We have already noted the influence of the Aristotelian categories on the development of Arabic Grammar. It is the same story in the field of Rhetoric.<sup>124)</sup> Even in the domain of Law (Fiqh), which has been hailed in recent years as the most characteristic product of the spirit of Islam and its finest flowering,<sup>125)</sup> we find that the orthodox Jurists (fuqahā') use the categories of universal and particular, genus and species, general and special, etc., and argue syllogistically in peripatetic fashion. Indeed, al-Ghazālī opens al-Mustaṣfā, the great treatise he wrote on Jurisprudence, with an exposition of the logical method which he asserts is indispensable for the handling of questions of jurisprudence. Medicine and Mathematics, Astronomy, Botany - all the regular studies among the Arabs had their basis in the teaching of the Greeks and were organized in Islam in what was thought to be the Aristotelian order. Finally, the mystical theology of the Sūfīs, as it began to express itself in systematic form, drew, in turn, from this ta<sup>l</sup>īm Aristū. It is thus of peculiar interest to note that the jibe of John of Damascus against the

Monophysites, which we quoted above, appears in almost identical words in the mouth of a pious Muslim of the third Islamic century.<sup>127)</sup>

In the formal study of this teaching it became customary to reckon the writings making up the Aristotelian Corpus as twenty treatises in four groups.<sup>128)</sup>

I. Logic - (containing eight treatises) -

Categories: De interpretatione: Prior Analytics: Posterior Analytics: Topics: Sophistics: Rhetoric: Poetics.

II. Physics - (containing eight treatises) -

Physics: De caelo: De generatione: Meteorology: De anima: de Sensu: Historia Animalium: Botany.<sup>129)</sup>

III. Metaphysics - (two treatises)

IV. Ethics - (two treatises) - Nichomachaen Ethics and Politics.<sup>130)</sup>

On this basis, it was then possible to make a complete system covering the whole range of knowledge as it could be attained by reason. The system of classification in al-Fārābī's Ihsā al 'Ulūm is typical, and has the added interest of showing clearly the influence of the eight-fold scheme of the Neoplatonists.

I. Grammar. ('ilm al-Lisān).

II. Logic. ('ilm al-Mantiq).

1. Categories (al-Maqūlat).
2. Hermeneutic (al-'ibāra).
3. Prior Analytics (al-qiyās).
4. Posterior Analytics (al-burhān).
5. Topics (al-mawāḍi' al-jadaliyya).
6. Sophistics (al-ḥikma al-mumawwaha).
7. Rhetoric (al-Khaṭāba).
8. Poetics (ash-shi'r).

III. Mathematics. ('ilm at-ta'lim).

1. Arithmetic ('ilm al-'adad)
2. Geometry ('ilm al-ḥandasa)
3. Optics ('ilm al-manāẓar)
4. Astronomy ('ilm an-nujūm)
5. Music ('ilm al-musīqī)
6. Weights and measures ('ilm al-athqāl)
7. Mechanics ('ilm al-ḥiyāl)

IV. Physics. ('ilm aṭ-ṭabī'a)

1. Natural Philosophy, (as-samā' aṭ-ṭabī'ī)
2. Cosmology (as-samā' wa'l-'ālam) lit. Heaven and earth
3. Generation and corruption (al-kawn wa'l-fasād)
4. & 5. Meteorology (al-āthar al-uluwiyva)
6. Mineralogy (al-ma'ādīn)
7. Botany (an-nabāt)
8. Zoology and Psychology (al-ḥayawānāt wa'n-nafs)

V. Metaphysics. (al-'ilm al-ilāhī)

VI. Politics. (al-'ilm al-madani)

VII. Jurisprudence. ('ilm al-fiqh)

VIII. Theology. ('ilm al-kalām).

There are still too many unpublished documents, especially from the early period, for it to be possible to write the history of the formal study of the Aristotelian Logic in Islam, beginning with the exposition of it in the Rasā'il of the Faithful Brethren of Baṣra<sup>131</sup> and carrying the story on till we reach its final form in the Logical treatises of al-Ghazālī. The Mutakallimūn used it but did not treat it formally, while the Falāsifa, on the other hand, felt it their duty to give some formal exposition of their dialectic method. Al-Fārābī did so, and though the surviving fragments of his logical works have not so far been assembled for proper study, we know<sup>132</sup> that al-Qiftī regarded him as the logician among the Arabs. From one point of view, the formal treatment of Logic reached

its highest development in the work of Ibn Sīnā', whose compendium, an-Najāt, is still studied.<sup>133)</sup> Al-Ghazālī made no important departure from the teaching of Ibn Sīnā', so that he is a faithful follower of "the grand Sheikh," but he did set forth the logical doctrine a great deal more clearly and succinctly than we find it in the works of Ibn Sīnā'. He expressed it in a form more in accord with Arabic ways of thinking and showed far better than any of his predecessors had done how the syllogistic forms of reasoning could be applied to the problems of the Jurists and the Theologians.<sup>134)</sup> Thus it is with the Logic of al-Ghazālī that the tradition of Aristotelian logic took its final form among the Arabs. After his day, though Logic continued to play an important part in the writing of philosophers, e. g. in those of Ibn Rushd, there were no important developments in Islamic study of Logic until the modern period when, under a fresh stimulus from European thought, Muslim writers have again attempted to think out a formal system of Logic suitable for students in modern schools.<sup>135)</sup>

One important result of these developments in the intellectual life of Islam was that they stirred a reaction within the communities still professing the older religions. Both Jews and Christians formed considerable communities in the lands under Muslim control. Being "People of the Book" they became Dhimmis, i. e. they had the status of "protected communities" (ahl adh-Dhimma), and though suffering from certain disabilities, they were permitted to profess their religion and live freely in all Muslim territories. Many of them came to hold positions of power and influence under the less fanatical

Caliphs. As Islam worked out its dogmatic positions and formulated its theological system, we find the leaders of the Jewish and the Christian communities having to think out their religious position as against that of Islam. Inevitably, there was polemic. From the VIIth century onwards we can list an unbroken series of references to Muslim, Jewish and Christian controversies,<sup>136)</sup> and from the time of John of Damascus in the VIIIth century we even have many of the tractates on either side preserved, such as those of 'Ali B. Rabbān at-Ṭabarī, Theodore Abū Qurra, Abū Nuḥās Anbar, as-Su'ūdī, Niketas and Euthymius.

The writers of polemic used the dialectic as they had in the days of polemic before Islam was born, and the Muslim writers used it in their refutation of the Jews and Christians, Manichaeans and other dualists, and of the heresies which soon enough arose within Islam itself. A by-product of this polemic was the need felt by all parties for a closer working out of their own problem - the reconciliation of reason and revelation. We see this in the case of al-Ghazālī, who had stepped more than once into the polemical arena,<sup>137)</sup> and we see it in John of Damascus, in his pupil Theodore Abū Qurra, Ibn Zur'a and other Christian writers. What is closer to our own subject, however, is that in the strange ferment produced by this reaction in Judaism in the early Islamic centuries, there was a revival of interest in the philosophy of the Greeks. That contact with Greek thought that had meant so much for Philo, but which had been cut off after the destruction of Jerusalem in 70 A. D., cut off so completely that even the works of Philo have survived only in MSS transmitted by Christian scribes,<sup>138)</sup> was now made once more through the Muslims, and proved once

again to be a very fruitful contact.

As late as 870 we find an Arab writer complaining that, quite unlike the Christians who welcomed scientific and philosophical studies, the Jews were opposed to the study of kalām, medicine and astronomy as being things which led to heresy and insubordination to the religious authorities. The ferment, however, was working and before long we find the contact with Greek learning being made. At first it was most evident in the writings of the Qaraites<sup>139)</sup> and in the speculations of some of the strange, heterodox, mystical sects<sup>140)</sup> which arose and flourished for a while, but presently in the full tide of Jewish thought there flowered that truly philosophical movement which forms the Jewish contribution to the Oriental development of Aristotelianism, and in whose tradition Moses of Narbonne stood.

N O T E S.

- 1) "La synthèse aristotélicienne se présente ainsi comme l'aboutissement de l'immense effort de siècles de recherches, dont les résultats sont critiqués, intégrés, organisés en une vue d'ensemble rigoureusement coordonnée. Il fallait le génie du Stagirite, sa vaste information, les moyens mis à disposition, pour réussir avec une telle sûreté cette entreprise qui devait, en traversant les siècles, connaître, une si solide célébrité." Gardet et Anawāt, Introduction à la théologie musulmane; Essai de théologie comparée, (Paris, 1948), p. 95.
  
- 2) in Greek, though it does mean "a poetical composition", is from ποιεῖν "to make", and commonly means "a piece of workmanship", so that creations of a musical, dramatic, literary, artistic nature, as well as those of architecture or of any of the crafts, could come under the name.
  
- 3) This is strikingly evident in the case of al-Ghazālī, for while in his Munqidh he uses somewhat violent language in his rejection of certain conclusions reached in the Physics and the Metaphysics, in his logical tractate Mihakk an-Nazar he is pure Aristotelian.
  
- 4) Dante, Inferno, IV, 131.
  
- 5) Wolfson, Philo, I, 93 ff. Wolfson has exaggerated Aristotle's influence on Philo. Philo's sources are Plato, the Middle Platonists, the Stoics and the Neopythagoreans, much more than Aristotle.
  
- 6) M. Friedlander, Griechische Philosophie im alten Testament: eine Einleitung in die Psalmen und Weisheitsliteratur. Berlin 1904. For Wisdom see now C. C. Torrey, The Apocryphal Literature, (New Haven, 1945), pp. 98 ff.; and for Ecclesiastes Lukyn Williams' commentary on that book in the Cambridge Bible for Schools (1922), pp. xxx ff. H. H. Schaefer in Die Antike, IV, 230, 231, points out that what is even more important than these traces of a technical philosophical character which are often noted, is the fact that when we pass from the book of Job in the Old Testament to the book of Wisdom in the Septuagint we are passing into a quite different world, a world whose thought and whose method of expressing that thought have been moulded by Hellas.



- 7) This has been emphasized again by I. Husik in his History of Medieval Jewish Philosophy, (Philadelphia, 1941), p.xx.
- 8) C. f.H.H.Schaeder, "Der Orient und das griechische Erbe", in Die Antike, IV,(1928) p.226, and Kutsch in Orientalia, VI, (1937), p.69.
- 9) On which see Müller-Graupa in Pauly-Wissowa, XVI, 1, 801-820, and the older works of G.Parthey, Das alexandrinische Museum, Berlin, 1838, and Matter, Histoire de l'Ecole d'Alexandrie, 2,ed.Paris,1840, vol.I.caps.i-iv.
- 10) Omit.
- 11) Every known MS of the Greek Old Testament, the Septuagint, contains writings which were never part of a canonical collection of Hebrew writings, but as all our MSS of the LXX are from the hands of Christian scribes we cannot be sure that Jewish savants at Alexandria included them in their Canon of Scripture.
- 12) Gesenius, De Pentateuchi Samaritani origine Commentatio, p. 10; Fr.Wutz, Die Transcriptionen von der Septuaginta, (Stuttgart, 1933), pp.340 ff.
- 13) Acts,VIII,26 ff. The name Candace suggests that his mistress was ruler of the kingdom of Meroë in southern Nubia.
- 14) E.L.Sukenik, Ancient Synagogues in Palestine, London, 1934,pp.69 ff.
- 15) S. Lieberman, Greek in Jewish Palestine, New York, 1942, passim.

- 16) Eusebius, Hist.Eccles. VI,33.
- 17) Seleucus Nicanor in 300 B.C. founded the city there, laying it out on the plan of Alexandria, and named it after his father. It was under Antiochus I (280-261 B.C.) that it became the chief city of the western part of the Seleucid Empire, where the rulers themselves took up residence.
- 18) Though without the lustre of the capital the centres of Greek learning at Apamea, Emesa, Laodicea and Samosata were by no means unimportant. It will be remembered that when Origen had to leave Egypt he lived and taught at Caesarea in Palestine, where Gregory Thaumaturgus and Athenodorus studied with him. (Eusebius, Hist.Eccl. VI,30). The name of Nicolaus of Damascus reminds us that that city also had some fame for its cultivation of Greek learning.
- 19) It will be remembered that both Chrysostom and Theodore of Mopsuestia were pupils of the pagan Sophist Libanius in one of the Schools at Antioch.
- 20) Harnack, Dogmengeschichte, (1931),II,189 quotes the evidence for the use of the Aristotelian dialectic by such heretical teachers as Arius, Aetius and Eunomius, who were connected with the Christian school at Antioch, and on p.190 he says: "Der aristotelische Rationalismus beherrschte die Schule." Cf.also Cayré, Patrologie et histoire de la Théologie,I,270.
- 21) R.Duval, Histoire d'Edesse,Paris,1892,pp.161,162. Even in so early a document in Edessene Syriac as the letter of Mar Serapion to his son, we find him saying: "This is why I have written to you this memorial of my experience of the world. For I have had experience of the life of men, and have been introduced to learning, all of which I have found in the teaching of the Greeks." See Schultess, "Der Brief des Mara bar Serapion", in ZDMG,LI,(1897),pp.365 ff.; Baumstark, Geschichte der syrischen Literatur, pp.10,11.

- 22) I. Guidi, Gli statuti della Scuola di Nisibe, Roma, 1890, p.10; Chabot, "L'École de Nisibe," in Journal asiatique, juillet-août, 1896, pp.43-93. Nisibis had earlier been the centre of a Christian school, but when the city was handed to the Persians by Jovian in 363 its leaders had transferred their work to Edessa so as to be under Christian rule. Now they moved back to escape Christian persecution directed by the orthodox groups at Constantinople.
- 23) The schools at both Edessa and Nisibis were for most of the time strongly Nestorian, and so were looked on with disfavour by the Monophysites, who, though equally persecuted by the orthodox, were anti-Nestorian. The result was that the Monophysites used to send their students to the monastery school at Qinneshrin, which as we shall see became a centre of no little importance.
- 24) On these their rulers not uncommonly add to their titles that of ⲄⲓⲀⲈⲀⲀⲐⲎ
- 25) Duval, op.cit. pp.145,161,179; Labourt, Le Christianisme dans l'Empire perse, Index, sub. voc.
- 26) Barhebraeus, Chronicon Syriacum, ed. Bruns et Kirsch, p. 62 of the Syriac text.
- 27) A. Christensen, L'Iran sous les Sassanides, Copenhagen, 1944, p. 422.
- 28) Wenrich, De auctorum graecorum versionibus, (Lipsiae, 1842, pp. 62 ff., gathers up the older notices. Bailey, Zoroastrian Problems, (Oxford, 1943) pp. 80 ff. discusses a number of pieces of evidence, which suggest a knowledge of Greek learning among the Persians.
- 29) Among them were the Syrian Damascius, whose treatise De principiis has come to have a new interest because of the Ras Shamra discoveries, his pupil Simplicius, perhaps the greatest of the Neoplatonic commentators on Aristotle, and the Lydian Priscianus, whose Solutiones ad Chosroem are extant in a Latin version

Somewhat later than the famous seven whom Agathias ii, 30 lists (Agathiae Myrinaei Historiarum libri V, in CSHB, vol.3, Bonn, 1828), we read of the Sophist Uranius coming to the Persian Court and obtaining the post of instructor to Khusrau himself (Agathias, ii, 29, 32). Schaefer in Die Antike, IV, 227 admits that Khusrau's receiving them, and seeing them safely back to Greek territory twenty years later when peace had been made, was a political gesture, but insists that it also shows evidence of appreciation by the Persians of the importance of Greek learning.

- 30) Agathias ii, 28, 29 records the tradition that Khusrau was already acquainted with treatises of Plato and Aristotle which he had read in Persian translations, and that he discussed with the philosophers such questions as that of the origin of the world, whether it was destructible or indestructible, whether there was one First Cause or a plurality. The famous Paul of Persia is said to have composed a book in Pahlavi expounding for Khusrau the Aristotelian logic, and this was later translated into Syriac by Severus of Sēbōkht. (Baumstark, Geschichte, p. 246; Renan, "Lettre à Reinaud" in Journal asiatique for 1852, p. 21).
- 31) Schaefer, op. cit. p. 239 emphasizes the Oriental strain in the teaching of Poseidonios.
- 32) See art. "Ḥarrān" in Ency. Islam, II, p. 270. Mas'ūdī, Le livre de l'avertissement, p. 170 has a confused tradition about how Greek learning when it was driven from Athens took refuge at Alexandria, and when driven from Alexandria found a home at Ḥarrān, a tradition which at least shows that the Muslims were early aware that Ḥarrān had some reputation as a centre of Greek learning. See further Mas'ūdī's Murūj IV, p. 61-71, ash-Shahrastānī, Milal, 202, 251.
- 33) Ibn an-Nadīm, Fihrist, p. 320. Ibn Ḥazm in his Fisal, i, 35 seems to accept without question their identity with the Ṣābiāns of the Qur'ān. Shahrastānī, Milal, p. 253 remarks on their interest in philosophy as well as in religion. See on them now Schaefer in Die Antike, IV, p. 257.

- 34) Barhebraeus, Chron. Syr. 167; Brockelmann, Geschichte der arabischen Literatur, I<sup>2</sup>, p. 242, Supplement, I, p. 384.
- 35) Baumstark has a section on "Reste pagan-philosophischer Arbeit in Syrien", in his paper "Ostsyrisches Christentum und Ostsyrischer Hellenismus", which appeared in the Römische Quartalschrift für christliche Altertumskunde, "XXII (1908), pp. 32-35.
- 36) Contra Haereses, VII, 1 and 14.
- 37) Schaefer in Die Antike, IV, pp. 254-257, and for greater detail see his papers, "Bardesanes von Edessa", in Zeitschrift für Kirchengeschichte, LI, (1932), pp. 21-74, and "Ursprung und Fortbildung des manichäischen System", in Vorträge der Bibliothek Warburg, IV, Leipzig, 1927. Kh. Georr, Les Catégories d'Aristote, (Beyrouth, 1948), p. 4 produces evidence to show something of the extent of Bardesanes' knowledge of Greek.
- 38) De Faye, Clément d'Alexandrie,<sup>2</sup> (Paris, 1906), pp. 150 ff.
- 39) Stromateis, I, 5.
- 40) De Faye, op.cit. p. 165.
- 41) Stromateis, I, 28. In Strom. I, 20; VI, 10 he refers to the dialectic as the wall of defence which prevents the truth from being overthrown by the sophistries of the Sophists.
- 42) M. J. Denis, De la philosophie d'Origène, (Paris, 1884), pp. 59 ff.; De Faye, Origène, Tome III. De la doctrine, (Paris, 1928), p. 8 et passim.
- 43) It is noteworthy that when at a later date the Arab philosopher al-Kindī came to write a treatise against the Christian doctrine of the Trinity, he claims that he is basing himself on the dialectic of Prophyry. See Périer, Yahyā ben 'Adī, (Paris, 1920), p. 45.

- 44) Epiphanius, Adv.Haer. LXIX,70; and for his follower Aetius, see ibid. LXXVI passim.
- 45) Eusebius, Hist.Eccl. V,28. Speaking of the controversial methods of this man and his followers Eusebius says: "and should anyone present (in his argument) a passage of divine truth, they examine it first of all to see whether a connected or a disjoined syllogism can be formed from it."
- 46) Epiphanius, Adv.Haer. LKV,1).
- 47) Eusebius, Hist.Eccl. VII,29; Jerome, De vir.illustr. 71.
- 48) Tractatus contra Jacobitas, 10, (Migne,PG, XCIV,col.1441). He might with equal appropriateness have made this statement about the Nestorians, of whom Tkatsch, Die arabischen Uebersetzungen der Poetik des Aristoteles, I,58 says: "Damit ist das Organon, speziell der angeführte Abschnitt, das wissenschaftliche Brevier der Nestorianer geworden".
- 49) Greeks settled in the Orient for the most part held with Constantinople and so were among the orthodox. The native peoples who did not follow one or other of the heresies but also held with Constantinople were later called Melkites, i. e. "king's people".
- 50) Nau, "L'Araméen chrétien", in RHR, XCVIII,(1928),p.237. It is noteworthy that one of the first Greek books translated into Edessene Syriac was the Grammar of Dionysius Thrax, whose model was long followed by later Syriac grammarians.
- 51) The Egyptian Church was monophysite and developed its new literature in Coptic, and the Abyssinian Church a literature in Ethiopic. The Armenian Church was also monophysite, and developed a rich literature in its vernacular, but it too is outside the range of our present interest.
- 52) Perhaps mention should be made, along with the Peshitta, of the Syriac poetry, whose verse forms had been

set by Bardesanes, and which Ephraem Syrus (d.373) found to be a literary medium so highly appreciated by the common folk that he used to preach his doctrines and refute his opponents in hymns and metrical homilies.

- 53) The so-called Christian-Palestinian Syriac literature is translation literature made from the Greek by the Melkites of Syria and Palestine into their West Aramaic vernacular when they finally came to feel that as orthodox they could no longer use the Peshitta and other religious books favoured by heretics.
- 54) Assemanus, Bibliotheca Orientalis, III,85.
- 55) Assemanus B.O. III,85 n. Renan, De philosophia peripatetica apud Syros, p.15, is in error in thinking that he was the one who introduced the works of Aristotle to the School at Edessa, for it now seems that they must have been studied there much earlier than the time Ibas was at the School. 'Abd'ishō', whom Assemanus quotes, attributes to Ibas the translation of the Logic of Aristotle, and Baumstark, Aristoteles bei den Syrern, p.140, is inclined to attribute to him a version of the Isagoge of Porphyry, but both attributions are very doubtful. See Kh.Georr, Catégories, p.13.
- 56) Baumstark, Geschichte der syrischen Literatur, (Bonn,1922) p.101.
- 57) Baumstark, p.102; M.Hoffman, De hermeneuticis apud Syros Aristotelis, (Leipzig,1873), pp.141-148; A.van Hoonacker, "Le traité du philosophe syrien Probus sur les premiers Analytik d'Aristote", in Journal asiatique, juillet-août, 1900, pp.70-166; Kh.Georr, Catégories, pp.14,15.
- 58) Baumstark, p.163. Klinge, "Die Bedeutung der syrischen Theologen als Vermittler der griechischen Philosophie an den Islam", in Zeitschrift für Kirchengeschichte, LVIII (1939), p.356 notes that these tractates are both strongly influenced by Neoplatonism in their translation, which he thinks shows that there was Alexandrian influence in the centre at which they were translated.

- 59) Viz. a translation of a Scholion of Eusebius on the Categories (Rendiconti della R. Accad. dei Lincei, XXIII, 1914, p.156); one of Pseudo-Olympiodoros on the Categories, (Rivista degli studi orientali, VII): and of two tractates of John Philoponos, (Atti del Reale Istituto Veneto, LXXXI, pp.83-105, 1921, and in Bessarione for 1923, XXXIX, pp.45-65). See his paper "Meine Arbeiten über die Philosophie bei den Syrern", in Archiv für Gesch. d. Philos., XXXVII, (1925), pp.1-25.
- 60) Duval, La littérature syriaque,<sup>3</sup> pp.270,363; Baumstark, Geschichte, pp.167 ff., and in "Lucubrationes syro-graecae" which he contributed to the Jahrbücher für klass. Phil. for 1894; XXI Supplementband, pp.357-524; Kh. Georr, Catégories, pp. 17-24.
- 61) Chronicon Syriacum, p. 62 of the Syriac text.
- 62) On this work see Furlani, Meine Arbeiten, pp. 21,22, and for his work on the Categories, ibid, pp. 17-21.
- 62b) In the list of translations of Sergius of Rasaina we have, - " 12<sup>a</sup>) Un traite' de l'Ame attribue' à Aristote, different du  $\mu\epsilon\tau\alpha\ \psi\psi\chi\iota\varsigma$  et comprenant cinq sections." - Georr, Catégories, p.20; (Cf. Wright, Catal. 1157; Renan, p.330; Baumstark, p.168; Duval, p.264; Studia Sinaitica I, p.19).
- 63) Baumstark, Geschichte, pp.256,247; Fr. Nau in RHR, XCVIII, (1928), pp.258,280; Kh. Georr, Catégories, pp.25-26. He is said to have translated from Pahlavi the commentary of Paul the Persian on the De interpretatione, and probably also his work on Logic.
- 64) Baumstark, p.256,257; Nau, p.256. Furlani has studied his work on the Isagoge in articles in the Rendiconti della R. Accad. dei Lincei for 1916 and 1917, XXV, pp.716-778, and in the Atti del Reale Istituto Veneto, LXXXI, 2, pp.637-644; Kh. Georr, Catégories, P. 26.



- 65) Baumstark, pp.248-251; Nau, p.256; Kh. Georr, pp.26,27. On his handling of the Metaphysica see Furlani's study in the Rendiconti, XXX, 268-273, (Meine Arbeiten, pp. 10-12).
- 66) Baumstark, p.257; Nau, p.259; Duval, p.253; Kh. Georr, pp. 27,28; V.Ryssel, Ein Brief Georgs, Bischofs der Araber, mit einer Einleitung über sein Leben und seine Schriften, (Gotha, 1883). On his work see Furlani in Zeitschrift für Semitistik, I, (1922),pp.34-37; Meine Arbeiten, pp. 23-24.
- 67) See Hoffmann, De hermeneuticis, 22, 148-151, and Furlani in Memorie della R.Accad.dei Lincei, for 1933 and 1935.
- 68) There were some anonymous Nestorian translations. Baumstark, p. 231 lists a translation of Themistius' commentary on the Ethica, of the Commentaries of Olympiodorus on the De Anima, and of John Philoponos on the De generat. et corrupt., as well as a translation of a pseudo-Aristotelian tractate on Virtue.
- 69) Since the versions into Arabic of the Sophistici of Aristotle by Yahyā b. 'Adī and Abū Bishr Mattā are expressly said to have been made from the Syriac of Theophilus we know that he had translated at least this tractate of the Organon and it is probable that he had translated others. See Georr, Catégories, pp. 31, 190.
- 70) Baumstark, Geschichte, pp. 123,124; Duval, p. 254.
- 71) Baumstark, pp. 124,125; Duval, p. 250.
- 72) Baumstark, p.129; Klinge, Bedeutung, p. 356. A Jacobite Julian is quoted by Klinge p. 358 as also writing on the problem of man as a microcosm.
- 73) Kh. Georr, Catégories, p. 24.
- 74) Baumstark, p. 197.

- 75) Baumstark, p. 202, and see his Aristoteles bei den Syrern, I. 212.
- 76) Baumstark, p. 209; Duval, p. 254.
- 77) Baumstark, pp. 215, 216; Furlani in the Rendiconti della R. Accad. dei Lincei, XXIII, (1914).
- 78) Baumstark, p. 218, and his paper in Oriens Christianus, V. (1905), pp. 1-25, "Griechische Philosophen und ihre Lehren in syrischer Ueberlieferung: Abschnitte aus Theodoros bar Koni's Buch der Scholien". Klinge, Bedeutung, pp. 360-363 discusses the extent of his knowledge of these philosophers.
- 79) Baumstark, p. 272.
- 80) Baumstark, p. 281; Klinge, Bedeutung, pp. 368-372; Graf, Gesch. christ. arab. Lit. II, 229-232, and the study of O. Braun, Moses bar Kepha und sein Buch von der Seele, Freiburg i. B. 1891.
- 81) De Boer in Ecy. Isl. I, p. 432; I. Madkour, L'Organon d'Aristote dans le monde arabe, (Paris, 1937), pp. 17-19. But see also G. Weil in the Sachau Festschrift, Berlin, 1915, pp. 384-386.
- 82) D. B. Macdonald in Enc. Isl. II, 671; S. Horowitz, Ueber den Einfluss der griechischen Philosophie auf die Entwicklung des Kalam, Breslau, 1909; I. Goldziher, Vorlesungen über den Islam, p. 127.
- 83) Ahmad Amin, Dubā' l-Islām, (Cairo, 1936), III, 8; Gardet et Anawati, Introduction, p. 45; and in particular see the study by C. H. Becker, "Christliche Polemik und islamische Dogmenbildung", in Zeit. Ass. XXVI, (1912), pp. 175-195.

- 84) The famous Ibn al-Muqaffa' and his son Muhammad were noted for their translations from Pahlavi into Arabic, but whether they translated Pahlavi versions of Greek texts is somewhat doubtful. Madkour, Organon, pp.31, 32, accepts at face value the notice in al-Qifti's Tarikh, p. 220 that the son of Ibn al-Muqaffa' translated from Pahlavi the Isagoge of Porphyry, and the Categories, de interpretatione and Analytics of Aristotle. Paul Kraus, "Zu Ibn al-Muqaffa'", in RSO, XIV, (1934), pp. 13 ff., was more than doubtful, but Klinge, Bedeutung, p. 354, n.17 suggests that the arguments of Kraus are not conclusive and that there may have been some translation of Aristotelian work from Pahlavi. In Oriental Studies presented to E.G.Browne, (Cambridge, 1922), pp.345-363, C.A.Nallino drew attention to traces of three scientific works passing from Greek through Pahlavi to Arabic.
- 85) al-Alūsī, Bulūgh al-Arib, I, 181, admits that all the Greek learning of the Muslims came by way of translation from the works of the Syrians (ahl ash-Sham).
- 86) The early but still useful work of J. C. Wenrich, De auctorum graecorum versionibus et commentariis syriacis, arabicis, armeniacis persicisque Commentatio, Leipzig, 1842, was followed by August Müller, Die griechischen Philosophen in der arabischen Ueberlieferung, Halle, 1873, based primarily on the information in Ibn an-Nadim's Kitāb al-Fihrist, and then by M.Steinschneider's Die arabischen Uebersetzungen aus dem Griechischen, 1889-1896. J.Tkatsch in the introductory section of his book, Die arabischen Uebersetzungen der Poetik des Aristotelis, I, (Wien, 1928) attempted to arrange the work of translation in characteristic periods. Important bibliographical information will be found in the first volume of George Sarton's Introduction to the History of Science, Baltimore, 1927, and in the literary histories of C. Brockelmann, Geschichte der arabischen Literatur, 2 vols. Leiden, 1943-49, Supplement, 3 vols. Leiden, 1937-42; G.Graf, Geschichte der christlichen arabischen Literatur, 2 vols. Rome, 1942-47. More recent literature is indicated in P.J.de Menasce's Arabische Philosophie, Bern, 1948, which appeared as No.6 of the Bibliographische Einführungen in das Studium der Philosophie.
- 87) G.Bergsträsser, Hunain b.Ishaq und seine Schule, Leiden, 1931. He was born of Nestorian parents at al-Hira in 809, studied medicine at Baghdad under Yahyā b.Māsawaih,

and journeyed into Byzantine territory in order to learn Greek properly. He is the Johannitius of the mediaeval Latin writers. Barhebraeus, Chron. Syr., 170 tells us that when Gabriel bar Bokhtishō' met him and talked with him he said: "If God but give this young man length of life he will blot out the memory of Sergius of Rēsh'ainā."

- 88) Baumstark, Geschichte, pp.227-230. Besides the Aristotelian treatises he translated into Syriac the book by Nicholaus of Damascus on the Aristotelian philosophy.
- 89) Brockelmann, GAL, I<sup>2</sup> pp.224-228; Suppl. I,367-369; Graf,II,122-132.
- 90) Their translations of Galen were of particular importance. See G. Bergsträsser, "Ḥunain b. Ishāq über die syr. und arab. Galenübersetzungen", in the Abhandlungen für die Kunde des Morgenlandes, XVII, (1925), and "Neue Materialien zu Ḥunain b. Ishāq's Galen-Bibliographie", in the same Abhandlungen, vol.XIX,(1932).
- 91) Graf,II,112 ff. deals with "andere Uebersetzer und Profanschriftsteller vor Ḥunain".
- 92) Brockelmann, I<sup>2</sup>, pp.221 ff; Suppl. I,364,955; Graf,II, pp.112-113; J. Tkatsch I,111.
- 93) Brockelmann, I<sup>2</sup>, p.266; Suppl.I,416; Graf,II,113,114.
- 94) Graf,II,118.
- 95) Brockelmann, I<sup>2</sup>, 228; Suppl.I,370; Graf,II,153,154; Tkatsch, I. passim; Margoliouth, Analecta orientalia ad poeticam Aristotelem, London,1887; A. Gudemann, "Die syrisch-arabische Uebersetzung der aristotelischen Poetik", in Philologus, LXXVI,(1920),pp.239-265.
- 96) Graf,II,30-32.

- 97) Graf, II, 32; Brockelmann, Suppl. I, 364.
- 98) Brockelmann, I<sup>2</sup>, 227; Suppl. I, 364 ff., 956; Graf, II, 228, 229; Baumstark in Oriens Christianus, II, (1902), pp. 187-191.
- 99) Brockelmann, I<sup>2</sup>, 228; Suppl. I, 370, 956; Graf, II, 233-249.
- 100) G. Graf, Die Philosophie und Gotteslehre des Jahia b. Adi, Münster, 1910; Augustin Périer, Yahya ben 'Adi: un philosophe arabe chrétien, Paris, 1920.
- 101) Brockelmann, I<sup>2</sup>, 241-246; Suppl. I, 384-386, 958-959.
- 102) For the scientific side of this Arab development adequate references are given in A. Mieli, La science arabe, Leiden, 1939, while the philosophical development has been sketched by M. Horten, Die Philosophie des Islams, München, 1923; T. J. de Boer, A History of Philosophy in Islam, London, 1933, and more recently by G. Quadri, La philosophie arabe, Paris, 1947.
- 103) Renan, p. 9; Forget, "De l'influence de la philosophie arabe", in Revue néoscholastique, I, (1894), pp. 385-410 and E. Gilson, "L'Étude des philosophes arabes et son rôle dans l'interprétation de la scolastique", in the Proceedings of the VIth Internat. Congress of Philosophy, (1927), pp. 592-596.
- 104) J. Tkatsch, Die arabische Uebersetzung der Poetik des Aristoteles und die Grundlage der Kritik des griechischen Textes, I, Wien, 1928; II, Wien und Leipzig, 1932, edited after his death by A. Gudemann and Th. Seif.
- 105) Kh. Georr, Les Catégories d'Aristote dans leurs versions syro-arabes: édition de textes précédée d'une étude historique et critique et suivie d'un vocabulaire technique, Beyrouth, 1948.
- 106) Fr. Rosenthal in Islamic Culture, XIV, (1940), pp. 392-393 notes that this is the reason why we have almost verbal

translations of the works of Galen, but no existing translation in Arabic of a Platonic dialogue, and points out the further fact that in extracts and expositions of the kind favoured by the Arabs it was possible to present the thought of the Greeks in an oriental guise, a form of presentation which of course is impossible in a direct translation.

- 107) Klinge constantly remarks on this. E.g. of John of Apamea he says: "Die Fundamente des Johannes von Apameia verraten einen nur äusserlich christianisierten Neuplatonismus" (Bedeutung, p.356); of Sergius of Rēsh'ainā, "seine philosophische Stellung ist charakterisiert durch die begeisterte, im Sinne des Neuplatonismus gehaltenen Vorrede zur Uebersetzung der Schriften des Areopagiten" (p.356); of Julian, "damit ordnet er sich in das gesamte, grundsätzlich neuplatonische Denken ein, das für Jacobiten und Nestorianer gleichmässig charakteristisch war" (p.358); of Yahyā b. 'Adī, "das Jahja nicht Aristoteliker im eigentlichen Sinne des Wortes ist, sondern seinen Aristotelismus in den Neuplatonismus einbaut" (p.348 n.14). De Boer in Ency. Isl. I, 432 remarks that Land's edition of the Syriac version of Paul of Persia's Logic shows to what extent the logical tradition of the period was tinged by Neoplatonic influences, and on P.433 he notes how even Ibn Rūshd preferred the Neoplatonic explanations of Porphyry and Themistius to those of Alexander of Aphrodisias.
- 108) They seem to have known Theophrastus and Alexander of Aphrodisias as authoritative interpreters of Aristotle, but they preferred as a rule the expositions of Porphyry, Simplicius, Themistius, Ammonius, David the Armenian and John Philoponus. This latter was in particular favour with them since he was critical of Aristotle at some of the very points, e.g. that of the createdness of the world, where they themselves had to reject the master's teaching. See Madkour, Organon, pp.37,38.
- 109) This they doubtless owed to their Christian predecessors. In the schools at Edessa and Nisibis the Isagoge had been treated as the proper introduction to Logic, and seems to have been so attached to the body of logical texts studied in the schools as to have been regarded as inseparable from them. See A. Freimann, Die Isagoge des Porphyrius in den syrischen Uebersetzungen, Berlin, 1897.

- 110) O. Bardenhewer, Die pseudo-arist. Schrift über das reine Gute, bekannt unter dem Namen Liber de Causis, Freiburg i. Br. 1882.
- 111) Klinge, op. cit. pp. 347 ff.; Horten, Die philosophischen Systeme der spekulativen Theologen im Islam, (Bonn, 1912), pp. 140, 254, 284, 290, 300, 314, 333.
- 112) Horten, op. cit. p. 68, referring to ash-Shahrastānī's Milal, p. 147.
- 113) Note how al-Alūsī, Bulūgh al-Arib, I, 181 uses the name Aristū to stand for the whole of Greek philosophy.
- 114) On Plato see Carra de Vaux, "Aflātūn" in Ency. Isl. I, 173-175; Fr. Rosenthal, "On the knowledge of Plato's Philosophy in the Islamic World", in Islamic Culture, XIV, (1940), pp. 387-422; and the Plato arabus now being edited by the Warburg Institute.
- 115) For Plotinus see Paul Kraus, "Plotin chez les Arabes", in the Bulletin de l'Institut d'Egypte, XXIII, (1941), pp. 263-295.
- 116) De Boer in Ency. Isl. I, 432.
- 117) Ibn an-Nadīm, Fihrist, p. 243.
- 118) Renan, Averroes, pp. 54 ff. gives a number of quotations from Ibn Rushd to illustrate "l'admiration superstitieuse d'Averroes pour Aristote", but much the same high regard is expressed in the writings of the earlier "Arabian" philosophers, who recognize him as without question the one who may bear the title al-mu'allim al-awwal "the chief Master of Instruction".

- 119) The Plotinian "Theology of Aristotle" and the Liber de Causis of Proclus, as well as the spurious De mundo and De anima which Sergius of Rēsh'ainā translated into Syriac have already been mentioned. Besides these, we have such works as the "Book of the Apple", (Cf. D.S.Margoliouth, "The Book of the Apple ascribed to Aristotle", in JRAS for 1892, pp.187-252), which is a dialogue on the immortality of the soul in a kind of Hermetic imitation of the Phaedo; a Sirr al-Asrār (Secreta secretorum, on which see Förster, De Aristotelis Secretis secretorum commentatio, Kiel, 1880), which is a curious hodge-podge of scraps of information about every conceivable subject; a Botanica which is really that of Nicolaus of Damascus, and other works. The passage from Ya'qūbī's Historia translated by Klamroth in ZDMG, XLI, (1887), pp.420-432 gives a good idea of the multiplicity of tractates the Muslims ascribed to him.
- 120) Nagy, "Die philosophischen Abhandlungen des Jakobi ben Ishaq al-Kindi", in Beiträge zur Geschichte der Philosophie des Mittelalters, II,2, (Münster, 1897).
- 121) Al-Fārābī's tractate Fī ittifaq ra'i al-hakimain Aflātūn wa Aristūṭalis, was edited by F.Dieterici in his Alfarabis Philosophische Abhandlungen, (Leiden, 1890), pp.1-33. Such a harmony between the two philosophers was an idea often played with in late Hellenistic times, so that al-Fārābī may have been but working up in his own way what had come to him from some older source. See Rosenthal in Islamic Culture, XIV, pp.411-412.
- 122) Madkour, Organon, P.23: "Au point de vue philosophique, Aristote y joue certes un rôle prépondérant; mais il est aussi associé et même confondu avec des doctrines platoniciennes, stoïciennes et néoplatoniciennes.... C'est un syncrétisme qui concilie Platon avec Aristote, et qui n'hésite pas à admettre certaines idées de Zenon ou de Chrysippe".
- 123) The three teachings to which they took particular exception were (1) that of the eternity of the world, because the Qur'ān taught that the world was created at a particular moment in time; (2) that of the denial of a special providence, for the Qur'ān was constantly referring to particular providences; (3) that of the denial of a bodily resurrection, for the resurrection of the body is essential for the Qur'ānic eschatology.



- 124) Madkour, Organon, p.16; Taha Hussain in his Muqaddima to the edition of Qudāma b. Jā'far's Naqd an-Nathr, (Cairo, 1933), pp.5-29.
- 125) H.A.R.Gibb, Mohammedanism, London, 1949, p.90; G.Bergsträsser, Grundzüge des islamischen Rechts, Berlin, 1935, p.I.
- 126) Affifi, The Mystical Philosophy of Muḥvid Din ibn al-'Arabi, (Cambridge, 1939), p.120; Nyberg, Kleinere Schriften des Ibn al-'Arabi, (Leiden, 1919), pp.33,34.
- 127) Ibn Qutaiba, Mukhtalif al-Ḥadīth, p.67, where the charge is made against Muhammad b.al-Jāḥn al-Barmakī that he substitutes Aristotle's De generatione et corruptione for the Qur'ān, and spends his time studying Aristotle's Physics and Logic while neglecting his fasts.
- 128) See de Boer in Ency.Isl.I, 433. The insistence on eight in the sections I and II is thought to be due to the canonical arrangement by the Neoplatonists. Madkour, Organon, pp.10,11 gives an account of the arrangement of the logical treatises by Ibn Sīnā'.
- 129) There was some confusion in this section, the eight being made up differently by different writers, some using a Mineralogy and a Mechanics supposed to be Aristotelian.
- 130) The Politics here is not the treatise of Aristotle known to us, but is sometimes the Republic or Laws of Plato, and sometimes a spurious Politica.
- 131) Logic occupies the second section under "Philosophical Sciences" in their Encyclopaedia.
- 132) Tārīkh al-Ḥukamā', ed.Lippert, (Leipzig, 1903), pp.277,278.

- 133) This compendium, an-Najāt, is a resumé of his larger work ash-Shifā, which is the work whose logical part is analysed by Madkour in his book L'Organon d'Aristote dans le monde arabe. An elaborate analysis of its contents is given in Arabic in the recent book by G.C.Anawati, Essai de Bibliographie Avicennienne, (Le Caire, 1950), pp.30-68. In both the Shifā and the Najāt the logic occupies the first section and follows closely the recognized order of the Aristotelian logic.
- 134) See Gardet et Anawati, Introduction, p.72.
- 135) A good example will be found in Muhammad Hussain 'Abd ar-Rāziq's 'Ilm al-mantiq al-ḥadīth, Cairo, 1928.
- 136) See Peeters in Analecta Bollandiana, XLVIII, (1930), pp.93-97. There is much useful information on this matter in M.Steinschneider, Polemische und apologetische Literatur in arabischer Sprache zwischen Muslimen, Christen und Juden, Leipzig, 1877; I.Goldziher, "Ueber muhammedanische Polemik gegen Ahl al-Kitab", in ZDMG, XXII, (1879), pp.341-387; A.Keller, Der Geisteskampf des Christentums gegen den Islam bis zur Zeit der Kreuzzüge, Leipzig, 1896; M.Schreiner, "Zur Geschichte der Polemik zwischen Juden und Muhammedanern", in ZDMG, XLII, (1888), pp.591-675; K.Güterbock, Der Islam im Lichte der byzantinischen Polemik, Berlin, 1912; Sir W.Muir, The Apology of al-Kindi, London, 1911; E.Fritsch, Islam und Christentum im Mittelalter: Beiträge zur Geschichte der muslimischen Polemik gegen das Christentum in arabischer Sprache, Breslau, 1930; L.Cheikho, Trois traités anciens de polémique, Beirut, 1923.
- 137) Schreiner in ZDMG, XLII, 618-621, discusses this, and there is an analysis of his ar-Radd al-jamīl by Louis Massignon in Revue des Etudes islamiques for 1932, Cahier IV.
- 138) Kahle, The Cairo Geniza, (London, 1947), p.143. H.H.Schaeder in Die Antike, IV, 245 comments on this seemingly deliberate cutting off from the Greek world after 70 A.D.

139) Maimonides himself gives us testimony on the extent of the indebtedness of the Qaraite speculation to the writings of the Muslim Mutakallimūn, cf. Le Guide des Égarés, I, cap.lxxi. Husik, History, p.xxv goes so far as to pass this judgment: "There are no medieval Jewish works treating of religious and theological problems in which there is so much aloofness, such absence of theological prepossession and religious feeling as in some Karaite writings of Mu'tazilite stamp. Cold and unredeemed logic gives the tone to the entire composition".

140) Georges Vajda, Introduction à la pensée juive du Moyen Age, Paris, 1947, pp.38 ff.

LIFE AND INFLUENCE OF al-GHAZĀLĪ <sup>(1)</sup>

The tractate of Moses of Narbonne, with which we are dealing, is his commentary on the logical part of the Maqāsid al-Falāwifāh of al-Ghazālī. Since the latter's influence, not only on Moses of Narbonne but on other members of this group of Jewish Aristotelians, was so considerable, it is worthwhile looking more carefully into the story of his life and influence.

Abū Ḥāmid Muḥammad b. Muḥammad b. Muḥammad aṭ-Ṭūsī <sup>(2)</sup> al-Ghazālī was born A. H. 450 (1058) at Ṭūs <sup>(3)</sup> in the province of Khorāsān in Persia. Thus like "the majority of the learned amongst the Moslems," al-Ghazālī was not of Arabian descent, <sup>(4)</sup> but was a Persian. He lived in an age which boasted such illustrious names as those of al-Ḥarīrī (1054-1122), the poet and man of letters; the philologist, al-Khaṭīb of Baghdād (d. 1071); al-Baghawī (d. 1122), the Qur'ān commentator; the Persian man of letters Rāghib al-Isfahānī (d. 1108), whose treatise on Ethics, Kitāb adh-Dharī'ā, al-Ghazālī is said to have carried always on his person; al-Hujwirī (d. 1072) whose Kashf al-Muḥjūb is the earliest Persian treatise on Ṣūfism; al-Maidānī (d. 1124) who collected the ancient Arab proverbs; az-Zamakhsharī (d. 1143), the grammarian and Qur'ān commentator; Ibn Tūmart (d. 1130), the Berber who introduced the Ash'arite theology to North Africa; ash-Shahrastānī (1086-1153) whose Kitāb al-Milal wa'n-Nihal is a standard work on the various philosophical opinions and religious sects. Nevertheless, al-Ghazālī's name outshone them all. His own and later generations gave him the

honorific titles of Hujjat al-Islām (proof of Islām) and Zain ad-Dīn (ornament of religion). Ibn al-Subkī said of him "if there had been a prophet after Muḥammad it would have been al-Ghazālī".<sup>(5)</sup>

al-Ghazālī had a younger brother, Aḥmad, who later gained fame as a preacher,<sup>(6)</sup> and several sisters about whom we know nothing. His father was a wool-spinner who probably could neither read nor write. Nevertheless he seems to have been a devout man and a lover of learning, for when he came to die he entrusted al-Ghazālī and his younger brother to the guardianship of a Ṣūfī friend to educate and care for.<sup>(7)</sup> From the fact that the friend is reputed to have taught both boys how to write it would seem that they must have been quite young when their father died.

al-Ghazālī and his brother would probably have studied with the Ṣūfī what was equivalent to the usual curriculum at that period in the Kuttāb or Primary School. When a child was about seven he commenced his labors by learning the Qurʾān by heart, and also as many of the Traditions as he was able to acquire at his native place.<sup>(8)</sup> As a rule the Qurʾān was mastered at ten years of age as was the case with Ibn Sīnā.<sup>(9)</sup> During this period the young pupil customarily memorized much poetry and many proverbs. He also learned the rudiments of numbers. And as the name Kuttāb implies, the art of penmanship was emphasized. "Thus when the foundation had been laid, during the first three years, two or three more years were devoted to religious instructions, grammar, and elementary literature."<sup>(10)</sup> At twelve the child was ready to enter the madrasa. al-Ghazālī and his brother seem to have remained long enough with their

guardian to have covered most of the usual course of study for when they left his hands we find they were prepared to enter the madrasa. They were in especial haste to do this as the money which their father had committed to the Ṣūfī had run out, while by becoming students at a madrasa they would be assured of stipends. <sup>(11)</sup> As-Subkī tells that when their father died, "the Ṣūfī began to teach them till the small means which he had left them was exhausted, and the Ṣūfī was unable to continue to support them. So he said to them, 'Know that I have spent upon you what was (left) to you, and I am myself a man who has kept from the affairs of this world, so that I have no fortune of which I can give you a share. And, as far as I can see, the best thing you can do is to find shelter in some school; for you are seekers of knowledge (theological students), and you will get food on which you can depend during your lives.'<sup>(12)</sup>"

So it was that al-Ghazālī and his brother entered a madrasa in Ṭūs, probably, like most boys, at about twelve years of age, and studied under Aḥmad b. Muḥammad ar-Rādhkānī.<sup>(13)</sup> al-Ghazālī would seem to have spent several years there during which time he studied Fiqh (jurisprudence). "His first lesson would be on ceremonial purity by the use of ablution, the bath, the tooth-pick and the various circumstances of legal defilement when ghasl or complete ablution is prescribed; of the ailments of women and the duration of pregnancy. Then came the second part of the book on prayer, its occasions, conditions, and requirements, including the four things in which the prayer

of a woman differs from that of a man. He would learn all about the poor-rate (zakāt), about fasting and pilgrimage, about the laws of barter and sale and debt; about inheritance and wills - a most difficult and complicated subject. Then the pupils would pass on to marriage and divorce, a very large subject, and one on which Moslem law books show no reserve, and leave no detail unmentioned. Then would follow the laws in regard to crime and violence, Holy War, and the ritual of sacrifice at the Great Feast. The last three chapters of books on fiqh generally deal with oaths, evidence, and the manumission of slaves." <sup>(14)</sup> Thus a good memory was at a premium in these studies as well as in the studies of the kuttāb. In the kuttāb the Qur'ān was memorized. In the madrasa the study of fiqh was also mainly a matter of memory. For analysis, a good grasp and keen understanding of the material, was not demanded of the student. He was not expected to know the reason behind the promulgation of a given law but rather on whose authority it was enunciated. And so the study of fiqh tended to reduce itself to the study of Traditions. This type of study, which valued memorization at the expense of reasoning, was uncongenial to al-Ghazālī. His was an enquiring mind. He was not content to accept things merely because they were based on authority. He wanted to satisfy his reason. He demanded proof for the truth of different dogmas. The result was that he broke with taqlīd even at this early age. He tells us in the Munqidh, "The thirst for knowledge was innate in me from an early age; it was like a second nature implanted by God without any will on my part. No sooner had I emerged from boyhood than I had already broken the fetters of taqlīd

and freed myself from hereditary beliefs." (15)

This break with taqlīd did not mean that al-Ghazālī had lost his faith. It simply meant that he now demanded that this faith pass before the bar of his reason. He began to look for a surer base for his faith than mere authority. But he continued his studies.

It was the custom for Muslim youth, on attaining the age of from fourteen to sixteen, to begin their travels and visit the great cities where they might continue the study of Traditions and fiqh, for at about this period of their lives they would have already learned all the Traditions they could acquire at their native places. (16) It was, therefore, at about this period of his life that al-Ghazālī went from "Tūs to Jurjān, a journey of ten or eleven days through unsettled country", (17) where he continued the study of fiqh under the Imām Abū Naṣr al-Isma'īlī. Here too his dislike for memorization was almost his nemesis. In the manner of students in all ages and climes al-Ghazālī took copious notes but failed to commit them to memory. On his way home to Tūs from Jurjān, he tells us, (18) "We were set upon on the way, and the robbers took everything I had and went off. But I followed them, and the chief turned to me and said, 'Turn back, or you will perish'. But I said, 'I beg you by Him from whom you hope for salvation, that you give me back only my notes, for they will do you no good'. He said 'what are your notes'? I replied, 'The books in that bag. I left my country to hear them, and write them, and learn their knowledge'. Thereupon, he laughed and said, 'How can you pretend to have learned their knowledge, when I have taken them and stripped you of your learning so that you



have no knowledge'? Then he gave orders to one of his companions, and he handed over the bag to me. And this man was sent by God to teach me."

al-Ghazālī spent the next three years in Ṭūs committing to memory the lectures he had learned in Jurjān. This means that he must have been continuously in Ṭūs for about three years. Whether he remained in Ṭūs for more than three years is impossible to decide. His attempts at memorization were not completely successful. As a matter of fact even to the end of his life, his quotations remained inaccurate. This made it possible for his later assailants to charge him with having falsified Tradition.

It was probably at this period while al-Ghazālī was at Ṭūs that he began the study of Ṣūfīsm. <sup>(19)</sup> 'Abd al-Ghāfir <sup>(20)</sup> relates that, "He began by making friends with al-Fārmadhī, from whom he learned the opening of the Way, and whose advice he followed in remaining in the tasks of servitude and poverty, in supererogatory works, in continuous recollection, in earnest endeavour and all diligence seeking salvation, until he out-passed those acclivities and overcame those difficulties and all that besets one who has taken this as his goal." He was also guided in Ṣūfī exercises by Yūsuf an-Nassāj <sup>(21)</sup> and while <sup>(22)</sup> under his guidance saw God in a dream. Nevertheless al-Ghazālī was not ready yet to throw in his lot completely with Ṣūfīsm. For 'Abd al-Ghāfir continues, "Then it is related that he returned to secular learning and embarked on the various disciplines thereof, again taking up labours at books on these abstruse subjects, whose masters he encountered...."

This return to "secular learning" probably coincided with his journey in the year 470 A.H. to "Nisāpūr along with a group of youths from Tūs, to take advantage of the lessons of Imām al-Ḥaramain,"<sup>(23)</sup> at the Nizāmiyya College founded expressly for him by the vizier Nizām al-Mulk.<sup>(24)</sup> The "abstruse subjects" seems to refer to the study al-Ghazālī was beginning to enter into of the "diversity in beliefs and religions and the variety of doctrines"<sup>(25)</sup> in his quest for certainty. Thus study, which was not done in course, but privately, perhaps even secretly, was the logical consequence of al-Ghazālī's youthful break with taglīd. He began these investigations when he was less than twenty, as he tells us himself in the Munqidh.<sup>(26)</sup> At the same time he continued to pursue his studies in the fiqh of the Shāfi'ite sect under the Imām who was "The most learned Doctor of the Shāfi'ite sect in later times."<sup>(27)</sup> al-Ghazālī also studied theology, philosophy, logic and dialectics. He "laboured with such diligence that he cut the time appreciably, outran his contemporaries, embellished his class, and became the outstanding figure of his year and the keenest minded of his fellows in the days of Imām al-Ḥaramain. Even the students used to benefit much from him, for he would teach and instruct them, and labour diligently at a matter so as to attain it, until he came to where he produced writings of his own..."<sup>(28)</sup> But al-Ghazālī was not popular with his fellow students, nor was Imām al-Ḥaramain entirely happy with the brilliant al-Ghazālī. al-Ghazālī, someone remarked, "showed externally a vainglorious disposition". Evidently he exhibited his

independence of thought and his disdain for authorities too clearly, as well as his impatience with those of his fellow students whose mental grasp was inferior to his. <sup>(29)</sup> Clearly, al-Ghazālī had not as yet approached his sturm und drang period which was destined to have such momentous results for himself and for all Islām.

In A. H. 478 when al-Ghazālī was twenty-eight (lunar) years old his master Imām al-Ḥaramain died. al-Ghazālī probably stayed on in Nīsāpūr until 482 or 483 and then proceeded to the camp-court of his fellow-townsmen Nizām al-Mulk seeking acceptance. al-Ghazālī could not have come to the camp-court earlier because it had not been established in Khorāsān before 482.

He could not have come later than 484 because in that year he went to Baghdād. "The great man welcomed him because of his high rank, renowned name, fine appearance, and the surety of his reputation. Now that Court was the centre for men of learning and the goal sought by leaders of life and letters, so that al-Ghazālī had excellent opportunities of rubbing shoulders with these leaders.....Thus his name became known far and wide, to his great profit, so that the question was mooted of his journeying to Baghdād and settling there as a teacher in the Maimūniyya Nizāmiyya School." <sup>(30)</sup> He was appointed to that post in 484.

However, sometime before that date, al-Ghazālī underwent an intellectual crisis. In the investigations of religious beliefs and opinions which he was pursuing, he was struck with

the contradictions which he encountered in endeavoring to disentangle the truth and falsehood of these opinions. He craved certain knowledge but wherever he turned he encountered only intellectual confusion. His researches into the problem of the possibility of gaining certain religious knowledge, led him to consider the problem of certain knowledge in general. He came to the mournful conclusion that no certain knowledge was possible. For two months al-Ghazālī was plunged in deepest skepticism only to be rescued by an inner illumination coming from God. In the Munqidh he gives an account of the crisis he underwent. First he mentions the unsatisfactory nature of religious opinions. Then he gives the conditions which are necessary for the attainment of certitude in general.

"I then examined what knowledge I possessed," says al-Ghazālī, "and discovered that in none of it, with the exception of sense-perceptions and necessary principles, did I enjoy that degree of certitude which I have just described. I then sadly reflected as follows: 'We cannot hope to find truth except in matters which carry their evidence in themselves - that is to say, in sense-perceptions and necessary principles; we must, therefore, establish these on a firm basis. Is my absolute confidence in sense-perception and on the infallibility of necessary principles analogous to the confidence which I formerly possessed in matters believed on the authority of others? Is it only analogous to the reliance most people place on their organs of vision, or is it rigorously to me without admixture of illusion or doubt?'

"I then set myself earnestly to examine the notions we derive from the evidence of the senses and from sight in order to see if they could be called in question. The result of a careful examination was that my confidence in them was shaken. Our sight for instance, perhaps the best practised of all of our senses, observes a shadow, and finding it apparently stationary pronounces it devoid of movement. Observation and experience, however, show subsequently that a shadow moves not suddenly, it is true, but gradually and imperceptibly, so that it is never really motionless.

"Again, the eye sees a star and believes it as large as a piece of gold, but mathematical calculations prove, on the contrary, that it is larger than the earth. These notions, and all others which these senses declare true, are subsequently contradicted and convicted of falsity in an irrefragable manner by the verdict of reason.

"Then I reflected in myself: 'Since I cannot trust to the evidence of my senses, I must rely only on intellectual notions based on fundamental principles, such as the following axioms: 'Ten is more than three. Affirmation and negation cannot co-exist together! . . . To this the notions I derived from my senses made the following objections: 'Who can guarantee you that you can trust to the evidence of reason more than to that of the senses? You believed in our testimony till it was contradicted by the verdict of reason, otherwise you would have continued to believe it to this day. Well, perhaps there is above reason another judge who, if he appeared, would convict reason of falsehood, just as reason has confronted us. And if

such a third arbiter is not yet apparent, it does not follow that he does not exist.'

"To this argument I remained some time without reply; a reflection drawn from the phenomena of sleep deepened my doubt. 'Do you not see,' I reflected, 'that while asleep you assume your dreams to be indisputably real? Once awake, you recognize them for what they are - baseless chimeras. Who can assure you, then, of the reliability of notions which, when awake, you derive from the senses and from reason? In relation to your present state they may be real; but it is possible also that you may enter upon another state of being which will bear the same relation to your present state as this does to your condition when asleep. In that new sphere you will recognize that the conclusions of reason are only chimeras.'

"This possible condition is, perhaps, that which the Sūfis call 'ecstasy' (ḥāl) that is to say, according to them, a state in which, absorbed in themselves and in the suspension of sense-perceptions, they have visions beyond the reach of intellect. Perhaps also Death is that state.... Our present life in relation to the future is perhaps only a dream, and man, once dead, will see things in direct opposition to those now before his eyes; . . .

"Such thoughts as these threatened to shake my reason, and I sought to find an escape from them. But how? In order to disentangle the knot of this difficulty, a proof was necessary. Now a proof must be based on primary assumptions, and it was precisely these of which I was in doubt. This unhappy state lasted about two months, during which I was not, it is true, explicitly or by profession, but morally and essentially,

a thoroughgoing skeptic.

"God at last deigned to heal me of this mental malady; my mind recovered sanity and equilibrium, the primary assumptions of reason recovered with me all their stringency and force. I owed my deliverance, not to a concatenation of proofs and arguments, but to the light which God caused to penetrate into my heart - the light which illuminates the threshold of all knowledge. To suppose that certitude can be only based upon formal arguments is to limit the boundless mercy of God."<sup>(31)</sup>

Now that he knew that certain truth was obtainable al-Ghazālī next ascertained that those engaged in the search for certain truth were divided into four groups:<sup>(32)</sup>

(1) The Mutakallimūn, the scholastic theologians, "who professed to follow reasoning and speculation."

(2) The Bāṭiniya, or the Ta'līmites, who thought they could attain truth through their infallible Imām.

(3) The philosophers "who professed to rely upon formal logic and demonstration."

(4) The Ṣūfīs "who call themselves the elect of God and the possessors of intuition and knowledge of the truth by means of al-Mukāshafa (unveiling)."

"The truth," said al-Ghazālī to himself, "must be found among these four classes of men who devote themselves to the search for it. If it escapes them, one must give up all hope of attaining it."<sup>(33)</sup>

al-Ghazālī then proceeded to make a thoroughgoing study of Kalām. He read the "authorities in this department" and himself "composed several treatises." This seems to refer to the ar-Risāla al-Qudsiyya and the al-Iqtisād fi'l-I'tiqād.<sup>(34)</sup> Kalām could not give him the certain truths he sought because it was not based on self-evident premises but rather on an appeal to taqlīd, ijmā' (universal consent) or akhbār (tradition).

al-Ghazālī's researches into Kalām extended until his appointment to the Nizāmiyya in 484 (1091). He then proceeded to Baghdād where "he amazed all by his teaching and method of discussion, so that after having had the leadership of Khorasan he now became leader in "Iraq."<sup>(35)</sup> His lectures were very popular. He himself tells us that they were attended by three hundred pupils. He was also engaged in composing works on fiqh and giving fatwas or legal opinions. His time, therefore, was well taken up. Nevertheless, he found opportunity - during his leisure hours - to continue his private investigations in his search for certain truth. He now turned to philosophy.<sup>(36)</sup>

He had already found that the Mutakallimūn had attempted to refute the philosophers. But their refutations were not based on a thoroughgoing understanding of philosophic doctrine. "Convinced," says al-Ghazālī "that to dream of refuting a doctrine before having thoroughly comprehended it was like shooting at an object in the dark, I devoted myself zealously to the study of philosophy . . . With the help of God, these studies, carried on in secret, so to speak, put me in a condition to thoroughly comprehend philosophical systems within a space of



two years. I then spent about a year in meditating on these systems after having thoroughly understood them. <sup>(37)</sup> The Maqāsid was probably the product of al-Ghazālī's two year investigation of philosophical doctrine. For he attributes his writing of the Maqāsid to the same reason as his indulging in philosophical study. <sup>(38)</sup> The Tahāfut seems to have been the fruit of his one year "in meditating on these systems." <sup>(39)</sup> In it he reduced the errors of the philosophers to twenty propositions: three of them irreligious, the other seventeen heretical. In the Tahāfut "he goes to the extreme of intellectual skepticism, and, 700 years before Hume, he cuts the bond of causality <sup>(40)</sup> with the edge of his dialectic and proclaims that we can know nothing of cause or effect, but simply that one thing follows another . . . When he has finished there is no intellectual basis left for life; . . . But his end is very different from that of Hume. We are thrown back on revelation, that given immediately by God to the individual soul or that given to the prophets. All our real knowledge is derived from these sources. So it was natural that in the latter part of his life he should turn to the study of the traditions of the Prophet." <sup>(41)</sup>

al-Ghazālī's reputation during this time continued to grow. "He rose in rank till he attained the rank of the nobles and princes and members of the Caliph's house." <sup>(42)</sup> It is no surprise then that the Caliph should have asked him to write a book against the Ta'limites, a heretical sect. <sup>(43)</sup> al-Ghazālī grasped at the opportunity, because after having finished his investigations of philosophy he felt impelled to study the

doctrines of the Ta'limites. The book he wrote against them was the Mustazhiri, "which shows," says Macdonald, "that the Caliph in question must have been al-Mustazhiri, who succeeded al-Muqtadi on 15th Muḥarram 487. As al-Ghazālī finally left Baghdād in Dhū'l-Qa'da 488 he must have been studying the Ta'limites early in 487."<sup>(44)</sup>

As might have been expected, al-Ghazālī found the teachings of the Ta'limites unsatisfactory; what with their appeal to taqlīd in the person of an infallible Imām and their ignorance of almost all branches of knowledge. Besides the Mustazhiri he also wrote against them a Hujjat al-Haqq perhaps during his second residence in Baghdād, a Mufasssil al-Khilāf, while at Hamadān, and "a Kitāb ad-Durj, written in tabular form, the record of a controversy at Tūs."<sup>(45)</sup> al-Ghazālī attempts to lay down in his Qistas "a rule of guidance in theological dispute." He demonstrates there "that those who have such a rule have no need of an Imām."<sup>(46)</sup>

al-Ghazālī next turned to Ṣūfī doctrine. He had from his earliest days been under Ṣūfī influence. His earliest teacher had been a Ṣūfī and the Imām al-Ḥaramain would doubtless have added to his knowledge of Ṣūfī teaching for we have the testimony quoted by Ibn Khallikān I, 413, that when the Imām lectured on the mystic states of Ṣūfī experience, he would draw tears from the eyes of his auditors. He had also, as we have seen, had Ṣūfī training under Fārmadhī and had been exposed to the experience of a religious dream while under the care of the

Ṣūfī teacher an-Nassāj. Nevertheless, he did not then continue systematically with his Ṣūfī studies. At that time his Ṣūfī studies would seem to have been of a somewhat dilettante character. However, al-Ghazālī now proceeded in earnest to pursue such studies with a definite and steadfast purpose. First, he studied the basic Ṣūfī books: the Qūt al-qulūb (The Nourishment of Hearts) by Abū Ṭalīb al-Makkī, the works of Ḥārīth al-Muḥāsibī and fragments of Junaid, ash-Shiblī, Abū Yazīd al-Bisṭāmī and other leaders. But he soon realized that knowing Ṣūfism was not the same as practising it. "To define health and satiety, to penetrate their causes and conditions, is quite another thing from being well and satisfied . . . In the same way there is a considerable difference between knowing renouncement, comprehending its conditions and causes, and practising renouncement and detachment from the things of this world. I saw that Ṣūfism consists in experiences rather than in definitions, and that what I was lacking belonged to the domain, not of instruction, but of ecstasy and initiation."<sup>(47)</sup> Salvation could be attained by renouncing this world and turning towards "eternity and meditation on God."<sup>(48)</sup>

By this time al-Ghazālī had attained a firm faith in God, Inspiration and The Last Judgement. This faith had been confirmed in him "not merely by arguments but by a chain of causes, circumstances and proofs which it is impossible to recount."

Next he examined his actions and found that his studies and lectures were motivated by a desire for honor and reputation. He felt that he "was on the edge of an abyss and that without an immediate conversion I should be doomed to eternal fire."

A struggle ensued in his soul between his desires for this world and his fears."<sup>(49)</sup> . . . . one day I decided to leave Baghdād and to give up everything; the next day I gave up my resolution. I advanced one step and immediately relapsed. . . . On the one side a world kept me bound to my post in the chains of covetousness, on the other side the voice of religion cried to me, 'Up! Up! thy life is nearing its end, and thou hast a long journey to make' . . . .

"Thus I remained, torn asunder by the opposite forces of earthly passions and religious aspirations, for about six months from the month Rajab of the year 488" (1095). At the close of them my will yielded and I gave myself up to destiny. God caused an impediment to chain my tongue and prevented me from lecturing. Vainly I desired, in the interest of my pupils, to go on with my teaching, but my mouth became dumb. The silence to which I was condemned cast me into a violent despair; my stomach became weak; I lost all appetite; I could neither swallow a morsel of bread nor drink a drop of water." The doctors realized that al-Ghazālī's malady was mental in origin.

Finally, he says, God gave him the strength to give up honor, wealth and family. "I gave out publicly that I intended to make the pilgrimage to Syria, not wishing that the Caliph - may God magnify him - or my friends should know my intention of settling in that country. I made all kinds of clever excuses for leaving Baghdād and not returning thither." His decision was criticised on all sides. "The Imāms of 'Irāq criticized me with one accord. Not one of them could admit that this sacrifice had a religious motive, because they considered my position

as the highest attainable in the religious community." Others in 'Irāq felt it to be "a calamity which one can only impute to a fate which has befallen the Faithful and Learning."

Those outside of 'Irāq thought that al-Ghazālī was leaving

'Irāq because of fear of the government. <sup>(50)</sup> There was, indeed, reason for al-Ghazālī to fear the government. His patron the vizier Nizām al-Mulk was assassinated in 485 and Mālik Shāh

died in the same year. Civil war broke out and al-Mustazhir who had become Caliph in 487 espoused the cause of Tutush as against that of Bargiyāruq. Bargiyāruq finally became the

Great Seljuk, but al-Mustazhir, in the belief that Tutush would win out, had inserted Tutush's name in the public prayers. With the defeat and death of Tutush "the Caliph might well feel uncomfortable, and the theologians and advisors of his court might

well look out for themselves." <sup>(51)</sup> al-Ghazālī as one of the most important men in the Caliph's court would be in especial danger.

He himself, however, denies that his flight from 'Irāq was motivated by any such considerations. He claims that the authorities wished to detain him and showed displeasure at his resolution to leave in spite of their request that he remain. And he cites "those who were on the spot", the 'Irāqis, as proof of his contention.

In Dhū'l qa'da A.H. 488 = (1095) al-Ghazālī left Baghdād. "This date . . . was the great era in his life; but it marked an era, too, in the history of Islam. Since al-Ash'arī went back to the faith of his fathers in 300 and cursed the Mut'azilites and all their works, there had been no such ~~event as~~ flight of al-Ghazālī. It meant that the reign of pure scholastic

theology was over; that another element was to work openly in the future Church of Islam, the element of the mystical life in God, of the attainment of truth by the soul in direct vision."<sup>(52)</sup>

al-Ghazālī went to Syria where he remained two years in "retirement, meditation and devout exercises".<sup>(53)</sup> There he lived "a solitary life in the Mosque of Damascus, and was in the habit of spending his days on the minaret after closing the door behind"<sup>(54)</sup> him. He next proceeded to Jerusalem where he secluded himself in the Sanctuary of the Rock. He then decided to make a pilgrimage "to receive a full effusion of grace."<sup>(55)</sup> First he went to the tomb of the Friend of God (Abraham) in Hebron and then he went to Mecca and Medina, the pilgrimage cities. "Finally, the longings of my heart and the prayers of my children brought me back to my country, although I was firmly resolved never to revisit it. At any rate I meant, if I did return, to live there solitary and in religious meditation; but events, family cares, and vicissitudes of life changed my resolutions and troubled my meditative calm. However irregular the intervals which I could give to devotional ecstasy my confidence in it did not diminish; and the more I was diverted by hindrances, the more steadfastly I returned to it. Ten years passed in this manner."<sup>(56)</sup>

'Abd al-Ghāfir gives another account of these ten years which seems to differ from this account of al-Ghazālī's in the Munqidh. According to 'Abd al-Ghāfir, al-Ghazālī first made the pilgrimage. "Then he entered Syria and settled in that region for about ten years, going around visiting famous shrines, and began to produce famous writings the like of which

had never previously appeared, as for example the Ihya' (The Revivification of the Religious Sciences), and shorter books such as the Arba'in, and other Essays, such that whoever meditates upon them will know at once the place this man holds in the various branches of learning. He also began to make war on the lower self in order to change this human nature, improve its moral qualities and educate its impulses...<sup>(57)</sup>

Gardner suggests that 'Abd al-Ghāfir's account does not contradict al-Ghazālī's but is simply a more detailed one.<sup>(58)</sup> Be that as it may 'Abd al-Ghāfir's attributing the writing of the Ihya' to this period of his life is not disputed by anyone. Ibn al-Athīr tells us<sup>(59)</sup> that al-Ghazālī taught the Ihya' while he was at Damascus. This book was al-Ghazālī's magnum opus. One of his biographers has remarked that "if all the books of Islām were destroyed, it would be but a slight loss if only the Ihya' of al-Ghazālī were preserved."<sup>(60)</sup>

During this ten year period of Ṣūfī retirement al-Ghazālī deepened his understanding and experience of Inspiration as being the only basis of metaphysical certainty.<sup>(61)</sup> The Ṣūfis who emphasized the reality of Inspiration were therefore the only people who would attain certainty. Muḥammad was a Ṣūfī before he became the Prophet.<sup>(62)</sup> The Way of the Ṣūfī to God was therefore the path of certainty.

al-Ghazālī's retirement from active public life was disturbed by the widespread decay of faith which he noticed on every side. The learned 'ulama'' set a bad example through the laxity of their religious and moral behavior. Many Ṣūfis preached antinomianism. The Ta'līmites were increasing their

activity. The philosophers insisted that practical piety was necessary to curb the passions of the masses but had no authority with them. Their guide was science. Such is the faith "of those who study the doctrines of the philosophical theists (meta-physicians) in the works of Ibn Sīnā' and Abū Naṣr al-Fārābī, the philosophers of this sect who bear the name of Muslims!" says al-Ghazālī. And he cites the Wasiya (Testament) of Ibn Sīnā' as destroying purity of belief and respect for religion. (63)

The times cried for reform, and al-Ghazālī felt that he was called upon to come out of his retirement and do battle for the ways of the Lord. Yet he hesitated, for he realized that unless he had the active aid "of a sovereign zealous for religion" his attempt would be vain. Finally, "the vizirship fell to . . . Fakhr al-Mulk . . . who heard of the fame of al-Ghazālī . . . so . . . he besought him instantly with every form of persuasion, and became severe in his importunities, until he consented to emerge and was taken to Nisapur". (64)

al-Ghazālī was encouraged in taking this step by his friends. "Besides, some holy men had several consecutive dreams in which it was revealed to them that my departure would be a symptom of good luck for the century which was about to begin. This accorded with the promise made by God to revive his religion at the beginning of each century." (65)

In consequence, al-Ghazālī proceeded to Nisāpūr in the month of Dhū'l Qa'da 499 (July 1106). He had left Baghdād exactly eleven years before in Dhū'l Qa'da 488. His return to



public life followed the death of Bargiyāruq in 488, as his retirement from public life had followed the accession of Bargiyāruq.

The al-Ghazālī who returned to public life was a different man from the one who had left it. He was no longer proud, arrogant, ambitious, but gentle, humble, fired by a sense of mission. The change in him was indeed tremendous, and it was difficult for his friends to realize that it was genuine.

'Abd al-Ghāfir says, "I indeed, visited him frequently, and I did not suspect of him, after what during long years I had experienced of the malevolence and distaste with which he regarded the people, looking on them with eyes of scorn, full of self-love and self-consideration, seeking rank and high position, that he had become the opposite, and had purified himself of such unworthinesses. . . . Yet al-Ghazālī did become what we have been accustomed to think of him, a man of honour, a proved and tempered nature, which is itself a sign of the assistance given him by Allah."

In Muḥarram A. H. 500, less than two months after al-Ghazālī's return to Nisāpūr, Fakhr al-Mulk was assassinated. al-Ghazālī did not remain in Nisāpūr for long. His stay there was clouded by envious and slanderous attacks made upon him, but unlike the old al-Ghazālī, he endured them without protest. He returned to Ṭūs, where he continued his studies of the true knowledge derived from Inspiration through Ṣūfī exercises, and from Revelation through the study of the Traditions of the Prophet. 'Abd al-Ghāfir describes al-Ghazālī's last days as follows:

"Then he left that after a while and returned to his house, and in its neighborhood set up a school for seekers of knowledge, and a Ṣūfī monastery, and used to divide his time between undertakings for the local inhabitants, such as prelections of the Qur'ān and sessions for devotional exercise, and occupying the teacher's seat, until the fulness of time attained him, and the span of his days with the people of his age narrowed, and Allah transferred him to His neighborhood, after he had endured the various courses including strife with adversaries and having been traduced before kings. His "seal", however, was his grasp of the Traditions of the Chosen One, his sitting in company with his followers and expounding the two books called "Ṣaḥīḥ", viz. those of al-Bukhārī and of Muslim, who were both Ḥujjas of Islam. So he passed to the mercy of Allah on Monday the 14th of Jumādā al-Ākhira A.H. 505, (December 18, 1111), and was buried at the exit of the Qasbah of Tabarān."

Abū'l Muẓaffar Muḥammad al-Abīwardī composed an elegy on the death of al-Ghazālī which contained the following lament:

"He is gone! and the greatest loss which ever afflicted me, was that of a man who left not his like among mankind."<sup>(66)</sup>

al-Ghazālī, points out Steinschneider, "cannot be considered a first-rate philosophic author as regards original ideas, or any full scale system which he might have developed, or any thorough and correct critical work."<sup>(67)</sup> "For us, Gazzali's whole significance," according to Munk, "rests in his skepticism, by virtue of which he has a place in the history of Arab philosophy; for he administered a blow to philosophy from which it was unable ever to recover in the Orient . . ."<sup>(68)</sup>

"Gazzali's influence on Jewish theology was very important. It began to be felt in Spain in the middle of the twelfth century. . . . Jehuda Hallevi (app. 1140) follows his arguments against Greek philosophy."<sup>(69)</sup>

This last judgement, however, is somewhat modified by the latest investigations of the relationship between Hallevi and al-Ghazālī made by D. H. Baneth.<sup>(70)</sup> Baneth, after considering the literature on the subject comes to the following conclusions:

The general lines of Hallevi's approach are based on al-Ghazālī though Hallevi differs from al-Ghazālī in the manner in which he presents his material, marshals the evidence and formulates the points of the philosophers with which he takes issue. It would therefore seem, says Baneth, that Hallevi proceeded not with al-Ghazālī's book in hand but with the general lines of his approach in mind.

Like al-Ghazālī, who aims at pointing out the tentative nature of Aristotle's premises and the dialectical character of his conclusions as opposed to the certain knowledge that Aristotle thought he was providing, Hallevi too sets out to puncture the authority of Aristotle in the form in which the Jews had received his doctrines from the Arabs. Secondly, Hallevi even more than al-Ghazālī emphasizes the unsatisfactory nature of Aristotelianism for the religious life.

Neither al-Ghazālī nor Hallevi denies the possibility of a scientific metaphysics. al-Ghazālī merely denies that metaphysics or religion can be grounded in Aristotelianism; but apodictic certainty can be achieved by the chosen. Therefore

says Baneth "There is no room to speak of a dichotomy between religion and science according to Ghazālī."

Hallevi (Al-Khazari V:14) points to experience as opposing the Aristotelian belief in the four elements of earth, water, air and fire that make up the sublunar world. He admits only to heat, cold, moisture and dryness as being primary qualities. "This is, however, but a conception and nomenclature, but it does not mean that they can . . . produce by combination, all existing things." This argument is entirely omitted by al-Ghazālī.

Both Hallevi and al-Ghazālī reject the Neoplatonic theory of emanations. However, Hallevi formulates his objections on the basis of al-Fārābī while al-Ghazālī goes back to Ibn Sinā'.

In his theoretical objections to the philosophers Hallevi is not as cogent as al-Ghazālī, but in elaborating the claims of the religious consciousness, as against the claims of metaphysics for the religious life and the demands of morality he reveals deeper insight than al-Ghazālī. Hallevi points out that for the philosophers God is an object of recognition, the lack of which is no more serious than the ignorance of any other object of thought. For the believer the awareness of God's nearness is his highest bliss, His absence a source of infinite despair. The believer therefore is happy to be a martyr, While the philosopher will bear no pain for the sake of Aristotle's God who has no knowledge of particulars: and of this particular devotee. The ethical demands of religion are a categorical imperative while those of the philosophers are only good advice, a matter of refinement.

Neither al-Ghazālī nor Hallevi, according to Baneth, reveals a thorough-going skepticism. Both believe in the possibility of a scientific metaphysics which, however, cannot be achieved by the method of the Philosophers; though neither hesitated to use it for the practical purpose of defending the faith. al-Ghazālī apparently believed that the scientific attitude in matters of faith could be achieved by the chosen few. Hallevi believed, if his argument for creatio ex nihilo can serve as an example, that it is afforded by the prophetic tradition and miracles. Thus al-Ghazālī attempts to prove through reason creatio ex nihilo and to disprove the eternity of the world, while Hallevi is willing to concede that "the question of eternity and creation is obscure, whilst the arguments are evenly balanced" (I-67). Nevertheless, Creation and the existence of God are authenticated for him through the miracle of the history of Israel which points to "the providential care which He bestowed on our forefathers" (III-17). And miracle points to a Power beyond and sovereign over nature: Hence to the Creator of the World.

Hallevi and al-Ghazālī differ in their position on free-will and determination. To al-Ghazālī, like Hume, causation cannot be perceived. We observe only the sequence of events. Nevertheless, al-Ghazālī maintains the causal nature of events in the sublunar world: a causation that is only contingent. Each cause is dependent on its proximate cause back to the divine act or event which is the only authentic cause from which

all other causes stem. Thus only God as the first cause effects anything and every event is a necessary event. But even the divine act is not completely free. It has consequences only when conditions that make it possible are fulfilled.

It follows then that the individual, linked by a chain of causes to God, does not possess freedom of will. His choice is determined. A human and natural event differ only in that in the case of the former the exercise of the will is a condition that must be fulfilled.

According to Hallevisse, God is the first cause but unlike al-Ghazālī he does not regard every act in the sublunar world as being in effect a divine act. By dividing all acts and events into four classes: the divine, the voluntary, the natural and the accidental, Hallevisse gives a certain autonomy to the latter three intermediate events through secondary causes which play a part in producing them: God's influence diminishing progressively in relation to the degree of purpose involved. In this way the voluntary act argues some measure of freedom of will. For while the will is linked through other causes to the first cause it is not part of a necessary chain of causes. It is itself a secondary cause that has a genuine role in producing an event.

This theory made possible the integration of supernatural events into Hallevisse's unified world view. For prophecy, miracles and the miraculous destiny of Israel became reflections of the divine act without the operation of secondary causes. And since according to the Aristotelian view matter and form

are presupposed in all activity in the sublunar world, with matter having a disposition for its corresponding form, so Israel alone has the disposition for prophecy and God's guidance which disposition is realized only when Israel lives in the land of Israel and according to God's commandments.

al-Ghazālī on the other hand does not attempt to integrate his own historic religion - only religion per se - into his world view.

al-Ghazālī accepts the Neoplatonic view that it is incumbent upon the soul to free itself from the prison of the body by ascetic means and return to its home the world of ideas - by means of ideas of a general nature which may be found only in the knowledge of God Whose existence, attributes and acts are the only true existents. This knowledge - which is a religious value - may be achieved either through logical demonstration or by way of ecstatic intuition. The purpose of the religious commandments is to create conditions that will cleanse the soul of those qualities that prevent the acquisition of knowledge.

According to Hallevi, nearness to God may be achieved not through reason but by way of God's help: through the Torah whose commandments it is incumbent upon Israel to follow. Thus, according to Hallevi union with God makes man an instrument to do God's will on earth, while according to al-Ghazālī, by the exercise of his reason man shares God's omnipotence.

In al-Ghazālī's view the ideal man is an ascetic who dreads the day of judgement. He is a spiritual aristocrat, who travels the way alone. According to Hallevi he is imbued with the joy of the commandments and through their observance he is linked with the entire people who in this way achieve the ideal life. Differences in intellectual capacity are irrelevant.

Some scholars have sought the origin of Bahya's "Duties of the Heart" in the teaching of al-Ghazālī. A. S. Yahuda<sup>(71)</sup> has pointed out the close parallels that exist between Bahya's work and al-Ghazālī's Al-hikma fī makhlūqāt allāh. Yahuda concluded that Bahya's source was al-Ghazālī. In this view<sup>(72)</sup> he was sustained by Goldziher.

Nevertheless, when Yahuda came to edit the Arabic text he indicated the possibility that both Bahya and al-Ghazālī may have drawn from a common source, though he still clung to his original view, albeit with less assurance.<sup>(73)</sup> Goldziher<sup>(74)</sup> continued to maintain his original position. This view became untenable, however, when P. Kokowzoff showed, on the basis of new material, that the Hidāya could not have been written after 1080-1090, whereas al-Ghazālī's chief work the Ihyā' was published in 1105. Many passages in the al-hikma<sup>(75)</sup> coincide verbatim with sections of the Ihyā'.<sup>(76)</sup>

D. H. Baneth<sup>(77)</sup> undertook to show that the tractate Kitāb al-Dalā'il wal-ī'tibār 'ala al-Khalq wal-Tadbīr,<sup>(78)</sup> of unknown authorship but wrongly ascribed to Al-Jāhiz (d. 869), is the common source of both Al-Hidāya and Al-Hikma.



"A comparison of the three books shows that those passages which Bahya has in common with al-Ghazālī, are also to be found, without exception, in Dalā'il, the coincidence being even closer. Other passages are common only to the Hidāya and the Dalā'il. The passages in Al-Ḥikma corresponding verbally to al-Ghazālī's Ihyā' are not taken from the Dalā'il, and do not occur in the Hidāya. Thus the Dalā'il appears to be the source of the Hidāya for the passages in question, either directly or indirectly; at all events it was not al-Ghazālī."<sup>79</sup>

There are more parallels between the Hidāya and the Dalā'il than are at first apparent, because Bahya allows himself greater freedom than does al-Ghazālī in his use of the material from the Dalā'il. "In some places he expresses the idea in a very free manner or even changes the ideas appreciably, although it is evident... that the source of the idea is the Dalā'il."<sup>(80)</sup>

Al-Ghazālī's al-Ḥikma, at least in major part, is an Islamic rendering of the Dalā'il, which is apparently a Christian book, together with additions from the Ihyā'. In any case, Bahya did not make use of the al-Ḥikma and therefore he was not dependent on al-Ghazālī. Both made use of the Dalā'il and both in writing their respective books were influenced by the Sufī literature.<sup>(81)</sup>

Margaret Smith has tried to show through examples that many of the ideas and the illustrations of which al-Ghazālī makes use in his rule for the religious life are only expansions of the system of orthodox Islamic mysticism basically laid down by al-Muḥāsibī (d. 857).<sup>(82)</sup>

Bahya made use of Ṣifī sources similar to those that were open to al-Ghazālī. His originality lay in the fact that he was selective in his use of the sources. He rejected the Ṣifī emphasis on mystic ecstasy and an ascetic ethic and emphasized the "duties of the hearts" above the "duties of the limbs", i.e. the importance of those commandments that demand constant effort to get closer to God as against those commandments that are fulfilled through habit.

The question has also arise whether al-Ghazālī, the opponent of philosophy, had any influence on Crescas, the Jewish philosopher, who also opposed philosophy. The answer to this question depends on whether or not Crescas knew al-Ghazālī's Tahāfut al-Falāsifah either directly or through Averroes's Tahāfut al-Tahāfut which incorporated it.

That he knew the Maqāṣid al-Falāsifah is certain because though no direct quotation from it can be found in the 'Ōr adōnāy nor is it referred to by title, <sup>(83)</sup> all references to al-Ghazālī by Crescas can be traced to the Maqāṣid.

In fact, Crescas, whose knowledge of Arabic philosophy was derived from Hebrew translations, knew the Maqāṣid not directly but from a Hebrew translation.

<sup>(85)</sup> Joel, <sup>(86)</sup> Kaufmann, <sup>(87)</sup> Broyde, <sup>(88)</sup> Husik, and especially Julius <sup>(89)</sup> Wolfson, who has devoted an entire book to the subject, insist on the influence of the Tahafut on the 'Ōr adōnāy.

Harry Austryn Wolfson does not regard Julius Wolfson's evidence for the thesis that al-Ghazālī's Tahāfut was a source used by Crescas in the composition of 'Ōr adōnāy as being in any degree conclusive. The similarities that Julius Wolfson adduces as to their general attitude toward philosophy, <sup>(90)</sup>

their view of the problem of the attributes, the Unity of God and Free Will, as well as the similarities brought out by Wolfsohn in the Commentary on the Text, are regarded by Harry Austryn Wolfson as being only general in character and "even when not offset by a more impressive list of differences that can easily be drawn up, do not in themselves establish a literary relationship." Even when the similarities are of a less general nature it is no evidence that the Tahāfut is the source of Crescas' views.

In arguing like al-Ghazālī that philosophically two deities could entertain a division of labor, Crescas could have been drawing his argument not from the Tahāfut but from Narboni's commentary on the Môreḥ where it is "reproduced without the mention of the name of Algazali.... and we know that Crescas had made use of that commentary."<sup>(91)</sup> Other parallels of like nature can be accounted for in the same way. "We have shown," says Julius Wolfsohn,<sup>(92)</sup> "that there are other sources, with which Crescas is known to have been acquainted and from which he could have taken these views."

Furthermore, there is evidence "that Crescas could not have known the Tahāfut."<sup>(93)</sup> For Crescas mentions al-Ghazālī as admitting "the possibility of an infinite number of disembodied souls." But this view appears only in the Maqāsid which reflects the views of Avicenna. In the Tahāfut al-Ghazālī explicitly rejects this view. "Had Crescas known the Tahāfut he would not have allowed that fact to pass unnoticed."

However, even if it is granted that Crescas was acquainted with the Tahāfut and that it is "the source of all those arguments for which we find parallels in it, it is far from being the predominant influence upon the ʿAr adōnāy. The most that can be said is that it is one of many works from which Crescas has borrowed certain arguments which he has incorporated in his own work. It is not impossible that his knowledge of the Tahāfut, assuming that he had any knowledge of it, he obtained not from a study of the book itself but from his pupil Zerahiah Saladin, who was versed in Arabic and later translated the Tahāfut into Hebrew." (94)

To go back to the twelfth century, "Abraham ibn Ezra takes a passage from Gazzali's Ethic (p. 40) the beautiful analogy between the organs of the human body and the functionaries of the King, and builds around it one of his most beautiful hymns. Abraham b. David takes from the same book a parable (pp. 173-175) which shows the various uses of science. Maimonides was probably acquainted with Gazzali's more famous books; but commentaries to his Môrēh since the end of the fourteenth century very seldom draw parallels to Gazzali. David b. Jehuda Leon, however, maintains that Maimonides used Gazzali's precious works as a main source, and that it was with especial regard to them that he stated in the preface to his Môrēh that such a book had never yet been written 'in our nation'. Several more recent authors have pointed to various places in the Môrēh where some of Gazzali's arguments or theories may be found. It should be

remembered, however, that Gazzali in his main work merely repeats the opinions and even the very words of other authors".<sup>(95)</sup>

But though al-Ghazālī's influence began to be felt in the middle of the twelfth century, he did not become an authority for the Jews until much later. During the great controversy about the acceptability and authority of philosophy, all through the thirteenth and part of the fourteenth centuries, none of the contending parties made use of al-Ghazālī's name or any of his treatises; even though his ethical work had already been translated during the early period of this struggle.<sup>(96)</sup>

The important works of al-Ghazālī were subsequently translated into Hebrew and played an important role in the Jewish literature of the Middle Ages. We shall limit ourselves, however, mainly to the translations of the Maqāsid.

The Maqāsid served for the Jews as a textbook of the peripatetic philosophy according to the version of Ibn Sīnā.<sup>7</sup> And al-Ghazālī, whatever his own attitude in writing the Maqāsid, came to be regarded by the Jews, by virtue of it, as the chief popularizer of philosophy. As late as the 16th century, David ibn Yahya, Rabbi of Naples, included in the curriculum he taught his students, the Kawānôth, the Hebrew version of al-Ghazālī's Maqāsid.<sup>(97)</sup>

This book was translated many times during the second half of the thirteenth century and the first half of the fourteenth and also during the second half of the fifteenth century and first half of the sixteenth. Some of the translators were motivated by a desire to defend philosophy,

believing that philosophy was an ally of religion, while others hoped that their translations of the Magāsid would serve as a weapon against philosophy, to point out, as did al-Ghazālī in his Tabāfut, the weakness of philosophy.

"The first Hebrew translation is probably that of Isak (ibn) Albalag (al-Balag), towards the end of the thirteenth century. His (Isak's) land of origin is unknown, but it is probably the same as that of most of the translators, namely, Northern Spain, or Provence. His edition, entitled Inventory (Roll) of the Philosophers, is not a simple translation of the original, the title of which he translates as Views of the Philosophers. However, he finished only two parts (Logic and Metaphysics) and started on the third (Physics); the greatest portion of the last one was shortly thereafter translated by Isak ibn Polgar (Pulgar), author of a work of apologetics."<sup>(98)</sup>

Albalag was denounced by the Zealots as a heretic, an unbeliever and almost an atheist because of the free spirit in which he composed his translation. If these denunciations were showered upon him in his own lifetime, it would account for the general silence concerning him and his ultimate fate. Why he did not complete his work was unknown even to the man who undertook to add to it.<sup>(99)</sup>

Albalag explains in the preface, that has been published in its entirety, that he was persuaded to translate al-Ghazālī's book from Arabic into Hebrew because "most scholars .....as well as very many unlearned people, believe that philosophers demolish the basic pillars of religion.... and therefore hold books of philosophy in disfavor...Prophetic

truths can be arrived at only through the prophets and through tradition, which tradition loses its accuracy by and by, so that a competent teacher or scholar must be sought. Doubt has shaken prophetic truths; many men who would have been worthy of them turned therefore to ideas of philosophy, which supported as they are by proof, are free of such doubts. All this moved the author to clarify the principles of religion with philosophic methods and through the translation of the writings of Aristotle." <sup>(100)</sup> Albalag chose to occupy himself with the translation of al-Ghazālī's book, "because it comprises most of those views, and because its method is that of the middle way, suited both to philosophy and common belief, and its presentation tends toward simple narration, which is easily understandable to the un-  
<sup>(101)</sup>initiated layman."

Albalag introduces his own notes and comments to the translation with the words: "the translator says." In his first note, Albalag says that al-Ghazālī "presented the beliefs of the philosophers only with a view to refuting them, which he had been asked to do, and which he thought himself to have accomplished. Actually, he offered not their opinions, but his, and he confuted not the philosophers but himself and his allies, in such a way that he found not their error but his own. Ibn Rusd answered these attacks and pointed out the errors and sophistries; Albalag attempts to do the same in certain places." al-Ghazālī, claims Albalag, "follows the teachings of Abū Naṣr and Ibn Sīnā' who deviated from  
<sup>(102)</sup>Aristotle."

Thus Albalag believed that the philosophic views expressed in the Maqāsid were not really al-Ghazālī's, while Narboni believed - as we shall see later - that they were really al-Ghazālī's convictions. The same difference of opinion concerning al-Ghazālī's own views we find among non-Jewish scholars.

There is a Latin translation of the Maqāsid called Logica et Philosophia Algazeli, printed in Venice in 1506, an exceptionally rare book. The translator is 'Dominicus, Archidiaconus Secobiensis apud Toletum'. This work contains neither the preface nor the conclusion of al-Ghazālī, the author, in which he pointed out the purpose of the book. (103) Evidently the translator did not take the author's expressed purpose with regard to the book seriously. He believed that the views expressed in the Maqāsid were the views of the author; though it is possible that the translator worked from an incomplete manuscript. On the other hand, D. B. Macdonald, in a review of the published Arabic original of the Maqāsid and of J. T. Muckle's edition of the Latin translation of Algazel's Metaphysics, (104) insists with a great show of indignation that the latter book "most emphatically is not al-Ghazzali's Metaphysics but is an objective statement by him of what the Neoplatonic-Aristotelian philosophers of Islam meant in their books."

Another translator of the Maqāsid, a contemporary of Narboni, was Jehudah (Maestro Bongodas) Nathan, a Provençal physician and author, and a translator of medical works (circa 1352-8). The title of his translation Kawānūt ḥaḥlōsāfīm, (105) corresponds to that of the Arabic original.



As Jehudah Nathan himself explains in his preface, the purpose of his translation was two-fold. First, it would afford a short-cut to students of the Talmud who were eager to study the sciences but did not have sufficient time to devote to them. Secondly, it would ward off the opinions of the mitpalsefim, the pseudo-philosophers, that tend to weaken the Law, for the author intended to follow this book with another that would refute all the arguments advanced against the tenets of religion. This translation was quite popular; many copies of it exist in many libraries. (106)

From the same period comes a translation of an anonymous author which was the basis of Narboni's commentary. This translation was used by many commentators of the fifteenth and sixteenth centuries. But it is difficult to ascertain "which manuscripts contain this translation. Even some of the manuscripts of Narboni's commentary contain also one of the two other translations, viz. those of Albalag or Nathan. Some of the manuscripts, too, give only the beginning of the parts on which Narboni commented." (107) Steinschneider gives a list of manuscripts that contain only the translation without commentary. "This translation comes closer to the Arabic text." (108)

These three commentaries, including Albalag's elaboration, were the best known and were used by those Jews in subsequent generations who delved into philosophy. "In the native country of translations, no other commentator after Narboni is known for a hundred years. We do know of some commentators during the second half of the fifteenth century." (109)

There is a commentary on al-Ghazālī's Metaphysics (in ms. P. 906) by Isaac b. Shemtob (who is probably identical with Isaac b. Shemtob b. Shemtob commentator on the Moreh), written in 1495 at Aguilar de Campo. (110)

A fragment consisting of five leaves commenting on the first part of the Logic by Isaac Kohen is found in Ms. P.907. 4 (111)

An incomplete commentary on the Physics by one Jesaia, who probably commented on the whole book, is found in Ms. P.907. He cites Albalag and it seems from the catalogue that he did not know Narboni's commentary. He is probably the Jesaia b. Meir mentioned by Joseph Caspi. (112)

Eli Habillo of Monzon, apparently later called Maestro Mancel (c. 1470), was the author of a commentary on the Metaphysics and the Physics. He tried to elucidate the text of al-Ghazālī and the remarks of Albalag without deciding in favor of either interpretation. (113)

Shemtob b. Joseph b. Shemtob mentions in his printed speeches (finished 1489) his commentary on the Maqāsid. (114)

"The last commentators . . . lived in the Levant." The Karaite Abraham Bali b. Jacob (c. 1510), a physician at Pooli, wrote a commentary for the sake of his pupil Joseph b. Kaleb. In his commentary he attempted, he said, to explain more fully the commentary of Narboni "whose words are few in quantity and great in quality." (115)

Elia Misrachi, (d. in 1526 at Constantinople), the author of a supercommentary on Rashi's Pentateuchal commentary, wrote a commentary on the Maqāsid that is apparently lost. (116)  
Moses Almosnino mentions it once in one of his sermons.

Moses Almosnino, a preacher of Salonika, is the author of a commentary on the Maqāsid that he called Migdal 'Oz. He used the anonymous translation as the basis of his commentary. (117)

There are a number of commentaries and notes by anonymous authors whose dates and localities are unknown.

Steinschneider, therefore, mentions these commentaries according to the libraries in which they are found. (118)

1. Bl. 111 (Catal.S.88) contains an incomplete commentary, on the margin of Jehudah Nathan's translation.
2. Lp. 40 I,K, - A supercommentary on Narboni: pērúsh 'al Maestro Vidal - Metaphysics and Physics.
3. London Beth Hamidrash 40. A short commentary on I-III.
4. Mu 269<sup>7</sup> - Notes on the Metaphysics. The author refers in his remarks only to Albalag and ibn Polgar both of whom he attacks severely. Whenever Albalag confesses that he did not understand the text and raises an objection, our critic remarks of what value is an objection based on ignorance. He then proceeds to explain the text. And when ibn Polgar refutes an objection of Albalag, the critic remarks that neither understood the meaning of the text, and he explains it.
5. Mu 269<sup>8</sup> - notes on the Metaphysics directed at Albalag. He too criticizes the translator but is

less severe. He admits that some of Albalag's explanations are good. This critic knew other translations besides that of Albalag.

6. P. 907 - A fragment explaining Narboni's commentary on the Metaphysics.
7. P. 907 - Another fragment on Part II of the same commentary of Narboni.
8. P. 907 - Comments on different passages of the text (mainly Part II) and on Albalag.
9. P. 907 - Fragment of a commentary on Part II and on Albalag's notes.
10. P. 907 - Explanation of some passages in Part III.
11. P. 907 - A collection of comments on I -II.

Abraham Abigador b. Meshullam, at the age of seventeen (1367) composed a treatise in rhyme on the Logic, Metaphysics and Physics called segûlê melâkhîm.

Zerahiah Halevi b. Isaac, called Saladin, a pupil of Hisdai Crescas of Saragossa, translated the Tahafut for the scholarly Don Benvenisti ibn Labi, (son of the "Prince" Salomo ibn Labi; Benvenisti died in 1411), giving it the title hap-pallat hap-pilôsôfîm. This translation is very rare and is the only translation there is of that work.

The Mizan al-'amal, an ethical work, was translated by Hisdai Halevi of Barcelona (c. 1235-40) under the title m'ôzne sedeq. This book, says the translator, is the first excellent collection of scattered ethical ideas since

Aristotle began working on them in a scientific manner.

Mishkāt al-Anwār fī Rihāq al-Azhār - was translated by Isaac b. Joseph al-Fāsī with the title Maskit ha'ôrôt be-pardeš hen-nissānīm. The date of the translator is unknown. Steinschneider suggests that he was the father of Moses b. Isaac al-Fāsī who was still alive in <sup>(122)</sup>1298.

There is another manuscript by an unknown translator of this book. Some think, as does Gosche, that this book was held in the same high esteem by the Jews as by the Muhammedans, but Steinschneider deems this estimate an exaggeration. He shows that the theme of this book had less interest for the Jews than did other books by al-Ghazālī. In fact, the book is not mentioned by any Jewish author before the end of the fifteenth century. Moses ibn Ḥabeb quoted from the Mishkāt and added that the book was "ascribed" to al-Ghazālī. Johanan † Alemanno quoted from it in order to compare the arrangement and gradation of the lights with Qabbalistic theories. He called this book ha'ôrôt ha-'elôhiyôt.<sup>(123)</sup>

A poem written by al-Ghazālī was translated by Abraham Gavison (born in 1547 at Tlemsen). Introducing the poem, the translator says, "Although the author is not a Jew all agree that the pious of all nations participate in Blissfulness: the more so, such a man to whom Heaven will not withhold Grace." The poem is supposed to have been written shortly before the author's death; a presumption based on the theme which tells of

a dying man speaking of his immortality and future rewards. (123

NOTES

- 1) The main source for an account of al-Ghazālī's life is his own autobiography in the Munqidh min ad-Dalāl. This may be read in Schmödlers' text published in his Essai sur les Écoles philosophiques, (Paris, 1842), and M. C. Barbier de Meynard's French translation in the Journal Asiatique, septième Serie, tome IX. There is an English rendering by Claud Field of the Munqidh, which he calls The Confessions of al-Ghazālī. Field's translation must be used with care. It is not always accurate. Sometimes it omits sentences. It has also omitted several sections. For instance, the entire section on the Ta'limites is missing. There is another English translation of the Munqidh by Charles Horne, called Rescuer from Error, published as volume six of the Wisdom of the Orient Series, (1917), but I have not seen it. Besides the Munqidh I have also used 'Abd al-Ghafir b. Isma'il's account of al-Ghazālī which is found in the Tabyin of Ibn 'Asakir of Damascus (from the text as published by M. A. F. Mehren in Travaux de la troisième Section du Congrès Internationale des Orientalistes, St. Petersburg, 1876, Tome II, pp. 322-324).

Of secondary sources, I have made use of D. B. Macdonald's "Life of Al-Ghazzali, with especial reference to his religious experiences and opinions", (in the Journal of the American Oriental Society, vol. 20, First half 1899; pp. 71-132). In addition to the primary sources mentioned above, Macdonald used also the autobiographical material in the introduction of the Sayyid Murtaḍā to his commentary on the Ihya'. I have also found Reverend W. R. W. Gardner's Al-Ghazālī in the Islamic Series II, (Madras, 1919), useful. Unfortunately I was not able to use Miguel Asin et Palacios', Al Gazal: domatica moral, Ascetica, (Zargoza, 1901). Carra de Vaux's Ghazālī, (Paris, 1902), is not as helpful as might have been expected. Zwemer's A Moslem Seeker After God, (New York 1920), is a rather popular and 'lyrical' account.

- 2) Ghazālī is said to be spelled with a tashdīd if it means cotton spinner and without a tashdīd if it refers to the name of a town of that name in the dependency of Ṭus. As-Sam'ani in his Ansab spells it with a tashdīd as is the general Arabic usage. (Ibn Khallikan's Biographical Dictionary, translated from the Arabic by Baron McGuckin De Slane, Paris, prepared for Oriental Translation Fund of Great Britain and Ireland - 1843 - vol. I, p. 80).

D. B. Macdonald doubles the 'Z' but most orientalists do not. For a discussion of the name see Macdonald in

the Journal of the Royal Asiatic Society of Great Britain and Ireland, for 1902, Appendix II to article, Emotional Religion in Islam as affected by Music and Singing (Part II), pp. 18-22. "What purports to be his tombstone has since been found and has apparently the two Z's." Sarton, Introduction to the History of Science, vol. I, p. 753. Zwemer, op. cit. p. 65, note 2 bottom, states, "I have a fatwa from the Sheikhs of Al-Azhar, Cairo, however, stating that the true spelling is now agreed on by Moslems as Ghazālī with one middle radical."

- 3) Tūs is the name of a place comprising the two towns of Taberan and Nawkan to which more than a thousand villages belong. Ibn Khallikan, op. cit. vol. I, p. 80.
- 4) Ibn Khaldūn in his Prolegomena, quoted by De Slane in the introduction to Vol. II, p. V and p. VII of Ibn Khallikan's Biographical Dictionary.
- 5) Quoted in Ithāf al-Sādah, v. 1, p. 9, by al-Sayyid Murtaḍā. But E. G. Browne in his, A Literary History of Persia - II - p. 296, quotes as-Suyūṭī as authority for this statement.
- 6) Like al-Ghazālī he also became a ṣūfī. Subkī, Ṭabaqāt, IV. 102 ff.
- 7) Their mother lived long enough to accompany them to Baghdad.
- 8) De Slane - Introduction to vol. I of Ibn Khallikan's Biographical Dictionary, p. XXXI.
- 9) Totah, Contribution of The Arabs to Civilization, p. 49. This information he derives from Ibn Khallikan, op. cit. vol. I, p. 191.



- 10) Totah, p. 49 ff.
- 11) "From as-Subkī we learn that Madrasas existed before the days of Nizam al-Mulk. He adds, however, that he is strongly of the opinion that the latter was the first to establish appointments for the support of the students. Tabaqat, vol. III, p. 137" in Gardner, Al-Ghazali, p. 5, note No. 1.
- 12) as-Subkī, Tabaqat, III 36, in Gardner, ibid.
- 13) as-Subkī, ibid.
- 14) This account of Zwemer's agrees with the account of the course in the Taqrib of Abu Shuja'al-Ispahani, which is given in Appendix I Section VII, p. 351 ff. of D. B. Macdonald's Muslim Theology Jurisprudence and Constitutional Theory.
- 15) Field, Claude, The Confessions of al Ghazzali, N. Y., 1909, p. 13.
- 16) De Slane, p. 13, in the introduction to vol. I, p. XXXI of Ibn Khallikan's Biographical Dictionary.
- 17) Gardner, op. cit., p. 6.
- 18) This story is given on the authority of Imam As'ad al-Mayhani and of Nizam al-Mulk. It is found in the Tabaqat, vol. IV, p. 103 - Gardner p. 7 and note.
- 19) 'Abd al-Ghafir, ibid. All quotations from 'Abd al-Ghafir are from the same work unless otherwise cited.

- 20) Macdonald, Life I, p. 89, says that "al-Fārmadhī died in Tus in 477 A. H. and there al-Ghazali studied with him." Thus he disagrees with Mehren, p. 239, who says that it was after al-Ghazali returned from his wanderings to be a professor at Nisapur "where he continued his contemplative life under the direction of the Sufi al-Farmedi (as Mehren spells it)." They differ in the placing of the 'Abd al-Ghafir passage. From the text it is not clear whether the passage is intimately connected with what went before, and therefore refers to the next period of al-Ghazali's life as Mehren seems to think, or whether the passage is independent, as Macdonald seems to think. Gardner, op. cit., p. 8, thinks that al-Ghazali studied under al-Farmadhi in his first Nisapur period at the same time continuing under Imam al-Faramain.
- 21) "Of whom elsewhere I can find no trace." Macdonald JAOS, XX (1899), p. 89. Ibn Khallikan does not mention him at all. Macdonald calls him Nassaj or as-Sajjaj.
- 22) The story of this dream goes back "directly to al-Ghazali through the autograph manuscript of Qutb ad-Din Muhammad b. al-Irdibili (S. M. p. 9)", and is quoted in its entirety by Macdonald in the Life, p. 89 ff. Cf. also Smith, Margaret, al-Ghazali, The Mystic, London 1944, pp. 14, 15.
- 23) Margaret Smith, op. cit., p. 15, quotes from the Ms. of Ibn 'Asakir that he studied under an Imam theology, philosophy, dialectic and natural science.
- 24) Ibn Khallikan, vol. II, p. 120.
- 25) Munqidh, Field, op. cit., p. 12.
- 26) Field, ibid.
- 27) Ibn Khallikan, op. cit., II, p. 120.

- 28) 'Abd al-Ghāfir, ibid.
- 29) as-Subkī, Tabaqāt, IV, pp. 107 and 108 (Gardner, op. cit., p. 9 and note 3).
- 30) 'Abd al-Ghāfir, ibid.
- 31) Field, op. cit., pp. 15-19.
- 32) Field has "three groups" instead of "four groups" as in the Arabic and French. He leaves out the Ta'limites which the Arabic puts in the second group. For the Arabic text cf. Schmölder's Essai, Arabic section, p. 10.
- 33) Field, op. cit., p. 20.
- 34) Cf. the Jawāhir al-Qur'ān p. 25 according to Gardner, p. 38n.
- 35) 'Abd al-Ghāfir, ibid.
- 36) Brockelman, Geschichte der arabischen Literatur, I p. 420, says, "Vielleicht fällt in diese Zeit (i. e. while he was with Nizām al-Mulk) seine Beschäftigung mit der Philosophie, zu der er an der orthodoxen Hochschule von Nisabur kaum in nähere Beziehungen getreten sein dürfte."
- 37) Field, p. 23.
- 38) Maqāsīd, p. 1b.
- 39) Bouyges in his edition of the Tahāfut, Beyrouth, 1927, p. IX, notes that at the end of manuscript F of Fatīh, (Constantinople), of the Tahāfut, the copyist,

after giving the date of his own copy, says that the composition of the Tahafut was completed on 11th Muharram 488, i. e. January 22, 1095. Bouyges accepts that date.

- 40) "It is above all through the criticism of the principle of causation that he opens his attack against rationalism. Hume did not say anything more. We only perceive simultaneity, never causality. Causality is nothing other than the will of God making two things usually follow each other. The laws of nature do not exist, or they only express a habitual fact; God alone is immutable. This was, as one can see, the negation of all science." (Renan, Averroès et L'Averroïsme, p. 97). al-Ghazālī had founded religion on skepticism.
- 41) Macdonald, Life, p. 103. Obermann, in Der philosophischen und Religiöse Subjectivismus Ghazālīs (Wien und Leipzig, 1921, pp. 63-67) points out that in the Tahafut Ghazālī makes clear the unsatisfactory nature of the doctrine of emanation employed by the Arab Aristotelians as a solution for their problem of maintaining their belief both in an absolutely necessary cause and a Creator, and as a bridge uniting the One and the many, the infinite and the finite, the Uncombined and the combined. Ghazālī calls their solution "arbitrary sophistry" and "darknesses surpassing darknesses" pulmat fawaka pulmat (Tahafut III, Cairo, 1302, quoted by Obermann, op. cit., p. 66, note 1.)
- 42) 'Abd al-Ghāfir, ibid.
- 43) Life, p. 87.
- 44) For an account of the Ta'limites cf. Margoliouth, D. S., Assassins in Encyclopedia of Religion and Ethics (1927) vol. II, pp. 138<sup>b</sup> - 141<sup>b</sup>. "Ta'limites" refers to the fact that "Man cannot attain to the Truth by his unaided endeavors, but stands in need of the teaching (ta'lim) of the Universal Reason, which from time to time becomes incarnate in the form of a Prophet or 'Speaker' (Nātiq), and teaches more fully and completely in each successive Manifestation according to the evolution of the Human Understanding, the

spiritual truths necessary for his guidance." According to E. G. Browne in A Literary History of Persia, N. Y. 1902, p. 408, the Ta'limites were Isma'illians, who counted Isma'il b. Ja'far aṣ-Ṣādiq or his son as the seventh imam who would reappear as the Mahdī, the divinely guided leader. al-Ghazali directed his attack against the Isma'ilis who developed into the Assassins. In 483 their founder, al-Ḥasan b. aṣ-Ṣabbah seized the stronghold of Alamut on the edge of the Elburz Mountains near Kasvin which he fortified and made a seat of learning.

- 45) Macdonald, op. cit., p. 88.
- 46) Macdonald, p. 88.
- 47) Field, p. 41F.
- 48) Munqidh. Field, p. 43.
- 49) Cf. St. Augustine's Confessions, Book VIII, Chap. II, for a description of a similar state. Cf. Frick, H., Ghazali's Selbstbiographie, ein Vergleich mit Augustins Konfessionen, Leipzig, 1919 for an analysis of the resemblance between the spiritual experiences of both.
- 50) Field, p. 43-45.
- 51) Macdonald, Life, p. 80.
- 52) Macdonald, Life, p. 92. A. J. Wensinck, La Pensée De Ghazzali, p. 110 f., puts it as follows... "the conversion of Ghazzali had consequences as important for Islam as that of Saint Augustine for Christianity. This importance for Islam can be briefly characterized by saying that Ghazzali succeeded in assuring a place in official Islam for the mystic or introspective attitude at the side of the legalism of the jurists and of the intellectualism of the dogmatists."

- 53) Field, op. cit., p. 46.
- 54) ibid.
- 55) ibid.
- 56) ibid.
- 57) 'Abd al-Ghāfir, op. cit.
- 58) al-Ghazālī's ten year retirement is a very confusing period. The biographers contradict each other. Gardner, p. 15ff. has attempted to harmonize the conflicting accounts.
- 59) Gardner, ibid.
- 60) 'Abd al-Ghāfir, op. cit.
- 61) Cf. Wensinck, op. cit., pp. 103-125 for al-Ghazālī's identification of faith with certitude, and Obermann, op. cit., for a detailed analysis. This certitude comes from the knowledge of the heart - qalb - that is a gift of God. Obermann aptly characterizes this knowledge as 'subjectivism'. From a thoroughgoing skepticism in the capacity of objective science to yield certain knowledge al-Ghazālī, by a virtual tour de force, establishes certitude on the basis of subjectivity.
- 62) D. B. Macdonald, Life, p. 94. Field, op. cit., pp. 48-49.
- 63) Macdonald, Life, p. 96.
- 64) The Arabic text has Faṭḥ al-Mulk but the reference is to Fakhr al-Mulk.

- 65) Munqidh. Field, op. cit.
- 66) Ibn Khallikān, p. 624, Vol. II.
- 67) Steinschneider, Hebraeischen Uebersetzungen des Mittelalters, vol. I, Par. 163.
- 68) Munk, Mélanges De Philosophie Juive et Arabe, p. 382.
- 69) Steinschneider, ~~ibid~~ op. cit. vol. I, par. 163
- 70) Keneset, Vol. VII, Tel-Aviv, 1942, pp. 311-329.
- 71) Prolegomena zu einer erstmaligen Herausgabe des Kitab al-hidaja, 1904, p. 11.
- 72) REJ, vol. 49, 1904, pp. 154-157.
- 73) al-Hidaja, p. XV, pp. 63-64. Leyden, 1912.
- 74) ZDMG, vol. 67, pp. 534-535.
- 75) "The date of the life of Bahya ibn Paqoda", in Poznanski Memorial, Volume, Warsaw, 1927, pp. 13-21.
- 76) This argument is not conclusive, however, for in the Ihya' al-Ghazali reissued much that he had been teaching many years before.

- 77) "The Common Source of Bahya Ibn Paqoda and Ghazālī," pp. 23-30, Hebrew section in Magnes Anniversary Book, Jerusalem, 1938.
- 78) Published by Muhammed Rājib al-Ṭabāj at Aleppo in 1928.
- 79) Baneth, op. cit., pp. IV-V. English Summaries.
- 80) Meyōr Meshutāf, op. cit., p. 28.
- 81) "A Forerunner of al-Ghazālī", in the Journal of the Royal Asiatic Society, (1936) pp. 65-78.
- 82) This article is mentioned in Isis, Vol. 25, (1936), p. 527.
- 83) Wolfson, H. A., Crescas' Critique of Aristotle, Cambridge, Mass. 1929, p. 10.
- 84) Op. cit., p. 11.
- 85) Don Chasdai Creskas' religionsphilosophische Lehren, Breslau, 1866, p. 3.
- 86) Geschichte der Attributenlehre, Gotha, 1877, p. 134.
- 87) "Ghazali", Jewish Encyclopedia, V, 649.
- 88) History of Mediaeval Jewish Philosophy, New York, 1916, p. 392.
- 89) Der Einfluss Gazālī's auf Chisdai Crescas, Frankfurt A. M. (1905)



- 90) Wolfson, op. cit., p. 12.
- 91) Wolfsohn, Julius, op. cit., p. 14.
- 92) Wolfsohn, Julius, op. cit., p. 15.
- 93) Wolfsohn, Julius, op. cit., p. 15.
- 94) Wolfsohn, Julius, op. cit., p. 18.
- 95) Steinschneider, op. cit., Vol. I, Par. 163.
- 96) Steinschneider, loc. cit.
- 97) Cf. Alexander Marx, Glimpses of the Life of an Italian Rabbi of the first half of the 16th century, p. 621, the text of the responsum in Hebrew Union College Annual, Vol. I, 1924, Cincinnati, Ohio.
- 98) Steinschneider, op. cit., Vol. I, Par. 166.
- 99) loc. cit.
- 100) op. cit., Par. 167.
- 101) ibid.
- 102) op. cit., Par. 169.
- 103) op. cit., Par. 165.
- 104) Isis, Vol. 25, May-Sept. 1936, p. 8 ff.

105) Steinschneider, op. cit., Par. 172.

106) ibid.

107) op. cit., Par. 173.

108) op. cit., Par. 174.

109) op. cit., Par. 178.

110) ibid.

111) ibid.

112) ibid.

113) op. cit., Par. 179.

114) op. cit., Par. 180.

115) ibid.

116) ibid.

117) op. cit., Par. 181.

118) op. cit., Par. 182.

- 119) op. cit., Par. 183
- 120) op. cit., Par. 185
- 121) op. cit. Par. 196
- 122) ibid.
- 123) ibid.

THE LIFE AND WORKS OF NARBONI

Moses b. Joshua, called Maestro Vidal Balshom or Bellson<sup>1)</sup>  
 was probably born in the last years of the thirteenth or the  
 first years of the fourteenth century.<sup>2)</sup> His family came from  
 Narbonne, but he was born and raised in Perpignan, capital of  
 the province of Rousillon, the property of the Kingdom of  
 Aragon.<sup>3)</sup> The Jewish community of Perpignan in whose midst<sup>4)</sup>  
 Narboni was raised, and where most of his works were written,  
 had an unenviable lot. The King was no favorer of the Jews.  
 At his command copies of the Talmud were once delivered up  
 to the auto-da fe; but as he hoped to gain material advantages  
 by the settlement of intelligent and industrious Jews in his  
 domain, the King suffered them. They were compelled, however,  
 to live in the most miserable section of the town, almost in  
 what constituted the leper colony.<sup>5)</sup> But neither the wretched  
 surroundings nor the oppression of the government were able  
 to destroy the ardor for study evinced by the Jewish commu-  
 nities of Spain and the Provence then as in the preceding  
 three centuries. The taste for science and free enquiry  
 among the Jews of the community of Perpignan was even sharp-  
 ened by the controversy that raged at that time mainly over  
 the philosophy of Maimonides. The controversy grew so in-  
 tense that Solomon b. Adret, the Rashba (d.1310), at the  
 instigation of Abba Mari of Montpellier, issued an edict  
 against the study of the sciences and especially against the  
 study of philosophy. This edict was proclaimed in the  
 synogogue in Barcelona on the fourth day of Ab (26 July)  
 1305.<sup>6)</sup> But the ban settled nothing. It served but to in-  
 spire the followers of Maimonides to undertake even deeper

study in order to be able to justify his philosophy. Thus the battle continued, and not even the expulsion of the Jews from France (1306) was able to stop it. The expulsion even helped to intensify the battle, for it brought the two antagonistic parties vis-à-vis each other in the same community. After the expulsion Abba Mari, the leader of the anti-Maimonidean party, and a portion of the Montpellier congregation were compelled to remove to Perpignan (1307) where a group of the opposing Tibonnides party had settled.<sup>7)</sup> So it happened that when Narboni was seven or eight years of age the battle was again fully engaged, with Perpignan now as its center.

The father of Narboni, a partisan of the Maimonidean party, with the courage of his convictions introduced his son to the study of philosophy at a very early age. Notwithstanding the ban of the Rashba and the wrath of Abba Mari and his anti-Maimonidean party, we find Narboni at the age of thirteen engaged in studying the intricacies of the much controverted philosophy of Maimonides.<sup>8)</sup> It has been claimed that this fact is proof positive of the ineffectiveness of the ban even in the Rashba's time,<sup>9)</sup> though perhaps it cannot in itself prove so much as that.

The fact of the ban, and the controversy connected therewith, far from discrediting the study of philosophy in young Narboni's eyes, seem rather to have intrigued him and aroused in him a more than usual curiosity which impelled him to enthusiastic study of it. To widen his knowledge Narboni made voyages to other great centers of learning in Spain:<sup>9b)</sup>

to Cervera in 1347 and 1349, to Barcelona in 1349, to Toledo and Soria in 1355 and 1358, to Burgos in 1361 and to Soria again in 1362.<sup>10)</sup> In the preface to his commentary on the maamar b'eseh hagalgal Narboni mentions the great tribulations which befell many communities in the wake of the Black Death, and among them the community of Cervera while he abode there. He was obliged to flee from Cervera along with all its Jewish inhabitants. There he left not only his property but also his valuable books.<sup>11)</sup> From a passage of his commentary to the Môrêh (Book II-47) we learn that from the year 5118 (1358) Narboni was established at Soria, where he tells of having seen, in that same year, a Christian woman, one hundred and thirty years old. From another passage of the commentary we learn that Narboni engaged in a controversy with a great Christian savant concerning meteorology, physics and metaphysics, and that this controversy excited a great deal of interest among all the inhabitants of the city. At Toledo he received a letter from Seville relative to a difficult passage of the eighth proposition of the Guide.<sup>12)</sup> In Spain, he probably learned Arabic.<sup>13)</sup> Since he had discussions with Christian savants he must have known Latin and, of course, also Provençal and Catalan the idiom of his native country.<sup>14)</sup> It would seem, therefore, that Narboni was a gifted linguist with a competent knowledge of Latin, Arabic, Catalan and Provençal.<sup>15)</sup>

Narboni was also a physician of some prominence. He wrote an important work called 'Ôrah Hayyim' which was a kind of medical encyclopedia; a collection of remedies for different

maladies, containing much that he had learned from his own experience. He introduces his own novellae by "Moses said" - 'āmar Mōsheh. Very often he says, wa-anî nissîti "I experimented," and wa-anî hiddashti, "I invented",<sup>(16)</sup> thus revealing the fact that he had a genuine scientific bent. In this work he has an interesting explanation of the Black Death. It was caused, he says, by the conjunction of Saturn and Mars. He believed it would last fifty days. This view was shared by Gersonides<sup>(17)</sup> (Levi b. Gerson, also known as Raibag: 1288-1344). Narboni revised 'ōrah hayyim: ~~xxx~~<sup>(18)</sup> twice so that we have two recensions of it.

In his youth, Narboni studied medicine under Abraham Caslari (first of Narbonne then of Besalu near Perpignan], who was an authority on fevers, concerning which he wrote a famous work. Nevertheless Narboni says that Caslari's were not original observations. Elsewhere Narboni adds that Caslari appropriated<sup>(19)</sup> medical ideas from the works of Maimonides.

Narboni was married, had a son for whom he wrote Perfection of the Soul, and a daughter. In his book 'ōrah hayyim he speaks<sup>(19b)</sup> of his father and mother, his younger brother and his daughter. In this book he also reveals his belief in astrology, the influence<sup>(20)</sup> of the stars on the lives of men.

Narboni also had an inclination towards mysticism such as is also found in Gersonides. He wrote a commentary on a mystical work<sup>(21)</sup> shi'ur qumāh. He often cites the midrash on Ruth which is Kabbalistic in character. In his own philosophy he is at times Kabbalistic. In his 'ōrah hayyim, for example,

he explains the word 'androgynous' to mean 'male and female' because the letters of both have the same numerical value. Even in his Commentary on Lamentations one can see his interest in Kabbala as well as in philosophy.<sup>22)</sup> He was opposed to the use of amulets and went so far as to record an anecdote indicating the foolishness of the use of a charm.<sup>23)</sup>

Narboni's main interest was philosophy. In philosophy he was a Peripatetic in the Averroist sense.<sup>24)</sup> Like Gersonides he supported Averroes and wrote commentaries on many of Averroes' books. He was quite as daring in his views as Gersonides but not as original.<sup>25)</sup> Particularly in his commentary on the Mōrēh Narboni expresses some rash opinions, frequently giving the impression that he is explaining Maimonides while he actually refutes him. Thanks to his obscure style and this lack of frankness Narboni's rashness was not always apparent,<sup>26)</sup> so that for the most part he escaped sharp attacks.<sup>27)</sup> Nevertheless, he did not altogether escape criticism. The theologians of the fifteenth century in particular disliked him. Moses Rieti, who studied al-Ghazālī's work in Albalag's translation together with Narboni's commentary, excluded Narboni along with Albalag and Gersonides from his heaven, in a poem called gan 'eden,<sup>28)</sup> where he enumerated all the great scholars. This omission was not a mere oversight, for in a footnote the author expressly states his exclusion of these three men.<sup>29)</sup> On the other hand, Rieti's contemporary, Johanan Aleman, the teacher of Pico di Mirandola, speaks of Narboni with great respect and admiration and mentions his name in an abbreviated form as man which means manna. It is possible that Aleman was influenced in favor of Narboni by the latter's



30)

deep interest in the Kabbala.

Even during Narboni's lifetime, or possibly soon after his death there was a critic who claimed that he had known Narboni personally, possibly in Perpignan. The name of this critic is Leon (Jehuda) Moscono of Oshkida (in Roumania) who (in 1362-7) wrote a super-commentary to the Pentateuch commentary of Ibn Ezra. This Moscono made an attempt to evaluate Narboni's knowledge in the various fields of scholarship. It was a strange phenomenon in Hebrew literature for the competence of a scholar to be evaluated by a contemporary. Moscono measures Narboni's knowledge in the various sciences by comparing it to research made by means of various lights. In linguistic science as in Talmud, Narboni investigated by the light of sparks, in logic by the light of a spiritual candle, in mathematics without any light. Whenever Narboni speaks of mathematics it is the result of self-taught or second-hand knowledge. In physics he investigated as though with the light of the sun because he follows what was already found in secular writings with the exception of his own explanations of some haggadas as relating to physical laws. In metaphysics he follows what others wrote but he investigated as though with the light of the moon because in metaphysics the doubts are greater: and greater still are they in his explanation of haggadic passages which are like thorns in the eyes of those who have no understanding of the harmony of divine laws with the profane sciences. Finally when Narboni tries to combine physics and metaphysics his light is extinguished.

31)

Moscono's evaluation, notwithstanding, it is clear that

Narboni had studied the more important Arabic philosophical works carefully and knew them well.<sup>31b)</sup> The knowledge he displays in his commentaries on the principal works of the great Arabic scholars, in his commentary on the Mōrēh and on the logical terminology of Maimonides, and his exact discussion of the great philosophical questions, discussions which are both instructive and informative, give his work considerable value for the history of philosophy.

Narboni did not make any translations from the Arabic. He wrote only commentaries.<sup>32)</sup> Among his earliest is his commentary on al-Ghazālī's Maqāṣid.<sup>32b)</sup> Narboni's was the first important commentary on the Maqāṣid. He used for his commentary not the well-known translation of Isaac Albalag,<sup>32c)</sup> or that of his contemporary Jehuda Nathan, but an anonymous translation which deviates much from those of Albalag and Nathan. It is, however, unlikely that it is older than that of Albalag.<sup>33)</sup> It is probably the translation of the Provençal scientist of whom Jehuda Nathan speaks in the introduction of his translation.<sup>33b)</sup>

Narboni commented on this book because he sincerely believed that the Maqāṣid reveals al-Ghazālī's philosophical convictions. al-Ghazālī, says Narboni, in a long note to Ghazālī's preface, was only a tool in the hands of Providence to teach the secrets of science to those who were worthy. al-Ghazālī lived at a time when the study of philosophy was prohibited by the King. al-Ghazālī's noble soul, however, urged him to communicate the basic knowledge of this science. To avoid danger, al-Ghazālī pretended that he was expressing

the views of the philosophers, only to refute them afterwards. For after the Maqāṣid, he would write the Tahāfut al-falāsifah, the falling to pieces of the philosophers. Furthermore, Narboni maintains that after al-Ghazālī wrote the Tahāfut he also wrote a small book in which he shows how the objections he raised against the opinions of the philosophers may be refuted. At the end of this book the author forbids all those into whose hands this book might fall to show it to anyone but scholars worthy of it. Isaac b. Nathan of Cordova (or Xativa), living in 1347 at Majorca, translated this book into Hebrew. The Arabic original has not yet been found.<sup>34)</sup> Narboni, it seems, knew this translation. He found it necessary to prove that the opinions expressed in the Maqāṣid were really the opinions held by al-Ghazālī because he would not comment on a book whose author confesses that he was teaching falsehoods.<sup>35)</sup>

The opinions of the philosophers expounded in the Maqāṣid are the opinions held by Narboni himself. His commentary to the Maqāṣid, like Albalag's translation of it, was meant to defend the assailed philosophy, unlike Jehuda Nathan's translation which was meant to provide weapons against it. In the words of Steinschneider, Narboni was "der letzte hervorragende Freigeist der jüdischen Philosophen des Mittelalters bis zur Renaissance."<sup>36)</sup>

Narboni exerted a great influence on the Jewish thinkers of his day and an even greater influence on those of subsequent generations.<sup>37)</sup> In the manuscript there are marginal notes and supercommentaries by many of those who used Narboni's commentary, and by some commentators and translators of al-Ghazālī's Maqāṣid. Some praised him, others criticized him.

but they could not ignore him. More than thirty copies, complete or fragmentary, of his commentary are extant, and this in itself indicates the popularity it enjoyed.<sup>38)</sup>

In all we have some twenty works from his pen though not all are as yet published.<sup>39)</sup> Included among them are:

Kawwanot happîlôsôfim - A commentary on al-Ghazālî's Maqāsid - written between 1342 or 1344 and 1349.

'Iggeret 'al Sh'îur - Completed in 1342<sup>40)</sup> or 1343<sup>41)</sup>.

Qōmāh

The gnostic book with which this deals goes back to the Geonic period. It is a description of the height of the divine body. It was frequently used by the Karaites to defend their beliefs, so that Maimonides conceived it to be a Karaite forgery. Narboni interpreted the book philosophically explaining away its anthropomorphisms. In it he agrees with Maimonides on creatio ex nihilo.<sup>42)</sup>

Commentary on Lamentations - Written before 1344.<sup>43)</sup> It is a philosophical commentary. Narboni wrote it because he thought that Lamentations was unduly neglected.<sup>44)</sup> The commentary has already been published.<sup>45)</sup>

ma'amār be'sēkhel

ha-hiyvūlānī

- Commentary on Ibn Rushd's,  
<sup>46)</sup>  
The Hylie Intellect. It was finished  
 in Perpignan in 1344. Narboni com-  
 posed it in the midst of the war  
 troubles that took place in the region  
 of Rousillon between Peter IV, King of  
 Aragon, and his brother-in-law Jacob,  
<sup>47)</sup>  
 King of Majorca.

ma'amār be'esem

hagalgal

- Commentary on one part of the  
Physical treatises of Ibn Rushd, com-  
 pleted at Cervera on the 24th of  
 February 1349. Narboni commented on  
 the entire collection.

"In the preface of the commentary  
 on the first part, the author who has  
 returned to Cervera, says that he had  
 undertaken this work at the request of  
 his friends, the savants of Perpignan,  
 in order to preserve his literary  
 connection with them". He called them  
<sup>48)</sup>  
kat ha-ahim which Munk believes was a  
 literary society in Perpignan. In the  
 time of Joseph Caspi, a contemporary of  
 Albalag, such a society already existed  
 in Perpignan.  
<sup>49)</sup>

Commentary on Hayy

ibn-Yokdhan

- Done at Cervera and completed in  
 1349. Narboni began this commentary after  
 composing his ma'amār be'sēkhel ha-hiyvūlānī.

- at the end of which he promised this work. But "he was prevented from continuing it by the misfortunes of the time and by other philosophic pre-occupations. He alludes to a great persecution which took place at Barcelona. He believed that he did not have much longer to live, and was in a hurry".<sup>50)</sup>

shlēmūt han-nefesh

- "Perfection of the Soul" written between 1344-9 for his son.

'ōrah hayyim

- A collection of remedies for different fevers. The date is easily ascertainable from the treatise itself, for Narboni says, "We saw during the past year, which was the year 5109 (1349), a man who died of pestilential fever".<sup>51)</sup> Steinschneider supposes that Narboni alludes to the Plague as it was on this occasion that Abraham Caslari had composed his treatise on Fevers.<sup>52)</sup>

ma'amar bi-behīrah

- Finished at Soria on the tenth of December 1361. It was written in defense of free-will and personal responsibility against the fatalist, the apostate Abner of Burgos.<sup>53)</sup>

Commentary on the  
Môreh

- His greatest and last work written at the behest of his son, who lamented that Narboni had written commentaries on so many philosophical themes but had neglected "many books composed by people of our nation and above all, the divine book, which shines with the light of wisdom, that causes the nation to live and reveals all mysteries."<sup>54)</sup> The commentary was begun at Toledo in 1355, but several circumstances among which was in particular the plundering he suffered on the second day of Pentecost 5115 (May 18, 1355), compelled him to discontinue his work for a time. He finished it seven years later at Soria on Tuesday, the third of Iyar, 5122 (April 26, 1362). He then prepared to return l'arsî u-13-môladti, to Perpignan where he was born, but death<sup>55)</sup> took him by surprise.

NOTES: THE LIFE AND WORKS OF NARBONI

1. On the orthography of the name v. Renan, Ernest, Les Écrivains juifs français du XIV<sup>e</sup> siècle, p.(667) note 1, Steinschneider, Moritz, Die hebräischen Uebersetzungen des Mittelalters und die Juden als Dolmetscher, p. 311. Alexander Marx in his unpublished notes has 'Balshomme'.
2. Munk, S., Mélanges de Philosophie juive et arabe, p. 302. Marx, op. cit., puts it in the last year of the thirteenth century.
3. Narboni, Commentary on the Môrēh, Chap. 50 and 63.
4. Marx, op. cit.
5. Graetz, Heinrich, History of the Jews, vol. IV.
6. ibid, p. 39.
7. ibid, p. 50.
8. ibid; Munk, op. cit., p. 502 according to Narboni's commentary on the Môrēh, part I, Chap. 50 and 63.
9. Weiss, nor norwe-dorshaw, Book II, p. 113. This claim, however, has not been substantiated.
- 9b. He is still found at Perpignan in 1344 according to Munk, op. cit., p. 503.
10. Gross, Henri, Gallia Judaica, p. 427. Gross omits the fact that Narboni was in Toledo and Soria in 1355 as well. For he began his commentary on the Môrēh at Toledo in 1355.
11. Renan, ibid, p.(667); Munk, ibid p. 503 note No. 2.
12. ibid, pp.(679-680)



13. Steinschneider, op. cit., p. 312.
14. Renan, ibid, p. (667).
15. Marx, op. cit.
16. Renan, op. cit. p: (677). Marx, op. cit.
17. Marx, ibid.
18. Marx says that it was published by Steinschneider.
19. Renan, op. cit., p.(677).
- 19b. ibid.
20. Marx, op. cit.
21. Renan, op. cit. (671) and Marx, op. cit.
22. Renan, op. cit., pp. (672) and (677).
23. Marx, op. cit.
24. Renan, op. cit., p. (667).
25. Marx, op. cit.
26. Renan, op. cit., pp.(679-680) and Marx, ibid.
27. Marx, op. cit.
28. Steinschneider, op. cit., Par. 175.
29. Marx, op. cit.
30. Omit
31. Steinschneider, op. cit., Par. 175.
- 31b. Steinschneider, ibid, claims that Narboni studied them from Hebrew translations.
32. Steinschneider, ibid, and Marx, op. cit. Narboni wrote nothing in Arabic. v.Renan, op. cit., p. (670).
- 32b. Renan, ibid, (p.670) quotes Steinschneider in the Catal. de Berlin, p. 46 as supposed that it was composed in 1342. But in the Hebräisch.Uebersetz, Par. 175, Steinschneider maintains that it was written between 1342-1344 and 1349.

- 32c. Lived in the second half of the thirteenth century.
33. Steinschneider, ibid, Par. 175, assumed that it was written between 1300-1345, or 1306-1340. If we assume the first date, Narboni could not have written his commentary in 1342-44. The translation was discovered not earlier than 1871. Cf. Steinschneider, ibid.
- 33b. Steinschneider, ibid, Par. 175.
34. idem.
35. idem.
36. idem.
37. idem.
38. idem.
39. Marx, op. cit.
40. According to Marx, ibid.
41. According to Renan, op. cit., p.(668).
42. Marx, op. cit.
43. Renan, op. cit., p.(671).
44. idem.
45. Marx, op. cit.
46. Omit.
47. Munk, op. cit., p. 503, note No. 2.
48. Munk, ibid, p. 503, note No. 3.
49. Renan, op. cit., pp.(674) and (524) fourth line from the bottom.
50. Renan, ibid, p.(675).
51. In Halkarmel, vii, p. 110, quoted by Renan, ibid, pp. (677-8).

52. Renan, op. cit., p.(678). If this book was written in 1350 he could not have mentioned his journeys to Tolédo and Soria which took place in 1355-62. Steinschneider op. cit., par. 175 mentions that the 'Orah Hayyim' was written in Soria, but since Narboni was not in Soria in 1350 when this treatise was begun, it would appear that the treatise was completed in Soria. That is why Narboni mentions in the 'Orah Hayyim' his visits to Toledo and Soria.
53. Renan, op. cit., p. (678) and Marx op. cit.
54. Quoted by Renan, op. cit., p.(679) from Narboni's commentary on the Môrêh.
55. Gross, op. cit., p. 427.

DESCRIPTION OF EDITION AND TRANSLATIONOF Kawwānôt hap-pîlôsôfîm

The treatise that is here edited and translated is the logical part of al-Ghazālî's Maqāsid al-falāsifah in the anonymous Hebrew translation known as the Kawwānôt hap-pîlôsôfîm, together with Narboni's Hebrew commentary on the same anonymous Hebrew translation. In his logic, divided into five sections, al-Ghazālî takes up in the following order: words, predicables, judgements, syllogism, form and matter, and qualities of the demonstrative syllogism.

The following Hebrew manuscripts were used:

Ms Aleph

Ms Adler 1015 (p. of Cat. 55) now in Jewish Theological Seminary written on European paper 50 ff 21 ll. 19 x 13.5 cm. in Spanish semi-square characters. Second half of the sixteenth century.

Interrupted at p. 50 which equals beginning of Perek Shelishi on the recto side, verso left blank. Four pages missing between pp. 27 and 28. Variants by same hand.

Ms. Bet

Ms Adler 398 ( p. of Cat. 55) now in Jewish Theological Seminary, written on European paper, 32 ff 26 ll. 18.7 x 14.9 cm. in Spanish rabbinic characters. Sixteenth century. Variants by same hand.

Contains only Book I. Censor is Camillo Jag(h?)el - 1619. Belonged to Dr. Michael Sachs.

Ms. Gimel

Ms Mich. 519 - The Michael collection. It is

No. 1285 Part III in the Neubauer Catalogue. There are two sets of the old Oppenheimer and the Neubauer. The old Oppenheimer numbers 1174 and 1175 are equivalent to Neubauer 1343 and 1345. That is the reference of the Latin words that are appended to the end of the Logic, e.g. Versis substrata comentario est eadem ac Opp. 1174, 1175 etc. et Mich. 332 (Log. et Metaph).

This manuscript is written in Spanish rabbinic characters. I have made use of a photostat.

Ms. Aleph was used as the basic text, the other two manuscripts as variants. The variants will be found on each page underneath the basic text. Where ms. Aleph is defective, ms. Bet is used as the basic text and ms. Gimmel without being designated as Gimmel, as the variant.

The symbols by which the Hebrew variants are cited are as follows:

( )	-	omission
: :	-	addition
:	-	indicates word or phrase in the text to which variants are cited.
2-1	-	means that in a given source the order of the words is reversed.

As a check I have used also the logical part of the Maqāṣid al-falāṣifah lil-Ghazālī published in the original Arabic at Cairo, A.H. 1331 - A.D. 1912, Sa'āda Press, (reprinted in 1936). "The Cairo edition is not, of course 'critical';

it has no apparatus; it was made apparently from two manuscripts only; but it gives a sound text. It is the only edition..... The book does not seem to have been common in the East. The Sayyid Murtaḍā in his commentary on Iḥyā' (i, p. 42) knew it, but apparently did not possess it." <sup>1)</sup> This may be due to the fact that al-Ghazālī "himself seldom (or never?) alludes to it by name." <sup>2)</sup> Macdonald, therefore, comes to the tentative conclusion "that the Maqāṣid was left by its author in an unfinished and quasi-unpublished state; it may represent lectures that never reached book form, much like some of the Aristotelian treatises." <sup>3)</sup>

A specimen consisting of the preface and first two chapters of al-Ghazālī's logic was published by George Beer at Leiden in 1888 for a doctoral dissertation at the University of Leipzig. His Arabic specimen was based on one Berlin and one Oxford manuscript. It was accompanied by a German translation. I have also made use of Beer's specimen.

The Arabic variants have been given in an English rendering which will be found loco citato in the notes to the translation. The reference is either to "Beer", or to "Cairo", or simply to "Arabic", which then refers to the Cairo edition.

NOTES: DESCRIPTION OF EDITION AND  
TRANSLATION of Kawaót nap-ólósóim

- 1) D. B. Macdonald, Isis, vol. 25, (1936) p. 8 ff.
- 2) ibid.
- 3) ibid.

**PART II**



ספר כונת הפילוסופים

לאבו חמד אלגאזלי עם פי' הנרבוני

Moses ben Joshua Narboni - "He entereth into peace, They rest in their beds, Each one that walketh in his uprightness - (1) - ben Mar David said:

After giving thanks to God and praising Him, and after invoking aid from Him, Blessed Be He, we wish to explain the book Maqāṣid al-Falāsifa by the distinguished, cherished and honored Abū Hāmid al-Ghazālī. We propose in this small treatise to adhere to the meaning of the learned al-Ghazālī, for this prince has revealed and made known the secrets of philosophy, to those who are worthy of them, in a wonderfully concise manner, to show God's Providence for His servants who yearn after philosophy but meet with opposition and oppression.<sup>(2)</sup> According to the testimony of Abū Bakr ben Ṣaf, He sent this honored one, who saw the spiritual world, to make known to us the rules of philosophy that we might acquire them in a short space of time and be saved from the obstructionist band of hypocrites who cause distress to us, to our wives and children. He would save us, too, from the ruling spirits and from the rest of the zealotry and opposition hinted at in the perceiving of the thunder and lightning at the Sinaitic Revelation. For everything which is attained through prophetic vision is only an allusion to something else,<sup>(a)</sup> as Rabbi Moses said, May Peace be on Him.<sup>(4)</sup> Therefore I shall explain only what seems

a) Reading with ms. Gimmel.

אמר משה בר יהושע הנרבוני

ישי עמהן בן סר דוד

אחר ההודאה לאל והתהילה אלינו ובקשת העזר מאותו ית נרצה לבאר  
 ספר כונת הפילוסופים אשר למעולה היקר הנכבד אבוהאמד אלגזאלי  
 ונכוין בזה הקיצור כדי שלא נטור סכונת החכם כי זה השר גלה ופרסם  
 סודות החכמה לראוי להם בקיצור סופיא סורה על ההשגחה האלהית בעבדי  
 האל הכוספים לחכמה ולהם מטרידים מעינים סחוץ. ושלח זה הנכבד אשר  
 ראה העולם הרוחני כאשר העיד עליו הובכר בן ~~אנו~~ להועילו כללי החכמה  
 נוכל להסיגם במעט זמן יצילנו סגוד הצבועים הסונעים הצרים אותנו  
 סף ונשים והרוחות המסונות ויתר הקנאות והסרדות הרסוז אליהם בראיית  
 הקולות והלפידים במעמד הנבחר כי כל דבר שיושב במראה הנבואה אמנם  
 הוא משל לענין אחד כמו שאמר זה רבינו משה ע"ה ולכן לא אפנה לפרש רק

- 8

(ב)

- (1) משה: משה בן יהושע הנרבוני בן סר דוד  
 4: (לאל) / (ב)  
 5: מעולה: למעולה / (ב) אבוהאמד אלגזאלי: אבוהאמד אל גזלי / (ב) אבוהאמד  
 אלגזלי / (ג)  
 6: השר: החכם / (ב)  
 7: סורה: הורה / (ב)  
 8: סחוץ: סבחוך / (ג) הנכבד: החכם / (ג)  
 9: צא: צאיג / (ב) להועילו: להועילו / (ב) נ"א להודיענו / (ג) החכמה:  
 החכמות / (ב) החכמה: באופן: 7 (ג)  
 10: יצילנו: נצילנו (?) / (ב) ולהצילנו / (ג) סגוד: סגודי / (ב) הסונעים:  
 וסונעים / (ג)  
 2: (שיושב) / (ג)  
 13: לענין: לדבר / (ג) אחד: אחר / (ב) (זה) / (ג)

hidden and obscure in his words, clearly and concisely, without explaining at great length the contrary views of Ibn Rushd or adding what has been explained in other books. For then we should be changing the character of the book, and that is not incumbent upon us. Our sole purpose is the elucidation of the words of the learned (Ghazālī). Only after having comprehended this divine vision, which al-Ghazālī described, will anyone who wishes to know all that (which I have omitted) be able to do so. And now, with the help of God, let us begin with what we have proposed, e.g., we shall bring first his statement, and then our comments, wherever needed.

ABŪ HĀMĪD said, <sup>(5)</sup> Glory be to God who has preserved us from error and made known to us the stumbling block of the ignorant. And may praise be uttered for him who is the most distinguished of the exalted ones. You have asked me, my brother, <sup>(6)</sup> for a thorough exposition, which would contain a refutation of the philosophers - the contradiction of their opinions, and (the disclosure of) their hidden errors and mistakes. But you cannot hope to refute them before you know their doctrines and study their dogmas, for to grasp the falsehood of certain doctrines before having a complete understanding of them is absurd. Such an effort leads only to blindness and error. Therefore, before entering upon a refutation of the philosophers, I deemed it necessary

a) Reading with ms. Gimmel.

הכסוס והחתום בדבריו וזה בלשון קצר מכואר סבלי האריך בביאור  
 דעות אבן רשד החולקים על דבריו ומבלי הוסיף בו מה שהתבאר  
 בספרים האחרים כי תשתנה צורת הספר בזה ואין זה פוסל עלינו הנה  
 מצד כונתינו המיוחדת אשר היא בביאור דברי החכם. ומי שירצה אחרי  
 כן לדעת את כל זה הכח בידו אחרי עסדו על המראה האלהית הזאת  
 אשר רשמה. ומעתה נתחיל במה שיעדנו בזה בשנביא מאמרו. אחרי  
 כן פירושונו עליו במה שיצטרך אל פירוש אמר אבוהאמד השבח לאל אשר  
 שרנו מן הטעות והודיענו המעדת לרגלי הסכלים  
 והתהלה על המיוחד מן בעל המעלה אולם אחי הנה אתה עץ בקשת  
 דבור מספיק בגלוי מטענות על הפילוסופים וסתירת דעותם ומארבי  
 שבושיהם וטעיותיהם ואין תקוה בעמידתך על תכונת הענין אלא אחר  
 ידיעתך סברותם ולמידתך דעותם כי העמידה על הפסד הסברות קודם  
 ההקפה במושג מהם שקר אבל הוא השתדלות בעוררן והטעות וראיתי שיותר  
 קודם על ביאור הטענות נגדם דבור

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- 1: מכואר ומכואר בביאור דעות אבן: בדעות בן / (ג)
- 2: שהתבאר: שאבאר / (ב)
- 3: האחרים: אחרים / (ב) (ג) בזה: הזה
- 4: אחרי כן: אחר כן / (ב)
- 5: זה: הנה: / (ג)
- 6: בשנביא: כשנביא / (ב)
- 7: כן: כך עליו: וזה במה / (ג):
- 8: מן הטעות: מהטעות / (ב)
- 9: בעל: בעלי / (ג) (מן) מבעלי / (ג) הנה / (ב) בקשת: מסבלי: / (ג) והתהלה
- 10: דבור: דיבור / (ג) דבר / (ג) (דעותם ומארבי) / (ב) על: ובתפלה אל / (ב)
- 11: והטעות: וטעות / (ב)
- 12: נגדם: כנגדם / (ג) דבור: דיבור / (ב)

to present an exposition and a full description of their ideas of the logical, physical and metaphysical sciences without, however, distinguishing between the true and the false. My sole intention is to set forth the purport of their words without prolix and so I omit glosses and additions. I shall set forth their ideas in expository and descriptive form adding what they consider to be proofs. The purpose of this book is to give an account of the Meanings Of The Philosophers; and that is its title. (7) Know, first, that their sciences are divided into four classes; the mathematical, the logical, the physical and the metaphysical. The mathematical sciences deal with arithmetic and geometry. There is nothing in the theorems of arithmetic and geometry which contradicts truth, nor are they subject to disagreement and denial. Since this is so, it is not our intention to deal with them, and we will not trouble to deal with them. (8) In metaphysics most of their dogmas (9) contradict truth, and the true occurs only sporadically. In the logical sciences most of their propositions are correct and error occurs only sporadically; here they deviate from truth only in so far as their conventions and assumptions are concerned, but not in so far as



the objects and purposes are concerned. For the purpose of the logical sciences is to correct the methods of logical proof. On this all logicians are agreed. In the physical sciences the true mingles with the false and right resembles error; no judgement is possible. What must be regarded as false will be explained in the al-Tahāfut. Know then that what we shall set forth will be a general and unqualified account without examination of what is true and what is false. Only after we have completed the exposition will we begin, earnestly and with zeal, <sup>(10)</sup> a separate book, to be called al-Tahāfut al falāsāfa, <sup>(11)</sup> if God will. Now we shall begin with the exposition of logic and its assumptions.

COMMENTARY: The holy Rabbi Moses, May he rest in peace, explained in his book, The Guide, that "there are three causes which prevent men from discovering the exact truth. They are: arrogance and vainglory; the depth of a subject and its difficulty; and want of capacity to comprehend what might be comprehended. <sup>(12)</sup> And at the present time there is a fourth cause, <sup>(13)</sup> custom, e.g., the love of habit and training." He thereby hinted at an explanation of the rabbinic statement, "Four entered the Pardes." <sup>(14)</sup> And indeed, the Rabbis meant <sup>(15)</sup> by that that philosophers may be divided into four classes.

Elisha ben Abūya



העניינים והכונות כי הכונה גם הישרת דרכי הראיה וזה ממה שישתתפו  
 בו כלל המעיינים ואולם הסכעיות הנה האמת כם מעורב בכסול והיושר  
 בה מתדמה כסעות ואי אפשר המשפט כם כנוצח ומנוצח. ויתכאר כספר  
 הטענות כסול מה שראוי שיוסבר כסולו. ויובן עתה מה שנביאהו על  
 דרך החקוי סתום משולה מכלי חקירה מהאמתי ממנו והנפסד עד כאשר  
 השלמנוהו הבאנו אחריו כספר נפרד ונקראהו ספר טענות נגד הפילוסופים  
 אם רצה האל ית ונביא ההתחלה כהכנת ההגיון והנחותיו. הפירוש כבר  
 כיאר רבי משה האלהי עה כספר המורה כי סבות המחלוקות בכלל  
 שלשה והם אהבה הרשות והנצוח. ועומק המושג וקשיו. וקצור המשיג.  
 וכזמננו סבה רביעית סכתה הדת והיא אהבת ההרגל והמנהג. ורמז  
 כזה באור אמרם ארבעה נכנסו לפרדס וכו' אמנם כונו כזה לכאר כי  
 המעיינים וחלקו אל אלה הארבעה חלקים וכי אלישע כן אכויח

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- 4 : שנביאהו : שיביאהו/ (כ)  
 5 : משולה ומשולה/ (כ)  
 6 : ונקראהו : ונקראהו/ (כ)  
 7 : רצה : ירצה/ (כ) כהכנת : כהצעת : כהכנת : / (ג)  
 8 : האלהי עה : עייה האלהי/ (כ) (האלהי)/ (ג)  
 10 : וכזמננו : זה : / (ג) ההרגל : הרגל/ (כ)  
 11 : (באור אומרם) : / (כ)  
 12 : כזה : לזה/ (ג) חלקים : ורע : / (כ) וכי : כי/ (כ)

loved authority and disputation; As a result he thought he had already arrived by logical proof at things which by their very nature could not be logically demonstrated. "Rabbi Akiba, may he rest in peace, entered in peace and came out in peace" and did not deny an assertion the opposite of which had never been proved. "And he cast a look and died", refers to the lack of capacity for perception. "And he looked (into the divine secrets) and became afflicted" refers to habit and training; for they hinder man from attaining that which is in his power to attain had he been weaned from habit and from desire. Consider, for example, the literal readings in the Torah which are anthropomorphic. Some learned men believe the literal meaning of the verse. Had they been guided by their intellects they would not have thus erred. There is nothing worse than this. It is as though one wanted to see the sun but a curtain before his eyes prevented him even though the sun was strong and his sight was good. That curtain may have been purposely hung for men with weak eyes and bad vision who might suffer injury were they to look at the sun. A healthy man in the same room, because he is deprived of the sight and sweetness of sunlight, suffers thereby.

מאזהכי השררה והנצוח והכיאז זה לחשוב שהוא כבר ידע כמופת מה שאין מסבעו שיביא עליו מופת. ור עקיבה עה נכנס בשלום ויצא בשלום ולא הכזיב מה שלא בא מופת על סותרו והציץ ומת רמז אל הקיצור. והציץ ונפגע רמז אל ההרגל והמנהג כי הם כבר ימנעו האדם מהשיג מה שכחו להשיג אם יופשט מההרגל והתארה כפשטי התורה דרך משל המורים על הגשמות. כי ימצאו קצת חכמים יאמינו בו להמשך אחר נגלה הכתוב ולו הונחו עם שכלם לא יטעו כזה. ואין פגיעה יותר גדולה מזו. כי אין זה אלא כמי שירצה לראות השמש ותמנענו יריעה הונחה מסך מכריל בין השמש ובין עיניו ונפגע במסך ההוא ולא יכול לראותו עם חוזק הראותו וכריות עיניו ואפשר שהמסך ההוא הונח בעבור חלושי הראות חולי העין שיגיעם אם יביטו בו מכלתי שיוכלו לראותו והגיע היזק לאיש הכריא הזה לשכנו כחדר אחד עם החולים ההם לבלתי טעמו מתק האור והסתכל בזה.

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- 1 : והכיאז והכיאז/הו/ (ג) (כבר)/ (כ) שאין: כו: (מסבעו... עליו) מופת: ושאין  
 2 : מסבעו: בסבעו/ (ג) (עה)/ (ג) מסבעו: / (כ)  
 4 : (כבר)/ (ג) (מהשיג... שכחו)/ (כ)  
 6 : חכמים: החכמים/ (ג) להמשך: להמשכם/ (ג)  
 8 : ותמנענו: ותמנעו/ (כ)  
 9 : הראותו: הראות/ (ג) וכריות: וכריות  
 11 : שיוכלו: שיוכל/ (ג) והגיע: והגיע/ (ג)  
 12 : עם: עם/ (ג)

When Abu Ḥamid lived the fourth cause was prevalent and widespread. He lived in a nation and in a generation in which the King banned the study of philosophy, <sup>(16)</sup> so that in his day the study of philosophy was prohibited. But his integrity compelled him to influence others and to give them the benefit of what he knew of the secrets of philosophy. He therefore conceived a stratagem by means of which he might reveal the secrets of philosophy, with no harm to himself. He pretended that his main intention was to refute the philosophers. But he said that, since it was impossible to grasp the error of a doctrine before understanding its real meaning, it would be necessary for one who wished to compose a book against the philosophers to first write one which would explain what they meant and then refute their views in another book. The book he would compose to reveal the principles of the philosophers would be entitled Maqāṣid al-falāsifah, - the book with which we are now dealing. The second book would be entitled Tahāfut al-falāsifah, and in it, he would refute, ~~these views which are mistaken~~ by logical proofs, those views which are mistaken. He would disprove, for example, the arguments of the philosophers concerning the eternity of the universe, etc. But the Lord only knows what Abū Ḥamid really had in mind

ולפי שאכוחאמר היה בזמן מציאות הסכה הרביעית והתפשטה כי היה כאומה  
 וכדור שהמלך צוה לעם לכלתי למוד הפילוסופיאה והיה אסור בזמנו למוד  
 החכמה וטבע שלימותו היה מכריחו להשפיע לזולתו ולהועיל כלמור מה  
 שכבר ידע מסודות החכמה הערים בגלוי סורה ולכלתי הגיעו נזק מזולתו  
 כשהראה עצמו כאלו כונתו הראשונה לחלוק על הפילוסופים ואמר כי בעבור  
 שמהנמע העמידה על שכוש הסכרא עודם הבנת אמתתה יחוייכ למי שירצה  
 לחבר ספר כנגד הפילוסופים שיקדים לחבר ספר יכלול בו כונתם אחר כן  
 יטעון עליהם כספר האחר וכי הוא בעבור זה יחבר ספר יודיע בו שרשי  
 הפילוסופים יקראתו כונת הפילוסופים. והוא זה הספר אשר אנחנו בו  
 עתה אחר כן יחבר ספר אחר יטעון בו על מה שכאלו הדעות מן הטעות  
 יקראתו הפלת הפילוסופים כראיותיו ככסול טענות הפלוסופים על קדמות  
 העולם והאל יודע מה הנכסף בלב

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- 1: שאכוחאמר: שאכוחמר/ (ב)
- 2: שחמלך: כי המלך/ (ג) (לעם)/ (כ) הפילוסופיאה: הפילוסופיאי/ (כ)  
 (והיה אסור בזמנו... לחלוק על הפילוסופים) ואמר בעבור כי מהנמע  
 העמידה על שיכוש סכרא עודם הבנת אמתתה יחוייב/ (כ)
- 7: הפילוסופים: הפילוסופיאי/ (כ) אחרי: ואחרי/ (כ)
- 8: האחר: אחר/ (ג)
- 9: הפילוסופים: הפילוסופיאי/ (כ) כונת: כונות/ (ג)
- 10: כן יחבר: כן יחבר/ (כ)
- 11: (כראיותיו... הפלוסופים)/ (כ)
- 12: בלב: ללב/ (כ)

and what his intention really was. But the learned philosopher Ibn Rushd called attention to this in the book he wrote against the Tahāfut al-falāsifah,<sup>(17)</sup> entitled Tahafut al-tahafut. In that book he said that it is difficult for the virtuous to do without honor and glory. Therefore this great man, finding that he could attain to honor only through a stratagem, pretended to submit to revealed religion and not to believe the demonstrations of the philosophers. But why bring testimony concerning this intention from someone else when Abū Ḥāmid himself "revealed the secret to his friends"<sup>(18)</sup> in a short treatise which he composed after he wrote his Tahafut al-falāsifah.<sup>(18b)</sup> In it he resolved all that which he had maintained against the philosophers. At the end of the treatise he enjoined and adjured anyone into whose hands it might fall to reveal it only to the worthy among philosophers. In sum, this provided the author with a pretext to explain the ideas of the philosophers. For whoever comprehends their ideas will be able, if he is favored by God, to resolve the objections which al-Ghāzālī later brought against them. It was like building a protecting wall. This is the sixth method.<sup>(18c)</sup> We have already said enough, but the Lord will forgive us. We did it out of necessity. We did not wish

הכוחאמד והנרצה אצלו וכבר גלה זה החכם אכן רשד בספרו אשר חבר כנגד הפלת הפילוסופים קראו הפלת ההפלה. אמר בו כי כאשר אי אפשר לסוכים מכלי הגדולה וכבוד והנה זה האיש המרומם נמנע אצלו הכבוד כי אם על אופן זאת התחכולה הראה עצמו נכנע לנגלה דתם כלתי מאמין לראיות הפילוסופים. ולמה נביא ראייה על זה מדברי זולתו: והנה אכוחאמד עצמו גלה סודו אל עבדיו בשחבר מאמר קצר אחר ספרו המכונה כהפלת הפילוסופים הודיע בו היתר כל מה שסען על הפילוסופים ואמר בסוף האגרת והשביע לכל מי שהגיע המאמר ההוא שלא יגלה אותו אלא לראוי מאנשי החכמה. וככלל הספיק עתה אל זה המחבר שיתנצל ויוכל להודיע כונת הפילוסופים כי מי שיכלול זה כבר יוכל אם הננו האל להתיר מה שיסעון עליהם אחרי כן ואין זה אלא ככנין החומר סביב והוא דרך ששי ודי במה שרמזנו בזה והאל יכפר כי ההכריח הביאנו אל זה כי לא

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- 1: אכוחאמד: מזה/ (ג)
- 2: (הפלת)/ (ב)
- 3: הגדולה: גדולה/ (ג) והנה: והיה/ (ב)
- 6: בשחבר: כשחבר/ (ב) אל: על/ (ב)
- 7: שטען: שיטען/ (ב)
- 8: שהגיע: שיגיע/ (ב)
- 9: אל זה: לזה/ (ב)
- 11: אחרי כן: אחר כן/ (ב)
- 12: ההכריח: ההכרח/ (ב)

to write a commentary on a book whose author, the reader might think deliberately leaves error in it. That is why we have revealed all this. Only the Lord knows (what al-Ghazālī had in mind).

#### TREATISE ON LOGIC.

ABŪ HĀMID SAID: Introduction to an exposition of logic, its parts and its value.

EXPOSITION: Although the sciences are divided into many branches they may be reduced to two; conception and judgement. (1) Conception consists of grasping the essence of things designated by uncombined words by way of making something understood and asserting a truth. As for example the grasping of the object designated by the word "body", 'tree', 'angel', 'spirit', and the like. But judgement is e.g. the knowledge that "That the world was created," that "The believers will be rewarded and the rebellious will be punished." Every judgement is of necessity preceded by two concepts. For without understanding either 'world' and its definition, or 'created' and its definition one cannot possibly assert that it was created. (a) But the word 'created', when its meaning cannot be properly conceived, (b) is like the word 'preated', (2) for example. For if it were asserted that "The world was preated," it would be impossible to affirm or deny it. For how can that which is not understood

a) Reading with mss. Bet and Gimmel.

b) Reading with mss. Bet and Gimmel.



נרצה לפרש ספר יחשוב המעיין שהמחבר אותו יניה כו סעות כפי דעתו  
בעצמו וזה הוא אשר הטענו כגלוי זה והאל יודע

### המאמר בהגיון אמר הכרחאמד

הקדמה כהצעת ההגיון וכיאור תועלתו וחלקיו... אולם ההצעה הנה היא  
שהחכמות ואם רבו חלקיהם הנה הם נכללים בשני חלקים הציור והאימות.  
אולם הציור הנה הוא השגת העצמיות אשר יורו עליהם במליצות הנפרדות  
על דרך ההכנה וההתאמות כהשגת הענין הנרצה כתיבת הגשם והאילן  
והמלאך והרוח ודומים להם ואולם האמות כידיעתך כשהעולם מחודש  
והמאמינים ישוב גמולים עליהם והמורדים ישוב ענשם עליהם. וכל אמות  
הנה מן ההכרח לו שיקדימוהו ציורים שנים כי מי שלא יבין העולם  
וגדרו והמחודש כאשר לא יצוייר עניינה היתה כתיבת מחודג על דרך משל  
ולו נאמר העולם מחודג אי אפשר לך לא אמות ולא הכזבה. לפי שמה שלא  
יובן איך

- -

- 1: המעיין: המעוין/ (ב)
- 2: וזה וזהו/ (ב) הטעמו: הניענו/ (ג)
- 3: יורע: היורע/ (ב)
- 7: הקדמה: ההקדמה/ (ב) תועלתו: תועלתיו/ (ה) תועלת חלקיו/ (ג) אולם:  
ואולם/ (ג)
- 8: ואם: אם/ (ב)
- 9: הנפרדות: נפרדות
- 10: כהשגת... כתיבת: כהשגת הענין הנמצא כתיבת/ (ב)
- 11: ודומים: והדומה/ (ב) והדומים/ (ג) כידיעתך: כידיעתך כשהעולם: כשהעולם
- 12: ישוב: ישיב/ (ב) ענשם: עונשם/ (ב) אמות: אימות/ (ב)
- 13: שיקדימוהו: שיקדמהו/ (ב)
- 14: וגדרו: והמחודש/ (ג) או מחודש/ (ב) וגדרו לא יצוייר ממנו האימות/ (ב) (ג)  
כשהוא: / (ב) כשהוא/ (ג) מחודש אבל תיבת: / (ב) (ג) והמחודש: המחודש/ (ב, ג)
- עניינה: עניינה/ (ב) (ג) (כתיבת): / (ב) (על): / (ב) (ג)
- 15: מחודג: מחודש/ (ב) שמה: / (ב)

be negated or confirmed? The same is true of the word "world" when it is replaced by a meaningless word. Every conception and judgement is further divided into that which is grasped immediately without investigation and reflection and into that which results only from investigation and reflection. That which is apprehended without investigation is e.g., 'things', 'beings' etc. That which results from investigation is, e.g. the realization of the true nature of 'spirit', 'angel', 'truth', 'elements' and the conception of those things whose essences are hidden. Judgements that are immediately affirmed are e.g. the assertions that "Two is more than one," or that "Things equal to the same thing are equal to each other." To this may be added judgements accepted on the basis of sense perception or authority and judgements which are embraced by people without preliminary investigation or reflection. All these judgements are reducible to thirteen classes and will be revealed later in their proper place, if God Wills. The judgement which is grasped through reflection is e.g., the affirmation that "The world was created," or that "Material bodies were created", or that "There is reward and punishment for good and evil deeds," etc. A conception that is made possible only through investigation is arrived at only by definition. (a) And judgement that is made possible only through

a) Reading with ms. Bet.

יכּוּצָב בו או איך יוצדק בו. וכן תיבת העולם כאשר הוּמָרָה בנעלם. עוד  
 כל אחד מן הציור והאמות ותחלק אל מה שיושב ראשונה מבלתי דרישה ועיון  
 ואל מה שלא יגיע אלא בדרישה ועיון. אולם אשר יצוייר מבלתי דרישה  
 הנה כדבר והנמצא ודומה להם. אולם אשר יגיע הנה כדיעת אמתות הרוח  
 והמלאך והאמת והיסוד וציור הענינים הנעלמים בעצמיותם. ואולם  
 האמות הידוע ראשונה הנה כמשפטיך שהשנים יותר שששש מן האחד  
 ושהדברים השוים לדבר אחד שוים ויצטרף אליו המוחשות והמקובלות יכלל מן  
 הידיעות אשר יקיפו הנפשות עליהם מבלתי הקדמת דרישה ועיון בָּאָם והם  
 יכללו בשלשה עשר סינים ויביא מקומואם רצה האל ית. ואולם האמות  
 אשר יושג בעיון כאמות בחדוש העולם ובריאת הגשמים והגטולים על האמונות.  
 והמרדים ודומיהם. וכל מה שאי אפשר ציורו מבלתי דרישה הנה לא יגיע  
 אלא בזכרון הגדי וכל מה שאי אפשר אמותו מבלתי

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- 1: יכּוּצָב: יסקר/ (ב) יוצדק: יצדק/ (ב)
- 3: אולם... מבלתי: ואולם היור אשר יצוייר בלתי/ (ב)
- 4: כדבר... אולם: בדבר הנמצא והדומה להם ואולם/ (ב)
- 5: דומה: והדומה/ (ג) אמתות: אמיתת/ (ב)
- 6: מן האחד: מהאחד/ (ב) כמשפטיך: כמשפט/ (ג)
- 7: שוים: שוה זה לזה/ (ב) כלם שוים/ (ג)
- 8: במ... בשלשה: במ והם יוכללו בשלשת/ (ב)
- 9: רצה: ירצה/ (ב)
- 10: כאמות: ובאיות/ (ב) שששששששש: ובריאת: ובריאות/ (ג)
- 12: (בזכרון)/ (ג) הגדי: הגדר/ (ב) בגדר/ (ג)

investigation is arrived at only by argumentation. Each one of them must be preceded by undoubted knowledge. For when we do not understand the concept 'man' and we ask "What is man?" and are told "He is a rational animal," then the concept 'animal' and the concept "rational" should both be known to us so that from both these concepts we arrive at the knowledge of the unknown concept 'man'. When we doubt that "The world was created" and proof is adduced that "The world has form," and that, "whatever has form was created," and therefore the "The world was created," then this proof will not give us any knowledge we did not have before concerning the creation of the world, unless this proof is preceded by the two judgements that "The world has form" and that "Whatever has form was created." Thus by these two affirmations we gain knowledge we did not have before. Consequently, it is hereby established that all knowledge which is acquired through investigation results only from a preceding knowledge. But there cannot be an infinite regress. For it is impossible not to arrive at first principles which occur in the intellect without investigation and reflection. This is the introduction to logic.

COMMENTARY:

This is the meaning of the statement, "Although the sciences are divided into many branches

דרישה הוא לא יגיע אלא בהקשר. ומתכרח כל אחד מהם שתקדם לו ידיעה  
 בלא ספק כי אנחנו כאשר לא ידענו ענין האדם. ואמרנו מה הוא האדם  
 ונאמר לנו הוא חי מדבר הנהראוי שיהיה החי ידוע אצלנו וכן הסדבר  
 עד יגיע לנו בשניהם הידיעה בדבר המוסכל וכאשר לא נאמין  
 ששעשש בשהעולם סחודש ונאמרה לנו הראיה עליו שהעולם מצוייר וכל  
 מצוייר סחודש ואם כן העולם סחודש. הנה זה לא יקנה לנו הידיעה  
 במה שסכלנו סחודש העולם אלא כאשר קדם לנו האמות בשהעולם מצוייר  
 ושהמצוייר סחודש ואצל זה נקנה בשתי אלה הידיעות  
 הידיעה במה הוא מוסכל אצלנו. הנה קיום בזה שכל ידיעה דרושה  
 אמנם הגיע בידיעה כבר קדמה אחר כן לא ישתלשל אל בלתי תכלית  
 אבל אי אפשר מבלתי שיגיע אל ראשיות הם סביעות ביסוד השכל בבלתי  
 דרישה ומחשבה. וזה הצעת המאמר בהגיון הפירוש אשרו אולם ההצעה הנה  
 היא שהחכמות ואם רבו חלקיהם

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- 1: הוא: הנה/ (ב) בהקשר: בטענה./ (ב) בגדר וכל מה שאי אפשר אמותו מבלתי דרישה הנה לא יגיע אלא בטענה ומתכרח/ (ג)
  - 2: בלא: בלי/ (ב) מה הוא: מהו/ (ב) האדם: אדם/ (ג)
  - 3: לנו: לו/ (ב) החי: חי/ (ב) אצלנו: אצלינו/ (ב)
  - 4: לנו: לו/ (ב) בדבר: נא באדם/ (א) באדם: (ב) (ג) נאמין: התאמת/ (ג) נתאמת/ (ב)
  - 5: לנו: לו/ (ב) שהעולם: בשהעולם/ (ג) -
  - 6: ואם: אם/ (ב)
  - 7: האמות: האמת/ (ב)
  - 9: הוא: שהוא/ (ג)
  - 10: אמנם... אחר כן: מסנה תגיע בידיעה כבר קדמה הוראה אחרת אח"כ/ (ב)
  - 11: ראשיות: ראשונות/ (ג) (הם)/ (ג) ביסוד: בסוד/ (ג)
  - 12: (אשרו... באור זה)/ (ב)

they may be reduced to two; conception and judgement." Know that conception is the knowledge of essence. And judgement, whether it be uncombined or combined, is the knowledge of existence. Conception is grasped either immediately or through reflection and the same is true of judgement. Conception, which requires investigation, is arrived at by definition and judgement by argumentation, as will be shown later. I have explained this here because I have seen the error of the pseudo-philosophers of our day who claim that conception is definition and judgement is argumentation. Thus they err in not distinguishing between the thing itself and the method by which it is grasped. For the enunciative sentence is called judgement only because it may possibly be a truth or a falsehood, which is not the case with conception, as long as it is not related to the object concerned. When it is, we have judgement. This is metaphorical. For, as a matter of fact, conception has no subject or predicate, the object conceived is its own definition. Keep this in mind. Now 'preated' is a term with no meaning. The statement "replaced by an unknown term," means replaced by a word without meaning.

ABŪ HĀMĪD SAID: THE VALUE OF LOGIC. Now that it has been established that the unknown

הנה הם נכללים בשני חלקים הציור והאמות ששש באור זה דע כי הציור הוא ידיעת הסהות. והאמות הוא ידיעת המציאות וזה אם נפרד ואם סורכב והציור מסנו שיושג בעיון ומסנו ידוע ידיעה ראשונה. וכמו כן האמות. והציור הצריך אל דרישה יגיע בדרך. שש והאמות בטענה כמו שיבא. אלא שבאיתי זה לראותי טעות הנראים מבעלי החכמה בזמננו זה שאמרו שהציור הוא הגדר. והאמות הוא הטענה. וטעו בין הדבר עצמו ובין אשר הוא דרך לו. ואמנם בקרא המאמר הפוסק אמות כי הוא יקבל האמת והסקר מה שאין כן הציור כל עוד שלא יצטרף אל המצוייר כי הוא אז אמות. וזה בהעברה. כי על דרך האמת אין שם נושא ונשוא כי המצוייר הוא הגדר בעצמו והבן זה. ומחודג הוא תיבה אין עניין לה. ואמרו כאשר הוסרה בנעלם ירצה בתיבה אין טובן לה..

אמר  
ואולם תועלתו

אבוחאמר הנה אחר שיקויים שהמוטכל

- -

- 3 : (הידיעה)/(ב)(ג)  
6 : שאמרו:שטוענים ואומרים/(ב) והאמות(הוא)/(ב)  
7 : ובין:הדבר/(ג) (דרך)/(ב)  
8 : (סה)/(ב)  
9 : (אז)/(ג)  
10 : הוא:היא/(ב)  
14 : שיקויים:שקויים

follows only from the known, it must be understood that not every unknown will result from every known, but for every unknown there is a particular known which is related to it. There is a method of bringing it into the intellect and this method makes the unknown known. That which yields affirming conceptual knowledge is called definition or description. And that which leads to affirming knowledge is called argumentation. To the latter belong the syllogism, induction example, etc. Every definition and every syllogism is divided into that which is true, and gives certainty, and that which is false, but resembles truth. Therefore, the knowledge of logic will furnish us with the criteria by which we may distinguish between the sound and the unsound definition and syllogism, so that by it we may distinguish between certain and uncertain knowledge. It is, as it were the weights and scales of all knowledge. But you cannot differentiate increase from decrease, gain from loss, in knowledge which is not weighed on these scales. You might demur and say that, while the value of logic is that it discriminates between knowledge and ignorance - or what value is knowledge? the answer is that all values



לא יביע אלא בידוע ולא יעלם שכל ידוע אי אפשר ההבעה בו אל כל  
 מוסכל אבל לכל מוסכל ידוע סיוחד יוחס אליו ודרך בהבעתו ומוסכיותו  
 בשכל יקנה אותו הדרך גלוי המוסכל וסה שיביא סכנו אל גלוי הידיעות  
 האמנותיות הציריות. יקראו בדר ורושם. וסה שישפיע הידיעות האמנותיות  
 יקרא טענה. ומסנו היקש ומסנוחקירה והמשל וזולתו ויחלק כל אחד מהגדר  
 וההיקש אל מה הוא נכון סקנה האמתואל מה הוא טעות. ואבל הוא דומה  
 בנכון וידיעת ההגיון היא אשר תקנה לנו הסדורים אשר במ נכיר אפתי  
 ששש מהגדר וההקש מהנפסד משניהם להכיר הידיעה האמתית מאשר איננה  
 אמתית וכאלו היא המאזנים והמסקולות לידיעת כלם וכל אשר לא יאזון  
 במאזנים לא יוכר נושש היתרון מהחסרון ולא הריוח מהאבידה. ואם נאמר  
 אם היתה תועלת ההגיון הכרת הידיעה מן הסכלות. הנה מה תועלת הידיעה  
 נאמר התועלות כלם

- 2 : מוסכל:רק:/(ב)  
 3 : יקנה:ישפיע/(ב)(ג) (גלוי המוסכל)/(ב)  
 4 : (האמנותיות)/(ב)(ג) יקראו:יקרא/(ג) זה יקרא/(ב) האמנותיות:  
 5 : והמשל:ומסנו המשל/(ג) האמיתיות/(ב)  
 6 : מה הוא:שהוא/(ב) מה הוא:שהוא/(ב)  
 7 : היא:הוא/(ב) אפתי:האמיתית/(ב)  
 8 : איננה:איננה/(ב) לידיעות:לידיעת/(ב) יאזון:יאזון/(ב)  
 9 : והמסקולות:והמסקולת/(ב)(ג)  
 12 : נאמר:כאשר/(ג)

are contemptible compared with eternal bliss, which is the ultimate bliss and depends on perfection of the soul. This perfection is of a two-fold character: ornamentation and purification. Purification consists of cleansing (the soul) of mean virtues and ridding it of vices. Ornamentation consists of engraving on the soul the ornament of truth, so that there will be revealed to it the divine truths, nay the whole of existence in its proper order, with a complete and true knowledge corresponding to reality, free from ignorance and error. It is like the mirror, the perfection of which lies in the fact that beautiful forms may be seen in it as they really are, without perversion or change. This is effected by keeping it clean of dirt and rust and further by having beautiful forms placed in front of it. The soul is a mirror in which the forms of the whole of Existence are impressed when it is freed of the mean virtues and cleansed and polished. But to distinguish the praiseworthy from the blameworthy virtues is possible only through knowledge. Thus the engraving of the whole of Existence on the soul is made possible only through knowledge; there is no way of reaching it except through logic. Therefore, logic serves to acquire knowledge, and knowledge

מאוסות בצרוף אל ההצלחה הנצחית והיא ההצלחה האחרונה והיא נתלית  
 בשלימות הנפש. ושלימותה בשני ענינים המרוק והזכוך. אולם הזכוך  
 הנה הוא הסהרה מפחיתויות המדות והתקדשה מהתארים המגוונים. ואולם  
 המירות הנה כשיפותה כה אל מירוק האמת עד יגלו לה האמתות האלהית  
 עם המציאות כלו על סדורו גלוי כולל אמתי מסכים לאמת אין  
 סכלות כו ואין סעות ומשלו המראה אשר שלימותה כשיראו כה הצורות  
 הנאות על מה הם עליומכלתי עיוות ושנוי וזהו בהטהרה מהסיג  
 והחלאה עוד כשתעמד נכחה תמונת הצורות הנאות הנה הנפש מראה יוסכעו  
 כה צורות המציאות כלו כאשר זוככה ולוסשה כהחלצה מפחיתויות המדות  
 ואי אפשר ההכרח בין המדות המגוונות והמשוכחות אלא כיריעה ואין ענין  
 להגעת פתוח הנמצאות כלם כנפש אלא כיריעה ואין דרך אל הגעתה אלא  
 כהגיון. ואם כן תועלת ההגיון

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- 3: מפחיתויות: מפחיתות/ (כ)  
 4: כה: כו (אל) (כ) (ג) לה: כו/ (כ) האמתות: האמתיות/ (ג)  
 5: עס: עד/ (כ)  
 6: כשיראו: כשיראו/ (כ)  
 7: הנאות: הנאותות/ (כ) הם: שהם/ (כ) וזהו: וזה/ (כ) (ג)  
 8: כשתעמד: כשתעמד/ (ג) תמונת: תמונות/ (כ) יוסכעו: יוסכעו/ (כ)  
 9: מפחיתויות: מפחיתות/ (כ)  
 10: (ואין ענין... כלם כנפש אלא כיריעה)/ (כ) אל הגעתה: כהגעתה/ (כ) (ג)  
 11: (כלם)/ (ג) (כנפש)/ (ג) (אל)/ (ג)

gains for us eternal bliss. Since it is true that eternal bliss may be traced back to the soul made perfect by purification and ornamentation, logic, then, without doubt is of extra-ordinary value.

COMMENTARY: The rational soul <sup>(3)</sup> is at first simply a potentiality prepared to receive abstract intelligence. This potentiality <sup>(a)</sup> is dependent upon memory images which appear in <sup>(4)</sup> the imaginative soul. But this dependence is one of existence not of identity. <sup>(5)</sup> The Active Intellect unites with the potentiality by acting on it, e.g., by acting on the memory images, stripping them of the accidents of plurality and individuality, reducing them to universal form - for only then is a concept intelligible - and illuminating the potentiality in us so that it might receive these concepts. The relation <sup>(6)</sup> is similar to that of the sun, <sup>(7)</sup> color and our sight, which transforms potential into actual vision; potential into actual sight. This is the view of Ibn Rushd <sup>(8)</sup> concerning the true meaning of the possible <sup>(9)</sup> intellect, and also the view of Alexander <sup>(10)</sup> (i.e., of Aphrodisias), except that Alexander does not hold that the Active Intellect serves as the form to this potentiality, but that it exists independently outside of it.

a) Reading with mss. Bet and Gimmel.

הקנאת הידיעה ותועלת הידיעה ירושת ההצלחה הנצחית ואם התאמת תשובת  
ההצלחה אל שלמות הנפש במירוק והזכויה ההגיון בלא ספק גדול התועלת  
הפירוש הנה הנפש המדברת בתחלת ענינה אינה רק כח מוכן לקבל  
המושכלות העיוניות וזאת ההבנה נקשרת בנפש המדמה ובצורות הדמיוניות  
הקשר מציאות. לא הקשר ערוב. והשכל הפועל דבק בנאמת ההכנה מצד פעלו  
בה. והוא יפעל בצורות הדמיוניות עשש בשיפשיט הרבוי הקורה להן והאישיות  
ויפשיטם צורות כוללות כי אין המושכל זולת זה ויזרח בהכנה אשר בנו  
כשתקבל אלו המושכלות והענין בזה כענין בשמש עם הגוונים והראות אשר  
בנו כי הוא ישיב המראים אשר בכח מראים בפעל וישיב העין הראוה בכוח  
רואה בפעל. זהו דעת אבן רשד באמתת השכל ההירלני והוא דעת אלכסנדר  
מלבד שאלכסנדר לא יראה שהשכל הפועל צורה בזאת ההכנה אבל הוא סחוק  
בלתי נקשר בה.

- 1: הקנאת: הקדמת/ (ב)  
2: בלא: בלי/ (ג)  
4: ההבנה: ההכנה/ (ב) (ג)  
5: פעלו: פעולתה/ (ב)  
6: בשיפשיט: בשיפשוט/ (ב) להן: להם/ (ב)  
8: בשמש עם הגוונים: השמש בגוונים/ (ב)  
9: בנו: שתק כל אלו המושכלות והענין בזה: / (ב) ישיב: ישוב/ (ג) וישיב:  
11: (הוא)/ (ג) וישוב/ (ב)

Yet they all agree, including Abū Ḥamid, that even though the rational soul was created with the body it is not material, and therefore will not perish with the death of the body. But that is true only after the soul has perfected itself by acquiring universal ideas. At first it is like a slate ready for writing, as Aristotle says, <sup>(11)</sup> while Abū Ḥamid considers it an intellectual substance, though only potential. That is what he means when he says that "ornamentation consists of engraving on the soul the ornament of truth so that there will be revealed to it divine truths, nay the whole of existence is its proper order, with a complete and true knowledge corresponding to reality, free from ignorance and error." This means that the perfection of the soul, purified from the mean virtues, is accomplished through engraving and developing in it truths and universal forms, just as the individual forms are reflected in the mirror. For the soul itself is devoid of all forms, as the mirror is devoid of images. Therefore, the soul is able to receive all forms. "So that there will be revealed to it divine truths" means that these are the divine secrets; "the whole of existence" means material and spiritual. "According to its order," i.e., how it was ordered and how it emanated from the First Cause.

ואמנם כלם מסכימים גם אבוחאמד כי הנפש המדברת ואם נתחדשה עם הגשמים הנה אינה בגשמים ולכן לא תאכר כאכרת הגופים וזה כשתשלים עצמה בקבלת המושכלות כי אינה בתחלת ענינה אלא כלוח המוכן לכתיבה כמו שיאמר ארסטו' ואם כבר סכר אבוחאמד שהוא עצם שכלי אבל מוכן וזה אמרו הנה ואמנם המירוק הנה בשיפותח בה מירוק האמת עד יגלו לה האמתות האלהיות עם המציאות כלו על סדורו גלוי כולל אמתי מסכים לאמת סכלות בו ואין סעות. ירצה כי שלמות הנפש בהסהרה מהמדות הפחיתות הוא בשיחוקו ויפותחו בה האמתות והצורות הכוללות כענין בצורות האיטיות עם המראה כי היא נעדרת הצורות בעצמותה כענין המראה הנעדרת התמונות מצד עצמותה ולכן תקבל הצורות כלם עד יגלו לה. האמתות האלהיות והם סודות השם עם המציאות כלו גשמי ורוחני על סדורו ול איכות סדורו והשתלשלו מן העלה הראשונה.

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- 1: ואמנם:ואולם/(ב)
- 2: הגופים:הגשמים/(ב) כשתשלים:כשתשלים/(ג) כשתשלם/(ב)
- 4: שיאמר:שאמר/(ג) שהוא:שהיא/(ב) וזה:וזוהו/(ב)(ג)
- 5: ואמנם:ואולם/(ב)(ג) כשיפותח:כשפותח/(ב) האמתות:האמתיות/(ג)
- 6: לאמת:אין:/(ב)
- 7: (בו)/(ג) (כי)/(ג) כשיחוקו:כשיוחקו/(ב) כשיוחקו/(ג)
- 8: האמתות:האמיתיות/(ב)(ג) בצורות:הצורות/(ב)
- 10: האמתות:האמיתיות/(ב) השם:ית:/(ג)
- 11: רל:על:/(ב)

All existent things are dependent one on the other, as a flame is dependent on a coal. By "complete knowledge" he means the knowledge of universals, for the particular is not an object of the intellect. By "true" he means true in itself, (i.e., real). By "agrees with reality" he means corresponds to existence. For true ideas are those whose forms, conceived by the soul, correspond to the real objects that exist outside of the soul. He said, further, "free of ignorance and error". Now, synonyms are not employed in the demonstrative sciences. Therefore, ignorance and error have two distinct meanings, as was explained (12) by Aristotle's definition in the Topics, when he said that there are two kinds of ignorance - ignorance due to mistaken knowledge and ignorance due to the lack of knowledge. Mistaken knowledge is the conceiving of a thing as being different from what it really is. Lack of knowledge refers to the fact that no judgement is made at all. So by ignorance he means lack of knowledge, and by error he means mistaken knowledge. By the statement, "the soul is a mirror" he means that God will make his soul conceive the most perfect forms found in existence - and this (13) is called mar'eh (mirror) - as it is said "thou art the God of my seeing". (14) (ra'i).

THE PARTS OF LOGIC AND ITS STRUCTURE



וכולם קשורות זו כזו כשלהכת קשורה בנחלת גלוי כולל כי המושכל כולל לעולם. והענין האישי איננו שכלי אמתי בעצמו. מסכים לאמת דל מסכים עם המציאות כי הדעות האמתיות הם אשר המצוייר מהם כנפש מסכים למציאות הדבר בעצמו חוץ לנפש. עוד אמר אין סכלות בו ואין טעות. דע כי ההכפל כלשון לא יעשה בלימוד המופתי לזה ראוי שיוכן הנה כי הסכלות והטעות שני ענינים; וכאור זה כמו שכארו ארסטו כספר הנצוח אמר בו כי הסכלות שני ענינים אם סכלות קנייני ואם סכלות העדרי הקנייני הוא הכנת הדבר בחלוף מה שהוא ואמנם ההעדרי הוא שלא ישפוט בו דבר כלל וההעדרי הוא אשר רצה הנה בסכלות והקנייני הוא אשר כנהו בטעות. עוד אמר הנה הנפש מראה. וככה האל ישכיל צורות הנמצאות במציאות היותר משובח ולזה כבר יקרא מראה כמו שאמר אתה אלראי אמר ואולם חלקי ההגיון וסדורו הנה

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- 1: וכולם: וכולן כולל: כללי/ (ב)
- 2: אינני: אינו
- 3: (מהם)/ (ב) (ג)
- 5: לזה: ולזה/ (ב) (הנה)/ (ב)
- 6: שכארו: שביאר/ (ב) הנצוח: גם כספר המופת: / (ב)
- 8: ואמנם: אמנם/ (ב)
- 9: רצה: ירצה/ (ב) (הנה)/ (ב)
- 10: הנה: כזה: צורות: הצורות
- 12: אמר: אכו חמד: / (ג)

will become clear <sup>(a)</sup> a statement of its purpose; viz. definition, the syllogism and the differentiating between the true and the false <sup>(b)</sup> in both of these. The more important of the two is the syllogism, which is composed of two premises, for a syllogism is constructed out of two premises, as will be seen in what follows. Every premise contains a subject and a predicate, <sup>(c)</sup> and every subject and every predicate <sup>(d)</sup> is a term which clearly designates a concept. He who wishes to grasp that which is combined, <sup>(15)</sup> whether it is a real object or only an object of thought, must put the uncombined parts first. Just as the builder of a house must prepare wood, bricks, and clay, and bring the uncombined and the particular first - and then concern himself with building - so is <sup>(16)</sup> the process of knowing in relation to the known. For it is an image corresponding to the known. Therefore, he who strives after knowledge of the combined must first strive after knowledge of the uncombined. It follows from this that we must deal first with terms and the manner in which they designate concepts; then with the concepts themselves and their divisions; then with the proposition composed of a subject and a predicate, <sup>(e)</sup> and its divisions; then with a syllogism, which is composed of two premises. We will discuss the syllogism in two chapters. In one we will deal with its matter, and in the other with its form, as will follow.

- a) Reading with ms. Bet.
- b) Reading with ms. Bet.
- c) Reading with ms. Bet.
- d) Reading with ms. Bet.
- e) Reading with mss. Bet and Gimmel.

התבאר בזכר סכונו וסכוון הגדר והקש. והכרת האמתי מהם מה נפסד  
 ויותר נחשב משניהם ההקש והוא מורכב משתי הקדמות כי לא יסודר הקש  
 אלא משתי הקדמות כמן שיבא. וכל הקדמה הנה בה נשוא ונושא וכל נשוא  
 ונושא הנה הוא תיבה ותורה בלא ספק על ענין. ומי שירצה הגעת הסורכב  
 אם בסזיאות ואם בידיעה הנה אין דרך לו אלא בהקדמת החלקים הנפרדים  
 שש ראשונה. וכמו שבונה הבית יצטרך אל הכנת העצים והלבנים והסיס  
 ראשונה אחר כן יתעסק בבנין שנית. כן הידיעה והידוע כי הוא דסיון  
 כסכים לידוע. הנה דורש הידיעה בסורכב ראוי שישיג הידיעה  
 ראשונה בנפרדים וחוייב כזה שנדבר בתיבות ואופן הוראתם. על הענינים  
 אחר כן בענינים עצמם וחלקיהם. אחר כן במשפט הסורכב מנשוא ונושא חלקיו  
 אחר כן בהקש הסורכב משני משפטים. ונדבר בהקש הסורכב בשני אופנים.  
 אחד מהם בחסרו והאחר בצורתו כמו שיבא. ועל

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- 1 : התבאר : יתבאר / (ב)      מה נפסד : מה נפסד / (ב) (ג)
- 2 : משתי : משני / (ב)
- 3 : משתי : משני / (ב)      נשוא ונושא : נשוא ונושא / (ב)
- 4 : (הנה) / (ב)      הוא : היא / (ג)      בלא בלי / (ב) (ג)      שירצה : על / (ב)
- 5 : ואם : אם / (ב) (ג)
- 7 : אחר כן : ואח"כ
- 9 : וחוייב : ויחוייב / (ב)      וקויים / (ג)      בתיבות : על התיבות / (ג)
- 10 : אחר כן : ואחכ / (ב)      מנשוא ונושא : מנשוא ונושא / (ב) (ג)
- 11 : אחר כן : ואחכ / (ב)      בשני : משני / (ג)      אופנים : פנים / (ב)
- 12 : בחסרו : בחוסרו / (ב)      והאחר : והב. / (ב)      ואחד מהם / (ג)

הוראתם : ששש  
 הוראת / (ב)

This is the subject matter included in our presentation of logic. It contains five chapters.

COMMENTARY. Statement: "The parts of logic and its structure will become clear by giving a statement of its purpose: viz. definition and syllogism..." He means by "its purpose" the purpose of logic, which is "definition and syllogism,"  
 (a)  
 From this eight books resulted. (17) The further statement "Just as the builder of the house must prepare wood, bricks and clay, and must bring the uncombined and particular first - and then concern himself with building - so is the process of knowing in relation to the known", means that just as the skilled artisan must first prepare the parts of the object to be made and then is occupied with combining these parts and completing his work, so, too, is the process of knowing in relation to the known. The philosopher must know the parts of the object to be known before he can know it in its entirety. He  
 (18)  
 ( gave us a further reason by saying that "it is an image corresponding to the known". This means that knowing denotes the true essence of the known, i.e., its real being, stripped of accident. Therefore, knowledge of the uncombined must precede knowledge of the combined, since the existence of the parts precedes the existence of the combined, i.e., the known after we know it.

a) Reading with ms. Bet.

זה יכלול מה שנרצה להביאו מן ההגיון והם אופנים חמשה הפירוש אשרו  
 אולם חלקי ההגיון וסדורו הנה התבאר בזכר סכונו ומכוון  
 הגדר והקש. ירצה ומכוון ההגיון הוא הגדר והקש וחויבו מזה  
 השמונה ספרים. עוד אמר וכמו שנונה הבית יצטרך אל הכנת העצים והלבנים  
 והטיט ראשונה אחר כן יתעסק בבנין שנית כן הידיעה והידוע כי הוא  
 דמיון מסכים לידוע. ירצה שכמו שהאומן הפלאכותי יצטרך אל הכנת  
 חלקי הפעול אחר כן יתעסק בחבור חלקיו והשלמת מלאכתו כן הידיעה והידוע  
 ר'ל שכמו כן יצטרך החכם אל ידיעת חלקי הדבר הידוע לפני ידיעת הידוע  
 ששש הכל. עוד נתן הסיבה ואמר כי הוא דמיון מסכים לידוע. ירצה בן ענין  
 הידיעה הוא אמת מהות הידוע והוא עצמותו מופשט מסקרי לו. ולכן  
 יצא ייב שתקדם הידיעה בנפרדים על המורכב אחר שיקדם מציאות החלקים  
 למציאות המורכב

- 1 : להביאו: לבארו/ (ב) להניחו/ (ג) מן ההגיון: מההגיון/ (ב) סבגיון/ (ג)
- 2 : התבאר: יתבאר/ (ב)
- 3 : וחויבו: חויבו/ (ב)
- 4 : אמר וכמו: אמרו כמו/ (ב)
- 7 : הפעול: הפעולה/ (ב) הפועל/ (ג)
- 8 : ידיעת (הידוע)/ (ב) הדבר (הידוע)/ (ב)
- 9 : הסבה: סבה/ (ג) (הוא)/ (ב) דמיון: הדמיון/ (ב) ענין: הענין/ (ב)
- 10 : מסקרי: מסקרה/ (ג)
- 11 : המורכב: המורכבים/ (ב)

CHAPTER ICONCERNING THE MEANING OF TERMS

This theme will be explained in five sections.

Section 1. The term designates the idea in three different ways. One of them is by congruence, as when the term house designates the idea of house completely. The second is by inclusion, <sup>(1)</sup> as when the term "house" designates "wall". For the term "wall" expresses only what it means by congruence, and designates it accordingly. But the term house also designates it, except that it differs in the manner of designation. The third is by means of connotations, <sup>(2)</sup> as when the term "ceiling" designates wall. This method differs from the method of congruence and inclusion. <sup>(3)</sup> The latter two are employed, <sup>(4)</sup> though not connotations. Connotations imply other connotations and therefore may be applied to an indefinite number of connotations without arriving at any definite meaning.

COMMENTARY. Statement; "The third is by means of connotations as when the term 'ceiling' designates 'wall'; This means that the term 'ceiling'

בעצמו אשר הוא הידוע אחר שנדעתו אמר האופן הראשון בהוראת  
התיבות

ויטבאר הסכרון סהם בחלוקות ~~ההסכה~~ ~~חמש~~

החלוק הראשון שהוראת התיבה על הענין מסלשה אפנים נבדלים אחד  
סהם בדרך ההסכמה כהוראת תיבת הבית על ענינו. והאחר בדרך הכללות  
כהוראת תיבת הבית על הכותל בפרט כי תיבת הכותל מונחת על הנקרא  
בה על הדבקות ותורה עליו כן ע ותיבת הבית גם כן תורה עליו ואבל  
נבדלת סמנה באופן ההוראה. והשלישי בדרך החיוב וההפסכות כהוראת  
תיבת התקרה. על הכותל כי הוא יבדל מדרך הדבקות והכללות והם הנעשים.  
ואולם החיוב הנה לא לפי שהמחויבים להם גם כן מחויבים ויביאו אל

ענינים בלתי מוגבלים לא תגיע ההבנה אסרו

הפירוש

החיוב

והשלישי בדרך

וההפסכות כהוראת תיבת התקרה על הכותל ירצה שתיבת התקרה

- 1: בעצמו: עצמו/ (ב)
- 4: סהם: בהם/ (ב)
- 5: החלוק: החלק/ (ב) הענין: אחד: / (ג)
- 6: ההסכמה: הדבקות/ (ב) (ג)
- 7: בפרט: על היחוד/ (ב) (ג)
- 8: בה (על)/ (ב) (גם כן)/ (ב) עליו: כן: / (ב) ואבל: אבל/ (ב)
- 10: יבדל: יבדיל/ (ב)
- 11: ויביאו: ויביאהו/ (ג) (ויביאו)/ (ב)
- 12: ההבנה: בהם: / (ב). במ: / (ג)
- 14: והשלישי בדרך: השלשה בדרך/ (ב)
- 15: (התקרה על הכותל...לסה שסציאות)/ (ב)

designates a wall, since the existence of the ceiling presupposes a wall upon which the ceiling may rest. Therefore, a wall is also called a ceiling. He said that this should not be employed because the connotation may have a further connotation. The foundation may be called both 'ceiling' and 'the interior of the house'. Thus no definite meaning would be arrived at.

Section 2. The term is divided into the incomplex and the complex. The incomplex is a term no part of which designates any part of the concept, e.g., "man" (Enosh). For neither part of the term, whether "en" or "nosh," designates any part of the ~~term~~ concept "man", in contradistinction to the statement "Reuben's son" and "Reuben walks," where the "son" which is part of the sentence, designates a concept and "Reuben" designates a concept. When you say "Abd-Ullah," if the word is a kunyā, it is incomplex because you mean by it only what you mean when you say "Zaid," but if you mean a na'at<sup>(5)</sup> then it is a complex term. For all who bear the name 'Abd-Ullah are really servants of God. Therefore, this expression is in essence homonymous, sometimes it serves as a designation - and then it is incomplex, and sometimes it serves as an attribute, and then it is complex.

COMMENTARY: "And if this is a kunyā" means that it is



תורה על הכותל למה שמציאות התקרה יחויב שיקדם לו הכותל. ישען עליו התקרה ולכן יקרא הכותל תקרה ואמ' כי זה אין ראוי שיעשה כי המחוייב גם כן לו מחוייב ויקרא היסוד גם כן תקרה גם המרכז ויגיע אל ענין לא יוכן. אמר חלוק שני התיבה תחלק אל נפרדת ומורכבת אולם הנפרדת הנה היא אשר לא ירצה בחלק ממנה הוראה כלל על חלק מן הענין כאנוש כי לא ירצה ענין מחלקי ענין האדם בחלוף אמר נער ראוכן. וראוכן ילך כי ירצה בנער אשר הוא חלק מהדבור ענין וכראוכן ענין וכאשר אמרת עמד האל והיה שם בנוי היה נפרד לפי שאתה לא תכויין בו אלא מה שתכויין כאמרת זיד ואם רצית התאר הנה הוא מורכב. ואם היה כל נקרא עכד האל עכד האל כלי ספק היה זה השם כאמתתו כמשותף פעם. תכויין בו ההודעה ויהיה שם נפרד ופעם תרצה בו התאר ויהיה מורכב אמרו והיה שם

## הפירוש

כנוי ירצה שתכויין בו

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- 1: תורה: מורה/ (ב)
- 2: זה אין: אין זה/ (ב)
- 3: (לו)/ (ב) (כן תקרה גם המרכז)/ (ב)
- 6: (ירצה)/ (ב) כאיכ ולא בנוי'ש/ (ב) (ג)
- 8: היה: היה/ (ב)
- 9: תכויין: תכין/ (ב) שתכויין כאמר זייד/ (ב) שתכויין בו כאמר זיד/ (ג)
- 10: נקרא: הנקרא/ (ב) נקרא עכד האל: הוא/ (ב) האל: אל/ (ב) (ג)
- 11: (ויהיה מורכב)/ (ב)
- 12: והיה: ויהיה/ (ב) שם: השם/ (ג)
- 14: (שתכויין)/ (ב)

a designation, as when you say Abraham Moses. The statement "if you mean a na'at" signifies that you mean by it that he is the property of God and that God is his master. Therefore it is a complex expression, for its two parts are parts of the meaning. Further, he resolved a difficulty when he said, "For all who bear the name 'Abd-Ullah are obviously servants of God." He means by "all", that all men and all (other) beings are messengers of God, servants who do his will. Therefore, though "'Abd-Ullah," which is the name of this man, is a kunyah, it also designates a quality - that God is his master, so that it is a na'at. Therefore, this expression is homonymous. A like instance would be "Ebed Melek," which was the kunyah of Baruch b. Nariah and at the same time a description of the fact that the king was his master and he the servant, as it is said, "Ebed Melek went forth out of the king's house;" (6)

THIRD SECTION: The term is divided into the particular and the universal. The essential (nefesh) meaning of the particular excludes ambiguity, e.g., "This Zaid," and "this horse," and "this tree." The essential meaning of the universal does not exclude ambiguity, e.g., "the horse," "the tree," "the man." If there were only one horse in the world

a) Reading with mss. Bet and Gimmel.

התודעה כאסרך אברהם ססה ואסרו ואם רצית התאר ירצה שתוצה בו שהוא  
 קנין האל ושהאל אדוניו הצה הוא סורכב כי שני חלקיו יורו על חלקי  
 המכוון עוד התיר ספק ואסר אם היה כל הנקרא עבד אל בלי ספק ירצה  
 כל כי כל האנשים גם כל הנמצאות שלוחי האל משרתיו עושי רצונו והנה  
 זה האיש אשר שמו עבד אללה והוא שם כנוי קרה לו שהאל אדוניו והנה הוא  
 שם התואר היה זה השם כמסותף פעם וכר"ש וזה כענין עבד מלך שהיה שם  
 כנוי לברוך בן נריהו והוא שם התאר במה שסלך היה אדון עליו והוא עבד  
 לו כאסרו ויצא עש עבד מלך מבית המלך. אמר חלוק שלישי התיבה תחלק  
 אל חלקית וכוללת והחלקית מה שיסנע נפש סובנו מהשתוף בו כאסרך זה  
 ניד וזה סוס וזה האילן. והכוללת מה שלא יסנע נפשו סובנו נפילת השיתוף  
 בו כאסרך הסוס והאילן והארם. ואם לא היה בעולם אלא

- 3: אם:ואם/ (ג) (ב) הנקרא:הנקרא/ (ב) הנקרא/ (ג) עבד האל עבד על/ (ב) (ג)  
 4: כל:בו/ (ג) (ג) כל כח9/ (ב) (ב) גס(כל)/ (ב) עושי:עושה/ (ב)  
 5: אללה:אלוה/ (ב) (ב) אל/ (ג) קרה:וקרה/ (ג) (ג) (והנה)/ (ב)  
 6: כמסותף:המסותף/ (ב) (ב) (פעם וכוי)/ (ג) (ג) (מלך)/ (ב) כענין:כי ענין/ (ג)  
 7: נריהו:נריה/ (ג) (ג) התאר:תאר/ (ג) (ג) שסלך:שהמלך/ (ב) (ג)  
 9: חלקית:ואל: מהשתוף:נפילת השיתוף/ (ג)  
 10: סוס:הסוס/ (ג) (ב) (ג) נפשו:נפש/ (ב) (ג)  
 11: כאסרך:באסרך/ (ב) (ב) אלא:כי אם/ (ב)

"the horse" would still be a universal since its ambiguity is potential though not actual. It becomes particular when you say, "this horse". Therefore, were you to say "the sun" it would be a universal. If you were to assume the existence of other suns, they would be included under this term which would not be the case with "this sun".<sup>(7)</sup>

COMMENTARY: "The refesh of the meaning" refers to its essential meaning. And because the form of a thing is that by which the existent thing is actualized and becomes what it is; and because the soul is the form of the animate and its essence, it was the custom for philosophers to call the essence of the thing the soul of the thing, figuratively speaking.

FOURTH SECTION: The term is divided into verb, noun and syncategorematic term. The logicians called the verb a syncategorematic term, and the particle a syncategorematic term.<sup>(9)</sup> Both noun and verb differ from the syncategorematic term in that they are complete and understandable in themselves,<sup>(10)</sup> which is not the case with the syncategorematic term; for if you are asked, "Who enters" and you answer, "Zaid," the answer is clear and complete. Or when you are asked, "What did Zaid do," and you answer, "He struck",<sup>(11)</sup> the answer is complete. But if you were asked, "Where is Zaid",

סוס אחד הנה אמרן הסוס כולל לפי שהשיתוף בו אפשר בכח ואם לא ימצא בפועל. ואמנם ישנו חלקי בתאמר זה הסוס. ולזה לו אמרת השמש הנה הוא כולל לפי שלו שערות שמשים אחרים נכנסו תחת זה השם בחלוף אמרן זה השמש.

### הפירוש

אמרן נפש טובנו ירצה  
 עצמות טובנו ולפי שצורת הדבר היא אשר בו נתעצם הנמצא והיה מה שהוא והיתה הנפש היא צורת הבעל נפש ועצמותו. היה מסנהג הפילוסופים שיקראו עצמות הדבר ~~נפש~~ נפש הדבר וזה בהשאלה. אמר חלוק רביעי התיבה תחלק אל פעל ושם ואנת וההגיונים יקראו הפעל סלה והאות כלי. וכל אחד מהם והפעל יבדל מהאות בשענינו שלם בעצמו ובהבנה בחלוף האות כי כאשר נאמר לך סי הנכנס ואמרת זייד הובן ונשלמה התשובה. וכאשר נאמר לך מה פעל זייד ואמרת הכה נשלמה התשובה. ולו נאמר לך אנה זייד

- 2: בתאמר: כשתאמר/ (ב) בשתאמר/ (ג)  
 3: שמשים אחרים: שמשות אחרות/ (ג)  
 7: עצמות: עצמו/ (ב) (טובנו)/ (ב) ולפי: לפי/ (ג) היא: הוא/ (ב) (ג)  
 8: מסנהג הפילוסופים: המנהג הפילוסופי/ (ב)  
 12: בחלוף: ובחלוף/ (ב) הנכנס: בבית/ (ג) הובן: תובן/ (ג)  
 13: (לד)/ (ג) זייד: זה/ (ב) (ג)

and you answer, "in" , or "on", the answer is incomplete as long as you do not add "in the house" or "on the roof". The meaning of the particle becomes clear in connection with other things and not in itself. The verb differs from the noun in that the former designates the action, <sup>(12)</sup> and the time of the action, <sup>(12)</sup> and the time of the action, e.g., "He struck". The verb designates the striking and that it occurred in the past, <sup>(13)</sup> while the noun, e.g., "the horse", "the striking", "health", does not indicate time. But if it should be said, e.g., that the words "yesterday", "last night", <sup>(14)</sup> also indicate time and therefore they should be verbs, the answer is that the verb is that which designates the action and the time of the action. But the time indicated by "last night", is the action itself, not the time in which the action took place. Were "last night", to indicate that the concept "last night", took place in time - which is not the meaning of "last night", then it would be maintained that it is a verb, and it would agree with the definition of a verb.

COMMENTARY: The statement, "the logicians call the verb a categorematic term", means that what the grammarians call a verb the logicians call a categorematic term. It designates the action and the time of the action, e.g. "He created", "He struck", The further statement, "and the particle a syncategorematic term", means that what the grammarians call an adverb <sup>(15)</sup> the logicians call a syncategorematic term, e.g., "to", "in", "eth",

ואמרת כואו על לא תשלם התשובה כל זמן שלא תאמר ככית או על השטח.  
הנה יראה ענין האות כזולתו לא בעצמו. אחר תכרל המלה מהשם כשהיא  
תורה על ענין ועל זמן נפילת אותו הענין כאמרך הכה. כי היא תורה על  
ההכאה הנופלת בעכר והשם כאמרך הסוס וההכאה והכריאות לא יורה על  
הזמן. ואם נאמר הנה אמרך אתמול ואמש יורה על הזמן ויהיה מלה. נאמר  
הפעל מה שהורה על ענין והורה על זמן אותו הענין. ואמרך אמש מורה על  
זמן הוא עצם הענין לא הוא זמן הענין. ולו היה מורה על נפילת אמש  
כזמן הוא בלתי ענין האמש נאמר שהוא פעל ויהיה דבק על גדר  
הפעל. אמרו וההגיונים

### הפירוש

יקראו הפעל מלה ירצה

שההגיונים יקראו מלה מה שיקראו המדקדקים פעל. והוא המורה על  
ענין ועל זמן אותו הענין כאמרך כרא והכה. עוד  
אמר והאות כלי ירצה ויקראו האות הוא אשר יקראוהו המדקדקים מלה  
כלי כמו אל את כו. כי

- -

- 1: כואו על:כו או על / (ב) כתור או על / (ג) ככית:כתור הכית / (ג)
- 2: תכרל:יכרל / (ג)
- 5: הזמן...אתמול ואמש:זמן / (ב) / (ג) אותו הענין ואם תאמר הנה כאמרך אמש  
ואתמול / (ב) מלה:פועל / (ב) / (ג)
- 6: ענין:הענין / (ב)
- 7: (לא הוא זמן בענין) / (ב)
- 8: (הוא) / (ג) ענין:לא הוא זמן ענין: / (ג) ויהיה דבק:והיה מסכים / (ב)  
והוא דבק / (ג) על גדר הפעל:בגדר הפועל / (ג)
- 12: שיקראו:שיקראוהו / (ב)
- 14: הוא:והוא / (ב) / (ג) יקראוהו המדקדקים:יקראוהו המדקדק / (ג) (מלה) / (ב)
- 15: (כלי) / (ג)

because it connects the parts of the proposition. The statement, "But were 'last night' to indicate that the concept 'last night' took place in time" means that 'time' would be other than the meaning of "last night," it would be a verb, i.e., a categorematic term.

FIFTH SECTION: Words in relation to their meaning are divided into five classes; univocal, synonymous, equivocal, homonymous and distinct. <sup>(17)</sup> "Animal", for example, is univocal for it has the same meaning when applied to "horse," "ox", and "man", without any differentiation as to strength and weakness, priority and succession because animality is the same for all. Similarly, the term "man" is applicable to Zaid, 'Amr, Khālid, and Bakr. Synonyms are different words applicable to the same object, e.g. layish, aryeh, (lion,) chemar, yayin (wine). Distinct terms are different words used for different objects. E.g., the words "horse," "ox," "sky," refer to different objects. A homonym is a word applicable to different objects, e.g. the word "ain," meaning "eye," <sup>(18)</sup> "sunbeam," and "spring of water." Equivocal terms fluctuate between homonyms and univocal terms. Existence for example, in relation to essence and accident,



בו תקשר הגזרה. ואסרו ולו היה סורה על נפילת אמש בזמן הוא בלתי עניין האמש ירצה שהזמן יהיה בלתי עניין האמש היה מה הפעל רל סלה.

אמר חלוק חמשי התיבות מן הענינים על חמשה

סודנות הסודעים והנרדפים והמוסכמים והמסותפים והנבדלים אולם המסכמים הנה אסרן חי כי הוא ישולח על הסוס והשור והאדם בענין אחד. מבלתי שנוי בכח והחלשה ולא קדימה ולא איחורץ אבל החיות לכל אחת וכן האדם על זיד ועאמר וכאלד ובכר. והנרדפים הם השמות המתחלפים הבאים על ענין אחד כליש והארי והחמר והיין. והנבדלים. הם השמות המתחלפים לנקראים המתחלפים כסוס והשור והשמים נקראים בהם. והמסותפים הם התיבה האחת המסולחת על נקראים מתחלפים כתיבת העין למראה ועין השמש ועין המים.

והנאותים חוזרים בין המסותפים והמוסכמים כמציאות

- 1 : תקשר: נקשרה/ (ג) ולו: לו/ (ג)
- 2 : הפעל רל: פועל. רוצה לומר/ (ג)
- 3 : סן: סורות על/ (ג)
- 4 : המודעים: המוסכמים/ (ב) המסכמים/ (ג) והמוסכמים: והנבדלים/ (ב) והמורגלים/ (ג)
- 5 : הנה אסרן: (הנה) כאסרן/ (ג) המוסכמים/ (ב)
- 6 : שנוי בכח: (שנוי) בחוזק/ (ב) קדימה (ולא)/ (ג) אחת: אחד/ (ב)
- 7 : ועאמר: ועמא/ (ב) וכאלד: וכאלדי/ (ב) קלד/ (ג) השמות: שמות/ (ג)
- 8 : והארי: ואריה/ (ב) וארי/ (ג) והנבדלים: והמורגלים/ (ג) השמות: שמות/ (ג) לנקראים: בהם: (המתחלפים... והשמים לנקראים בהם)/ (ב)
- 10 : ועין השמש: והשמש/ (ב) ועין המים: והעין והמים/ (ב)
- 11 : והנאותים: והנאותם/ (ב)

is not like the word "ain," which designates objects that have nothing in common. It belongs to accident as well as to essence. Nor is it like a univocal, since animality inheres in the essence of horse and man in the same manner while Existence inheres in essence first and then, through its mediation, in accident. Therefore, it inheres by priority and by succession. Sometimes because of its fluctuation, it is called amphibolous. (18b)  
 We shall limit ourselves in this chapter to incomplex terms.

COMMENTARY: The statement, "'animal' for example is univocal for it has the same meaning when applied to 'horse', 'ox' and 'man'," means that the word (animal) and its definition, e.g. a nourishable and sentient body, is the same for all (animals). For by this definition you define an animal whether it be horse, ox or man without indicating superiority, priority or succession. For the horse is not the cause of the animality of ox or man. The statement "Existence belongs to accident as well as to essence" means that accident and essence exist, i.e. both participate in the meaning of Being and ~~EXISTENCE~~ Existence. The further statement: "Existence inheres in essence

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לעצם והמקרה אינו כתיבת העין שהנקראים בה לא ישתתפו בענין והמציאות  
 מגיע למקרה כמו שהוא מגיע לעצם. ואינם כמוסכמים לפי שהחיות לסוס  
 והאדם קיים על אופן אחד מבלתי חלוף. והמציאות יקויים לעצם ראשונה  
 אחר כן יקויים למקרה באמצעותו והוא קיים בקדימה ואיחור. וכבר  
 יקרא זה מסופק לחזרתו ונספיק סאופן התיבות הנפרדות על זה.  
 הפירוש אמרו אולם המסכימים הנה אמרן חי כי הוא ישולח על הסוס  
 והשור והאדם בענין. אחד. ירצה שהשם והגדר אחד והוא אמרן גשם  
 נזון מרגיש כי בזה הגדר יגדר החי כשיאמר על הסוס והשור וכמו כן  
 כשיאמר על האדם וזה כלי יתכון ומבלי קדימה ואיחור כי אין הסוס סיבה  
 לשור ולא לחיות האדם. שששש אמרו והמציאות מגיע למקרה כמו שהוא  
 מגיע לעצם. ירצה כי המקרה והעצם נמצאים והנה הם משתתפים בענין  
 ההיות והמציאות עוד אמר והמציאות יקויים לעצם

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- 1: והמקרה: ולמקרה כי/ (ג) והמקרה כי/ (ב) והמציאות: המציאות/ (ב)
- 2: ואינם... שהחיות: ואינה מתיבת החי הנאמרת/ (ב) לסוס והאדם: לשור ולאדם/ (ג)
- 5: (התיבות)/ (ב)
- 6: אולם המסכימים: ואולם המוסכמים/ (ב)
- 7: (האחד)/ (ב) והגדר: להם:/ (ג)
- 8: (כשיאמר על... וכמו כן)/ (ב)
- 10: אמרו: ואמרן/ (ב)
- 11: והנה הם: והם/ (ג) משתתפים: מסותפים/ (ב)
- 12: עוד אמר: אמר עוד

first and then, through its mediation, accident" means that essence is the bearer of accidents and therefore distinct terms are not univocal. In the same way quantity is the bearer of quality, like color (for example), though both are accidents.

## CHAPTER II

### CONCERNING UNIVERSALS: THE DIFFERENCE IN THEIR RELATIONSHIPS AND THEIR PARTS:

When we say "This man is an animal and white" we recognize a difference between the relation of animality to him and the relation of whiteness. The relation of animality ascribed to objects is called an essential relation. The relation of whiteness ascribed to objects is called an accidental quality. For every universal concept which is applicable to a particular subsumed under it is either essential or accidental. No concept is essential as long as it is not of a three-fold character. First: When we know what the essential (of the universal) is and what the essential (of the particular) is we can think of the subject (i.e. the particular) and know it only if we know that the essential (of the universal) belongs to it. But we cannot know the particular without knowing the essential (of the universal).

~~Whenever we know~~ For ~~when~~ we know what the essence of man is only when we know what the essence of animal is, since we cannot know what man is unless we know what animal is. When we know what the meaning of "number" is

ראשונה אחר כן יקויים למקרה באמצעיותו ירצה כי העצם נושא המקרים  
 והנה אם כן אינם מוסכמים. וככה הכחה אל האיך כמו המראה ואם  
 שניהם מקרה אמר האופן השני בענינים הכוללים וחלוף יחסם וחלקיהם.  
 כאשר אמרנו זה האדם חי ולכן השגנו הכדל בין יחס החיות אליו ובין  
 יחס הלבנות. ומה שיחסו יחס החיות אל הנושאים יקרא עצמותי ומה שיחסו  
 יחס הלבנות יקרא מקרי. ויאמר כל ענין כולל יוחס אל חלקי תחתיו  
 הנה אם שיהיה עצמותי ואם שיהיה מקרי ולא יהיה ענין עצמותי אם לא  
 יתחברו בו שלשה ענינים. הראשון שאתה כאשר הכנת העצמותי והכנת מה הוא  
 עצמותי לו אי אפשר לך שיעלה בלכך הנושא או תכינהו אלא אם תבין הגעת  
 העצמותי לו ואי אפשר לך הכנתו זולת אותו העצמותי כי אתה כאשר הכנת  
 מה האדם ומה החי אי אפשר לך הכנת האדם זולת הכנת החי וכאשר הכנת  
 המספר

- -
- |                    |                     |
|--------------------|---------------------|
|                    | 2: (אם כן)/(כ)      |
| מקרה:מקרים/כ       | 3: יחס:יחוסם/כ      |
| 5: הלבנות:לבניות/ג |                     |
| 6: הלבנות:לבניות/ג | 8: הראשון:הראשונה/כ |
| 11: מה:מהו/כ       | 12: ומה:ומהו/כ      |

we know what the meaning of "four" is since we cannot know what "four" is without first knowing what "number" is. But if we replace the expression "animal" or "number" by "existence" or "white" we know the "four" without knowing whether it (exists) or not, or whether it is white or not. In other words, we may (even) doubt whether "four" exists in the world. However, this does not prevent us from knowing the essential meaning of "four". Similarly, we may know the essence of man without knowing that he is white or that he exists. But we cannot know man without knowing that he is animal. If our intellect fails to grasp this example because we are men and there are many men who exist, we can replace the word "man" by "crocodile" or any other animal. It then becomes evident that existence is accidental to beings in general, while the concept of animal belongs to man as an essential. Similarly, color is essential to blackness and number to five. Second, know that there must first be a universal <sup>(1)</sup> before a particular can be subsumed under it, whether this particular be a real object or an object of thought. For we know

והכנת הארבעה אי אפשר לך שתשער הארבעה נכנסת בהכנתך זולת המספר.  
 ולו המרת החי או המספר כנמצא או הלכן אפשר לך שתכין הארבעה מזולת  
 שתכניס בהגנתך אם היא נמצאת אם לא ואם היא לכנה אם לא אבל  
 פעמים תפסיף אם בעולם ארבעה ואם לא זה לא יעריר מהכנתך עצמות  
 הארבעה. וכן יוכן מהות האדם כשכלך מכלתי שתצטרך אל הכנת היותו לכן או  
 הכנת היותו נמצא ואי אפשר הכנתו בלי הכנת היותו חי. ואם לא יצלחך  
 השכל בזה המושל לפי שאתה אדם נמצא ולרכוי מציאות האדם המירהו  
 בתמסאה או כאשר רצית מן הכעלי חיים או זולתם וכזה יראה שהמציאות  
 מקרי למהויות כלם ואולם החי לאדם הנה עצמותי וכן המראה לשחרות  
 והמספר לחמשה.

השני שאתה תכין שהכולל העצמותי אי אפשר מכלתי שיהיה  
 ראשונה עד יהיה החלקי הנושא תחתיו מגיע אם כמציאות ואם כשכל. תכין  
 שאי אפשר

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- 1: שתשער: ששיעור/ (ג) שתשער הכנת הארבעה  
 2: הלכן: כלכן/ (ג)  
 4: תפסוף: חסופף/ (ג) ואם: אם/ (ג) זה: וזה/ (ב) (ג) יעדיר: יעבור/ (ב)  
 7: מציאות: המציאות/ (ב)  
 8: כתמסאה: כתמסאה/ (ג) ואולם: ואמנם/ (ב) הצמותי: עצמות/ (ג)  
 11: השני: השנית/ (ב)  
 13: ואם כשכל תכין: ואם כשכל כשתכין/ (ב) אם כשכל כי תכין/ (ג)

that there must first be "animal" before there can be "man" or "horse," and that there must first be "number" before there can be "four" or "five." But one cannot say that there must first be laughter before there can be man. On the contrary, there must first be a man before laughter is possible. Man's laughing nature is an attribute, accidental to him, which follows from his existence and is similar to his being an animal in that it inheres in him and is inseparable from him. But the difference between them (2) is recognizable. Without animality there can be no man, (3) but we cannot say that there must first be laughter before there can be man. There must first be man before laughter is possible. This priority is not of a temporal but rather of a logical order, since both occur at the same time. Thirdly, the essential cannot be caused. We cannot ask what has made man an animal, blackness a color or four a number. Man is an animal by virtue of his essence, not because of the action of an agent; for if the latter were true one might assume



מכלתי החי ראשונה עד יהיה אדם או סוס ואי אפשר מכלתי מספר ראשונה עד יהיה ארכעה או חמשה. ואי אפשר לך שתאמר אי אפשר מכלתי צוחק ראשונה עד יהיה אדם אבל אי אפשר מכלתי אדם ראשונה עד יהיה צוחק והיות אדם צוחק כסבע תואר לו מקרי נמשך למציאותו והוא שיהיה צוחק והיותו חי כשהוא דבק לא יפרד. אבל ההכרל בין שניהם מושג כי אי אפשר מכלתי הגעת החיות בגשם האדם ראשונה להיות אדם ולא יתכן שיאמר אי אפשר מכלתי צוחק ראשונה להיות אדם אבל יאמר אי אפשר מכלתי אדם ראשונה להיות צוחק. ולא ירצה כזאת הראשונות סדור קמני אבל סדור שכלי ואם היה שיהיה בזה השלשי שהעצמותי אי אפשר שיעלל הנה אי אפשר שיאמר אי זה דבר שם האדם חי והשחרות מראה והארכעה מספר אבל האדם חי בעצמותו ולא כשימת משים כי לו היה כשימת משים צייר שישימהו

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- 1: מכלתי החי ראשונה... עד יהיה צוחק: מכלתי מספר ראשונה עד יהיה רביעי או חמישי, ואי אפשר מכלתי חי ראשונה עד יהיה אדם אבל אי אפשר לך שתאמר הכלתי היות צוחק יהיה אדם. שאעפכ צריך לצוחק כדי שיהיה אדם אבל צריך אדם ראשונה עד יהיה צוחק/ (ב)
- 2: צוחק: שוחק/ (ג)
- 4: למציאותו: למציאות/ (ב) כשהוא: כשהוא/ (ב)
- 5: אכל: ואכל/ (ב) (ג)
- 6: ראשונה: הראשונה/ (ב) להיות: להיותו/ (ג)
- 9: אי זה: איזה/ (ב) (ג)
- 10: ולא: לא/ (ב)
- 11: לו: אלו/ (ב) צייר שישימהו: צוייר שישימהו/ (ב) כמה שישימהו

that this agent might make ~~in~~ him a man without his being animal. But this is inconceivable, though it is conceivable that he could be a man, without being a laughing man. The accidental, however, is caused. One may ask: What has made man exist? This is a proper question. But it is not proper to ask: What has made him an animal? In other words, to ask: "What made man an animal?" is like asking: "What made man a man?" For one may say he is a man by virtue of his essence, and similarly, he is an animal, by virtue of his essence. For "man" is a rational animal, and there is no difference between asking: What made him an animal? He simply abbreviated the latter question by stating one of the two essential attributes and excluding the other. In general, when the predicate does not differ from the subject and they both proceed from its essence in the universal, we may not ask for its cause; for we may not ask: Why is the possible possible and the necessary necessary? But we may ask: Why does the possible exist?

COMMENTARY: The statement "The relation of animality ascribed to objects is called an essential relation".

אדם ולא ישימהו חי ואי אפשר זה כמחשכה כמו שאפשר כמחשכה שיושם  
 אדם ולא יושם צוחק ואולם המקרי הנה יעלל כי יאמר מה אשר שם  
 האדם נמצא. ותהיה ראוייה השאלה. ולא יהיה ראוי שיאמר מה אשר  
 שמו חי אכל היה מאמרו מה אשר שם האדם חי כאמרו מה אשר שם האדם  
 ויאמר הוא אדם לעצמותו וכן הוא חי לעצמותו לפי שענין האדם חי מדבר.  
 ואין הכדל בין מאמרו מה אשר שם החי המדבר חי מדבר ובין מאמרו מה  
 אשר שמו חי אלא שהוא קצר כאחת השתי שאלות בזכר אחד העצמיות בלתי  
 האחר ובכלל כאשר לא יהיה הנשוא בלתי הנשוא  
 וחוז מעצמותו בכלל לא יתכן שידרש לו עלה ולא יאמר למה היה האפשר  
 אפשר והמחוייב מחוייב ויאמר למה יהיה האפשר נמצא.  
 הפירוש אמרו ומה שיחסו יחס החיות אל הנושאים יקרא עצמותי

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- 1: שאפשר: שיאמר/ (כ)
- 2: המקרי: המקרה/ (כ)
- 3: השאלה: השאלה/ (כ)
- 5: הוא אדם לעצמותו: הוא רל ויושב השאלה כשהיא לעצמותו/ (כ)
- 7: כאחת השתי שאלות: כאחת שתי שאלות/ (כ)
- אחד העצמיות: אחת מן העצמיות/ (ג)
- 11: (החיות אל)/ (ג) יקרא עצמותי... אל האדם והסוס: ונו' ירצה האדם  
 והסוג/ (כ)

means that every predicate which bears the same relation to its subject as animality bears to man and to horse, which is the relation of genus to species, is called essential, i.e. it is part of the essence and cannot be omitted without at the same time destroying the subject. For it is  $\times$  included in its definition and is part of its essence. That which bears the relation of whiteness is called accidental because its creation and destruction can be imagined without the  $\times$  destruction of its object, and so it is not of its essence. The statement "and when we know what the essential (of the particular) is" refers to the subject. The further statement "If the intellect fails to grasp this example because we are men and there are many men who exist, we can replace it by 'crocodile'", means that he used an example of the accidental from  $\times$  man's existence, since he believed that existence is an accident of being. But he feared that this example was not apt and the intellect would fail to grasp what was meant. He therefore said "If the intellect fails to grasp this example because we are men" since we might assume, because of this, that every man exists by virtue of his being a man, i.e., existence is essential to him or by virtue of the many men existing.

ירצה כי כל נשוא יחסו אל הנושא יחס החיות אל האדם והסוס והוא יחס  
 הסוג אל המינים יקרא עצמותי ול כי הוא חלק העצמות אי אפשר שיעדר  
 בלי הפסד הנושא כי הוא נכנס לששש בדגרו וחלק מאמתו ומה שיחסו  
 יחס הלבנות יקרא סקרי כי הוא ידומה הויתו והפסדו סבלי הפסד נושא  
 והויתו ואינו מעצמותו ואסרו והבנת מה הוא עצמותי לו.  
 ירצה והוא הנושא. עוד אמר ואם לא יצליחך השכל בזה המשל לפי שאתה  
 אדם נמצא ולרבוני מציאות האדם הסירָהו בתמסאח. הפי' כאשר הביא  
 משל לסקרי מן המציאות לאדם כי הוא יחשוב שהמציאות סקרה קרה לנמצא  
 חשש שמא לא יעלה יפה זה המשל ולא יצליחהו השכל להבנת הסכוון ואסר  
 ואם לא יצליחך השכל בזה המשל לפי שהאדם נמצא ירצה ותחשוב  
 בעבור זה שכל אדם נמצא בפה הוא אדם על שהמציאות עצמותי לו וכמו כן  
 לרבוני מציאות

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- 3: (הנושא)/(ב)  
 4: מלבנות:מלבנות/(ב) סבלי:בלי/(ב) נושא:ואינו:/(ב)  
 5: (וחיות)/(ב)  
 6: (ירצה)/(ב) השכל בזה המשל...בתמסאח הפי:וכו'  
 7: הביא:תביא/(ב)  
 9: יצליחהו:יצליחהו/(ב) להבנות:לתבין/(ב) לאמתה/(ב)  
 10: שהאדם:שאתה אדם/(ב)(ב)  
 12: מציאות:המציאות/(ב)

we might think that were existence accidental it would belong only to the few, so let us replace "man", in the example, by "crocodile", which differs from you, and the individuals which compose its species are few. The crocodile is an animal <sup>(a)</sup> that exists in the Nile and moves <sup>(b)</sup> its upper jaw. The further statement: "In general, when the predicate does not differ from the subject and they both proceed from its essence in the universal, we may not ask for its cause" means, we may not ask what made man man, since he is man by virtue of the fact that he is man. We may not ask what made the possible possible. But we may ask of a predicate that is not part of, but is an addition to the subject which already exists, "What caused this addition?" This is self-understood.

ANOTHER <sup>(c) (5)</sup> SECTION CONCERNING accidents in particular:

The accidental is divided (into that which is separable from its subject and <sup>(6)</sup> that which inheres permanently and inseparably, e.g. the laughter of man, the duality of two and the angles of a triangle being equal to two right angles. They are inseparable from the concept of a triangle, inherent in it without being essential. The separable is divided into that which is slowly separable, <sup>(7)</sup> e.g., the state of being a boy, youth or graybeard, <sup>(8)</sup> and into that which is quickly separable, viz., the pallor of the coward and the flush of the shamesfaced one.

- a) Reading with ms. Gimmel.
- b) Reading with ms. Gimmel.
- c) Reading with ms. Bea.

האדם כי תחשוב שלו היה מקרי היה על המעט המסיר המשל כתמסאח הנכדל  
 סמך ואישיו בלתי רבים והוא בעל חיים יתהוה כנילוס יסע לחיו  
 העליון. עוד אמר ובכלל כאשר לא יהיה הנשוא בלתי הנושא וחוף מעצמותו  
 בכלל לא יתכן שידרש לו עלה. ירצה כי אין יאמר מה אשר שם האדם אדם  
 והוא כבר הוא אדם כמה הוא אדם והאפשר אפשר אבל תפול השאלה כנשוא  
 אשר לא יהיה חלק מהנושא כי כבר יהיה לך הנושא ותשאל העלה בשנוסף  
 עליו הנשוא ההוא רזה מוכן בעצמו.

אמר חלוק אחד למקרה בפרט המקרה יחלק אל דבך לא יפרד כלל כצחוף  
 לאדם והזוגיות לשנים וכהיות הזויות מהמשלש שוות לשתי נצבות כי  
 הוא לא יפרד מן המשלש והוא דבך ואיננו עצמותי. ואשר יפרד יחלק אל  
 מה הוא מתאחר ההפרדה כהיותו נער וכחור וזקן. ואל מה הוא מהיר  
 ההפרדה כירוקות הפחדן ואדמימות הכיישן.

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- 1: מקרי:מקרה/(כ) המיר...הנכדל:המירהו במשל תמסאח הוכדל/(כ)
- 2: חיים:חי/(ג) יתהוה:מתהוה/(ג) יסע:יניע/(ג)
- 5: כבר(הוא)/(ג) כמה הוא:כמה שהוא
- 6: יהיה:לו:/(כ) ותשאל העלה:ותשאל לו עלה/(ג)
- 8: אחד:אחר/(כ) כצחוף לאדם:כשחוף לאדם/(כ) כשחוף לעולם לאדם
- 9: הזויות מהמשלש:זויות המשולש/(ג)
- 10: מן המשלש:מהמשולש/(ג) ואיננו:ואינו/(כ)
- 11: כהיותו:כהיותו/(כ) ואל מה: אל מהו/(כ)

The inseparable is divided into that which is separable in thought but not in reality, like the Blackness of the Ethiopian, and into that which even in thought cannot be apprehended as being separable, like the indivisibility<sup>(9)</sup> of the point, and the duality of four. Sometimes it is separable in thought but not in reality in another way, e.g., the angles of the triangle being equal to two right angles, since one who does not understand that may nevertheless understand a triangle. But it is impossible to understand the "four" unless it is combined with the understanding of duality, though all<sup>(10)</sup> (the elements) are inherent. Because these examples of the inseparable resemble essentials and may be mistaken for them, we have assembled these three categories to consider them together, so as to know by their combination when a quality is essential and not to have to rely on one only. The accidental is divided into that which distinguishes its subject, e.g., the laughter of man, which is called a property, and that which it has in common with others, e.g., eating, in relation to man, which is called a general accident.

COMMENTARY: The statement; "and the angles of the triangle being equal to two right angles" means that the three angles of the triangle are equal to two right angles.<sup>(11)</sup>  
 The statement: "Into that which distinguishes its subjects, e.g., the laughter of man which is called a property" means



ואפשר לא יפרד חלק אל מה שיפרד במחשבה זולת המציאות כשחרות לכושי.  
 ואל מה שלא יצוייר שיפרד גם כן במחשבה כנכוחות לנקודה והזוגיות  
 לארבעה. וכבר יפרד במחשבה זולת המציאות בחדת הזויות מהמשלש שוות  
 לשתי נצבותם כבר יבין המשלש מי שלא יבין זה. ששש ואי אפשר הבטת  
 הארבעה אלא אם תחובר בו הבטת הזוגיות ואם היו כלם מן הדבקים  
 ובעבור שהיה כמו זה הדבק קרוב מהעצמותי ומשתבש בו שפנו אותם  
 הענינים השלשה להבחין כלם ותדע בהתחברם חדת הדבר עצמותי ולא נשען  
 על אחד מהם. ויחלק המקרי אל מה שיחד נושאו כצוחק לאדם ויקרא סבולה.  
 ששש ואל מהשיכלול זולתו כאבילה לאדם ויקרא מקרה משלח  
 הפירוש אמרו וכהיות הזויות מהמשלש שוות לשתי נצבות ירצה שהזויות  
 השלשה מן המשלש שוות לזויות שתי נצבות וזה צורתו  
 ואמרו אל מה שיחד נושאו כצוחק לאדם ויקרא סבולה. ירצה

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- 1: כשחרות: כשחרות/ (2)
- 2: כנכוחות: כנכוחות/ (2)(2)
- 4: נצבותם כבר: נצבותם כי כבר/ (2)(2)
- 5: הזויות: הזויות/ (2)
- 7: לאבילין: לאבילין/ (2)
- 8: המקרי: במקרה/ (2) שיחד: שיחד/ (2)(2) כצוחק: כצוחק/ (2) סבולה: שיחד (2)/
- 9: זולתו: זולת/ (2) ויקרא מקרה משלח: ויקרא משלח/ (2)
- 10: (ירצה... וזה צורתו)/ (2)
- 11: וזה צורתו: שתי לשכנות: שתי נצבות/ (2)
- 12: אל מה שיחד: אל מה שיחד/ (2) על מה שיחד/ (2) כצוחק: כצוחק/ (2) כצוחק/ (2) ירצה: בו:/ (2)

that the property is found in the species-- in the class and the individual -- and at all times. For example, "the laughter of man" means his ability to laugh - not that he laughs all the time. (12)

ANOTHER SECTION CONCERNING ESSENTIALS. From the point of view of universality and particularity, the essential is divided into that which is not subsumed under anything more universal, and is called genus; into that under which nothing more particular is subsumed, and is called species; into that which is the mean and is called a species in relation to that which is above it, and a genus in relation to that which is underneath. The species under which no further species is subsumed is called the lowest species. (13) The genus which is not subsumed under any other genus is called the highest genus. (14) The highest genera that are not subsumed under any other are ten in number, as will appear. One is "substance" and nine are accidents". Substance is the highest genus since there is nothing more universal outside of "existence", which is accidental and not essential. Genus is a term for the most universal essential. Substance is divided into matter and non-matter, and matter is divided into the growing and non-growing.

(a)  
The growing is divided into plant and animal, and animal is divided into man and not-man. Thus, ~~substance~~ substance is the highest genus and man the lowest species. Plant and animal, which lie between, are called relative species and genus.

a) Reading with ms. Bet.

כי הסבולה היא שתמצא לסיין ולכלו ולבדו ולכל עת כצוחק לאדם ול הכח  
 עליו לא שהוא יצחק תסיד. אמר חלוק אחר לעצמותי העצמותי  
 יחלק בבחינת הכללות והיחוד אל מה שאין יותר כולל עליו ויקרא טוב  
 ואל מה שאין יותר מיוחד תחתיו ויקרא סיין. ואל מה הוא סמוצע ויקרא  
 סיין בצירוף אל מה שעליו. וטוב אל מה שתחתיו. ויקרא הסיין שאין סיין  
 תחתיו סיין המינים. ויקרא הטוב אשר אין טוב עליו טוב הסוגים. והסוגים  
 העליונים אשר אין טוב עליהם עשרה כמו שיבא. אחד עצם ותשעה מקרים.  
 והעצם טוב הסוגים אשר אין דבר יותר כולל סמונו אלא הנמצא והוא מקרי  
 ואינו עצמותי. והטוב מליצה מן העצמותי היותר כולל. אחר יתחלק אליו  
 הגשם ובלתי הגשם. והגשם יתחלק אל הגדל ובלתי הגדל. והגדל יתחלק  
 אל הצמח והחי. יתחלק אל האדם וזולתו. הנה העצם טוב הסוגים. והאדם  
 סיין המינים. ומה שביניהם מן הגשם והגדל והחי יקרא סיין וטוב בצרוף.  
 ואמנם נאמר

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- 1: (מיין)/(ב) לסיין ולכלו: לסיין אחד ולכלו/(ב)
- 2: עליו לא שהוא: על הצחוק לא על אשר יצחק/(ב)
- 3: בבחינת: בבחינת אל/(ב)
- 4: הוא: שהוא/(ב)
- 5: סיין: אחר/(ב) וטוב: בצירוף/(ב)
- 6: סיין טוב: אמר/(ב)
- 10: הגשם ובלתי הגשם: גשם ובלתי גשם/(ב) (אל)/(ב) הגדל ובלתי הגדל:
- 11: המצא... וזולתו: המצא והחי. והחי יתחלק על האדם ובלתי אדם/(ב)  
 המצא: צמח/(ב) וחי/(ב)

Only man is called the lowest species because men differ only in accidental characteristics, e.g. boy, graybeard, long, short, wise man, fool. These characteristics are accidental and essential. Man differs from the horse in essence, and the color black differs from white in essence, but one black color does not differ in essence or nature from another black color. One is found in pitch and the other in a raven, its relation to the raven being accidental. So too, Zaid does not differ from Amr either in being "man" or in any other essential thing save in being the son of another person or from another country, or of another color, size, or disposition. All these are accidental characteristics in accordance with the definition of accidental given above.

COMMENTARY: The statement, "Genus is a term for the most universal essential" means that the highest genus is the most universal essential of all universals. It is an essential to that which is subsumed under it. As a mean, it is a genus by virtue of the universal subsumed under it. In general, every genus is the most universal essential to that which is subsumed under it <sup>(16)</sup> or the more universal essential of two universals. Of two universals, genus will be more inclusive than the other universal. Keep this in mind. The Hebrew word sug meaning genus, is derived from sugah bashoshanim "fenced about with lilies". <sup>(17)</sup>

לאדם סין המינים לפי שלא יתחלק אלא אל ענינים מקריים כנער  
 והזקן והארוך והקצר והחכם והסכל ואלה מקריים ואינם עצמותיים כי  
 האדם יפרד מהסוס בעצמותי והשחרות יפרד מהלובן בעצמותו וזה השחרות  
 לא יפרד מזה השחרות בטבעו ועצמותו. אבל יהיה זה בזפת וזה בעורב  
 וזרופו אל העורב מקרי לו וזיד לא יתחלף לעמר באנושות ולא בענין  
 עצמותו אבל בהיותו בן איש אחר ומארץ אחרת ועל. שמראה ושעור ותכונה  
 אחרת וכל אלה מקריים לאדם כמו שקדם הודעת המקרי.  
 הפירוש אמרו והסוג מליצה מהעצמותי היותר כולל ירצה כי סוג הסוגים  
 הוא העצמותי היותר כולל שבכלל הכוללים. והוא עצמותי לאשר תחתיו  
 ואם הוא סמוצע הנה הוא סוג בכחינה לכולל אשר תחתיו. ובכלל כל סוג  
 הוא העצמותי היותר כולל או הכולל משני כוללים ול שילקחו השנים  
 הכוללים ויערך האחד אל האחר ודע זה סוג שלשון סוגה בשושנים והנה חקו

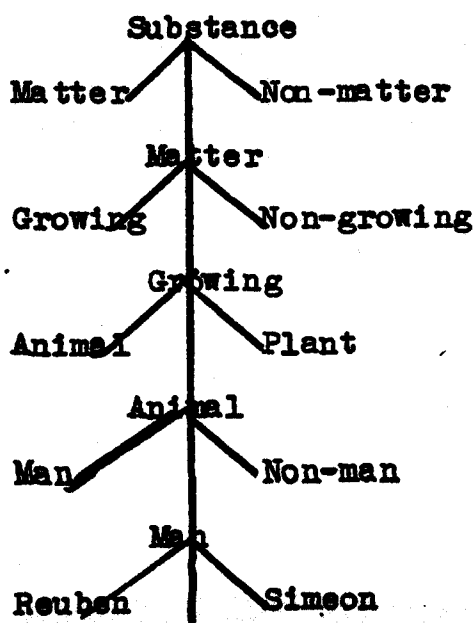
- -

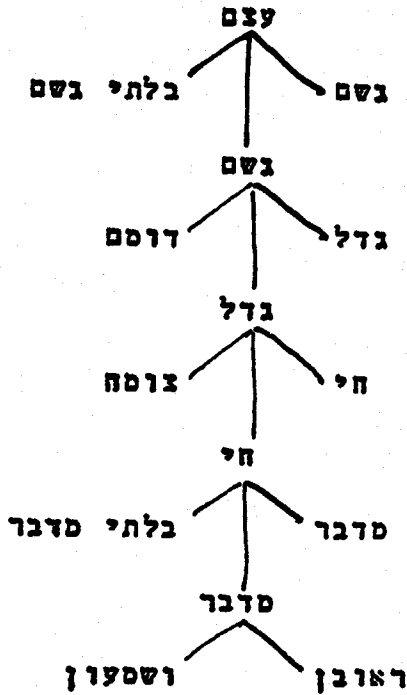
- 1: אל: על/ (ב)
- 2: והזקן... והקצר: וזקן וארוך וקצר/ (ב) מקריים: מקריים/ (ב)
- 3: מהסוס בעצמותי: סין הסוס בעצמותו/ (ב) עצמותו: עצמותו/ (ב)
- 7: מקריים: מקריים/ (ב) המקרי: המקרי/ (ב)
- 8: מהעצמותי היותר: סין העצמות והיותר/ (ב) (ב)
- 9: העצמותי: עצמותו/ (ב) הוא העצמותי: לאשר תחתיו: / (ב)
- 11: שילקחו... הכוללים: כשילקחו השני כוללים/ (ב)
- 12: ויערך: ויערך ובצר כתוב צג ויעדיף האחר: האחד/ (ב) חקו: חקו/ (ב)

The description of the differences among the universals is pictured by this tree-like diagram. <sup>(a)</sup> "So too, Zaid does not differ from 'Amr" means that in like manner Zaid also differs from 'Amr in that he is a separate individual. For Zaid is not 'Amr. The species ( to which 'Amr and Zaid belong) creates out of this difference (between them) only accidental differences and not essential ones. They <sup>(18)</sup> do not create new species, but only (accidental) differences.

**ANOTHER SECTION CONCERNING ESSENTIALS:** From another point of view, the essential is divided into that which serves as an answer to the question: What is it? when we mean by the question what is its real essence; and into that which serves as an answer to the question: What kind of thing is it? The first is called a genus or species, the second is called a difference. An example of the first is the answer, "animal" to the question: What are they? after one has pointed to a horse, an ox or a man, or

a) The text has the following diagrams:





חלוף זה הכללות באילן וזה צורתו  
 עוד אמר וזיד לא יתחלף  
 לעמר באנושית ולא בענין  
 עצמותי אבל בהיותו בן  
 איש אחר ומארץ אחרת וכו'  
 פ"י וכמו כן יתחלף זיד לעמר  
 באחדות אשר ביניהם בעצם  
 כי אחדות זיד בלתי אחדות  
 עמר וזה המין מן ההבדל  
 הוא מחדש שנוי בעניינים

סקריים לבד לא בעצמי הדברים ולכן לא יחדשו מין מן המינים רק חלקף לבד.

אמר חלוק אחר לעצמותי בבחינת  
 אחרת העצמותי  
 יחלק אל מה שיאמר בתשובת מהו כאשר היה דרוש השואל באסרו מה הוא אמת  
 העצמות. ואל מה שיאמר בתשובת אי זה דבר הוא. והראשון יקרא טוב או  
 מין. והאחר יקרא הבדל. ומשל הראשון החי הנאמר בתשובת פאמר האומר אחרי  
 רסוז אל סוס ושור ואדם מה

אין צורה בקונטרס ב'

- 1: (חלוף)/(ג) וזה זור (ב)
- 2: אמר גשם וזיד צווי יפ (ב)
- 3: (לעמר...אחרת)/(ג)
- 4: זיד צווי יפ (ב)
- 5: בעצם בעצמה (ב)
- 6: זיד צווי יפ (ב)
- 7: חלוף; חלוף (ב)
- 8: יחדשו; יחדשו (ב)
- 9: בבחינת; בבחינת (ב)
- 10: שיאמר; שיאמר
- 11: הנאמר; הנאמר
- 12: רסוז; רסוז

the answer "man" to the question: What are they? after the question has pointed to Zaid, 'amr or Khālid. An example of the second is the answer "rational". For when one has pointed to man and asks: What is he? and you answer, "animal" the question is incompletely answered, for "animal" includes more than man. What is necessary is that which differentiates his essence from others. The question is, therefore: What kind of animal is he? The answer is that he is rational. Rational, therefore, is the essential difference <sup>(19)</sup> in answer to the question: What kind of thing is he? The combination of "animal" and "rational" contains the real definition, for the definition expresses what the person who asks apprehends as being the essence of the thing. If we replace "rational" by an accident which differentiates him from all other animals, e.g. an animal of erect stature with wide nails and of a laughing disposition, this defines him <sup>(20)</sup> and differentiates him from all other animals. This is called description, and is of benefit only in awareness of differences. But by means of definition, the real essence of a thing is investigated, and is attained only by stating all the essential differences. Awareness of differences is attained from the generally known and is sometimes attained ~~by~~ by only one difference. The apprehension of essence, however, is attained only through stating all of the differences.



הם וכן האדם הנאמר בתשובת פי שרמז אל זיד ועאמר וכאלד מה הם. ומשל  
השני המדבר כי כאשר רמז אל אדם ואמר מה הוא ואמרת חי ולא תפסק  
השאלה כי החי יקיף על בלתי האדם אבל יצטרף אל מה שיבדיל עצמותו  
מזולתו ויאמר אי זה חי הוא ותשובתו שהוא המדבר ויהיה המדבר הבדל  
עצמותי נאמר בתשובת אי זה דבר הוא. ומחובר החי והמדבר גדר אפתי כי  
הגדר מליצה סטה שיציראמתת מהות הדבר בנפש השואל. ואם הסרת המדבר  
במקרה יבדילהו משאר בעלי חיים כאמרו חי נצב הקומה רחב הצפרניים  
צוחק בטבע הנה זה תמצאהו יבדילהו משאר הבעלי חיים אבל הוא יקרא  
רושם ותועלתו ההכרה בלבד. ואולם הגדר הנה ידרש בו אמתת עצמות הדבר  
ולא הביע אלא בזכר ההבדלים העצמותיים כלם ואולם ההכרה הנה תביע  
בסכנת וכבר תביע ההכרה בהבדל אחר וציוור האמת לא יביע אלא בזכר  
אהבדל, הדבר

- 1 : (הנאמר)/(ב) ועאמר וכאלד:ועמר(וכאלד)/(ב) ועמר וכלד/(ב)  
ומשל:וממשל/(ב)  
2 : (ואמר מה הוא)/(ב) ולא:לא/(ב)(ב)  
3 : האדם:אדם/(ב)  
4 : אפתי:אפתי/(ב)  
5 : בעלי:בעלי/(ב) רחב:רחבה:ואצפרניים/(ב)  
6 : (תמצאהו)/(ב) הבעלי חיים:ב"ח  
7 : תביע:תביעה/(ב)  
8 : אחר:אחר/(ב)(ב)  
9 : הדבר:האדם/(ב)

Sometimes there is more than one difference, so that when the question~~er~~ concerns the essence of the thing, it is necessary to state these differences. Whoever, therefore, in defining "animal" says that it is a body, equipped with a soul and sentient, is stating characteristics which are essential, distinctive <sup>(21)</sup> and of general application which may be inverted. However, he must add to it "that which moves by its own will," so that the stating of essential differences is exhausted by it and the apprehension of its true essence is completed. Now that the exposition of definition is understood, we shall point out the errors which may occur in definition. They occur when after having combined the nearest genus with all the essential differences in the proper order we define a thing by something that is not clearer than the thing itself, i.e., when you define a thing by itself, or by something that is as obscure as the thing to be defined, or by something that is more obscure, or by something that is known only after the thing to be defined is known. An example of the first is the statement, in defining "time", that it is "duration of movement", for "time" is indeed "duration of movement". But he who does not understand the concept of "time" does not, therefore, understand what "duration of movement" means and what the concept of duration is. An example of the second is the statement that whiteness

כלם והרכה דברים להם הכדלים יותר מאחר ויחוייב על הדרוש בציור  
 מהות הדבר בנפש זכר אותם ההכדלים. ומה שאמר בגדר החי שהוא גשם  
 בעל נפש מרגיש הנה כבר הכיא ענינים עצמותיים מכירים מסודרים סתהפכים  
 ואכל ראוי שיצורף אליו המתנועע ברצון עד ישלם בו זכר ההכדלים  
 העצמותיים וישלם כסכתו ציור האמת וכאשר הוכן הדיבור בגדר הנה נעיר  
 על מקומות הטעות בו והם אחרי הקכוץ בין הסוג היותר קרוב וכל  
 ההכדלים העצמותיים על הסדר תשוב אל הודעת הדבר כמה שאין יותר נגלה  
 ממנו כשתודיע הדבר בעצמו או כמה הוא כמותו בעומק או כמה הוא יותר  
 עמוק ממנו או כמה שלא יודע אלא בו דמיון הראשון אמרם בגדר הזמן  
 שהוא מספר התנועה לפי שהזמן שהוא מספר התנועה ומי שיסופק עליו  
 הזמן הנה לא יסופק עליו אלא מספר התנועה ושענין המספר מה הוא דמיון  
 השני שיאמר גדר הלובן

- -

- 1: דברים:יש:(ב) מאחר:מאחד/(כ)(ג) הדרוש:הדורש/(ג)  
 2: בנפש:השואל:(ב) ההכדלים:כלם:(ג)  
 4: ואכל:אכל/(ב) שיצורף:שיצטרף/(כ)  
 5: הוכן:הוכן/(כ) נעיר:נעיר/(ג)  
 8: כשתודיע:כשתודיע/(ג) הוא:שהוא/(כ)(ג) כעומק:העומק כעצמו  
 כמה הוא יותר:כמה שהוא יותר/(ג)  
 10: שיסופק:שסופק/(ג)  
 11: הזמן:זמן/(כ) (עליו)/(כ)

is the opposite of blackness, making the thing known by its opposite. But when the thing <sup>(22)</sup> is unknown its opposite is unknown, for its opposite is as unknown as the thing itself. Defining whiteness by blackness first is no clearer than defining blackness by its opposite. An example of the third is the statement when defining "fire," that it is "the element which is similar to the soul". As is well known, the concept of "soul" is more obscure than that of "fire"; ~~then~~, ~~how~~ how, then, can the latter be known through the former? An example of the fourth is the definition of something by what is made known only by it. For example, the definition of "sun": A star which shines during the day. <sup>(23)</sup> The word "day" is mentioned in defining "sun", though it is understood only after understanding the word "sun". For the real definition of "day" is; the time during which the sun is over the earth. We must be careful of these important things in our definitions. From what has been said above, it follows that the essential is divided into three classes: genus, species and difference; and the accidental into two classes: property and general characteristics. It is thus established that the parts of the incomplex universals are five in number and are called the five incomplex terms. They are: genus, species, difference, accident and property.

COMMENTARY: The statement "For the definition expresses what the person who asks apprehends as being the essence of the thing",

סה שהוא הפך השחרות ותודיע הדבר בהפכו וכאשר ספק הדבר ספק הפכו והפכו בהעלם כמותו. ואין הודעת הלובן בשחרות ראשונה מהפכו. דמיון השלשי כאמר קצתם בגדר האש שהוא היסוד הדומה בנפש. וידוע שהנפש יותר עמוקה מהאש ואין תודיע בה. דמיון הרביעי שתודיע ~~התודיע~~ הדבר במה שלא יודע אלא בדבר כאמרו בגדר השמש שהוא הכוכב אשר עזרה ביום. ותזכור היום בגדר השמש ולא יובן אלא אחרי הבנת השמש כי גדרו האמתי שיאמר הוא זמן היות השמש על הארץ הנה אלה ענינים נחשבים בגדרים יחוייב השמירה מהם. וכבר יגיע ספה שקדם שהעצמותי אשלשה חלקים. סוג. ואין. והבדל. והמקרי שני חלקים סגולה. ומקרה כולל. הנה קוים שחלקי הכוללים הנפרדים חסמה יקראו הנפרדים חסמה. והם הסוג. והמין. וההבדל. והמקרה. והסגולה. והפירוש אמרו כי הגדר מליצה ספה שיצייר אמתת סהות הדבר

**מפתח**

- 1 : שהוא:הוא/(ב)
- 2 : ספק הפכו:ספק הפכו/(ב)      באעלם:בעלים/(ב)
- 3 : שלשי:שלישי/(ב)
- 4 : מאש:מן האש/(ב)      תודיע:תודיע/(ב)
- 5 : רביעי:רביעי/(ב)      (אדבר)/(ב)
- 6 : יזרה:יזריה/(ב)      יובן:איום/(ב)
- 7 : אחרי:אחר/(ב)
- 8 : ענינים...מהם:ענינים נחשבים בגדרים יחוייב השמירה בהם/(ב)
- 9 : והמקרי:והמקרה/(ב)
- 10 : קוים:יחוייב/(ב)      שחלקי:שחלקים/(ב)      (יקראו הנפרדים חסמה)/(ב)
- 11 : והמין:והמין/(ב)      וההבדל:והבדל/(ב)

means that it is a short statement, without addition or omission, which points to the thing itself and to its essence. The statement "Awareness of differences is attained from the generally known" means attained from the generally known definition. For a definition is impossible without awareness of differences, although awareness of differences is possible without conception and definition because it may be attained through the act of description. "Distinctive" means that they indicate differences, "In the proper order" means the most specific last. He mentions conversions because one of the conditions of a definition is that the predicate and that which is defined are convertible after the latter has been made specific, e.g., "All men are rational animals" and "All rational animals are men." The further statement "They occur when, after having combined the nearest genus, etc." means that instead of combining the nearest genus with all the essential differences in the proper order, which he should have done but did not do, he defines the thing by something that is not clearer, etc. The statement "for time is indeed duration of movement" means that duration of movement only explains the word "time". For "time" is not possible if movement is an indivisible unit, as will be explained in the proper place, if God wills. The statement "the parts of the incomplex universals are five in number"

כנפש השואל. ירצה בלי תוספת וחסרון כי הוא מאמר קצר מעיר על עצם הדבר ומהותו ואמרו ואולם ההכרה הנה תגיע נמשכת ירצה נמשכת מהגדר כי אי אפשר גדר בלתי הכרה ואם אפשר ההכרה בלי הציור והגדר כי היא תגיע מפעל הרושם וירצה כאמרו מכירים נותנים ההכרה וכמסודרים. היותר מיוחד כאחרונה והתנה מתהפכים. כי מתנאי הגדר שיתהפך בנשיאות על הנגדר אחר שייוחד בו כאמרו כל אדם חי מדבר. וכל חי מדבר אדם. ועוד אמר אחר הקבוץ בין הסוג וכו' ירצה שכמקום הקבוץ בין הסוג היותר קרוב וכל התנדלים העצמותיים על הסדר אשר מהמשפט לעשות ככה. לא יעשה כן. אבל במקום זה תשוב אל הודעת הדבר כמה שאין וכו' ואמרו לפי שהזמן הוא מספק התנועה ירצה על שהוא כאור שם כי אין זמן בהיות כתנועה אחת בלתי נחלקת כמו שיתבאר במקומו אם ירצה האל ית'. ואמרו יקראו הנפרדים החמשה

- -
- 1 : מעיר: מעיד/ (ב) (ג)
  - 2 : ואולם: ואמנם/ (ב)
  - 3 : בלתי: בלי/ (ב) הכרה: ההכרה/ (ג)
  - 4 : מפעל: מפועל/ (ב) כאמרו: כאמרו/ (ג) וכמסודרים: מסודרים/ (ב)
  - 5 : כו' כן/ (ב)
  - 6 : אחר: אחורי/ (ב) הסוג (וכו'): היותר קרוב: / (ג)
  - 7 : וכל: וכין כל/ (ב)
  - 8 : וכו'... מספר: יותר נגלה ממנו ואמרו הזמן הוא מספר/ (ג)
  - 9 : האל ית: השם/ (ב)

refers to the five predicables. They are so named because they are predicated of individuals and differentiate them from the point of view of universality.

THE THIRD CHAPTER---CONCERNING THE combining of the incomplex and the kinds of propositions: Incomplex words may ~~be~~ combine to form sentences. We shall be concerned only with one kind of sentence - that which makes a statement. It is called a proposition or an enunciative sentence, truth and falsity being applicable to it. The statement "The world was created", may be true, and the statement "Man is a stone" may be false. Or when you say "if the sun rises" then the statement "the stars are invisible" is true, and the statement "The stars are visible", following the same condition, is false. The statement "The world either was created or is eternal" is true. But the statement "Reuben is either in Bedersh or in Narbonne" is false because he may be in Montpellier. <sup>(1)</sup> These are kinds of propositions. But the statements "explain a problem to me", or "will you join me in a journey to Mecca?" cannot be either true.

a) Reading with ms. Bet.



ירצה בו הנשואים החמשה ויקראו כן כי הם נשואים על האישים ונכדלים מצד הכללות. אמר האפן השלשי כהרכבת הנפרדים וחלקי המשפטים העניינים הנפרדים כאשר הורכבו הגיע מהם חלקים ולא נכוין מכלם אלא חלק אחד. והוא הספור ויקרא משפס ומאמר פוסק והוא אשר ילך אליו האמות וההכזבה. כי אתה כאשר אמרת שהעולם מחודש אפשר שיאמר שאתה צודק. וכאשר אמרת שהאדם אכן אפשר שתכזב. וכאשר אמרת אם היתה השמש עולה הכוכבים נעלמים צדקת. ואם אמרת הכוכבים נראים כזכת. ואם אמרת העולם אם חדש אם קדמון צדקת. ואם אמרת ראוכן אם ככדירש ואם כנרכונה כזכת כי כבר יהיה כמונפשליר ואלה הם חלקי המשפטים. וכאשר אמרת למדני שאלה או אמרת תסכים עמי ביציאה אל מכה אי אפשר שתצדק

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- 7: כזכת:כוזכת/(כ)  
 8: אם קדמון:ואם קדמון/(כ) (אם)ככדירש/(כ)  
 9: כבר כמונפשליר:כי יהיה אפשר כמונפעלייר/(כ) ואלה:אלה/(כ)  
 10: או(אמרת)/(ג) מכה:מיצא/(כ) מיצה/(ג)

or false. This is the subject matter of the proposition.  
It will be explained when we discuss the kinds (in detail).

(2)  
COMMENTARY: The statement "May combine to form sentences  
refers to the declarative, imperative, hortative (3) and in-  
terrogative. That the statement "'Man is a stone' may be  
false" means from the point of view of the proposition.

FIRST SECTION: The propositionx may be divided into the  
categorical, e.g., "The world was created"; the conditional,  
e.g., "If the sun shines (4) then it is day"; and the  
disjunctive, e.g., "The world is either eternal, or was  
created." The first, the categorical, consists of two terms:  
(5) One (a) is the subject. It is that about which - e.g. "The  
world" - something is stated. The second is the predicate.  
It is that which is stated, e.g., 'created', in the statement  
"The world was created." Sometimes both predicate and  
subject are incomplex words, as we have stated, (5) and sometimes  
they are complex words, though they may also be expressed by  
incomplex words - e.g., "The rational animal goes on foot." (6)  
Now "rational animal" is the subject, (7) it takes the place  
of the word "man" which is incomplex; "goes on foot" is the  
predicate and takes the place of the word "goes". The  
conditional

a) Reading with mss. Bet. and Gimmel.

או תכזב. הנה אלה עניני המשפט וכאורו בזכר חלוקות. הפירוש אמרו  
 הגיע מהם חלקים ירצה כמשפט והצווי והתחנה והתפלה והשאלה. ואמרו  
 שהאדם אכן אפשר שתכזב. ירצה מצד הגזרה. אמר החלוקה הראשונה שהמשפט  
 יתחלק אל נשואי כאמרך העולם מחודש ואל תנאי שתדבק כאמרך אם היתה  
 השמש זורחת הנה היום נמצא ואל תנאי מתפרד כאמרך העולם אם קדמון.  
 ואם מחודש. אולם הראשון הנשואי יכלול שני גבולים יקרא אחד מהם  
 נושא והוא המסופר ממנו בעולם. ויקרא השני נושא והוא הספור  
 כמחודש מאמרך העולם מחודש. וכל אחד מהנשוא והנושא כבר יהיה תיבה  
 נפרדת כמו שזכרנוהו. וכבר יהיה תיבה מורכבת ואבל אפשר שתורה עליו  
 תיבה נפרדת כאמרך החי המדבר נעתק כהעתקת רגליו הנה החי המדבר נושא  
 ויעמד מעמד מקום אמרך הולך. ואולם התנאי מתדבק הנה

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- 5: זורחת: עולה/ (ג)  
 6: מחודש. אולם: חדש ואולם/ (ב) יקרא: נקרא/ (ג)  
 7: בעולם: כעולם/ (ב) (ג)  
 8: מאמרך: כאמרך/ (ב) (מאמרך העולם מחודש)/ (ג) מהנשוא והנושא: 1-2/ (ב)  
 תיבה: מילה/ (ב)  
 10: הנה... מעמד: נושא ויעמד/ (ב)  
 11: מעמד: תיבה האדם והיא נפרדת - ואמרך נעתק מהעתקת רגליו נושא ויעמד: (ג)

also consists of two parts, but each one contains a proposition. The first part, e.g., "if the sun rises", is called the protasis. And even though the conditional particle, i.e., "if" may be missing, "the sun rises," which is a proposition, remains. But the conditional particle bars it from being a proposition subject to truth or falsity. The second part "then the stars are invisible," is called the apodosés. ~~Even~~ Even though the apodictic particle, which is the Arabic fa and the Hebrew hinne, may be missing, "the stars are visible," which is a proposition, remains. The difference between this proposition and the categorical is apparent in two ways. One is that the two parts of which a conditional is composed are each of them sentences, it being impossible to express each part by an incomplex word, whereas the two parts of which a categorical proposition is composed, are terms. The second is that in a categorical proposition, it is possible to ask of the subject if the predicate is its essence. For we say, "Man is an animal" and we may ask, "Is man an animal"? But the apodosís is not the essence of the protasis. The apodosís may be other than the protasis, except that it is

לו גם כן שני חלקים אבל כל חלק ממנו יכלול משפט. אולם החלק הראשון  
 והוא אמרן אם היתה השמש עולה יקרא קודם. ואם חוסר אות התנאי ממנו  
 והוא אמרן אם היתה נשאר אמרן עולה.  
 והוא משפט והיה אות התנאי מוציאו מהיותו משפט מקבל האמתות וההכזבה  
 והחלק השני. והוא אמרן הנה הכוכבים נעלמים: והוא המשפט: נקרא  
 נמשך ולו חסרת ממנו אות המסך והוא הפא בערכי. המועתק הנה כשלוך  
 העברי ישאר אמרן הכוכבים נעלמים והוא המשפט.  
 וההכדל בין זה ובין הנשואי נראה משני פנים אחד מהם שהתנאי המתדבק  
 חובר משני חלקים אי אפשר שיורה על כל אחד מחלקיו כתיבה נפרדת  
 כחלוף הנשואי והשני שאפשר כנשואי שיסאל מהנושא אם הוא הנשוא.  
 כי אתה תאמר האדם חי ואפשר שתשאל ההאדם הוא חי ואולם הקודם הנה לא  
 יהיה הוא הנמשך אבל הנמשך פעמים היה זולתו אבל יהיה

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- 2: היתה:היה/(ב) (ואם)/(כ) חוסר:נכתב כצדו: נ"א חוסר  
 3: (היתה)/(ב) נשאר:ישאר/(ב)  
 4: (והיה אות... מהיותו משפט)/(כ) משפט:המשפט/(ג) האמתות:האמת/(כ)  
 5: והחלק:ואולם החלק/(כ) (והוא המשפט)/(כ) האמת/(ג)  
 6: והוא:הנקרא/( ) הפא:הפא/(כ) הפח/(ג)  
 7: העברי:עברי המשפט:משפט/(כ) (ג)  
 8: פנים אחד:פעם אחת/(כ)  
 9: חלקים:רל הקודם והנמשך:/(כ) שיורה(על)/(ג) (כל)/(כ) אחד:מהם:/(ג)  
 10: והשני:והשנית/(כ)  
 11: החאדם הוא:היה אדם/(כ) (הנה)/(ג)  
 12: היה:הוא/(כ) אכל:ואכל/(ג)

necessarily connected with the latter and its existence follows from the existence of the latter. The conditional differs from the disjunctive in two ways. One is that the disjunctive consists of two parts, each one being a proposition even when the disjunctive particle is missing. But there is no fixed order between the two parts outside of the order of the statement itself. For if you had changed the statement "The world was either created or is eternal" to "is either eternal or was created" the meaning is not altered. But in the conditional if the apodosis is put in place of the protasis the meaning is altered; so that while in the proper order it may be true, in the reverse order it may be false. The second distinction is that the apodosis agrees with the protasis, in the sense that it is connected with it, is necessary to it and does not contradict it; while one of the two parts of the disjunctive contradicts the other and is distinct from it. For the existence of one of them requires the non-existence of the other.

COMMENTARY: "But there is no fixed order between the two parts" means that no logical order makes it necessary for one to precede the other, rather than the reverse. "Outside of the order of the statement itself" means the order as it came to his mind. The statement "that the apodosis agrees with the protasis" means that they are in natural agreement.

ANOTHER SECTION: The proposition, from the standpoint of its predicator

a) Reading with mss. Bet and Gimmel.

מתדבק בו מחוייב לו ונמשך במציאותו למציאותו. ויפרד התנאי המתדבק מהמתפרד בשני פנים אחר מהם שהמתפרד יכלול על שני חלקים כל אחד גם כן משפט כאשר חסרת ממנו אות התנאי אבל אין סדור בין שני חלקיהם אלא מצד הזכר כי אתה תאמר העולם אם מחודש ואם קדמון. ולו הפכת ואמרת אם קדמון ואם מחודש לא יומר הענין ואולם הנמשך כאשר הושם קודם ישונה הענין בתנאי המתדבק ופעמים כזב אחד מהם וצדק האחר. והשני שהנמשך מסכים לקודם בענין שהוא יתדבק בו ויחוייב לו ולא יסתרהו ואחד משני חלקי המתפרד סותר לאחר ומתפרד ממנו כי יחייב מציאות אחד מהם העדר האחר. הפירוש אמרו אבל אין סדור בין שני חלקיהם. ירצה סדור סבעי יחוייב בו שיקדים האחר לאחר. ואי אפשר בהפך זה. מצד הזכר. ירצה כאשר הזדמן בזכרוננו ראשון ואחרון. ואמרו מסכים לקודם. ירצה שסבעיהם נאותים. אמר חלוקה אחרת המשפט בכחינת נשואיו

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|----------------------|-----------------------------------|
|                      | 1 : במציאותו:מציאותו/ (ג)         |
| אחר:אחד/ (ב) (ג)     | 2 : מהמתפרד בשני:מהתפרד בשני/ (ב) |
|                      | 5 : קודם:לקודם/ (ב)               |
| כי יחייב:שיחייב/ (ב) | 8 : לאחר ומתפרד:לאחר והמתפרד/ (ב) |
|                      | 9 : האחר:האחד/ (ג)                |

may be divided into the affirmative, e.g., "The world was created" and into the negative, e.g., "The world was not created". "Not" is a negative particle. Negation in the conditional negates the conjunction (between protasis and apodosis) e.g., "not" in (the sentence) 'If the sun rises, it is not night'. Negation in the disjunctive negates the disjunction, e.g. "not" in the sentence "The ass is not either male or black, but either male or female". Or "The world is not either eternal or material but either eternal or created". The protasis and apodosis may negate, then the condition composed of them affirms, e.g., "If the sun does not rise then it will not be day". This proposition is affirmative, since we have affirmed the conjunction of the non-existence of the day with the non-existence of the sun's rising. That is the meaning of affirmation in this proposition. This is a stumbling block. In like manner one may err in a categorical proposition and think that the sentence, "Zaid is non-voyant"<sup>(7b)</sup> is negative, though it actually is affirmative, because its meaning is that he is blind. We may say, in Arabic, "Zaid is non-voyant" and think it negative<sup>(8)</sup> though it is affirmative, "non-voyant" being a term signifying blindness. It is a predicate which may be either affirmed or negated. For example, "Zaid is not



יחלק אל מחייב כאסרך העולם מחודש ואל שולל כאסרך העולם אינו מחודש. ואין הוא אות השלילה. והשלילה בתנאי הסתדבק שתשלול הדבקות. בשתאמר אין כאשר היתה הסמס עולה הנה הלילה נמצאת. והשלילה במתפרד שתשלול ההפרדה בשתאמר אין החסור אם זכר ואם שחור אבל אם זכר ואם נקבה. ואין העולם אם קדמון ואם גשם אבל אם קדמון ואם מחודש. ופעמים היה הקודם שולל והנמשך שולל והתנאי הסורכב מהם מחייב כאסרך אם לא תהיה הסמס עולה הנה היום אינו נמצא. וזה מחייב. לפי שאתה חייבת דבקות סלוק היום לסלוק העליה והוא ענין החיוב בזה המספס וזה המעדת רגל. וכך כבר יטעה בנשואיי ויחשב שאסרך זיד נאבינה סת בפרטי ולא רואה בעברי שולל והוא מחייב כי ענינו שהוא עור ופעמים יאמר בערבי זיד בלתי רואה. ויחשב שהוא שולל. והוא מחייב והבלתי רואה מליצה מן העור והוא נשוא אפשר שיקויס ואפשר שיסולק בשיאמר זיד אינו

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- 3 : בשתאמר: בשתאמר/ (2)  
 4 : בשתאמר: בשתאמר/ (2)  
 7 : תהיה: תהיה/ (2)  
 9 : ולא: ולא/ (2) (2)  
 10 : (שחור/ (2) בערבי/ (2) (בעברי/ (2)  
 11 : מחייב והבלתי: המחייב כי הבלתי/ (2)  
 12 : העור: וזה בכללו ול הבלתי רואה: (2) /: וזה בכללו: (2)  
 בשיאמר: בשיאמר/ (2)

non-voyant." This negates the "non-voyant" of Zaid. This kind of proposition is called equilibrated, i.e., it is in reality affirmative though negative in form. <sup>(9)</sup> It indicates that a negation may be true of a non-existent thing. We may say "The companion of God, Blessed Be He, does not see", and ~~xxxx~~ "the absurd is not knowledge." But we may not say "the companion of God is non-voyant" just as it is impossible to say "The companion of God is blind," for that affirms the existence of God's companion. This is even more apparent in Persian. <sup>(10)</sup>

COMMENTARY: Privation is the lack of a faculty which the subject should possess by nature at some time, but which will never come into being. Therefore, it is not said of puppies that they are blind, for it is not their nature to see. Nor is he called blind who cannot see because his eyes are sickly but can be cured. Of them it is said they do not see. In general, the universal negative is applicable to them and not the particular privative "and is non-voyant". For we said, "non-voyant" is equivalent to "blind". Therefore, the statement "this wall is non-voyant" or "is blind" is not used, but rather "does not see". This is a universal negative. Therefore, he <sup>(12)</sup> said "it indicates that a negation may be true of a non-existent thing," because there is a distinction between negative and non-existence, or privation. For negation is

## 232

בלתי רואה וזה שלל הבלתי רואה מזיד ויקרא זה משפט סוסר רל הוא  
 חיוב באמת סר בו אל דרך השלילה. ואות זה שהשלילה תהיה אמתת כל  
 הנעדר. ואפשר שיאמר שותף האל ית אינו רואה והבטל אינו ידיעה ואי  
 אפשר שיאמר שותף האל בלתי רואה כסו שלא יאמר שיש עור הוא בלשון  
 ההסון יותר נראה. הפירוש ההעדר הוא שיפקד מן הנושא הקנין שדרכו  
 שיהיה לו בעת שדרכו שיהיה סזולת שיהיה סזיאותו אפשר לו בעתיד  
 ולכן לא יאמר בגורי הכלבים שהם עורים כי אין סדרכם שיראו ולא גם  
 כן מי שיחלו איניו ולא יראה ובכחו לקבל התרופה יקרא עור. אבל יאמר  
 על אלו אינו רואה. ובכלל תצדק עליהם השלילה הכוללת לא ההעדר הסיוחד  
 והוא לא רואה כי אסרנו לא רואה כאלו נאמר עור ולכן לא נאמר הכותל  
 הזאת בלתי רואה או עורת אבל נאמר אינה רואה וזה על צד השוללת הכולל  
 ולכן אסר הנה כי אות על שיש הבדל בין השלפלה וההעדר הנקרא הסרה  
 כי השלילה תהיה

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- 1: שלל: שולל/ (ב)      משפט: משפט/ (ב)  
 2: חיוב: חיוב/ (ב)      השלילה: השלילה/ (ב)      אמתת: אמתת/ (ב) (ב)  
 3: (ית)/ (ב)      והבטל אינו... שותף האל: ולא יאמר/ (ב)  
 4: עור והוא: עור הוא/ (ב)  
 9: הצדק: הצדק/ (ב)  
 11: או: ולא/ (ב)      אינה: אינה/ (ב)  
 15: אמתת: אמתת/ (ב)

affirmed of the non-existent and therefore "we may say, 'The companion of God, Blessed Be He, does not see' and 'the absurd (which is absolute falsehood) is not knowledge'. But we may not say, 'The companion of God is non-voyant' because it will be understood from that that God has a companion and that the companion possesses the power of seeing, save that the organ is wanting - which is absurd, because no companion of God exists. For there is no one like Him, associated with Him in Godhood, as God, Blessed Be He said, "To whom then will ye liken Me, that I should be equal? Saith the Holy One."

(13)

(13a)

ANOTHER SECTION:

The proposition, from the standpoint of its subject, may be divided into the singular, e.g. "Zaid knows" and into the non-singular; the latter being divided into the indefinite and the quantified. The indefinite is that to which no sign is attached indicating that the proposition is predicated of all or part of the subject, e.g., "Men are righteous" because it also admits of meaning "some". The quantified is that in which the sign is stated. There are four quantifications: universal affirmative, e.g., "Every man is an animal"; universal negative, e.g., "No man is a stone"; particular affirmative, e.g., "Some men write"; particular negative, e.g., "Not every man writes" or "Some men do not write". From this standpoint there are eight kinds of propositions, (the four mentioned and

(14)

אמתית על הנצדר ואפשר שיאמר שותף האל ית' אינו רואה והבטל והוא  
הסקר המוחלט אינו ידיעה ואי אפשר שיאמר שותף האל בלתי רואה כי  
יובן מסנו' על ששותף האל נמצא ושנמצא בו הכח על הראות רק שנפקד  
הכלי. וזה בטל כי שותף האל בלתי נמצא כי אין דומה אליו ששותף עמו  
באלהות כמו שאמ' ית' ואל מי תדמינוני ואשׁוה יאמר קשׁוּשׁ אמר חלוקה  
אחרת המספּט בבחינת נושאׁו יתחלק אל אישיי כאסרך זיד יודע. ואל בלתי  
אישי והוא יתחלק אל סתום וסוקף. והסתום סה שלא יוקף בחומה יבאר בה  
שׁמֶשֶׁפֶט נשׁוּא על כלל הנושאׁ או קצתו כאסרך האדם צדיק כי יסבל שתרצה  
הקצת. והסוקף הוא אשר נזכר זה בו. והם ארבעה. אם סחייב כולל ש  
כאסרך כל אדם חי או שולל כולל כאסרך אין אדם אחד אבן או סחייב חלקי  
כאסרך קצת האדם כותב. או שולל חלקי כאסרך אין כל האדם כותבֿ או קצת  
האדם אינו כותב. ויהיו המספּטים לפי זאת הבחינה שמונה

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- |      |                          |                  |                            |
|------|--------------------------|------------------|----------------------------|
| 1 :  | אמתית: אמתית/ (ב)        | (ית)/ (ב)        | ותבטל: ותבטול/ (ב)         |
| 2 :  | בטל: בטל/ (ב)            |                  |                            |
| 5 :  | באלהות/ (ב)              | שאמ: שאל/ (ב)    | ואשׁוה... מקדוש: וזור' (ב) |
| 6 :  | אחרת: שלישיית/ (ב)       | אישי: אישיי/ (ב) |                            |
| 7 :  | והסתום/ (ב)              |                  |                            |
| 8 :  | שמשפּט: שמשפּט/ (ב)      | נשׁוּא/ (ב)      | כלל: כל/ (ב)               |
| 11 : | האדם כותב: אדם כותב/ (ב) | (ב) (ב)          | קצת האדם: קצת אדם/ (ב)     |

and the following four); singular negative, singular affirmative, indefinite negative, indefinite affirmative. These four are not employed in the sciences because the problem of the particular individual is not investigated in the sciences. It is not the problem of Zaid that is investigated, but rather the problem of man. The force of the indefinite is that of the particular, since at the very least it deals with the particular. Its universality is a matter of doubt because it may be reduced to less. (15) Therefore, it must be rejected in the sciences. There remain the four quantifications: universal affirmative, particular affirmative, universal negative, particular negative. The conditional may also be divided into a universal, e.g., "Whenever the sun rises it is day." and into a particular, e.g., "Sometimes when the sun rises, it is day." (16) In the disjunctive, too, there is a universal, e.g., "Every material substance is either in motion or at rest," (17) and a particular, e.g., "The man is either on the ship or drowned in the sea." This alternative is applicable to man only at certain times, e.g., when he is at sea and not on land. We must also add an example of the particular negative and the universal negative of the conditional and disjunctive. (18)

COMMENTARY: The statement, "Or

אישיי שולל. אישיי מחייב. סתמי שולל. סתמי מחייב. ואלה הארבעה לא יעשו בחכמות לפי שהאיש המיוחד הנה לא ידרש משפטו בחכמות. כי לא ידרש משפט זייד אבל משפט האדם ואולם הסתמי הנה נכה החלקי לפי שהוא שופט על החלקי בלא ספק ואולם הכללות הנה מסופק בו ובעבור השכתו יחוייב שירותק בלימודים ונשאר המוקפים הארבעה מחייב כולל ומחייב חלקי. ושולל כולל ושולל חלקי. והתנאי המתדבק גם כן יתחלק אל כולל כאמרך כל אשר היתה השמש עולה היה היום נמצא. ואל חלקי כאמרך פעמים אם היתה השמש עולה היה היום נמצא. ואולם המתפרד הנה הכולל בו אם תאמר כל בשם הנה אם מתנועע ואם נח. והחלקי אם תאמר האדם אם שיהיה כספינה ואם שיהיה בשפת הים. וזה החלוק והשנוי קיים לאדם אבל בקצת העתים והוא שיהיה בים ולא ביבשה. ועל יך שתוסיף משל השולל החלקי מהתנאי המתדבק והמתפרד. הפירוש אמרו או

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- 1: מחייב... שולל: 1-2/(ב)
- 2: לפי... המיוחד: אולם האיש המעויין רמוז אליו/(כ) אולם האיש המעויין/(ג)
- ידרש: ידרוש/(ב)
- 3: אבל: כי אם/(כ) הנה(הוא)/(כ)
- 4: בלא: כלי/(ג)
- 5: המוקפים: המוקפות/(כ)
- 6: (גם כן)/(כ)
- 8: (הנה)/(ג)
- 10: שיהיה... הים: שטבע בים/(כ) קיים: היה/(כ) אבל: ואכל/(ג)
- 11: לא: ולא/(כ) החלקי: ושולל הכולל:/(ג) והכולל:/(כ) מהתנאי/(כ)

a particular negative, e.g., 'Not every man writes' or 'some men do not write' means that the two propositions are the same. For he who negated "every", affirmed "some" by the negation. But the sentence, "Not some men write" <sup>(19)</sup> is not the same as the other two propositions, because it is a universal negative. The sentence "The problem of the particular individual is not investigated in the sciences," means that the problem of the particular individual is not investigated in the sciences for knowledge is permanent and individuals are transient, so that knowledge would change with the change of individual object. The knowledge of Him Who is Unchanged, <sup>(20)</sup> therefore, must be of unchangeable objects - hence: "The Lord sat <sup>(21)</sup> enthroned at the flood," <sup>(22)</sup> which means that with the change of the people of the earth and their desired destruction at the time of the Flood, the Blessed One was not subjected to change. His relation is to species and not to individuals. Those species are stable and permanent, like the permanence of the heavenly bodies, the secret of whose existence is God Blessed Be He in whom Being and Knowledge <sup>(23)</sup> are one, since they exist in <sup>(24)</sup> Him in a more perfect unity than in all creatures, as will appear, with the help of God.

FOURTH SECTION: The proposition, from the standpoint of <sup>(25)</sup> the relation of its predicate to its subject, is divided into the possible, e.g. "Man writes," "Man does not write;"



שולל חלקי כאמרך אין כל אדם כותב או קצת האדם אינו כותב. ירצה כי שני המשפטים אחד כי מי ששולל הכללות הנה גזר הקצת כשלילה. לא אמרך אין קצת האדם כותב כי זה שולל כולל. ואמרו ואולם האיש המעויין הנה לא ידרש משפטו כחכמת. ירצה כי לא ידרש כחכמות משפטי האיש הרמוז אליו כי הידיעה קיימת והאישים הווים נפסדים ותשתנה הידיעה כהשתננות הידועים לכן היה ממשפטי היודע בלתי משתנה שיהיו ידועיו בלתי משתנים לכן אמר ש למכול ישב שבהשתנות אישי הארץ והפסדס הנרצה בעת המכול לא השיגיהו ית שינוי כי יחסו אל המינים לא אל האישים והמינים ההם תדירים קיימים כקיום אישי השמים אשר סיכת מציאותם הוא האל ית אשר הוא וידעתו אחד רק שהם בו במציאות היותר משובח אשר לנמצאות כמו שיבא בעה אמר חלוקה רביעית המשפט ככחינת יחס נשואו יחלק אל אפשרי כאמרך האדם כותב אינו כותב ואל

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- 1: אדם:האדם/(ג)
  - 2: אחד...הכללות:אחר מי ששולל כוללת/(ב)
  - 3: (כולל)/(ב):ואם כבר חשב זולת זה:ואם כבר חשב זולת הרם זולת זה בספר המלות:(ג) (אולם)/(ג)
  - 4:(משפטו)/(ב) ידרש:משפטו:(ב) (הרמוז)/(ב) (אלי)/(ב)/(ג)
  - 5: הווים נפסדים:ההווים ונפסדים/(ב) (הווים נפסדים)/(ג)
  - 6: ממשפטי:המשפט/(ב) בלתי:הבלתי/(ג)
  - 7: משתנים:משתנה/(ב) ש:אדני/(ג) בהשנית:רל
  - 9: תדירים:תדיריים/(ב) כקיום:כקיום/(ב)
  - 10: וידעתו אחד רק:וידיעתו אחד אחר/(ב)
  - 11: בעה:ית:(ב) נשואו:אל נשואו/(ג)
  - 12: אפשרי:אפשר/(ב)(ג)
- כהשתנות/(ב) רוצה לומר  
שבהשתנות/(ג)

the impossible, e.g., 'Man is a stone' 'Man is not a stone;' and the necessary, e.g., "Man is an animal," "Man is not an animal." The relation of writing to man is a possible relation. We do not take into consideration the difference <sup>(26)</sup> effected by the negative and affirmative expressions. For that which is negated is as much a predicate in a negative proposition as that which is affirmed is a predicate in an affirmative proposition. The relation of stone to man is an impossible relation, while the relation of animal to man is a necessary relation. The possible is an equivocal with two meanings, because it may mean whatever is not impossible, so that it also includes <sup>(27)</sup> the necessary. From this standpoint, propositions are of two classes: possible and impossible. It may also mean what may be existing at a certain time <sup>(28)</sup> or may be non-existing. This is the particular usage. From this standpoint, there are three classes; <sup>(29)</sup> necessary, possible and impossible. In this case the necessary is not included in the possible, but in the first case it is included in the possible. However, the possible in the first case does not necessarily imply the possibility of nonexistence. But sometimes non-existence is impossible, like the necessary, which is impossible. So the possible in this case only means that it is not impossible. <sup>(30)</sup> The possible, then is only an expression <sup>(31)</sup> for the not impossible.

COMMENTARY: Statement: "We do not take into consideration the difference effected by the negative and affirmative particles. For that which is negated is as much a predicate in a negative proposition as that which is affirmed is a



predicate in an affirmative proposition. The relation of stone to man is an impossible relation, while the relation of animal to man is a necessary relation." Now, "we do not take into consideration the difference effected by the negative and affirmative particles" means that, when we consider the two judgements in so far as they are opposites of affirmation and negation and say that "man is not a stone" is a necessary proposition and "man is a stone" is an impossible proposition, or "man is an animal" is a necessary proposition and "man is not an animal" is an impossible proposition, we are in error. <sup>(32)</sup> "For that which is negated is as much a predicate in a negative proposition as that which is affirmed is a predicate in an affirmative proposition." A proposition is impossible or necessary when there is an impossible or necessary relation between subject and predicate. It makes no difference whether the proposition is affirmative or negative. Therefore, the relationship between stone and man is an impossible one, and the relation of animal to man is a necessary one. The predicate determines whether they are affirmative or negative propositions. Therefore, the two propositions i.e., the negative and the affirmative, in regard to the relation of stoniness to man, are impossible propositions, and the propositions in regard to relation of animality to man are necessary propositions. From the point of view of the relation of their predicate to their subject, they are stripped of quality, i.e., of affirmation and negation. Quality affects truth and falsity without changing relations.

FIFTH SECTION: Every proposition may have an apparent contradictory, which disagrees with it either in the affirmative or in the negative. But

נשוא בחיוב ויחס האבן אל האדם יחס ההמנע ויחס החי אל האדם יחס החיוב. ירצה ולא יוכנו אל חלוף השלילה והחיוב בתיבה ושנכחין שתי הגזרות מצד הקבלתם בחיוב והשלילה ושנאמר כי האדם אינה אכן מחוייב והאדם אכן נמנע כמו כן האדם חי מחוייב האדם איננו חי נמנע כי זאת הבחינה בלתי ראויה כי הגבול השלול נשוא בשלילה כמו שהמחוייב נשוא מחיוב והגזרה מחמר הנמנע או המחוייב כפי יחס הנשוא בנושא מכלי הכסח אם יושלל כה או יחוייב ויחס האבן אל האדם יחס ההמנע. ויחס החי אל האדם יחס החיוב כנשיאותם ישוללו או יחוייבו ולכן היו שתי הגזרות רל השוללת והמחייבת כיחס האבניות אל האדם מן הנמנע. והחיות מהמחוייב לאדם בבחינת יחס נשואם אל נושאם מופשט מן האיכות רל החיוב והשלילה והאיכות יפעל הצדק והכזב מכלי שיסנה היחס. אמר חלוקה חמישית לכל משפט סותר כנראה יתחלף לו בחיוב והשלילה. אבל

בצדו של קונטרס על המלה "ולא" נמצאת הערה זו: וכמאמר הוא כתוב ואין אנו חוששין מחלוף השלילה וכפירוש ולא יוכנו אל חלוף השלילה רל ואין אנו וכו'

- 1: ההמנע:הנמנע/ (ב)  
 2: חלוף:סלוף/ (ב) ושנכחין:וכשנכחין/ (ב)  
 3: שתי:שני/ (ב) ושנאמר:כשנאמר/ (ג) אינה:אינינה/ (ב) אינו (ג)  
 4: כמו:וכמו/ (ב)  
 5: הגבול:הנשוא/ (ב)  
 6: מחמר:מחומר/ (ב) המחוייב:נשוא: (ב) (כנושא)/ (ג)  
 7: יושלל:שולל/ (ב) ההמנע:הנמנע/ (ג)  
 8: ישוללו או יחוייבו:יחוייב או ישוללו/ (ב)  
 9: מן הנמנע:מהנמנעו/ (ב) (ג) מהמחוייב לאדם:1-2/ (ב)  
 11: מכלי:מכלתי/ (ב)  
 12: אבל:ואכל/ (ב) (ג)

if the true and the false are involved in it <sup>(33)</sup> they are called contradictory and we say one of them is the contradictory of the other, which means that it is false when the proposition is true, and true when it <sup>(34)</sup> is false. The contradiction is true only <sup>(35)</sup> under five conditions. First: the subject of both should be the same in reality as it is in name, if not, there will be no contradiction. For we say, "The dog will die;" "The Dog will not die", meaning by the latter the dog-star, so that there will be no contradiction, or we say <sup>(36)</sup> "The ram will be slaughtered and fried", "The Ram will not be slaughtered or fried", meaning by the latter the constellation, Aries. Second: <sup>(37)</sup> their predicate should be the same, if not there will be no contradiction, e.g., "The fire consumes", "The fire does not consume". The first denotes perishibility, the second, eating, Since the word shilah is a homonym there is no contradiction, like the word "dog", above. Third: the whole and the part should not be interchanged, for when we say, "Someone's eye is black", by which we ~~mean~~ mean <sup>(38)</sup> the pupil of the eye, then saying "His eye is not black" will be no contradiction, if we mean the absence of black coloring from the whole eye. Fourth: the potential and the actual should not be interchanged. For when we say, "The wine in the barrel is intoxicating" and we mean

אם יחלקו הצדק והכזב נקראו סותרים ונאמר שאחד מהם סותר האחר וירצה בו שיכזב כאשר צדק המשפט ויצדק כאשר כזב. ולא תהיה אמתית זאת הסתירה אלא בחמשה תנאים. הראשון שיהיה הנושא משניהם אחד באמת כסו שהוא אחד בשם ואם לא לא יסתרו כי אתה תאמר הכלב ימות הכלב לא ימות ותרצה באחד מהם הכוכב ולא יסתרו. ותאמר הטלה ישחט ויצלה הטלה לא ישחט ולא יצלה ותרצה באחד מהם סלח. השני שיהיה הנושא גם אחד ואלא לא יסתרו כאשר האש ש אוכלת האש אינה אוכלת ותרצה בראשון ענין הכלוי ובשני אכילת הפה. והיות שם האכילה כמותף סנע הסתירה. כשם הכלב בנושא. השלישי שלא יתחלפו בכל והחלק כי אתה לו אמרת עין פלוני שחור ורצית בו בת העין לא יסתרהו אמרן עינו שחור כאשר רצית בו סלוק השחרות סכל העין. הרביעי שלא יתחלפו בכח ן והפעל כי אתה תאמר היין בחבית

משכר ותרצה

- 1: הצדק:אמת/(ב) שאחד:שהאחד/(ב)  
 2: בחמשה תנאים הראשון:בתנאים חמשה.אחד הראשונה בנושא/(ב) (אחד)/(ב)  
 3: יסתרו:יסתירה/(ב) יחשט(ולא)/(ב)  
 4: יסתרו:יסתירה/(ב) יסתרו:יסתירה/(ב)  
 5: יסתרו:יסתירה/(ב) יסתרו:יסתירה/(ב)  
 6: יסתרו:יסתירה/(ב) יסתרו:יסתירה/(ב)  
 7: יסתרו:יסתירה/(ב) יסתרו:יסתירה/(ב)  
 8: יסתרו:יסתירה/(ב) יסתרו:יסתירה/(ב)  
 9: יסתרו:יסתירה/(ב) יסתרו:יסתירה/(ב)  
 10: יסתרו:יסתירה/(ב) יסתרו:יסתירה/(ב)  
 11: יסתרו:יסתירה/(ב) יסתרו:יסתירה/(ב)  
 12: יסתרו:יסתירה/(ב) יסתרו:יסתירה/(ב)

that potentially it intoxicates, saying, "The wine in the barrel is not intoxicating" will be no contradiction because what is meant by the latter is the absence of actual intoxication. Fifth: they should bear the same relation <sup>(39)</sup> to all their correlatives. <sup>(40)</sup>

Thus, our saying "Ten is half" does not contradict saying "Ten is not half", "it is half" in relation to twenty <sup>(41)</sup> and "it is not half" in relation to thirty, etc. The two statements "Zaid begets", "Zaid does not beget", are true in relation to two

different people. (Sixth: they should be the same in time and place) <sup>(42)</sup>

In general, the two propositions should differ only in negation and affirmation. One proposition should negate of the subject what the other affirms of the same subject in the same manner, without change. If the subject is universal and not singular, a sixth <sup>(43)</sup> condition is added, namely: they must differ quantitatively, in so far as one of them is universal and the other particular. For if both are particular, both may be right in the possible mode, e.g., "Some men write", "Some men do not write." If both are universals they may both be false in the possible mode, e.g., "All men write", "All men do not write."

COMMENTARY: The statement, "Every proposition may have



בו שהוא משכר ככה לא יסתרהו אמרן היין כחכית בלתי משכר כי רצית בו  
 סלוק השכרות כפעל. החמישי שישו בכסף כמה שיפל מכלל הצרופים הנה  
 תאמר העשרה חצי ולא יסתרהו אמרן העשרה אינו חצי רל חצי כצירוף אל  
 העשרים ואינו חצי כצירוף אל השלשים וזולתו. ותאמר זיד מוליד זיד אינו  
 מוליד ושניהם צודקים בצרוף אל שני אישים. ובכלל הנה ראוי שלא יתחלף  
 אחד מהשני משפטים מן האחד כלל בדבר אלא כשלילה והחיוב וישלול אחד מהשני  
 משפטים מה שיחייבהו האחד בעיני מאותו הנושא על אותו האופן מכלי  
 שנוי. ואם היה הנושא כולל ולא יהיה אישי נוסף תנאי ששי והוא שיתחלפו  
 ככמות כשיהיה אחד מהם כולל והאחד חלקי כי הם אם היו חלקיים אפשר  
 שיצדקו בחמר האפשר כאמרן קצת האדם כותב קצת האדם אינו כותב. ואם  
 היו שניהם כוללים אפשר שיכזבו בחמר האפשר כאמרן כל אדם כותב כל אדם  
 אינו כותב. הפירוש אמרו לכל משפט סותר

- -
- 1: לא יסתרהו: ולא יסתירהו/ (כ) (אמרן)/ (כ) (בו)/ (כ)
  - 2: החמישי שישו בכסף: החמישית ששמו/ (כ) בצרוף/ (כ) (ג) שיפל: שיפול/ (כ)
  - 3: ולא: לא
  - 4: זיד: זייד/ (כ)
  - 5: ראוי/ שיונח/ (ג)
  - 6: (אחד מהשני... והחיוב וישלול)/ (כ) האחד משני משפטים: כל: מה שיחייבהו/ (כ)
  - 8: כולל: רל מוקף בחומה: / (כ) יהיה: היה/ (ג) האחר/ (כ) (ג)
  - 9: והאחר: והאחד/ (ג) הם אם: אם הם/ (כ) אפשר: איפשר/ (כ)
  - 10: בחמר האפשר כאמרן: בחומר האיפשר כאמרן/ (כ) (קצת האדם כותב)/ (כ)
  - 11: שניהם כוללים אפשר: שתיהן ככליות איפשר/ (כ) בחמר האפשר: בחומר האיפשר/ (כ) כל אדם אינו: ואין אדם אחד/ (כ)

an apparent contradictory" means that every enunciative sentence contains an apparent contradictory, and by contradictory he means disagreement in the affirmative or negative. It may be a true contradictory or it may not be a true contradictory. If they disagree qualitatively it is a true contradictory. That is what is meant by the statement, "If the true and the false are involved in it." The statement "and true when it is false", means the contradictory will be true when the proposition is false. (The statement, "a sixth condition is added" means to make them contradictories. If both are particulars they are called subcontraries, if both are universals they are called contraries.)<sup>(44)</sup>

SIXTH SECTION: Every proposition is apparently convertible. Conversions are divided into those whose truths necessarily follow from the truth of the original proposition, and into those whose truths do not necessarily follow, and are false.<sup>(45)</sup> By conversion is meant the transposing of predicate and subject. If the truth remains the same, we say this proposition is convertible.<sup>(46)</sup> If it does not necessarily follow, we say that it is not convertible. We have already stated that there are four quantified propositions: universal negative, which is convertible per se, as a universal negative. For if the statement "No man is a stone," is true, the statement "No stone is a man" is also true. If it were not true,<sup>(47)</sup> its contradictory would be true, i.e., "Some stones are men" and this "some" would refer to "men" and "stones." But<sup>(a)</sup> this contradicts the statement "No man

a) Reading with ms. Gimmel.

בנראה. יתחלף לו בחיוב והשלילה ירצה כי לכל מאמר פוסק הנה לו  
 סותר מצד הנגלה ורל כסותר שיתחלף לו בחייב ובשלילה אבל לפעמים  
 יהיה סותר אמתי ולפעמים אין שם סתירה על דרך האמת ואם יתחלפו  
 באיכות וזהו אמרו אבל אם לחלקו וכו' ואמרו ויצדק כאשר כזב ירצה  
 ויצדק הסותר כאשר כזב המשפט. אמר חלוקה ששית כל משפט הנה לו  
 הפוך מצד הנראה אבל יתחלק אל מה שיחוייב צדקו מצדק המשפט ואל  
 מה שלא יחוייב. וירצה בהפוך שיושם הנשוא נושא והנושא בשוא ואם נשאר  
 הצדק בעינו נאמר זה משפט יתהפך. ואם לא חוייב נאמר שהוא לא יתהפך.  
 וכבר זכרנו שהמשפטים המקיפים ארבעה. שולל כולל והוא יתהפך כמו שהוא  
 שולל כולל. כי כאשר יצדק אמרנו אין אחד אבן צדק אמרנו אין אבן אחת  
 אדם לפי שאלו לא היה צודק יצדק סותרו והוא אמרנו קצת האבן אדם  
 והיה זה הקצת אדם ואבן. ואצל זה יכזב אמרנו לא אדם

- 1: בנראה... בחיוב: הנראה יתחלף לא החיוב/ (ב) כי: בו/ (ב)  
 2: ובשלילה: והשלילה/ (ב) (ב)  
 4: וזהו: וזהו/ ( ) אבל: ואבל/ (ב) יחלקו: יתחלקו (וכו')/ (ב)  
 5: המשפט: ואמרו נוסף מבני ששי ירצה אל שימיו סותרים וכשנביתם חלקים  
 יקראו תחת האמכיות ואם היו שניהם כוללים יקראו אמכיות. / (ב) :ואמרו  
 נוסף מבני ששי ירצה לחיות פותרים: / (ב)  
 6: אבל: ואבל/ (ב) (ב) שיחוייב: שחוייב/ (ב)  
 8: חוייב: יחוייב/ (ב) (ב) משפט: המשפט/ (ב) (ב) שהוא: הוא/ (ב)  
 9: כמו: כמות/ (ב)  
 10: כולל: כללי/ (ב) יצדק: צדק/ (ב) (ב) אין: אדם: אחד/ (ב) אחת: אחד/ (ב)  
 11: לפי...: שולל: שולל זה יצדק סותר/ (ב) לפי שולל יצדק יצדק  
 12: ואצל: ואצל/ (ב) לא: אין/ (ב) סותרו/ (ב)

is a stone", which is the proposition we assumed to be true in the first place. This shows that the universal negative is convertible per se. The particular negative, however, is not convertible at all. For while the statement "Not some men write" is true, it does not necessarily follow that the statement "Some who write are not men" is true. The universal affirmative is convertible into the particular affirmative but not into the universal. For if "Every man is an animal" is true, "Some animals are men" is certainly true and "Every animal is a man" is not true. The particular affirmative is also convertible per se. For just as "Some animals are men" is true, "Some men are animals" is also true. This is the enquiry concerning kinds of propositions.

COMMENTARY: The statement "Every proposition is apparently convertible" means without regard to the truth of the conversion. By conversion he means conversion of the proposition, as has been explained. The statement "Not some men write" <sup>(48)</sup> means "Some men do not write". <sup>(49)</sup> He merely stated it in elliptic <sup>(59)</sup> fashion.

THE FOURTH CHAPTER: Concerning the composition of propositions to form a syllogism. This is the purpose of the entire enquiry. But

אחד אבן והוא המשפט אשר הנחננו ראונו על שהוא צודק והורה על  
 השוללת הכוללת תהפך שוללת כוללת. אולם השוללת החלקית הנה לא תהפך  
 כי כאשר צדק אטרנו אין קצת אדם כותב לא שיהייב שיצדק אטרנו אין  
 קצת הכותב אדם. ואולם המחייבת הכוללת תהפך מחייבת חלקית לא כוללת.  
 וכאשר צדק אטרנו כל אדם חי צדק אטרנו שלשמש קצת החי אדם בלא  
 ספק ולא יצדק אטרנו כל חי אדם ואולם המחייבת החלקית הנה היא תהפך  
 גם כן כמו שהוא וכאשר צדק אטרנו קצת החי אדם צדק אטרנו קצת האדם  
 חי. הנה זה העיון בחלוקת המשפטים. הפירוש אטרו כל משפט הנה לו הפוך.  
 סוד הנראה ירצה בלי בחינת שמירת הצדק אחר ההפוך.  
 ורל בהפוך הפוך המשא כמו שיבאר ואפוא כאשר צדק אטרנו אין קצת האדם  
 כותב. ירצה קצת האדם אינו כותב אך אטר זה בהעברה. אמר האופן הרביעי  
 בהרכבת המשפטים להיות הקש והוא הסכרון אבל ראשית

- 2 : (אבא)/(ב)  
 3 : אדם:אדם/(ב) שיהייב:יהוייב/(ב)  
 4 : לא כוללת:לכוללת/(ב)  
 5 : וכאשר צדק:יצדק/(ב) אטרנו כל:אטרנו כל/(ב) אטרנו קצת:אטרנו קצת/(ב)  
 6 : אטרנו:אטרנו/(ב) מחייבת:מחייבת/(ב) מחייבת/(ב) מחייבת/(ב)  
 7 : שהוא:שהיא/(ב) וכאשר צדק:יצדק/(ב) אטרנו:אטרנו/(ב) אטרנו/(ב)  
 8 : זה:זהו/(ב) בחלוקת:בחלוקת/(ב)  
 10 : המשא:משא/(ב) שיבאר:שיבאר/(ב) כאשר:כאשר/(ב) אטרנו:אטרנו/(ב)  
 12 : אבל:ואבל/(ב) אוטרנו/(ב)

first in thought is last in deed. The investigation of the syllogism consists of two parts, ~~and~~ ~~mak~~ form and matter. The first principle concerns the form of the syllogism. It has ~~x~~ already been mentioned that knowledge is either conception or judgement. Conception is arrived at through definition, and judgement through argumentation. Argumentation may either be syllogistic or by means of induction or analogy. The investigation of the unknown by the known is called analogy. All these are employed in argumentation, especially the syllogism, particularly the demonstrative syllogism. We must, however, first give a general definition of the syllogism, which will be divided into the demonstrative and the non-demonstrative. The syllogism is a term used for propositions so combined that from their essential assumption a third proposition (e.g., that "The world was created"<sup>(1)</sup>) necessarily follows. The same is true if only one of them is a necessary proposition.<sup>(2)</sup> For example, "The world has form" and "Everything that has form was created." From the assumption of these two combined propositions, a third proposition, e.g., that "the world was created", necessarily follows. Similarly, when we say, "If the world has form, then it was created," and "It has form," the conclusion "The world was created" results from the assumption of the two premises. Similarly, when we say "The world was either created or is eternal," but, "It is not eternal," the necessary conclusion is that "it was created." The syllogism is divided into that<sup>(3)</sup> which is called categorical and into that which is called hypothetical. The categorical combines two propositions, which have one common term. For every proposition necessarily contains a subject and predicate. And the two propositions include four elements. Had they not one element in common no conclusion

... must be constructed from the

(סלואים מהקונטרס השני, שם דף 154)

המחשבה אחרית הטעשה והעיון בשתי מנות. אחת מהם הצורה. והאחרת החומר. הפנה הראשונה בצורת היקש וכבר זכר שהידיעהאם ציור אם אימות. ואמנם יגיע הציור בגדר ואימות בטענה. והטענה אם הקש ואם חקירה ואם מסל ובחינת הנעלם בנגלה נקרא מסל. ויכנס בו. והצורך מזה הכלל בהקש ומכלל ההקש בהקש המופת. ואבל אי איפשר מבלתי זכר גדר ההקש בכלל. ויחלק אחר זה אל המופת וזולתו. וההקש מליצה מסאמרים חוברו חיבור יחויב מקבלתם בעצמות בהכרח מאמר שלישי והוא שהעולם מחודש. וכן כאשר אחך בהכרח וזה כמו אמרינו העולם מצוייר וכל מצוייר מחודש. כי שניהם מאמרים מחוברים יחוייב מקבלתם בעצמות בהכרח מאמר שלישי והוא שהעולם מחודש. וכן כאשר אמרת אם העולם מצוייר הנה הוא מחודש אבל הוא מצוייר הנה יחוייב מקבלת אלה המאמרים שהעולם מחודש וכן לו אמרת העולם אם מחודש ואם קדמון. ואבל הוא אינוקדמון ש הנה יחוייב מסנו שהוא מחודש וההקש יחלק אל מה שיקרא חיבורי ואל תנאי אולם החיבור הנה הוא שיקבץ בו שני משפטים ביניהם שיתוף בגבול אחד כי כל משפט של בלי ספק יכלול נושא ונשוא ויכללו השני משפטים על ארבעה עניינים ואבל הם לולי ישתתפו באחד מעניינים לא תגיע התולדה כי לא יסודר הקש מאמרך העולם מצוייר מאמרך הנפש עצם. אבל בלי ספק ששש שהיה

- -
- 1: מהם הצורה: מהן בצורה/ (ב)
  - 2: החומר: בחומר/ (ב) היקש: בהקש/ (ב) זכר: קדמ/ (ב) ציור אם: ציור ואם/ (ב)
  - 3: ואימות: ואימות/ (ב)
  - 4: המופת: המופת/ (ב)
  - 5: ויחלק: עד יחלק/ (ב) המופת: המופת/ (ב)
  - 6: בהכרח שלישי... והוא: מאמר ש אחר בהכרח (והוא שהעולם... אחד בהכרח)/ (ב)
  - 7: (בעצמות)/ (ב)
  - 8: ואבל: אבל (הוא)/ (ב)
  - 9: ואל: מה שיקרא תנאי בחבורי:/ (ב)
  - 10: יכלול: יתקבץ על/ (ב)
  - 11: מעניינים: מעניינים/ (ב)
  - 12: מאמרך: ומאמרך/ (ב)

statement, "The world was formed" and the statement, "The soul is a substance." But if the (second) proposition were connected to the first by one of its parts, e.g., "The world has form", and "Every form was created", then the sum of the parts of the proposition is reduced to three, called terms. Thus, the syllogism above is concerned with three terms, "world", "formed" and "created". What the two propositions mention twice, and have in common, is called the middle term. <sup>(5)</sup> The subject of the conclusion, "world" is called the minor term, and the predicate "created", is called the major term. "The world was created" is the conclusion resulting from the syllogism. When the proposition is made part of the syllogism it is called a premise. The proposition which ~~contains~~ contains the minor term is called the minor premise. That which contains the major term is called the major premise. Neither premise can be designed by the middle term, because it is found in both premises. The minor term is contained in only one of them as is the major. The resultant of the syllogism is called a conclusion after it has become a resultant, and is called a postulate before that. The relationship of the two premises is called combination and the form of the combination is called figure. Three figures result: the middle term may be the predicate of one of the two premises and the subject of the other is then called the first figure; it may be the predicate of both, and is then called the second figure; it may be the subject of both, and is then called the third figure. The rule for antecedent and consequent in the conditional is the same  $\times$  as the rule for subject and predicate



## (מלואים מהקונטרס השני דף א 16)

המספט מסותף לראשון באחד מחלקיו כמו שיאם העולם מצוייר והמצוייר  
 מחודש וישוב מקובץ חלקי המספטים אל שלשה חלקים יקראו גבולים והלוח  
 ההקש עליהם והוא כמו העולם והמצוייר. והמחודש במסלינו. ואשר יפול  
 כשול בשני המספטים ומסותף יקרא הגדול האמצעי ואשר יהיה נושא בתולדה  
 המחויבת והוא המספט יקרא גבול קטן בעולם. והנשוא יקרא גבול גדול במחודש.  
 כאוסרינו העולם מחודש והוא התולדה המחויבת מן ההקש. והמספט כאשר  
 הושם חלק הקש יקרא הקדמה. והמספט אשר בו הגבול הקטן יקרא הקדמה  
 הקטנה. ואשר בו הגדול יקרא ההקדמה הגדולה. ולא יגזור השם לשני הקדמות  
 מן האמצעי לפי שהוא נמצא בשניהם יחידים. ואולם הקטן הסה לא יהיה אלא  
 באחת מהם. וכן הגדול. והמחויב מההקש יקרא אחר היותו תולדה. וקודם  
 חיובו דרוש. ודבקות השתי הקדמות יקרא חבור. ותכונת חבור השתי הקדמות  
 יקרא תמונה. ויגיעו סכנה שלשה תמונות ולפי שהגבול האמצעי אם שהיה  
 נשוא באחת משתי הקדמות נושא באחרת ותקרא תמונה הראשונה. ואם שיהיה  
 נשוא בשתיהן ותקרא התמונה השנית. ואם שיהיה נושא בשתיהן ותקרא התמונה  
 השלישית. ומספט הקודם והנמשך בתנאי הסתדבק מספט הנושא והנשוא בחילוק  
 חבורו אל אלה התמונות וישתתפו התמונות השלשה בשהוא לא יגיע הקש מוליד  
 משתי שולליות. ולא משתי חלקיות ולא מקטנה שוללת וגדולה חלקית. ותיוחד  
 כל תמונה ביהודים הנזכרים. הפירוש אמרו ואבל ראשית המחשבה אחרית המעשה  
 ירצה כי הסבה התכליתית בכל קבועה הוא ראשית המחשבה והוא הסכרון תחלה  
 ולא יגיע אלא בסוף ששששש המעשה. כי תכלית הכסא לשבת עליו ובעבור זה  
 יפעל הנבר בעץ שיקבל הצורה הכסאית ולא יגיע זה אלא אחר כל המעשים  
 ולזה היה כל תכלית סוף ואין כל סוף תכלית כי אין

in the categorical in that the conditional is divided into these figures. The three figures are similar in that no syllogism can result from either two negatives, or two particulars, nor can the minor premise be negative with the major premise particular. Every figure will be defined by the characteristics we have mentioned.

COMMENTARY: The statement "First in thought is last in deed" means that the final cause of every action is first in thought. The purpose is present at the very beginning, but it is attained only at the end of the action. For the purpose of the chair is to be used for sitting, and because of this the carpenter shapes the wood in the form of a chair. But this sitting is effected only after all the actions (have been completed). Therefore, every purpose is an end but not every end is a purpose.

- 1 : והטזו ייר: וכל טזו ייר/ (ג)
- 4 : בשני: בין שני/ (ג) האטצע: כטזו ייר: (ג)
- 5 : המספט... במחודש כאוטרינו: אמכוון בשיאמשר טמנו יקרא גבול קטן  
 כעולם ואשר יהיה בשוא בתולדה והוא המספט יקרא גבול גדול כמחודש  
 באטדנו/ (ג)
- 7 : יקרא הקדמה: תקרא ההקדמה/ (ג)
- 8 : הגדול יקרא: הגדול תקרא/ (ג) יבזר: יבזור/ (ג) לשני: לשת/ (ג)  
 הקדמות: ההקדמות/ (ג)
- 9 : יחיד: יחד/ (ג)
- 10 : מהם: מהן/ (ג) מהקש: מן ההקש/ (ג) אחר היותו: אחד חיובו/ (ג)
- 12 : ולפי: לפי/ (ג)
- 13 : שתי: השתי/ (ג) תמונה: התמונה/ (ג) שתי: שתי/ (ג)
- 16 : וישתמו: אלה: (ג)
- 17 : שוללות: שוללות/ (ג)
- 18 : הנזכרים: נזכרים/ (ג)
- 19 : בעשה הוא: בעשה היא/ (ג)
- 21 : (זה)/ (ג)

Death is not the purpose of all men, though it is the end of all men. The further statement: "is reduced to three", explains their being called terms. <sup>(6)</sup> The syllogism is concerned with and is composed of them. He compares these terms to the boundaries of <sup>(7)</sup> the road from which, to which and in which one walks. The statement "The predicate (of the conclusion) is called the major term" means that the predicate of the conclusion is more universal than the subject, or is at least equal to it, which is when the subject is a particular. The statement, "and is then called the first figure", means that when the middle term is a predicate of the minor premise it is a subject of the major premise. When the opposite occurs it is the fourth figure, as formulated by Galen, but it is unnatural and is therefore not taken into consideration, as has been explained in the Prior Analytics. The further statement, "The rule for antecedent and consequent in the conditional is the same as the rule for subject and predicate in the categorical in that the conditional is divided into these figures," means that we say, e.g., "If the sun now rises it will be day." But "The sun is rising, therefore, it is day," or we say, "Now the sun is rising," and "whenever the sun rises it is day." "Therefore, it is now day" - they become categorical.

THE FIRST FIGURE: This figure differs from the other two in two ways. One is that in yielding its conclusion, it need not be reduced to another figure, while the other figures are reducible to this figure to make the necessary conclusion appear - it is therefore called the first figure. The other is that it yields the four quantified propositions, universal and particular affirmative, universal and particular negative, as conclusions.

כי אין הסות תכלית האדם והוא סוף כל האדם. עוד אמר אל השלשה חלקים  
 יקראו גבולים והילוך ההיקש עליהם. נתן הסבה כקריאתם גבולים ואמר כי  
 ההקש ילך עליהם רל ויורכב מהם. וידסה זה לגבולי הדרך אשר ילך מסבו  
 ואליו ובו ההולך. ואסרו ואשר יהיה נשוא בתולדה והוא המשפט יקרא גבול  
 גדול. ירצה לפי שהנשוא בתולדה הוא יותר כולל מהנשוא ולפחות הוא שנה  
 לו וזה כשיהיה זה מיוחד. ואסרו ותקרא התמונה הראשונה ירצה שיהיה הגבול  
 האמצעי נשוא בקטנה נשוא בגדולה. כי כשיהיה בהפך היא תמונה רביעית  
 יביחה גאלינוס והוא בחילוף טבע ולכן לא יחשבה והתבאר זה בספר ההקש.  
 עוד אם והמשפט הקודם והנסך בתנאי המתדבק הנשוא והנשוא בחילוף חברו  
 אל אלה התמונות ירצה כי אתה תאמר אם עתה השמש עולה היום נמצא. אמנם  
 השמש עולה הנה היום נמצא וישוב משאי רל חיבור. בשתאמר עתה השמש עולה  
 וכל עת שהשמש עולה היום נמצא אך הנה עתה היום נמצא.  
 אמר התמונה הראשונה זאת התמונה תפרו משני האחרות בשני הבדלים אחת מהם  
 שלא יצטרך בחיוב תולדתה אל התשובה לתמונה אחרת ושאר התמונות תשובנה  
 אל זאת התמונה עד יראה חיוב התולדה ולזה נקראת זאת ראשונה. והאחר  
 שהיא תוליד המקיפים הארבעה רל המחייבת הכוללת והחלקית והשוללת  
 החלקית והכוללת. ואולם השונה השנית לא תוליד מחייבת כלל. והתמונה  
 השלישית לא תוליד כוללת כלל. ותנאי תולדת זאת התמונה שני העניינים אחד  
 מהם שתהיה הקטנה מחייבת והאחר שתהיה הגדולה כוללת. ואם חסר מהשני  
 תנאים פעמים יצדקו ההקדמות ולא תחויב התולדה עם צדקם בענין. ומשיב  
 זאת התמונה סאתה כאשר הנחת בזירה מחייבת

The conclusion of the second figure can never be affirmative, and the conclusion of the third figure can never be universal. The first figure, to be conclusive, is subject to two conditions: the minor premise must be affirmative and the major, universal. If (one of) <sup>(8)</sup> these two conditions is wanting then, though the premises may be true, no conclusion will result from postulating their truth. It follows from this figure that when you have postulated an affirmative proposition

- 1: תכלית האדם: תכלית כל אדם/ (ב) כל האדם: אדם/ (ג) השלשה: שלשה/ (ג)  
 2: כקריאתם: כקריאתם/ (ג)  
 4: האולד: האולד/ (ג) בתולדה (הוא)/ (ג)  
 6: (זח)/ (ג) פיוחד שיהיה: כשיהיה/ (ג)  
 7: בהטח: הקרא: (ג)  
 8: יניחה: יניחה/ (ג) והוא: והיא/ (ג) טבע: הטבע/ (ג) יחשבה: יחשבה/ (ג)  
 9: והטעם: והטעם/ (ג) האחד: האחד/ (ג)  
 11: וישוב: וישב/ (ג)  
 12: (גנב)/ (ג)  
 13: שטני: שטני/ (ג) אהם: אהם/ (ג)  
 17: האלקים והכוללת: האכוללת והאלקים/ (ג)  
 18: מולדת: מולדת/ (ג)  
 19: חסד: חוסר/ (ג) עששש/עלש: אחד: (ג)  
 20: יצדקו: יצדקו/ (ג)

which is true, then whatever is asserted as true of the predicate is necessarily true of the subject. It cannot be otherwise. It is the same whether what is asserted as true of the predicate is negative or positive, or whether the subject is universal or particular. From this, four conclusive moods result, and the necessity of this conclusion is apparent. For if "Men are animals" is true, then everything which is truly asserted of animals - which is the predicate - their being sentient, or their not being stone, must be true of "men" since "men" are necessarily included in "animals." And if the proposition concerning all animals is true, then it is necessarily true of some. This follows from the first figure. We shall now state the four different moods: the first contains two universal affirmatives, e.g. "All matter is composite," and "Everything composite was created." Therefore, of necessity, "All matter was created." The second mood contains two universals, the major premise being negative. It is essentially like the first, except that it substitutes "is not eternal" for the word "created" so that it becomes negative, e.g., "All matter is composite", "Nothing composite is eternal." Its conclusion is, that "No matter is eternal." The third mood is essentially like the first, except that we make the subject of the first premise particular. This does not necessitate a conversion of the proposition, because each particular is universal in relation to itself and whatever is asserted of the predicate of the particular is true of that particular. For example, we say "Some beings are composite", and "Everything composite was created." Therefore, the necessary conclusion is, "Some beings were created." This has been constructed from two affirmatives, the minor premise being particular. (9) The fourth mood is essentially like the third, except that we make the major premise negative, thus substituting



צודקת הנה המשפט על כל נשואו משפט בלי ספק על נושאו אי איפשר שיהיה  
 אלא כן ושוה היה המשפט על הנשוא שלילה או חיוב ושוה היה הנושא כולל  
 או חלקי. ויגיעו מזה ארבעה מינים סולידים וחיוב זאת התולדה נראה כי  
 כאשר צדק אמרינו האדם חי הנה כל מה שיצדק על החי אשר הוא נשוא מהיותו  
 מרגיש או היותו בלתי אכן אי איפשר מכלתי שיצדק על האדם לפי שהאדם  
 נכנס בלי ספק בחי וכבר צדק המשפט על כל החי הנה יהיה צודק על קצת  
 חלקיו בלי ספק הנה משיג התמונה הראשונה והכדלת המינים הארבעה מה שנזכרהו:  
 המין הראשון משני מחייכות כוללות משלו כל כשם מחובר וכל מחובר מחודש  
 הנה כל גשם מחודש בלי ספק המין השני משתי כוללות הגדולה מהם שוללת  
 הוא הראשון בעינו אבל תמיר אמרן מחודש כשהוא אינו קדמון ער יהיה שולל.  
 ונאם כל גשם מחובר ואין אחד מחובר קדמון. ויחויב ממנו שאין גשם אחד  
 קדמון. המין השלישי הוא הראשון בעינו אבל נשים נושא ההקדמה הראשונה  
 חלקית וזה לא יחייב הלוח המשפט לפי שכל חלק הוא כלי בצירוף אל עצמו.  
 והמשפט על כל נשוא החלק משפט על זה החלק. דמיונו שאתה תאמר קצת הנמצאות  
 מחובר וכל מחובר מחודש הנה יחויב ממנו בלי ספק שקיצת הנמצאות מחודש.  
 וזה כבר סודר משתי מחייכות קטנה מהם חלקית. המין הרביעי הוא  
 השלישי בעינו אבל נשים הגדולה שוללת ונמיר דרך החיוב כשלילה ונאמר  
 קצת הנמצאים מחובר ואין המחובר אחד נצחי. ויחויב ממנו שאין כל  
 נמצא נצחי. וכבר סודר זה מקטנה מחייבת חלקית. וגדולה שוללת כוללת.  
 וישאר אחד זה מהחיבורים שנים עשר לפי שאינם סולידים כי יתחברו לכל  
 תבנית ששה עשר חיבורים. לפי שהקטנה תסכול שתהיה מחייבת כוללת או חלקית  
 או שוללת כוללת או חלקית. ויהיו ארבעה. עוד יצטרף

e.g., "Some beings are composite", "Nothing composite is  
eternal." The conclusion is that, "Not all are eternal."<sup>(10)</sup>

This has been constructed from a minor particular affirmative  
premise and a major universal negative premise. There are twelve  
other combinations, which do not yield conclusions, making  
sixteen combinations in each figure. The minor premise may be  
a universal or particular affirmative, or a universal or  
particular negative, making four. To each one of these

- 1 : המשפט: הדין/ (ג)  
 4 : שיזדק: שזדק/ (ג)  
 7 : בנה: זא/ (ג)  
 8 : שני: ששמי/ (ג) (סמיבת/ (ג)  
 9 : גדולה: גדולה/ (ג)  
 10 : אבל תמיד: ואבל תמיד/ (ג)  
 11 : וזאם: וזאמר/ (ג) ואין (אחד/ (ג) סחורב: אחד: (ג) (פסנר/ (ג)  
 12 : אבל: ואבל/ (ג)  
 13 : חלקים: חלקים/ (ג) כלי: כל/ (ג)  
 14 : חלק: משפט על זה החלק/ (ג)  
 15 : יחויב: יחייב/ (ג)  
 18 : ואין הסחורב: ואין סחורב/ (ג) הנפסאים: הנפסאות/ (ג)  
 19 : (כוללת/ (ג)  
 20 : לפי שאינם... לכל תבנית: לא יולידו לפי שיסודרו בכל תרונה/ (ג)

four major premises are added. Multiplying four by four, sixteen (moods) are obtained. Since we have laid down the condition that the minor premise must be affirmative, two negatives and their conclusions are excluded. Thus eight are invalid and two affirmatives remain. But four major premises are added to the minor universal affirmative premise; Two of the former necessarily being particulars, and these two are invalidated, since we have laid down the condition that the major premise in this figure must be a universal. Thus, the number of moods is reduced to six. But neither the particular negative, nor affirmative, of the major premise may be combined with the particular affirmative of the minor premise, or no syllogism is possible from two particulars. Two more combinations, of the remaining six, are eliminated, leaving four. This is how the table <sup>(11)</sup> now appears: When the minor premise is <sup>a</sup>universal affirmative, "Every C is B" and "Every B is A" it yields a conclusion. If the major premise is a universal negative, "No B is A", it yields a conclusion. But if the major premise is a particular affirmative, "Some B is A" it does not yield a conclusion because the major premise is a particular. So, too, if the major premise is a particular negative, "Not every B is A" it does not yield a conclusion. When the minor premise is a particular affirmative, if the major premise is a universal affirmative, "Some C is B" and "Every B is A", it yields a conclusion. But if the major premise is a particular negative, "Not every B is A" it does not yield a conclusion, because the major premise is particular. Thus we have combined with every minor universal affirmative premise <sup>(12)</sup> and minor particular affirmative premise <sup>(13)</sup>

אל כל אחד מהם ארכעה גדולות ג"כ ויגע מהכאת ארכעה כארכעה ששה עשר וכי התנינו שתהיה הקסנה מחייבת יצאו שתי שוללות ומה שיכנה עליהם מהתולדה הנה יכטלו כו שמונה וישארו שתי מחייבות אבל המחייבת הכוללת הקסנה יצטרפו אליה ארכעה גדולות שנים מהם כלי ספק חלקיות ויכטלו כו ג"כ שנים. כי התנינו כגדולות זאת התמונה שתהיה כוללת. הנה כבר שבה אל ששה. ואולם המחייבת החלקית הקסנה לא יצטרף אליה החלקיות. גדולה לא שוללת ולא מחייבת כי אין הקש משני חלקות הנה נפלו שני חבורים מהששה הנשארים ונשארו ארכעה. וכאשר רצית ציורו ותמונתו הנה זאת צורתו קסנה מחייבת כוללת וגדולה מחייבת כוללת כל ג"כ וכל כ"א יוליד. גדולה שוללת כוללת. ואין דבר מכ"א יוליד גדולה מחייבת חלקית וקצת מה שהוא כ"א עקר לפי שהיא גדולה חלקית גדולה שוללת חלקית ולא כל כ"א עקר קסנה מחייבת חלקית וגדולה מחייבת כוללת. קצת ג"כ וכל כ"א יוליד. גדולה שוללת חלקית. אין כל כ"א וזה ג"כ עקר לפי שהגדולה חלקית: הנה הרכבנו על כל קסנה מחייבת ארכעה לפי שהם חלקים רל גדולה מהם. וכבר התנינו שתהיה הגדולה כוללת עד יעבור המשפט אל הנשוא וישארו שתי קסנות שוללת חלקית וכוללת ויצטרפו אל כל אחת מהם ארכעה גדולות מהמוקפים הארכעה וכולם בלתי מולידות כחילוף הקסנה המחייבת כי אנחנו התנינו שתהיה הקסנה המחייבת כי המשפט על הנשוא המקוים הוא

## 173 (כ"י שני)

- 1: אחד מהם ארבעה: אחת מהן ארבע/ (ג) ויבוע: ויביע/ (ג)
- 4: ארבעה: ארבע/ (ג) שנים מהם: שתיים מהן/ (ג)
- 5: שנים: שתיים/ (ג) בצדולות: בצדולת/ (ג)
- 6: החלקיות: החלקית/ (ג)
- 7: שני חלקות: שתי חלקיות/ (ג) שני: שתי חבורים: אחריים:/ (ג)
- 11: לפי שהיא: לפי שהוא/ (ג)
- 12: בא: וזה גם כן/ (ג) עקר: כפי היא גדולה חלקית:/ (ג) וקוצה/ (ג) פחייבת חלקית (וגדולה פחייבת כוללת)/ (ג)
- 13: וכל ב"א יוליד: גדולה שוללת כוללת ואין דבר פב"א יוליד.

But the negative predicate is dissimilar from the subject, and what is asserted of it cannot be carried over to the dissimilar subject. <sup>(15)</sup> So if we say, "Man is not a stone," and then make an assertion, whether negative or positive, with regard to "stone" that assertion does not carry over to "Man". For you have clearly marked out the dissimilarity between "stone" and "man" by the negative. This is the reason for the conditions we have laid down, and the reason that the conclusion is limited to four out of the sixteen moods.

COMMENTARY: "It follows from this figure that when you have postulated an affirmative proposition which is true, then whatever is asserted as true of the predicate is necessarily true of the subject" means that the particular result of this figure, from the point of view of its conclusiveness, is, that when you postulate an affirmative proposition that is true, i.e., the minor premise, then what you assert with regard to the predicate of that proposition, i.e., the middle term, is of necessity an assertion concerning its subject, i.e., the minor term, whether it concerns all of it when the minor premise is a universal, or a part of it when the minor premise is a particular. The subject retains the quantification, "It cannot be otherwise." This signifies that the minor premise must be affirmative and that the middle term predicated of it is the subject of the major premise. The result is that it yields the four quantifications as conclusions. He used letters for his examples

הקטנה סחייבת כי המשפט על הנשוא המקוים הוא אשר יעבור אל הנשוא הנבדל. וכאשר אמרת האדם אינו אבן אחר שפסת על האבן במשפט סלוק היה או קיום לא יעבור זה המשפט אל האדם כי אתה הפלת ההבדל בין האבן והאדם בשלילה. הנה זה נתינת עלת אלה התנאים ונתנית עלה התיחדות התולדה בארבעה סינים סכלל ששה עשר סין. הפירוש אמרו ומשיג זאת התמונה שאתה כאשר הנחת גזרה סחייבת צודקת הנה המשפט על כל נשוא המשפט בלי ספק על נושאו. ירצה שהמגיע המיוחד לזאת הטובה כפי בחינת תולדתה שאתה כאשר הנחת גזרה סחייבת צודקת והיא ההקדמה הקטנה הנה סה שתגזור על כל נשוא הגזרה ההיא והוא הגבול הגדול משפט בלי ספק על נושאו והוא הגבול הקטן אם על כלו אם היתה הקטנה כוללת ואם על קצתו אם היתה הקטנה חלקית ובכלל על הנשוא כפי הקפו שמור אי אפשר שיהיה אלא כן וכו'. ובכלל יודה זה על שהקטנה סחייבת ושהאמצעי נשוא בה נשוא בגדולה ושתוליד ההקפים הארבעה. והמשל שהביא בצורה סן

- 1: סחייבת: המסחייבת/ (ב) אל: על/ (ב) אנושא: ואולם הנשוא השלול הנה נבדל מהנשוא ובמשפט עליו לא יעבור אל: / (ב)  
 2: סלוק... קיום: חלוק איב קיום או חלוק: / (ב)  
 4: עלה: עליהם/ (ב) עלה/ (ב)  
 5: (סכלל)/ (ב) סין: סינים/ (ב)  
 6: גזרה: גזירות/ (ב)  
 7: נשוא: נשוא/ (ב)  
 8: תולדה: תולדה/ (ב)  
 9: (כל)/ (ב) והוא: והיא/ (ב) אבדול: האמצעי/ (ב)  
 10: בלי: בלא/ (ב)  
 11: ואם: ואו/ (ב) אנושא: הנשוא/ (ב)  
 12: (וכו')/ (ב) יודה: יורה/ (ב) (ב) ושהאמצעי: ושהאמצעים/ (ב)  
 13: בה: במ/ (ב)



(17)  
 to show that the nature of the figure yields the conclusion and that the conclusion does not depend on the accident of the truth or falsity of the matter. (Aristotle, too, chose letters as illustrations, as though the letters questioned and dictated his work. This knowledge is called knowledge of the speculative faculty.) An example of this is, "Man is an eagle," and "Every eagle is rational." The conclusion is that "Every man is rational" which is a true conclusion derived from two false premises, false not because of the nature of the premises but because of the nature of the content. The figure too may be erroneous.

THE SECOND FIGURE: (18) (19) The middle term is the predicate of both premises. It follows that every premise that asserts of its predicate what may not be found in its subject is a negative and not an affirmative premise. For if it were affirmative then what is asserted of the predicate would be asserted of the subject, as in the first figure. We said that whatever is asserted as true of the predicate of the affirmative premise is necessarily true of the subject. Then we found that what can be asserted of it with regard to the predicate cannot be asserted of it with regard to the subject, so that we know that the proposition is negative. If it were affirmative the judgement with regard to the predicate would be present in the subject. The conditions which make this figure conclusive are that the two premises shall be different in quality,

האותיות אסנם עשה כן להראותך כי טבע התמונה יתן זה לא בסקרה כפי  
 החסרים ולכן יבחרהו ארסטו תמיד כאילו האותיות שאלוהו על פעל ידין  
 יצוהו. והוא הלסוד אשר יקרא בכח העין. ובאור זה כי אתה תאמר האדם  
 נשר וכל נשר מדבר/ הנה התולדה שכל אדם מדבר והוא אמת שמתו הקדמות  
 כוזבות ואין זה מטבע ההקדמות אלא מטבע החסר וכמו כן יקרה זה עם  
 טעות התמונה. אמר התמונה השנית והוא שיהיה הגבול האמצעי נשוא בשתי  
 ההקדמות וישוב משיגה אל שכל גזרה אפשר שינשא על נשואה מה שלא ימצא  
 לנשואה הנה הוא גזרה שוללת לא סחייבת כי לו היתה סחייבת היה המשפט  
 על כל נשואה/משפט על נשואה כמו שקדם בתמונה הראשונה כי אנחנו כאשר  
 אמרנו המשפט על כל נשוא הגזרה הסחייבת משפט בלי ספק על הנושא אחר  
 מצאנו מה / שישפט בו על נשוא ולא ישפט בו על הנושא הנה יודע בו  
 שהמשפט שולל כי לו היה סחייב ימצא משפט הנשוא לנשוא. ותנאי הולדת  
 זאת התמונה שיתחלפו השתי הקדמות באיכות

- -

- 2: יבחרהו: יבארהו/ (ב)  
 5: (זה)/(ב) (זה)/(ב)  
 6: והוא: והיא/ (ב) (גבול/ (ב) (ב)  
 7: הקדמות: הקדמות/ (ב)  
 8: הוא: היא/ (ב)  
 9: (כל)/(ג) משפט: נשא משפט/ (ב)  
 10: סחייבת: סחייבת (משפט) / (ב)  
 11: נשוא: הנשוא/ (ב)  
 12: הולדת: שהמשפט שגולדת/ (ב)  
 13: שתי: על כל פנים השני/ (ב) השתי: על כל פנים השני

one of them being negative, the other affirmative, and that the major premise shall be universal in every mood. These two conditions also reduce the conclusive moods to four, as in the first figure.

THE FIRST MOOD of a minor universal affirmative and a major universal negative: e.g., "Everything material is divisible" and "No soul is divisible", therefore, "Nothing material is soul." The necessity of this conclusion is explicable by a reduction to the first figure in a conversion of the major premise. For it is a universal negative and is converted per se, "Nothing divisible is a soul" the 'divisible' becoming the subject of the major premise which is already the predicate of the minor premise. Thus it becomes reducible to the second mood of the first figure.

THE SECOND MOOD of two universals, the minor premise being a negative: e.g., "Nothing eternal is composite;" and "All matter is composite", therefore, "Nothing eternal is matter". This is explicable by converting the minor premise and then making the major minor, and the minor major, "All matter is composite", and "Nothing composite is eternal," therefore, "Nothing material is eternal," as above in the second mood of the first figure. This conclusion is convertible since it is a universal negative. The result is, as we have stated, "Nothing eternal is material."

THE THIRD MOOD of a

a) Reading with ms. Bet.

ותהיה אחת מהם שוללת והאחרת סחייבת שששששש ושתהיה הגדולה כוללת  
 על כל ענין ושני אלה התנאים ישיבו גם כן סינים המולידים אל ארבעה  
 סינים סכלל ששה עשר סין כמו שקדם בתמונה הראשונה. המין הראשון סקטנה  
 סחייבת כוללת וגדולה שוללת כוללת כאסרך כל גשם סתחלק ואין נפש שש  
 אחת סתחלקת הנה אין גשם אחד נפש. ויתבאר חירוב זאת התולדה בהסבה אל  
 התמונה הראשונה בהפוך הגדולה כי היא שוללת כוללת ותתהפך כמו שהיא  
 והוא שנאם מין סתחלק אחד נפש וישוב הסתחלק נוסא לגדול. וכבר היה  
 נוסא לקטן הנה ישוב אל המין השני מהתמונה הראשונה. המין השני סתי  
 כוללות אבל הקטנה שוללת כאסרך אין נצחי אחד סחובר וכל גשם ססובר הנה  
 אין נצחי אחר גשם. ויתבאר זה בשהפך הקטנה ושתשיב הגדולה קטנה ששששש  
 והקטנה גדולה. ותאמר כל גשם סחובר. ואין סחובר אחד נצחי. הנה יגיע  
 שאין גשם אחד נצחי כמו שקדם במין השני מן התמונה הראשונה. אחר תהפך  
 זאת התולדה לפי שהיא שוללת כוללת ויגיע מה שזכרנוהו והוא שאין נצחי  
 אחד גשם. המין השלישי סחלקית

- -
- |                              |                             |
|------------------------------|-----------------------------|
|                              | 1 : סגס : סא/ (ב)           |
| (סינים)/(ב)                  | 2 : על כל : נכל/ (ב)        |
|                              | 3 : סקטנה : סקטנה/ (ב)      |
|                              | 4 : סתחלק : יתחלק/ (ב)      |
|                              | 6 : כמו : עצמה/ (ב) (ב) (א) |
|                              | 7 : שנאם : שנאמר/ (ב) (ב)   |
|                              | 8 : סתי : סשני/ (ב)         |
| (ב) / (א) וסתיב : וסחוב/ (ב) | 10 : אחר : אחר/ (ב) (ב)     |
|                              | 11 : סחובר : ססחובר/ (ב)    |
|                              | 13 : (סתיא) / (ב)           |

minor particular affirmative and a major universal negative. This is similar to the first mood of this figure, except in that the minor is made a particular, e.g., "Some creatures are divisible," and "No soul is divisible", therefore, "Some creatures are not souls", because when we have converted the major it is reducible (20) to the fourth mood of the first figure.

THE FOURTH MOOD: of a minor particular negative and a major universal affirmative; e.g., "Not every creature is composite," and "Everything material is composite;" therefore, "Not every creature is material." This cannot be reduced to the first figure by conversion. If we were to convert the major affirmative, it would become particular and there is no syllogism for two particulars. But it can be made true in two ways, one of them being called assumption, the other apagoge. It is assumption when we say (21) "Some creatures are not composite". This "Some" assumes "Every"; assume that it is "Every" and we may call it "Some" or "Every", Then it will conform with the second mood of this figure. By apagoge is meant that, if, e.g., "Not every creature is matter" is not true, then its contradictory, "Every creature is matter", is true. Now it is known that "Everything material is composite," therefore, it necessarily follows that "Every creature is composite." But we have already assumed, in the minor term, that "Not every creature

מחייבת קטנה כוללת שוללת גדולה והוא המין הראשון סזאת התמונה אלא שהקטנה תשים הנה חלקית. ותאמר קצת הנמצאות יתחלקו ואין נפש אחת מתחלקת הנה קצת הנמצאות אינו נפש. לפי שאתה כאשר הפכת הגדולה ישוב אל המין הרביעי מהתמונה הראשונה. המין הרביעי מחלקית שוללת קטנה וכוללת מחייבת גדולה כאמרך אין כל נמצא מחובר. וכל גשם מחובר הנה אין כל נמצא גשם. וזה אי אפשר שיושב אל התמונה הראשונה בהפוך לפי שהשוללת בו חלקית ואין הפוך לה ולו הפכת הגדולה המחייבת בהפכה חלקית ואין הקש ששתי חלקיות. ואמנם יתאמת בשני דרכים יקרא אחד מהם ההנחה והאחר החלוף אולם ההנחה כי אתה כאשר אמרת קצת הנמצאות אינו מחובר הנה זה קצת כל בעצמו והניחהו כל וכנהו בשם תרצהו. הנה ילך בדרך המין השני סזאת התמונה. ואולם החלוף הנה הוא שתאמר אם לא יהיה סאמרינו אין כל נמצא גשם צודק סותרו והוא אמרנו כל נמצא גשם צודק וידוע שכל גשם מחובר הנה יחוייב שיהיה כל נמצא מחובר וכבר הנחנו בהקדמה הקטנה שאין כל נמצא

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- 1 : כוללת: וכוללת/ (ב) שוללת: ושוללת/ (ג)
- 5 : אינו: אינו/ (ג)
- 7 : חלקית ואין: מחלקית אין/ (ג) (בו)
- 8 : (סגם)/ (ג)
- 9 : ומאחר: ומשני: / (ב) קצת: מקצת: / (ב) (ג)
- 10 : תרצהו: שתרצהו/ (ב) (ג)
- 11 : צודק: מהנה: / (ב) (ג) סותר/ (ב) גשם: נמצא: / (ב)
- 12 : (וכבר... כל נמצא מחובר)/ (ב)

is composite" is true, then how can its contradictory be true. This (apagoge) is absurd, and what leads to it is absurd. (22)  
 What led to it was the assumption of a false conclusion.

COMMENTARY: "It follows from it that every premise, that asserts of its predicate what may not be found in its subject is a negative and not an affirmative premise" means that it follows from this figure that every minor premise, in which what is asserted of its predicate cannot be asserted of its subject, is negative and not affirmative. It is as though he signified that the minor premise of this figure may be negative, as "may not" (efshar) signifies. This distinguishes it from the first figure. This figure also yields the universal quantificate as a conclusion, with its middle term the predicate of both.

THIRD FIGURE: the middle term is the subject of both premises. It follows that every minor premise is affirmative, so what is asserted of its subject may be asserted of part of its predicate, whether the assertion is negative or affirmative, or whether the minor premise is particular or universal. That is perfectly plain. It has two conditions: that the minor premise shall be affirmative: that one of the two premises shall be universal, (23)  
 whether it be the minor or the major. There are six conclusive moods in this figure.

מחובר על שהוא צודקת ואין יצדק סותרה וזה שקר והמציא אליו שקר.  
 ואמנם הכיא אליו הנחת התולדה כלתי צודקת. הפירוש אמרו וישוכ  
 משיגה אל שכל גזרה אפשר שינשא על נשואה מה שלא ימצא לנושאה. הנה  
 הוא גזרה שוללת ולא מחייבת. ירצה וישיג זאת התמונה שכל גזרה קטנה  
 שתהיה בה ושיהיה אפשר שינשא על נשואה מה שלא ימצא לנושאה הנה היא  
 גזרה שוללת לא מחייבת וכאלו הורה בזה שהגזרה הקטנה בזאת התמונה  
 כבר תהיה שוללת וזהו הכרלה מהראשונה ושהיא תוליד ההקף הכולל  
 ושהאמצעי נשוא בשתייהן כמו שהורה על זה מלת האפשר. אמר הזמורה  
 השלישית והוא שיהיה האמצעי נושא כסתי ההקדמות וישוכ מגיעו אל שכל  
 גזרה מחייבת הנה המשפט על נושאה משפט על קצת נשואה שזה היה המשפט  
 שלילה או חיוב ושוה היתה הגזרה חלקית או כוללת וזה מכואר ולו שני  
 תנאים אחר מהם שתהיה הקטנה מחייבת והאחר שתהיה אחת מהם  
 כוללת אם הקטנה ואם הגדולה איזה משתייהם. והמוליד מזאת התמונה ששה מיניס.

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- 1: שהוא: שהיא/ (ב) (ג) צודקת: צודק/ (ב) סותרת: סותרס/ (ב)
- 2: (כלתי)/ (ג) הכלתי/ (ב) (צודקת)/ (ג)
- 3: מה שלא: אשר לא/ (ב)
- 4: הוא: היא/ (ב) (ג) ולא: לא/ (ב) מחייבת: וכו' / (ג)
- 6: הורה: תורה: (ב)
- 7: ההקף: כהקף/ (ב)
- 9: השלישית: היא/ (ב) ההקדמות: ההקדמות/ (ב)
- 12: מהם: מהן/ (ג)
- 13: ואם הגדולה אי זה: ואם הגדולה איזו/ (ג) משתייהם: משתייהן/ (ב) (ג)



THE FIRST MOOD of two universal affirmatives: "Every man is an animal" and "Every man is rational", therefore, "Some animals are rational", since the minor premise is converted as a particular. It is as though you said, "Some animals are men" and "Every man is rational" therefore, "Some animals are rational". This is similar to the third mood of the first figure.

THE SECOND MOOD of two universals, the major being negative; "Every man is an animal" and "No man is a horse," therefore, "Not every animal is a horse." This is due to the fact that when the minor is converted it becomes a particular affirmative. It is thus reducible to the fourth mood of the first figure.

THE THIRD MOOD of two affirmatives, the minor being a particular; "Some men are white," "Every man is an animal", therefore, "Some, who are white, are animals". For the minor particular affirmative is convertible. Thus it is reducible to the third mood of the first figure.

THE FOURTH MOOD of two affirmatives, the major being a particular: "Every man is an animal" and "Some men write", therefore, "Some animals write", for when the particular major has been converted and has been made a minor it becomes, "Some who write are men," and "Every man is an animal" and it necessarily follows that "Some who write are animals." The conclusion is then convertible, and it becomes "Some animals write."

THE FIFTH MOOD of a minor universal affirmative and a major particular negative: "Every man is rational" and "Not every man writes", therefore, it necessarily follows "Not everyone who is rational writes." This is explicable by way of assumption.

THE SIXTH MOOD of a minor particular affirmative and a major universal negative:

a) Reading with ms. Bet.

המין הראשון מסתי כוללות מחייבות. כל אדם חי וכל אדם מדבר הנה קצת החי מדבר לפי שהקטנה תהפך חלקית ותהיה כאלו אמרת קצת החי אדם וכל אדם מדבר. הנה קצת החי מדבר. והוא השלישי מהתמונה הראשונה / המין השני מסתי כוללות והגדולה שוללת כאמרו כל אדם חי ואין אדם אחר סוס הנה אין כל חי סוס וזה לפי שאתה אומ' כאשר הפכת הקטנה היתה חלקית מחייבת ותשוב אל המין הרביעי מהתמונה הראשונה. המין השלישי מסתי מחייבות והקטנה חלקית כאמרו קצת האדם לבן. וכל אדם חי הנה קצת הלבן חי כי אתה תהפך הקטנה חלקית מחייבת ותשוב אל המין השלישי מהתמונה הראשונה / המין הרביעי מסתי מחייבות והגדולה חלקית כאמרו כל אדם חי וקצת האדם כותב הנה קצת החי כותב. שאתה כאשר הפכת הגדולה היתה כאלו אמרת כותב מה אדם וכל אדם חי ויחוייב כותב מה חי אחר תהפך התולדה ויהיה חי מה כותב. ו המין החס'שי מכוללת מחייבת קטנה וחלקית שוללת גדולה כאמרו כל אדם מדבר ואין כל אדם כותב הנה יחייב אין כל מדבר כותב ויתבאר זה בדרך ההנחה. המין הששי מקטנה מחייבת חלקית וגדולה שוללת כוללת כאמרו קצת החי לבן.

2: כאלו אמרת: כסו אופרו/ (ב) (אמרת)/(ג)

3: השלישי: השלישי/ (ב)

4: מסתי: מסתי/ (ב)

5: אחר: אחר/ (ב) (ב) (אום) (ב) (ב)

6: תהפך: תהפך/ (ג)

10: כותב: לפי/ (ב) הגדולה: חלקית/ (ב) (ג) כאמרו כל אדם חי וקצת האדם כותב. הנה קצת החי כותב. לפי שאתה כאשר הפכת הגדולה חלקית: (ב)

12: ומסין: מסין/ (ב) (ב)

13: יחייב: יחוייב/ (ג)

14: חלקית: וחלקית/ (ב)

"Some animals are white," and "No animal is snow," therefore, "Some white is not snow." This is apparent in the conversion of the minor, for it is reducible to the fourth (mood) <sup>(26)</sup> of the first figure. <sup>(27)</sup> These are the details concerning categorical syllogisms.

COMMENTARY: "It follows that every minor premise is affirmative, so what is asserted of its subject may be asserted of part of its predicate, whether the assertion is negative or affirmative, or whether the minor premise is particular or universal" means that it follows from this figure - which is indicated by its form, i.e., the order of the middle term and the conditions which make possible the yielding of the conclusion in the quantificate - that every minor premise is affirmative. Therefore, what is asserted of its subject - the middle term - is asserted of part of its predicate - the minor term. It is as though he indicated by this that the minor is affirmative and that the middle term is the subject of both premises and yields only the particular as a conclusion. The statement, "it necessarily follows 'Not every one who is rational writes' (This) is explicable by way of assumption" means that this "some" of "Some who are rational do not write" <sup>(28)</sup> assumes "Every"; So we may call it "Some" or "Every". It follows the second mood of this figure, as if the statement were: "Every man is rational," "No man writes", therefore, "Some who are rational do not write." By the statement, "No man writes" we refer to every one of the class of ignorant men who cannot form letters.

CONCERNING HYPOTHETICAL SYLLOGISMS

ואין חי אחד שלג הנה קצת הלבן אינו שלג ויראה בהפוך הקטנה וישוב אל המין הרביעי מן התמונה הראשונה זאת הבדלת ההקשים המשאיים. הפירוש אמרו וישוב סגיעו אל שכל גזרה מחייבת הנה משפט על נושאה משפט על קצת נושאה שוה היה המשפט בו שלילה או חיוב ושוה היתה הגזרה חלקית או כוללת. ירצה שהמשיב לזאת התמונה אשר יורה על צורתה ול על סדור האמצעי בה ועל תנאי תולדתה והקפה הוא שכל גזרה מחייבת הנה המשפט על נושאה והוא האמצעי משפט על קצת נושאה והוא הקצה הקטן וכאלו הורה בזה שהקטנה מחייבת ושהאמצעי נושא בשתייהן ושלא תוליד רק חלקי. ואמרו הנה יחייב אין כל מדבר כותב ויתבאר זה בדרך ההנחה. ירצה כי זה הקצת מהמדבר הבלתי כותב כל בעצמוהניחהו כל וכנהו בשם תרצהו הנה ילך בדרך המין השני מזאת התמונה כאלו נאמר כן כל אדם מדבר ואין אדם אחד כותב הנה קצת המדבר אינו כותב ונרצה באמרינו אין אדם אחד כותב מה שיכלול האנשים הסכלים בעשיית צורת האותיות. אמר המאמר בהקשים

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- 1: וישוב: ישוב/ (ב)  
 4: משפט: במשפט/ (ב) (בו)/(כ) (ג)  
 5: יורה: עליה כלומר/ (ב)  
 6: הנה: הוא/ (ב)  
 7: אמצעי: אמצעי/ (ב) יורה: הוא מורה/ (ב)  
 9: בדרך: דרך/ (ב) קצת: מהמדבר: קצת המדבר/ (ב)  
 10: בשם: פלוגי:/ (ב) שתרצהו/ (ב)  
 11: אדם: מדבר/ (ב)  
 13: צורה: צורות/ (ב)

(23b)

Hypothetical syllogism are of two kinds: conditional and disjunctive. An example of the conditional is, "If the world were created, then it has a creator." If we affirm the condition in the antecedent <sup>(29)</sup> the consequent follows as it is, i.e., if we say, "And it is known that the world was created," that is the antecedent as it is, the consequent as it is follows, "It has a creator." But if we affirm the contradictory of the consequent the contradictory of the antecedent will follow, e.g., when we say, "It is known that it has no creator," it will follow that "It was not created." But if you affirm the contradictory of the antecedent, neither the consequent, as it is, nor its contradictory will follow. For were we to say, "It is not created," this will not yield a conclusion, as when we say, "If this is a man, then he is an animal, he is not a man," it does not follow from it that "He is an animal," or that "He is not an animal." Similarly, if we affirm the consequent as it is, it will not yield a conclusion. For when we say, "And it is known that the world has a creator," no conclusion will follow. For when we say, "If this <sup>(30)</sup> prayer is acceptable, the one who prays is pure." And "He is pure." It does not follow that the prayer is accepted or that it is not accepted. Of these four affirmations

התנאים והוא שני מינים תנאי מתדבק ותנאי מתפרד. אולם התנאי המתדבק הנה משלו אמר את העולם מחודש הנה לו מחדש וזה הקדמה אם שנית עין הקודם רל אם תשנה עצם המוקדם ממנו הנה חוייב עין הנמשך והוא אם תאמר וידוע שהעולם מחודש והוא עין הקודם הנה יחוייב ממנו עין הנמשך והוא שלו מחדש. ואם שנית סותר הנמשך חוייב ממנו סותר הקודם והוא שתאמר וידוע שאין לו מחדש הנה יחוייב שאינו מחודש. ואולם אם שנית סותר הקודם לא יחוייב ממנו לא עין הנמשך ולא סותרו כי אתה לו אמרת אבל אינו מחודש הנה זה לא יוליד כמו שאתה תאמר אם היה זה אדם הנה הוא חי אבל הוא אינו אדם הנה לא יחייב שהוא חי ולא שהוא אינו חי. וכן אם שנית עין הנמשך לא יוליד כי אתה אם אמרת וידוע של עולם מחודש לא תחוייב ממנו תולדה ולפי שאתה כאשר אמרת אם היתה זאת התפלה אמתית הנה המתפלל טהור. ואכל הוא טהור הנה לא יחוייב ממנו שהתפלה ראויה ולא שהיא בטלה. ואלה ארבעה נשנים לא יוליד

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- 2: אם:היה:/(ב)(ג) וזה הקדמה:וזאת ההקדמה/(כ)  
 3: (רל אם תשנה עצם המוקדם)/(ב)(ג) (הנה)/(ב)(ג) חוייב:חוייב/(כ)  
 9: אדם:האדם/(כ) יחייב:יחוייב/(כ)  
 11: ולפי:לפי/(כ)  
 12: (זאת)/(ג) אמתית: נ ראויה/(א)(ב)(ג)  
 13: ולא שהיא:ושלא יהיה/(כ) ארבעה:הארבעה/(כ) יוליד:יולידו/(כ)

only two yield conclusions, i.e., the antecedent as it is, which yields the consequent as it is, and the contradictory of the consequent, which yields the contradictory of the antecedent. But the contradictory of the antecedent and the consequent as it is yield a conclusion only when it is established that the consequent is equal to and is not more universal than the antecedent. In this case, the four affirmations (alternants) yield four conclusions. <sup>(31)</sup> For we say, "If this is matter, it is composite", "And it is matter, therefore, it is composite." Or, "And it is composite, therefore, it is matter." Or, "And it is not matter, therefore, it is not matter." But when the consequent is more universal than the antecedent, as "animal" in relation to "man", then, when the more universal does not exist, the particular does not exist. For the non-existence of "animal" includes the non-existence of "man". But the non-existence of the particular does not include the non-existence of the universal. For the non-existence of "man" does not include the non-existence of "animal". But the existence of the particular includes the existence of the universal. For the existence of "man" includes the existence of "animal", but the existence of "animal" does not include the existence of "man".

<sup>(32)</sup>  
COMMENTARY The statement "The non-existence of the more universal includes the non-existence of the particular" means that when the more universal does not exist, the particular in nature. Prior ~~necessarily exists~~ in nature means that when what is posterior exists, what is prior (necessarily) exists. But it does not follow that, when what is prior exists, what is posterior also exists.

מהם אלא שנים והוא עין הקודם יוליד עין הנמשך וסותר הנמשך יוליד  
 סותר הקודם וואולם סותר הקודם ועין הנמשך הנה לא יוליד אלא כאשר  
 קיים שהנמשך שוה לקודם ואינו יותר כולל ממנו. ואצל זה יולידו  
 הנשנים הארבעה. כי אתה תאמר אם היה זה גשם הנה הוא מחובר אבל הוא  
 גשם הנה הוא מחובר. אבל הוא מחובר הנה הוא גשם אבל הוא אינו גשם  
 הנה אינו מחובר אבל הוא אינו מחובר הנה אינו גשם ואולם כאשר היה ש  
 הנמשך יותר כולל מהקודם כחי ביחס אל האדם הנה ישאר סולק היותר כולל  
 סולק המיוחד כי בסלוק החי סלוק האדם ואין בסלוק המיוחד סלוק הכולל.  
 כי אין בסלוק האדם סלוק החי אך בקיום המיוחד קיום הכולל כי בקיום  
 האדם קיום החי ואין בקיום החי קיום האדם. הפירוש אמרו הנה סולק  
 היותר כולל סולק המיוחד ירצה כי כאשר סולק היותר כולל יסתלק המיוחד  
 כי הכולל קודם קדימה טבעית אל המיוחד. והקודם בטבע. הוא שכאשר  
 נמצא שששש המאוחר ימצא הקודם וכשנמצא הקודם לא יחויב שימצא

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- 1: (והוא עין הקודם... יוליד סותר הקודם)/(ב)
  - 2: (הנה)/(ב) לא יולידו/(ב)(ב)
  - 4: גשם: מחובר/(ב) מחובר: גשם/(ב)
  - 5: (אבל הוא מחובר... הנה אינו גשם)/(ב) אבל הוא מחובר... הנה אינו מחובר:
  - 7: הנמשך: גשם/(ב) (הקודם... מיותר כולל)/(ב)
  - 8: המיוחד: המיותר
  - 10: ואין בקיום: הכולל קיום המיוחד כי אין:/(ב) הנה: ירצה/(ב)
  - 11: סולק: יסתלק/(ב) ירצה... יסתלק המיוחד)/(ב)
  - 12: שכאשר: נמצא/(ב) נמצא: ימצא/(ב)



The reverse is true of non-existence. For when what is prior does not exist, what is posterior does not exist. But when what is posterior does not exist, it does not follow that what is prior does not exist, as in the priority of one to two or of genus to species or of animal to man. Know that the first mood of the conditional <sup>(33)</sup> is employed in the Talmud. It is always indicated when they say, "There is every reason that it is even so." <sup>(34)</sup> They designate by it the strength of the connection between the consequent and the antecedent. The second mood <sup>(35)</sup> is employed when they say, "If this be so," <sup>(36)</sup> which is understood to mean "I grant, if you were to say." <sup>(37)</sup>

THE SECOND KIND The disjunctive: e.g. "The world is either eternal or was created." Four arguments are constructed from this. For we say, "And it was created, hence it is not eternal." Or "And it was not created, hence it is eternal." Or "And it is eternal, hence it was not created." Or "And it is not eternal, hence it was created." Therefore, the affirmation of either one, categorically, will yield the contradictory of the other, and the affirmation of the contradictory of either one will yield the other categorically. These are its conditions: the disjunctive contains two parts. If there are three, the categorical affirmation of only one would yield the contradictory of the other two. For example, "This number is either smaller or larger or equal," and "it is larger"; hence that "it is smaller or equal" is invalid. If the contradictory of one were affirmed, one of the remainder would follow, but not categorically, i.e., "And it is not equal," hence it follows that it is

המאוחר. ובהעלות בהפך כי כשנעלה הקודם נעלה המאוחר וכנעלה המאוחר לא יעלה הקודם. כקדימת האחד לשניים. והסוג אל המין כחי לאדם. ודע כי המין הראשון מהתנאי המתדבק נעשה בתלמוד תמיד נרמז כאמרם כל שכן כי יורו בו על חוץ הראות התדבקות הנמשך בקודם והמין השני יעשה כאמרם אי הכי שראוי שיוכן כאי אמרה בשלמא. אמר המין השני התנאי המתפרד והוא שנאמר העולם אם קדמו ואם מחדש וזה יולדו בו ארבעה נשנים כי אתה תאמר אבל הוא מחדש הנה אינו קדמון אבל הוא אינו מחדש הנה הוא קדמון אבל הוא קדמון הנה אינו מחדש אבל הוא אינו קדמון הנה הוא מחדש. הנה השנות עין כל אחד יוליד סותר האחת והשנות סותר כל אחד יוליד עין האחר. וזה תנאו ההקף בשני חלקים. ואם היה בשלשה הנה השנות עין כל אחד יוליד סותר האחרים כאמרך זה המספר אם מעט ואם רב ואם שוה. אבל הוא רב הנה בטל שיהיה מעט או שוה. ואם נשנה סותר האחד הנה יחייב אחד הנשארים לא בעינו כאמרך אבל אינו שוה הנה יחייב שיהיה

- 1: ובהעלות: ובעלות/(ב) ובהעלות/(ג) כשנעלה: כשיעלה/(ב) נעלה: יעלה/(ב) וכנעלה: וכשיעלה/(ב) וכשנעלה/(ג)
- 2: כקדימת: כקדימת/(ב)(ג) לשניים: לשני/(ב) לאדם: אל האדם/(ב)
- 3: (תמיד)/(ב) נרמז: נרמז/(ג) כאמרם: כאומרם/(ב)
- 4: (כו)/(ג) הראות: הוראות/(ב) התדבקות: הדבקות/(ב) יעשה כאמרם: נעשה
- 5: (שראוי)/(ב) כאי: אי/(ב) (והתנאי)/(ב) והוא: הוא/(ג) באומרך/(ב)
- 6: אם קדמון ואם מחדש: אם קדמון/(ג)(ג) יולדו: יולידו/(ב)
- 7: אבל הוא מחדש... הנה הוא קדמון: אם הוא אינו מחדש הנה הוא קדמון אבל הוא מחדש הנה אינו קדמון:/(ב)
- 8: הנה: היא/(ב) (כל)/(ב)(ג) אחד/(ב)
- 12: האחד: האחר/(ב)
- 13: יחייב אחד הנשארים: יחייב אחד הנשארים/(ב) יחייב אחד מהנשארים/(ג) (אכל אינו שוה... אם מעט ואם רב)/(ג) שיהיה: שהוא/(ב)

either smaller or larger. If the parts are not all included, e.g. "Zaid is either in France or Spain or elsewhere" <sup>(38)</sup> or "This number is either five or ten or more," <sup>(39)</sup> then the affirmation of each one, categorically, would result in the falsity of the other two. But the affirmation of the contradictory of the one will not yield a conclusion because <sup>(40)</sup> not all of the remainder is included in the other. <sup>(4Ca)</sup> These are the principles of the syllogism. We shall complete the treatise by stating the four kinds of syllogism: apagogic, inductive, analogical and combined.

COMMENTARY: The statement "These are its conditions: the disjunctive contains two parts" means what we stated, namely that the affirmation of the contradictory of each will yield the other as it is, will be true when the condition contains only two parts.

The apagogic syllogism is also hypothetical, since we assume the contradictory of the conclusion, and by then, affirming it in combination with a premise whose truth is apparent, and then we affirm the contradictory. <sup>(41)</sup> The form of the apagogic syllogism is such that we substantiate your opinion by invalidating its contradictory and its contradictory is invalidated <sup>(42)</sup> by the fact that falsehood follows from it. And that is done when we combine with it a premise whose truth is apparent and which yields a conclusion whose falsity is apparent. Then we say that the false conclusion results only from a <sup>(44)</sup> syllogism whose premises contain a falsehood. And since the truth of one of the

אם מעט ואם רב. ואם לא יהיו החלקים נכללים כאמרו ז"ל אם בצרפת. ואם בספרד. וזה הם ספר אם חמשה ואם עשרה. הנה השנות עין כל אחד יוליד בטול האחרים. ואולם השנות סותר האחד הנה לא יוליד. לפי שאין כללות כנשאר אשר לא יוכלל. הנה אלה שרשי ההקשים ושלמות הדבור כזכר ארבעה ענינים. הקש החלוף והחקירה והנמשל וההקשים המורכבים. הפירוש אמרו וזה תנאף ההקף בשני חלקים. ירצה וזה אשר אמרנוהו מהשנות סותר כל אחד. יוליד עין האחד אמנם יצדק כשהתנאי יכלול שני חלקים לכד. אמר אולם הקש החלוף הוא גם כן תנאי לפי שאתה תניח מקביל התולדה וחתנה כו ותחבר עמו הקדמה נגלית הצדק ותוליד תולדה נגלית הכזב. והקש החלוף הנה צורתו שתקיים סכרתך ככטול סותרה יתכסל סותרה כשתחייב סמנו שקר. וזה נצרף אליו ההקדמה נגלית הצדק ותוליד סמנו תולדה נגלית הכזב. אחר תאמר התולדה הכוזבת לא תגיע אלא מהקף בהקדמותיו כזב ואחת

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- 1: יהיו החלקים נכללים: כין בחלקים נכללים/ (ג)
- 5: והחקירה: נ והחפוש/ (א) והחקירה/ (ב) והנשלח: נ וההמשל/ (א) וההמשל/ (ב)
- 7: כל אחד: אשר: / (ג) האחר: אחר/ (ב) כשהתנאי יכלול: כשכתמיד יוליד/ (ב)
- 8: שאתה תניח... ותחנה: שתניח סותר התולדה ותתנהו/ (ב)
- 10: צורתו: צרכינו/ (ב) כשתחייב: כשתחייב/ (ב) כשתחייב/ (ג)
- 11: וזה נצרף... ההקדמה: וזה כי נצרף אליו הקדמה/ (ב) וזה כי נצרף אליו
- 12: מהקש: שיש: / (ב) בהקדמותיו: שהקדמותיו/ (ג) הקדמה/ (ב)
- 13: ואחת: ואחד/ (ג)

two premises is apparent, the falsity is to be marked <sup>(45)</sup> in the second premise which is the opinion of the opponent. An example of it is when one's opponent wishes to assert that "Every soul is material". You contradict him by forming a syllogism: "Every soul is material", "All matter is divisible." Therefore, "Every soul is divisible". The falsity of this is apparent ~~in~~ by the nature of the soul of man. There must be something false somewhere in the premises for them to yield this conclusion. But we have said that the truth that "All matter is divisible" is apparent, so that the falsity rests in our saying "Every soul is material." When this is invalidated, it is substantiated that the soul is not material.

COMMENTARY: The apagogic syllogism is called so on the principle that "Out of the wicked cometh forth wickedness" <sup>(46)</sup> and falsehood necessarily results from falsehood. Nor will falsehood ever come from truth, for evil does not come from good. This syllogism is employed in the Talmud. It is that <sup>(47)</sup> which is indicated when they say "If you do not say so".

§ This is perfectly plain.

INDUCTION refers to transferring the x judgement concerning x many particulars to the universal which contains those parti- <sup>(48)</sup> culars, e.g., "Every animal moves its lower jaw while chewing". We have seen man, the horse, the cat and other animals do so. Therefore, this is true if it is possible to complete an investigation of all animals. Then a syllogism in the first mood could <sup>(49)</sup> be constructed.

השתי הקדמות נגלית הצדק הנה יעזין הכזב. בהקדמה השנית אשר היא סברת בעל הריב. מסלו שיאמר האומר כל נפש הנה הוא גשם. ויאמר כל נפש הנה היא גשם. וכל גשם הנה הוא מתחלק. ואם כן כל נפש הנה היא מתחלקת וזה נגלית הכזב בנפש האדם ואי אפשר מבלתי שיהיה בהקדמותיו כזב. אבל אמרנו כל גשם מתחלק נגלה הצדק הנה ישאר הכזב באמרנו כל נפש גשם וכאשר בוטל זה קוים שהנפש אינה גשם הפירוש הקש החלוף שרשו על כי מרשעים יצא רשע והכזב חויב מהכזב. והאמת לא יצא ממנו בטל לעולם כי מהטוב לא יצא רע וזה ההקש נעשה בתלמוד תמיד. והוא הנרמז באסרם דאי לא תיסא הכי ונתה תבין אמר ואולם החקירה הנה הוא שיושפט מחלקיים רבים על הכולל אשר יכול אולם החלקים כאמרן כל חי אצל הלעיסה יביע ניבו התחתון כי אנחנו ראינו האדם והסוס והחתול ושאר הבעלי חיים כך. וזה אמת. אם אפשר שלמות חקירת כל הבעלי חיים עד לא ימלט אחד ואצל זה יסודר הקש בתמונה הראשונה והוא

- 1: אשתי: (ב) / (א) / (ב)
- 2: (אמר) / (ב) / (א) / (ב) / (א) / (ב)
- 3: (אמר) / (ב) / (א) / (ב) / (א) / (ב)
- 4: נגלית: (ב) / (א) / (ב) / (א) / (ב) / (א) / (ב)
- 5: במסרנו: (ב) / (א) / (ב) / (א) / (ב) / (א) / (ב)
- 6: (על) / (ב)
- 7: (על) / (א) / (ב) / (א) / (ב)
- 8: (תמיד) / (א) / (ב)
- 9: הוא שיושפט: (א) / (ב) / (א) / (ב)
- 10: מחלקים: רבים על הכולל אשר יכול אולם החלקים: (א) / (ב) / (א) / (ב)
- 11: ניבו: נ לחיו / (א) ניבו / (ב) / (א) / (ב) / (א) / (ב) / (א) / (ב)
- 12: כל הבעלי חיים: כל אצל הלעיסה: (א) / (ב) / (א) / (ב)

"Every animal is either horse or man, etc." "Every horse and man, etc. moves his lower jaw while chewing." Hence it follows that "Every animal moves his lower jaw." But if even one is omitted - like the crocodile, which moves its upper jaw - the truth will not be affirmed. It is not far-fetched to assume that a judgement will be true <sup>(50)</sup> in a thousand cases save one. Dependence on induction is sound <sup>(51)</sup> in matters of fiqh, but not in things which require demonstration. In matters of fiqh, the more induction is based on exact investigation and the closer its approach to completeness the more certain it is to put opinion out of court.

COMMENTARY - Nature was wise - - because of God's guidance in not allowing the animal to move its upper jaw lest its eye suffer fatigue. The structure of the animal and its characteristics point to the existence of a transcendent intellect which watches over nature. For though nature is wise in what it brings to fruition, it is not rational, and would not know what it does, were it not for God who guides it. Therefore, <sup>(52)</sup> said Job, "Then out of my flesh shall I see God." And David <sup>(53)</sup> said: "All my bones shall say: "Lord, who is like unto Thee." The statement "Dependence on induction is sound in matters of fiqh" refers to the fact that that method is employed for ordinary people and satisfies them. The method of study of the elite differs from the method of the ordinary person. We will find this type of syllogism in the Talmud. <sup>(54)</sup> We will also find there the two .

שכל סוס ואדם כך וכך יניע אצל הלעיסה ששש ניבו התחתון הנה יחויב  
 שכל חי יניע ניבו השפל ואבל כאשר סבל שימלט אחד לא תקנה האמת  
 כאלתפסאח. אשר יניע ניבו העליון ואין רחוק שיפורד משפט לאלף שלא  
 באחד והמסענת על החקירה תתכן בתוריות לא באסתיות ובתוריות כל מה  
 שהיתה החקירה יותר חזקת התכלית ויתר קרובה אל השלמות היתה יותר  
 חזקת בתגברת הפירוש החכים הטבע בהישרת האל שעששש אליו לבלתי  
 הניע הבח לחיו העליון לבלתי יגיע לאות אל העין אשר בו ובנין הבח  
 ותכונתו יורה על כי יש שכל נבדל מסביח על הטבע כי הטבע ואם הוא  
 חכם במה שהוא מביא אל התכלית איננו בעל שכל שידע אשר יפעל לו לי  
 שהאל מישרו ולזה אמר איוב ומבשרי אחזה אלוה ואמר דוד כל עצמותי  
 תאמרנה : ל מי כמוכה. ואמרו והמסענת על החקירה תתכן בתוריות.  
 ירצה כי הלמוד ההוא נעשה עם ההסון ויספיק להם בזה כי הלמוד הסגולי  
 נבדל מהלמוד ההמוני ואתה תמצא בתלמוד זה המין מן ההקש וככה תמצא  
 בו שתי

- -
- 1: שכל:מי הוא:(ב) כן:וכך:(ב) יניע:יניח:(ג) התחתון:התחתונה:(ב)  
 4: שיפורד: נ שיצדק/(א) שיפורד/(ב)(ג)  
 5: משפט:נ הדין/(א) משפט/(ב)(ג) לאלף:נ באלף/(א) באלף/(ב)(ג) שלא:ולא  
 4: בתוריות: נ בטויניות/(א) בתוריות/(ב)(ג)  
 באסתיות: נ בטויניות/(א) באסתיות/(ב)(ג)  
 7: הניע...אשר בו: בו הטבה במה שהוא עושה  
 9: שהוא:עומ שכל...יפעל:הכל שידע אבל שיפעל  
 10: אמר:אמ (ב) ואמר:ואמ (ב) בוד:ע"א:(ב)  
 11: כמוכה:כסוד/(ב)



affirmative premises of the second figure, but only in the form of a question and not as demonstrative proof.

(55)

THE ANALOGICAL - The jurists and Mutakallims call the analogical by the name Qiyās, which is the transference of the judgement from one particular to another which resembles it in some respect. When one looks at a house and sees that it was created and has form, then at the heavens and sees they have form, he extends his judgement to it and says, "All matter that has form was created, the heavens have form, therefore, they were created",

(56b)

in analogy to a house. This will not yield certain knowledge.

(56)

But it is suitable for soothing the mind and convincing the listener in discussions and so is employed in rhetoric. By rhetoric is meant the discussions current in disputes namely: complaints and apologies, blaming and praising something, expressing revulsion or disgust at something (and things of that sort). A sick person is told, "Drink this medicine because it will benefit you," and he asks, "Why?", and is told "Because so and so, who was sick, drank it and it did him good". He is, therefore, inclined to take it without asking that it be demonstrated as beneficial to every sick person, or that his sickness is similar to the other's and his condition as far as age, strength, weakness, etc., are similar to his. And because the dialecticians felt the weakness of this method they invented a new one; they said it is clear

סחייבות בתמונה שנית רק על דרך קושיא לא על דרך אמות. אמר ואולם  
 ההמשל הנה הוא אשר יקראוהו הפדיניים והמדברים הקש והוא המספט ש  
 מחלק על חלק אחר ידמה לו בענין מן הענינים כמו שיעיין אל הבית  
 ויראהו סחודש ומצויר אחר יעיין אל השמים ויראהו מצויר ויעתיק  
 המספט אליו ויאמר כל בשם מצויר סחודש והשמים מצויירים הנה היו  
 סחודשים בהקש על הבית וזה לא יקנה האמת. אבל יהיה נכון להטיב הלב  
 וספוק השומע בויכוחים. ורוב מה שיעשה בהלצה. וירצה בהלצה. הויכוחים  
 הנהוגים בסריבות והתלונות וההתנצלות ובגנות והשבח ובסיאוס הדבר  
 ונבולו ומה שהלך זה הדרך. וכאשר נאמר לחולה שתה זה הסם כי הוא יועילך  
 ויאמר למה לפי שפלני החולה שתהו והועילך לו גסתה בפשו אל הקבלה ולא  
 ידרש בשיאומת אצלו לכל חולה או יאמת שחוליו כחליו. וענינו בשנים  
 ובכח והחולשה ושאר הענינים כענינו. ובעבור שהרגשו המנצחים חלשת זה  
 האופן חדשו דרך והוא שאמרו התבאר שש המספט בשרש

- -

- 1: (בתמונה)/(ב) שנית:משנית/(ב) קושיא:קושייא/(ב) אמות:מאיפומ/(בב)
- 2: על:אל/(ב) (אמר)/(ב) הענינים:הענין/(ב)
- 3: יעיין:יעיין/(ב) ויעתיק:ויעתיק/(ב)
- 4: על:אל/(ב) וזה:ב וזה:א) וזה/(ב) יקנה:יחיה/(ב) נ"א יקנה/(ב)
- 5: שומע:הצופה/(ב) אבל:ואבל/(ב)
- 6: והתנצלות:והתנצלות/(ב) והתנצלות/(ב) וחשבא:ובשבא/(ב) ובסיאוס:
- 7: (כי הוא)/(ב) יועילך:ויועילך/(ב)
- 8: למה:ויאמר/(ב) שפלני:שפלונני/(ב) החולה:החולני/(ב)
- 9: בשיאומת...או יאמת:בשיאומת אצלו ראשונה שיועיל לכל חולה או  
 שיאומת/(ב) בשיאומת אצלו שיועיל לכל חולה

that in the original proposition the judgement was arrived at  
 in this way. <sup>(58)</sup> So they proceeded to establish the (meaning and  
 the) <sup>(59)</sup> <sup>(60)</sup> cause in two ways. One of them was called a proposition  
 of general application which may be inverted; <sup>(61)</sup> the other,  
 investigation ~~and~~ and division. In relation to the proposition  
 of general application which may be inverted, <sup>(62)</sup> they said it  
<sup>(63)</sup> means that "whatever has form was created." And "whatever  
 has no form was not created." This goes back to induction  
 and does not yield certitude on two counts. First, a  
 complete enumeration with none omitted is impossible. Second,  
 in the investigation, the heavens were or were not investigated.  
 If they were not investigated, then a complete investigation  
 was not effected. And if an investigation was made of a  
 thousand cases save one, it is not far-fetched to assume that  
 the one judgement out of the thousand may be different, as  
 we mentioned in the case of the crocodile. Now, if the heavens  
 were investigated and it is known that they were created  
 because they have form, the question is already solved, since  
 it was clear before establishing the truth of the premise of  
 the syllogism. <sup>(64)</sup> The syllogism is not needed to affirm it,  
 since it is already plain. The other method is investigation  
 and division. <sup>(64b)</sup> We say, for example, let us investigate all  
 the attributes of "house". It exists, is material, self-  
 sufficient and has form. But it is fallacious to say that it  
 is created because it exists, or because it is self-sufficient,  
 or it is this or that, as if every existent thing or self-  
 sufficient thing had to be created.

עלול בזה הענין והלכו בקיום העלה שני דרכים וקראו אחד מהם הסדור  
 וההפוך. והאחר הבחינה והחילוק אמנם זה הסדור וההפוך הוא שהם אמרו  
 ענינו אל מה שהוא מצוייר ואם כן הלא מחודש וכל מה שאינו מצוייר  
 הנה אינו מחודש. וזה ישוב אל החקירה והוא בלתי מקנה האמת משתי  
 פנים אחד מהם ששלמות כל האחרים בלתי האפשר ואולי נמלט מסנו אחד.  
 והאחר שבחקירתו החקר השמים או לא חקר ואם לא חקר הנה אם כן לא חקר  
 הכל אבל חקר דרך משל אלף לבד אחד ואין רחוק שיתחלף משפט האחד מהאלף  
 כמו שזכרנוהו בתסמאח ואם חקר השמים וידע שהוא מחודש להיותו מצוייר  
 הנה הוא התיר המחלוקת וכבר כבואר לו קודם אמת הקדמת ההקש ואי זה  
 צורך בו אל ההקש בשיקוים לו זה בו: הדרך האחרת הבחינה והחלוק והוא  
 שהם אמרו נחנת תארי הבית כלם דרך משל ונאמר שהוא נמצא וגשם וקיים  
 בעצמו ומצוייר ונמל שיהיה מחודש להיותו קיים בעצמו או נמצא כך וכך  
 כי יחוייב שיהיה כל נמצא קיים בעצמו

- 1: אחד ואחר הסדור וההפוך: המסודר וההפוך (ב)
- 2: (אמנם... וההפוך) / (ב) הוא: והוא (ב)
- 3: אם כן הוא: ולעצמו שהוא (ב) מחודש: והשמים מצויירים אב הם מחודשים  
אב כל מחודש מצוייר: (ב)
- 4: (אנה) / (ב) מחודש: והשמים אינו מצוייר אב הוא אינו מחודש: (ב)
- והוא: ודאי (ב) משתי: משני (ב)
- 5: האחרים: האחרים (ב) האפשר: והאיפשר (ב)
- 6: אם כן: ואם (ב)
- 7: (אחד) / (ב)
- 8: משמים: וידע חקר משמים: (ב)
- 9: אמת: ומשמים (ב) קדמת: קדמת (ב) ואי זה: ואין זה (ב)
- 11: (כלם) / (ב) דרך משל: דים (ב) וקיים: קיים (ב)
- 12: אם יחוייב: יחוייב (ב)

Therefore, it is established that it was created because it has form. But this is fallacious on four grounds. FIRST, it admits of being said that the judgement in the original proposition was not arrived at through any of these causes, which include more than "house", but through a cause which is limited to "house" and therefore does not extend beyond it. Even if it be established that something other than the house was created, it will be caused by a quality that includes "house" and that thing in particular and does not extend to the heavens. SECOND, this is valid only when all descriptive attributes of the matter under consideration are investigated. Now, a complete account and full investigation can never be proved, some attribute may have been omitted and that might be the cause. So the majority of dialecticians do not consider completeness, but say, "if there be another cause, show it." Or, they say that if there were, you and I would certainly have perceived it, just as if there were an elephant before us we would perceive it. If we did not perceive it, we would assert that it does not exist; but this is weak since the inability of the two conflicting parties to perceive it immediately, or however long the inability exists, does not indicate non-existence. This case is not like that of the elephant; it is not possible for an elephant to stand before us and for us not to see it immediately. Yet there are many matters we have investigated which we could not understand immediately, but only after some time. THIRD, even if the investigation were completed,

מחודש. הנה קוים שזה לפי שהוא מצוייר. וזה בטל מארבעה פנים. הראשון  
 שיסבל שיאמר שיש אין/מספט עלול כשרש בעלה כאלה העלות אשר הם שש  
 יותר כוללות אבל בעלה מקצרת על עצמותו לא תעברו בהיותו בית דרך  
 מסל. ואם קוים שזולת הבית מחודש המה יהיה עלול כמה שיקבץ הבית ואותו  
 הדבר ולא יעבירו אל השמים והשני שזה אמנם יתאמת כאשר חקר אל תארי  
 השרש עד לא ימלט מסנו דבר. והכללות והחקירה אין בשתי אלה ואולי במלט  
 תואר מהבחינה הוא העלה ורוב הסנוחים לא יחשבו הכללות אבל יאמרו אם  
 היתה בו עלה אחרת הנה אראה אותה ואמרו לו היה לא השגתיהו אני ואתה  
 כמו שהוא לו היה לפנינו כל לא השגוהו וכאשר לא נשיגהו שפסנו בסלוקו  
 והוא חלוש כי לאות בעל ששש הריב מההשגה תכף ולא באורך הזמן אינו סורה  
 על ההעדר ואין זה כפיל כי לא ימצא פיל עומד לפנינו ולא נראהו פתאום.  
 וכמה מהענינים הנמצאים כבר דרשנום ולא נעמוד עליהם תכף אחר כן עמדנו  
 עליהם. השלישי שאם קובל תכלית החפוש הנה כאשר

- 1: ראשון:ראשונה/ (ב)
- 2: אשר הם:שחם/ (ב)
- 3: (על עצמותו)/ (ב) בחיותו:כהיותו/ (ב)
- 4: הנה:חיה/ (ב)
- 5: אל תארי:כל תארי/ (ב)
- 6: (והכללות)/ (ב) בשתי אלה:באלה/ (ב) (ב)
- 8: אראה:אראה/ (ב) ואמרו:ויאמרו/ (ב) השגתיהו:השגתהו/ (ב) תיארו/ (ב)  
 (אני ואתה... וכאשר לא נשיגתו)/ (ב)
- 9: (כל)/ (ב) השגוהו:נשיגתו/ (ב) נשיגתו:השגוהו/ (ב)
- 10: כי:אין/ (ב) ולא:חלושה/ (ב)
- 12: דרשנום:דרשנו אותם/ (ב)
- 13: השלישי:שחם/ (ב)

if there were four attributes the invalidating of three does  
 not affirm the soundness of the fourth, since the parts in  
 combination are more than four. It admits of being regarded  
 as created <sup>(68)</sup> because it is existent <sup>(69)</sup> and material, or because it is  
 existent and self-sufficient or because it is existent and has  
 form. And it admits <sup>(70)</sup> of being created because it is material  
 and self-subsisting or material and has form. And it admits of  
 being created because it is existent, material and self-subsisting.  
 And it admits of being created because it is existent, self-sufficient  
 and has form - or other combinations, either of two and two or  
 of three and three. There are many judgements which cannot be  
 established as long as many elements are not brought together, like  
 the blackness of ink in which gall, vitriol and soot <sup>(71)</sup> are combined  
 with water. Most judgements are caused by elements in combination.  
 So that the invalidating of the separate qualities cannot suffice  
 to invalidate them in combination. FOURTH, assuming that your  
 investigation is complete and sound and assuming that three are  
 invalid, ~~while the fourth remains~~, this indicates only that the judgement  
 is not caused by the three nor by anything other than the fourth,  
 but it does not indicate that it is necessarily dependent on the fourth  
 as a whole. <sup>(72)</sup> It admits of the fourth being divided into two  
 parts <sup>(73)</sup> and of the judgement being dependent on one of the two parts  
 and not on the other. So the invalidating of the three demonstrates  
 that the cause is not found in anything other than the fourth but  
 does not demonstrate that the whole fourth is the cause. This  
 is a stumbling block. For if it were first divided and described as  
 being

היו התארים ארבעה בטול שלשתם לא יחייב קיום הרביעי כי החלקים בהרכבה יוספו על ארבעה כי יטבול שיהיה נמצא להיותו נמצא ועומד בעצמו או בית ונמצא או גשם ומצוייר או גשם ועומד בעצמו או גשם ונמצא או עומד בעצמו ונמצא וזולת זה מן ההרכבה מסנים שנים או משלשה שלשה וכמה מספטים לא יקוימו כל זמן שלא יקובצו ענינים רבים כשחרות הדין ויותנה בו העפצים והוידריוול והקבוץ במים ורוב המספטים עלולים בענינים מורכבים. ואין יספיק זולת בטול הנפרדים והמורכבים יחד. הרביעי שאם קובל הדקדוק וקובל שהוא בטל שלשתם ושלא ישאר אלא רביעי הנה זה יורה שהמספט אין בשלשה ושלא יעבור הרביעי ואבל הוא לא יורה על שהוא נתלה ברביעי משולח בלי ספק. אבל יטבול שיהלק הענין הרביעי אל שני חלקים ויהיה המספט באחד השני חלקים זולת האחר ובטול שלשתם יורה על שהענין לא יעבור הרביעי ולא יורה על שהוא העלה וזה המסעדת רגל. כי לו חלק ראשונה ואמר תארו שהוא עומד בעצמו ושהוא נמצא וגשם

- 1: היו התארים: איש בתארים/ (ב) הרביעי: תארבעה/ (ב)
- 2: שיהיה נמצא/ (ב) (ב)
- 3: (או בית ונמצא... או גשם ועומד בעצמו)/ (ב)
- 4: וזולת: זולת/ (ב) (תרכבה)/ (ב) שנים: עשר/ (ב)
- 5: מספטים: מספטים/ (ב)
- 6: ויותנה: ויותנה/ (ב) והוידריוול: והוידריוול/ (ב) והוידריוול/ (ב)
- 8: קובל: תכלית/ (ב) הדקדוק: תחקירה/ (ב) (ב) ושלא: וזלא/ (ב)
- 9: ושלא: בשלא/ (ב) (רביעי): לא: לו/ (ב)
- 10: משלשה: וזולת/ (ב) הרביעי: תארבעה/ (ב)
- 11: אשני: מסני/ (ב) שלשתם: שלשתן/ (ב)
- 12: הרביעי: ברביעי/ (ב)
- 13: (לו)/ (ב) ואמר: ואמר/ (ב)



existent, self-sufficient, material and having this or that form, the invalidating of three will not necessitate the dependence of the judgement on "form" in general, but on one of the two parts of "form".<sup>(74)</sup> This, these dialectical proofs are clear. But it does not become a demonstrative proof as long as it is not said, "Everything that has form was created".<sup>(75)</sup> "The heavens were formed", therefore, "They were created". But if we divide the first statement into particulars, a universal cannot be derived from it. So the statement of the universal, "Everything that has form was created" must first be established. And that cannot be established by showing one thing that has form and was "created", not even by showing a thousand things that have form and were created. But this is the desired premise, so its validity must be proved by two sound premises or by one of the ways which have been mentioned. There is no getting away from it. This is the analogical judgement.

COMMENTARY - The statement, "All matter that has form was created", "The Heavens have form", therefore, "They were created" in analogy to "house" means that because the judgement in the original proposition<sup>(76)</sup> was arrived at in this way it is asserted that this<sup>(77)</sup> is the cause. And this is proved because it appears in the original proposition, in the example of the house. He says "Whatever has form, was created, the Heavens have form, therefore,<sup>(78)</sup> they were created", in ~~an~~ analogy to "house" because this universal, which is the point at issue, and this is established by the proof concerning the "house", which has form and was also created. Therefore, this is included in the analogical, which is the transference of the judgement from one particular to



another, which resembles it in some respect. Now that we have made the premise universal, it becomes categorical. But in origin it is analogical, since the universal is established only by the example of the house. He further says: "that in the original proposition the judgement was arrived at in this way. So they proceed to establish the (meaning and the) cause in two ways," etc. He means by "in the original proposition, the judgement" the first known part, to which other things are compared, namely "house" in our example. By "was arrived at in this way" he means that it was created because it has form. "They proceeded to establish the (meaning and the) cause, (i.e. that "Whatever has form was created,") in two ways: one of them was called a proposition of general application which may be inverted." The statement, "Whatever has form was created," and "The Heavens were created" is the first mood of the first figure, except that he mentioned the major premise first, which is the Roman custom. Know that the G'zerah shava <sup>(79)</sup> which is employed in the Talmud, is an analogical syllogism. From this you can see the wisdom of the Jewish sages, for they were as much masters of the art of logic as of the sciences. They sensed the weakness of this syllogism, and so they said, "You cannot establish an analogy from congruent expressions of your own accord," <sup>(80)</sup> unless it has been authorized by tradition. They indicated by that that the g'zerah shava is not by nature conclusive, its validity is not inherent. It is <sup>(81)</sup> used only as a peg. They refute it when they say, mah l'haion, <sup>(82)</sup> and they settle it when they say hasad hashaveh. They further <sup>(83)</sup> refute when they say, mah lehasad hashaveh shebahem.

ידמה לו ואם כבר עשיתיהו כולל כאלו הואמסאי אבל שרשו ההמשל אחר  
 שהכולל מקוים מהבית ואמרו שהמשפט בשרש עלול בזה הענין והלכו בקיום  
 העלה אשני דרכים וכו' ירצה שהמשפט בשרש רל בחלק הראשון הידוע ש  
 אשר ידמה לו והוא הבית במסלינו עלול בזה הענין רל שיהיה מחדש כי  
 הוא להיותו מצוייר והלכו בקיום העלה רל שכל מצוייר מחדש שני  
 דרכים הראשון הסדור וההפוך וכו' ואמרו כל מצוייר מחדש והשמים  
 מצוייר הוא סין ראשון סן התמונה הראשונה הזכיר בו הקדמה הגדולה  
 תחלה ומנהג הרוסיים בויכוחים ככה. ודי כי שש הגזרות שוות אשר יעשו  
 בתלמוד הם הקשים המסליים והנה תבחין חכמת חכמי ישראל וכי הם היו  
 בקיאים במלאכת ההגיון בענינים בשאר החכמות כי הם שערו לחלשת זה  
 ההקש ועל זה אמרו אין אדם דן גזרה שוה אלא אם כן למדה מרבו ורבו מרבו  
 עד הר סיני. הורו בזה כי הגזרה שוה אין בטבעה להוליד וכי אמותם בה  
 איננו מכחה רק על צד הסימן. ומה שתראה מהקשות שלש עליה באמרם מה  
 להלן ותירוצם באמרם הצד השוה בהן

- 1: עשיתיהו; עשיתיהו/ (ב) עשיתיהו/ (ב)
- 2: (עלול בזה הענין... ירצה שהמשפט בשרש) / (ב)
- 3: העלה; העלה/ (ב) רל; רוצה לומר/ (ב)
- 4: הבית; במשל/ (ב) כי הוא; גם/ (ב)
- 5: בקיום; בקיום/ (ב)
- 6: הראשון הסדור; הסדור/ (ב) כל; וכו'/ (ב) מצוייר; הם מצויירים/ (ב)
- 7: הראשונה; כי/ (ב) הקדמה; התקדמה/ (ב)
- 8: בויכוחים; בויכוחיים/ (ב)
- 9: הקשים מסליים; הקשים המסליים/ (ב) חכמת; החכמות/ (ב)
- 10: בקיאים; בקיאו/ (ב) בענינים; בענינים/ (ב)
- 11: אין; ואין/ (ב) אלא אם כל למדה; טעמו אלא אם קבלה/ (ב) (ב)
- 12: (הורו בזה); (ב) בטבעה; בטבעה/ (ב)
- 13: איננו; איננו/ (ב) איננו; (ב) מקשות; המקשות/ (ב) באמרם; באמרם/ (ב)
- 14: ותירוצם; באמרם; ותירוצם על/ (ב) בהן; שבתם/ (ב) (ב)

All this is to establish the cause, after the manner of the dialecticians, and its refutation is after the manner of Abū Hāmid. Were I not afraid of being prolix I would have explained this by an example. But it is easy to understand how that we have commented on the soundness of the matter.

COMPOSITE SYLLOGISMS: Be it known that the general fashion in books and <sup>(84)</sup> teachings is not to proceed by the building <sup>(85)</sup> of <sup>(86)</sup> syllogisms in the way we have been building them. They are found however, in a confused way, in books, <sup>(87)</sup> either with some addition which could have been dispensed with or with the omission of one of <sup>(88)</sup> the two premises which must appear - both making for error. If the confusion is caused by lack of order which may be restored, it is a conclusive syllogism. But that which is outwardly constructed in the proper order and is not accompanied by its conditions is not conclusive. <sup>(89)</sup> An example of the proper order is the first figure of Euclid: when on a line AB we wish to construct an equilateral triangle and prove that it is equilateral, we say, take point A as the center and place the end of the compass upon it and draw an arc from it

והקשותם עוד באסרם מה להצד שוה שבהם כל זה הוא בקיום העלה כמו  
 שחדשו המנצחים וסתירתה כמו שבאר אבוהאמד ולולי ברחי מהאריכות  
 הייתי פורט זה במשל אחד אלא שהוא סמה שיקל אחר שהעירונו על אמתת  
 הענין אמר ואולם ההקשים המורכבים דע שהמנהג בספרים הלמודיים בלתי  
 הולך בסדור ההקשים על הדרך אשר סדרנוהו אבל ששש יבאו מכולבליים  
 אם עם תוספת מספיק זולתה ואם עם חסרון אחת השתי הקדמות הצטרך  
 בהראותה וכוננו שניהם אל הסעות ומה שיבא מכולכל הסדור סמה שאין  
 על זה הסדר ואפשר השבתו אליו הנה הוא הקס מוליד ומה שהוא על זה  
 הסדור בנגלהו אבל הוא אין עמו תנאיו הנה הוא בלתי מוליד ומשל  
 ההרכבה הוא התמונה הראשונה מן אקלידס והוא שבאשר היה עמנו קו אב  
 ורצינו שנבנה עליו משלש שוה הצלעות ונעמיד הסופת על שוה שוה  
 הצלעות ונאמר כאשר שמנו נקדת א מרכז והנחנו עליו קצה המחובה

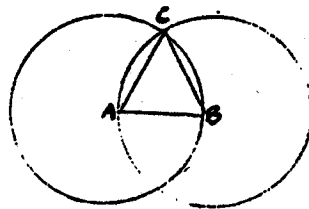
ופתחנוהו

- -

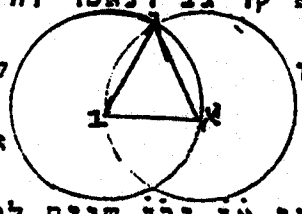
- 1: והקשותם: עליה: (ב) (באטרם)/(ב) שבהם: שבהו/(ב)
- 2: אחד: אחד/(ב)
- 3: הלמודיים: בלימודים/(ב) (ב)
- 4: הדרך: דריל/(ב) אבל: וטבל/(ב) (ב)
- 5: השתי: השתי/(ב)
- 6: על זה הסדר: עליה הסדור/(ב)
- 7: אבל (תום)/(ב) ומשל: ומטלו/(ב) (ב)
- 8: הוא: היא/(ב) אקלידס: אוקלידס/(ב)

to point B and complete the circle around point A. Then, on point B as a center, place the end of the compass and draw an arc to point A completing the circle, with its center at point B. We then have two similar circles, since they both have the same radii and will necessarily intersect at some point, C. From the point of intersection, a straight line proceeds to A, thus producing line CA. From C another straight line proceeds to B, thus producing line CB. This is the triangle of three equal sides which results from ABC. <sup>(a)</sup> Its demonstration is that the two lines, AB and AC, are equal, because they are drawn from the center of the same circle to its circumference. The two lines AB and BC are equal for the same reason. And lines AC and BC are equal because they are exactly equal to the same line, AB. Therefore, the conclusion is that the triangle is equilateral. This is the way in which these premises are constructed. If they are properly constructed, the conclusion will really result from four complete syllogisms no premise being suppressed and each syllogism consisting of two premises. The first is, that the two lines, AB and AC are equal because they both proceed from the center of the circle to its circumference, and every two straight lines from the center to the circumference are equal. Therefore, these two are equal.

a) Text has the following diagram:



עד נקודה ב' והשלמנו עגולה סביב סרכז א' אחר שטנו נקדת ג' סרכז  
 והנחנו עליו קצה המחוגה ופתחננהו עד נקודה א' והשלמנו עגולה על סרכז  
 ב' הנה השתי עגולות דומות לפי שהם על סרחק אחד ויכרתו בלי ספק על  
 נקדת ג' ויצא סמקום החתוך קו ישר אל נקדת א' והוא קו גא' ויצא קו אחר  
 ישר מנקדת ג' אל נקדת ב' והוא קו גב' ונאמר זה ש' המסלש המגיע בין נקדה  
 אבג' מסלש שוה הזלעות וסופתו ששני קוי אב' אג' שויים לפי  
 שהם יצאו מסרכז עגולה אחת אל סקיפה וכן שני אב' ובג'  
 שויים וכמו זאת העלה ושני קוי אג' ובג' שויים לפי שהם שויים לקו אחר בעינינו  
 והוא קו אב' ואם כן התולדה שהמסלש שוה הזלעות הנה כן הלך הסנהג  
 בעשיית ההקדמות הנה ואם הושבו אל האמת והסידור לא תגיע התולדה אלא  
 סארבעה הקשים כל הקש ססתי הקדמות הראשון הוא ששני קוי אב' אג' שויים  
 לפי שהם יצאו מסרכז עגולה אל סקיפה וכל שני קויים ישרים יצאו מהסרכז  
 אל הסקיף הם שויים הנה אם כן שניהם שויים



- 1 : נקודה: נקודת/ (ב) עגולה: העגולה/ (ב)
- 2 : עליו: עליה/ (ב) נקודה: נקודת/ (ב) עגולה על: העגולה על/ (ב)
- 3 : השתי עגולות: השתי העגולות/ (ב) דומות: האחת אל האחרת/ (ב)
- 4 : המסלש: המסולש/ (ב) נקדה: נקודת/ (ב)
- 5 : שוה: השוה/ (ב) ששני קוי: קוי/ (ב)
- 6 : (אחת)/(ב) סקיפה: הקפה/ (ב) שני: קוי: / (ב) א ב: במ/ (ב) (ב)
- 7 : העלה: העגולה/ (ב) אחר: אחר/ (ב) (ב)
- 8 : (ואם כן)/(ב) תולדה שהמסלש: התולדה שהמסולש/ (ב)
- 9 : כל: וכל/ (ב) ששני: השתי/ (ב)
- 10 : סקיפה: הסקיף/ (ב) שני: שתי/ (ב) יצאו: זה: / (ב)



The second syllogism is that the two lines, AB and BC proceed from the center to the circumference, and they are also equal, as shown in the previous syllogism. The third syllogism is, that the two lines, AC and BC, are equal, because they are equal to line AB, and every two lines exactly equal to the same thing are equal to each other. The fourth syllogism is that the figure ABC is bounded by three equal lines, and every figure bounded by three equal lines is an equilateral triangle. Thus, figure ABC, constructed on line AB, is an equilateral triangle. This is its proper form. But it is easier to omit some of the premises. This is the definition of the form of the syllogism.

COMMENTARY: The statement: "Or with the omission of one of the two premises which must appear" means its actual appearance in the syllogism is necessary. This saying, "both making for error" means that people will err if something is added. They will think that it is a premise whose position is in the syllogism, and it is not so. Likewise, they will think that it does not yield a conclusion when one of them is omitted, while in reality it is potentially there though they may not notice it.

THE MATTER OF THE SYLLOGISM - The matter of the syllogism is the premises.

- a) Reading with mss. Bet. and Gimmel.
- b) Omitted clause as ms. Bet.



If they are apodictically true, the conclusions are apodictically true; If they are false, their conclusions will not be true; if they are matters of opinion their conclusions will not be apodictic.

¶ And just as gold is the matter of the dinar and roundness is of its form, and just as the dinar may be spoiled either through distorting its form and destroying its roundness by making it long, so that it is no longer called a dinar, or by the adulteration of its matter, it being iron or copper, so too the syllogism. It may be invalidated because of the distortion of its form, i.e. when it does not coincide with one of the three above-mentioned figures, or because ~~of~~ of the invalidation of its matter, even though its form may be sound, i.e., when the premise is a matter of opinion or is false. Gold has five degrees of purity; pure and unadulterated; containing some dross, which is perceptible only to the keen-eyed; containing enough dross to be apparent to the keen-eyed and also discernable to those who are not keen-eyed, when their attention is called to it; <sup>(92)</sup> adulterated with copper, but so skillfully counterfeited that even the keen-eyed may almost mistake it for gold even though there is no gold in it; so adulterated that its adulteration is apparent to all. The premises, similarly, have five principles; that they be apodictically true, without doubt or question,

צודקת אמתיות היו התולדות צודקות אמתיות ואם היו כוזבות לא יולידו  
 הצודקות ששששש ואם היו מחשביות לא יולידו האמתיות וכמו שהזהב חוסר  
 הדינר והעגול צורתו וכבר ישתבש הדינר פעם בעזרת צורתו ובטול עגולו  
 בשיהיה ארוך ולא יקרא דינר ופעם בהפסד חסרו בשיהיה ברזל או נחשת  
 כן ההקש פעם יפסד בהפסד צורתו והוא שלא תהיה על תמונה מהתמונות  
 הקדומות ופעם בהפסד חסרו. ואם נתאמתה צורתו והיא שתהיה ההקדמה  
 מחשבית או כוזבת. וכמו שהזהב לו חמש סדרגות. הסדרגה הראשונה שיהיה  
 זך נקי והשנית שש שלא יהיה באותה הסדרגה אבל יהיה בו סיג מה לא  
 יראה כלל אלא לדק הראות. והשלישית שיהיה בל<sup>1</sup> סיג יראה לכל דק הראות  
 ואפשר שישערו בו גם כן זולת דק הראות ויתערר אליו. הרביעית שיהיה  
 מזויף מנחשת אבל מטעה הטעאה ק<sup>2</sup>דה כמעט יטעה הדק הראות עם שהוא אין  
 זהב בו כלל. והחמישית שיהיה מזויף זיוף יראה לכל אחד שהוא זיוף.  
 וכן להקדמה חמשה שרשים. הראשון שתהיינה אמתיות צודקות בלי ספק ולא

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**צדקת אמתיות**

- 1: צודקות אמתיות היו... צודקות אמתיות (ב)
- 4: בשיהיה: בשיהיה (ב) ופעם: פעם (ב) בשיהיה: בשיהיה (ב)
- 5: תמונה: השלש: תמונות קודמות (ב)
- 6: זיהה: והוצ (ב)
- 7: חשט: זו חשט (ב) הראשונה: היא (ב)
- 8: נקי: נקי (ב) (ב) והשנית: השנית (ב) בו: לו (ב)
- 10: גם כן: גם כן (ב)
- 11: כמעט: כמעט (ב)
- 12: זהב בו כלל: זהב בו כלל (ב)
- 13: הראשון: הראשונה (ב)

(A syllogism so constructed is called a demonstrative syllogism); that they approach certainty in such a manner that it is hard to conceive of the possibility of deception though the possibility arises during the investigation. (The syllogism constructed from them is called dialectic); that the premises are considered the prevailing opinion but the soul is aware of their contradictions, which expand with the awareness of their deception, (The syllogism ~~is~~ so composed is called rhetorical); that the form is deceptively like the apodictic, (the syllogism which results from it is called deceptive or sophistic); that it be known that it is false, but the soul is inclined to it, by a kind of fancy, (the syllogism resulting from this is called poetic). All these premises need explanation. Premises out of which the syllogism is constructed, which were not established through argumentation but are assumed because they are accepted as admitted are limited to thirteen kinds of judgements: "first principles": judgements of perception; judgements of experience; opinions generally accepted; propositions whose middle terms are not negated by the intellect nor by their syllogism; estimative opinions; customary beliefs; authoritative statements; admissions; semblances;

דמות. וההקש אשר יסודר מהם יקרא מופתי. והשני שתהיינה קרוב לאמת  
 על אופן יקשה השעור באפשרות הטעות בו ואבל ילך אליו אפשרות שש  
 כאשר יתעורר המעיין בו וההקש המסודר מהם יקרא נצחי והשלישי שיהיו  
 ההקדמות נחשבות מחשבה גוברת אבל תשער הנפש בסותרה ותתרחב בשעור  
 הטעות בו וההקש המורכב ממנו יקרא הלציי והרביעי מה שזורתו כזורת  
 האמתיות בטעות ואינו מחשבי ולא אמתי וההקש המגיע ממנו יקרא מטעה  
 או הטעאיי. והחמשי הוא אשר יודע ממנו שהוא כזב אבל תטה הנפש במין  
 דמיון וההקש המגיע ממנו יקרא שיריי ואי אפשר מבלתי שירוש ההקדמות  
 וכל הקדמה תסודר ממנה הקש ולא תקוים אותה ההקדמה בטענה. אבל נלקחה  
 על שהיא מקובלת סודית הנה היא לא תעבר שלשה עשר חלקים. הראשונות  
 והמוחשות. והנטיונות והנמשכות. והמשפטים אשר לא ימצע השכל מגבוליהם  
 האמצעי והקשם. והמחשבות. והמפורסמות. והמקובלות. והסודיות. והמתדמות

- 1: מופתי: מופתי/ (ב) והשני: והשני/ (ב)
- 2: השעור: השעור/ (ב) ואבל: ואבל/ (ב)
- 3: יתעורר: יתעורר/ (ב) נצחי: נצחי/ (ב) נצחי: נצחי/ (ב) והשלישי: והשלישי/ (ב)
- 4: מחשבה גוברת: מחשבה גוברת/ (ב) אבל: אבל/ (ב) נסותרת: נסותרת/ (ב)
- 5: והרביעי: והרביעי/ (ב)
- 6: והחמשי: והחמשי/ (ב) שהוא כזב אבל טעה: שהוא כזב אבל טעה/ (ב) שהוא כזב  
 כזב אבל טעה/ (ב)
- 7: דמיון: דמיון/ (ב) המגיע: המגיע/ (ב) שיריי: שיריי/ (ב)
- 8: תסודר: תסודר/ (ב) הקש: הקש/ (ב)
- 9: מקובלת: מקובלת/ (ב) לא: לא/ (ב) (מעבר): (מעבר)/ (ב) מעבור: מעבור/ (ב)
- 10: והנטיונות: והנטיונות/ (ב)
- 11: והמפורסמות: והמפורסמות/ (ב)
- 12: והסודיות: והסודיות/ (ב)

opinions which appear to be generally accepted; presumptions and imagined things.

COMMENTARY: The statement, "But if they are false their conclusions will not be true. If they are matters of opinion their conclusions will not be apodictic" means that the false is the antithesis of true. And by true, he meant they are not matters of opinion. <sup>(a)</sup> Matters of opinion are the antithesis of the apodictic. Apodictic means they are without flaw.

FIRST PRINCIPLES are judgements which are made necessary by the very nature of the mind as pure intelligence, as when we say that two is more than one; that the whole is greater than the part; and that things equal to the same thing are equal to each other. For he who supposes he was born a thinker and that he learns only through the abstractness of the intellect, <sup>(96)</sup> and does not know how to distinguish quantity and difference in nature x but imagines that he x was created a thinker all at once and that these judgements occurred to him and that he himself formed their concepts <sup>(97)</sup> after having conceived the meaning of the whole and the meaning of the part, and the meaning of the lesser and <sup>(98)</sup> the more, surely, it would be impossible for him not to say correctly that the whole is greater than the part. This is true of every "whole", whatever it may be. It does not come from the senses, for the senses grasp ~~an~~ only one or two particulars or a limited number of things, <sup>(99)</sup> but this judgement is established in the intellect as a universal and it is impossible for the intellect ever to be separated from it

a) Reading with ms. Bet.

והמפורסמות בנראה. והנחשבות. והמדומות. הפירוש אשרו ואם היו  
 כוזבות לא יולידו הצודקות ואם היו סחשביות לא יולידו האמתיות. ירצה  
 בכוזבות סקביל הצודקות ורל בצודקות שאינן סנחשת. והמחשביות סקבול  
 האמתיות. וירצה באמתיות שאין בהם סיג. אמר והראשונות הם אשר יכריח  
 יסודיות השכל בהיותה סופשטת אל האמות במ כאמרן השנים יותר מהאחד  
 והכל יותר גדול ששלק סן החלק והדברים השוים לדבר אחד שוים כי מי  
 שער עצמו מסכיל ולא ישער אלא השכל סופשט ולא יפריד למידה וחלוק  
 בבריאה אבל שער שהוא נברא פתאום מסכיל וקרו אלה המשפטים עליו וקיים  
 בעצמו ציורם אחר ציור ענין הכל וענין החלק/ענין הפחות והיתר הנה אי  
 אפשר לו שלא יצדק בהשכל יותר גדול סן החלק זה בכל כלל איך מה שהיה.  
 ואין זה סן החוש. כי החוש לא ישיג אלא אחד או שנים או דברים סוקפים  
 וזה משפט קיים בשכל כולל ואי אפשר שיוכל השכל להתפרד ססנו שום עת

- -

- 2 : אמר :מסדו/ (ב)  
 3 : סנחשת :מחשביות/ (ב)  
 4 : וירצה :ירצה/ (ב)  
 5 : סופשטת :סופשטות/ (ב) האמות :מאיות/ (ב) סנחשת :סן האחד/ (ב)  
 6 : סן החלק :מחלקי/ (ב) סנחשת :מחלק/ (ב) אמר :יותר מהאחד/ (ב)  
 7 : שער :שישוער/ (ב)  
 8 : שער :שישוער/ (ב) שיער/ (ב) אלה :מלו/ (ב)  
 10 : שלא :שלא/ (ב) גדול סן החלק :מחלק/ (ב) (ב)  
 12 : שום :מכיל/ (ב)



JUDGEMENT OF PERCEPTION: when we say that the sun shines and sets, <sup>(100)</sup> and that the light of the moon increases and decreases, etc.

JUDGEMENT OF EXPERIENCE: that which results from the combination <sup>(101)</sup> of the intellect and the senses, as when we say that fire burns and that cathartic is a laxative and that wine intoxicates. For the senses perceive that ~~the~~ drunkenness is a consequence of drinking wine repeatedly, so that the intellect takes note of it as involving a necessary consequence. For if it were accidental it would not consistently follow. Thus, a knowledge of that about which it is quite sure, is engraved on the mind.

OPINIONS GENERALLY ACCEPTED: those which are known through the information of many people, as our knowing of the existence of Mecca and Egypt, even though we have not seen them. <sup>(102)</sup> And when doubt concerning them ceases, they are called generally accepted beliefs. <sup>(103)</sup> But it is impossible to infer one from another and to say to one who doubts the miracles of a prophet that he should believe in them because the information about them is as persistent as is that <sup>(104)</sup> about the existence of the prophet, because he <sup>(105)</sup> will say, "I cannot <sup>(106)</sup> doubt the prophet's existence, but I can doubt the miracles. Had <sup>(107)</sup> they been as evident to me as that, <sup>(108)</sup> I would certainly not have <sup>(109)</sup> been able to doubt them." Therefore, he must wait until it becomes an acknowledged fact for him. Then, doubt will cease. <sup>(110)</sup>

PROPOSITIONS CONTAINING IN THEMSELVES SYLLOGISMS BY THEIR VERY NATURE

a) Reading with ms. Bet.

והמוחשית כמו אמרנו השמש זורה ושופע ואור הירח נוסף  
 וחסור וכו' והנסיונות מה שיגיע מחכור השכל והחוש באמרנו  
 כשהאש שורפת והאשקמוניא משלשת והיין משכר כי החוש ישיג השכרות  
 אחר שתיית היין פעם אחר פעם על ההכפל והתעורר השכל בהיותו פחוייב  
 לו כי לו היה מקרי לא היה נמשך ברוב ותקשר בשכל ידיעה כזה מובסת כה.  
 והנמשכות מה שנודע בספור רבים כידענו במציאות מכה ומצרים ואם לא  
 ראינום וכאשר נשתנה הספק מזה נקרא נמשך ואי אפשר שיוקש קצת על הקצת  
 ויאמר לפי ספק במציאות פלאי הנביא ראוי שיצדק כם לפי שההעתק בו  
 נמשך כמו במציאות הנביא לפי שיאמר אי אפשר לי שאספק עצמי במציאותו  
 ואפשר לי שאספיק עצמי בפלאים ולו היה כמו זה לא שערתי על הספק ואי  
 אפשר מכלתי שימתיך עד שימשך אצלו המשכות יהיה שר עמו הספק אם היה  
 נמשך ואולם המשפטים אשר הקשתם עמם

- -

- 1: אמרנו: אמרינו/ (כ) (ואור/ (כ))
- 2: וחסור: וחסור/ (כ) (וכו' / (ג) השכל: זה: כשאמרנו: כאמרנו/ (כ)
- 3: ישיג השכרות: משיג השכרות/ (ג)
- 4: אחר: שתייך: / (כ)
- 5: מקרי: מקרה/ (כ) (ג) ותקשר: ונקשר/ (ב)
- 6: כידענו: כידוענו/ (כ) (כ) כידיענו/ (ג) מכה: פיקא/ (כ) טיפה/ (ג) ומצרים:
- 7: נשתנה: הסתלק/ (כ) נשתנה/ (ג) מזה: בו/ (כ) (ג)
- 8: כם לפי שההעתק: לפי ההעתק/ (כ)
- 9: במציאותו: במציאות הנביא/ (כ)
- 10: ואפשר לי... בפלאים: אבל איפשר לי שאספיק עצמי בפלאים/ (כ)
- 11: יהיה: והיה/ (כ)
- 12: הקשתם: הקשם/ (ג) (על/ (ג) (ג))

are propositions which are not established in the soul, but in their middle terms, though the middle term is not foreign to, that is, it is not separated from, <sup>(111)</sup> the intellect. Therefore, people think that it is a major premise which is known without a middle (term), while in truth the proposition is known only through the middle term. We have but to find the middle term of the syllogism. The major and the minor terms are already found in the thesis itself, e.g., we know immediately that two is half of four. But we know this only through the middle term, as in the following syllogism: "Two of four parts is one of the two equal parts of a whole", "One of two equal parts of a whole is a half", Therefore, "Two of four parts is a half". The proof <sup>(112)</sup> is that if we were asked what part of thirty-four is seventeen we would not immediately know that it is half, but would have to divide thirty-four into two equal parts and then examine each part to find that each is seventeen. Then we would know that it is a half. If this <sup>(113)</sup> also is present in the intellect, test with many numbers, or change the half to one-tenth or one-sixth of something else. That is the point of the example. It is not strange that the proposition is derived from the middle term, and yet the intellect does not notice that it derived it from the middle term of a syllogism.

a) Reading 2-1 with mss. Bet. and Gimmel.

בטבע הנה הם משפטים לא יקויימו בנפש אלא בגבולים אמצעיים אבל לא יהיה זר רל שלא יהיה נבדל מהשכל הגבול האמצעי ויחשב האדם שהיא הקדמה ראשונה ידועה בזולת אמצעי והיא על האמתות באמצעי ואין ענין להקש אלא דרישת הגבול האמצעי והגבול הקטן והגדול נמצא בעצם השאלה הדרושה דמיונו שאתה תדע שהשנים חצי הארבעה בתחלת הדעת וזו ידוע באמצעי והוא שהחצי אחד בשני חלקי הכל הוה לאחר והשנים מהארבעה אחד סבזי החלקים השוים הנה הלא אחצי הראיה עליו שלו נאמר לך כמה שבעה עשר מן ארבעה ושלישים פעמים לא תדע בתחלת הדעת שהוא חצים כל זמן שלא תחלק ארבעה ושלישים בשני חלקים שוים. אחר תעייך אל כל חלק ותראהו שבעה עשר ותדע שהוא חצי ואם היה זה גם כן נמצא בשכל הנה הבחין זה במספר רב והסיר החצי בעשר והששה וזולתו והמכוון המסל ובכלל הנה אין רחוק שיהיה הדבר ידוע באמצעי אבל השכל לא יתעורר להיותו באמצעי ובהקש.

ואין כל מה

- 1: (אבל לא היה... שלם יחיה נבדל) / (ב)
- 2: האמתות והשפטים / (ב)
- 3: הקטן והגדול: הגדול והקטן / (ב)(ב)
- 4: ששנים וששנים / (ב)
- 5: לאחד: לאחד / (ב)
- 6: חלקים: חלקים / (ב)
- 7: חיים: חיים / (ב)(ב)
- 8: חיים: חיים / (ב)
- 9: ארבעה: לארבעה / (ב)
- 10: ואם: ואם / (ב)
- 11: (רל) / (ב)
- 12: אצל: אצל / (ב)(ב)

לך כמה... פעמים: כמו יז מן הארבעה ולפעמים / (ב)

Though one may achieve knowledge in a particular way he may not be aware of that way. For establishing knowledge of a thing is one thing, and awareness of how that knowledge was arrived at is another.

ESTIMATIVE OPINIONS are premises which are invalid, but have been established in the soul with sufficient strength to prevent the possibility of doubt in them because of the judgement of the estimative faculty concerning things which are derived from sense objects. For the estimative faculty accepts as true only what habitually agrees with sense objects, as for example, the judgement of the estimative faculty that "Everything that has no place, either in the world or outside of it, is impossible;" or the judgement of the estimative faculty that "Everything will either perish or continue to exist," i.e., outside of the world, or the judgement that matter does not increase, nor become larger of itself, but only when increase is added to it from the outside. The cause of the judgement of the estimative faculty lies in the fact that these matters do not agree with perceptions and are not conceived of by estimative faculty. Their falsity is known from the fact that if everything which is not conceived of by the estimative faculty were false, then the estimative faculty itself would be false, for the estimative faculty itself is not conceived of by the estimative faculty; only knowledge and potential knowledge are. Now, any attribute which is not grasped by the five senses is not grasped by the estimative faculty. Its error, in these specific questions, is apparent in so far as they are the necessary results of

שקיים על אופן יקיטהו האדם באופנו שקשש וקיום הדבר בשכל דבר אחד  
 והשיעור באופן קיומו והמשקולות סמנו אופן אחר. והמחשבות הם הקדמות  
 בטלות אבל הם נתחזקו בנפש חוזק ימנע מאפשרות הספק בו. וזה מרושם  
 המחשבה בעניינים יוצאים מן המוחשות לפי שהמחשבה לא תקבל דבר אלא  
 על הסכמת המוחשות אשר הרגילים כמספט המחשבה בסקרות נמצא אין רמז אל  
 צדו ולא הוא תוך העולם ולא חוצה לו וכמספטו בשהכל יכלה אל רקות או  
 מלוי רצוני אחורי העולם. וכמספטו בשהגשם לא יוסיף מעצמו ולא ירבה  
 אלא בשיצטרף אליו תוספת מחוץ. ואמנם סבת משפט המחשבה בזה שאלה  
 העניינים אינם מסכימים לחוש ולא יכנסו במחשבה ואמנם נודע בטולו לפי  
 שש שלו היה כל מה שלא יכנס במחשבה בטל היה עצם המחשבה בטל כי  
 המחשבה לא תכנס במחשבה אבל הידיעה והיכלת וכל תאר לא ישיגוהו החושים  
 החמסה לא תשיגוהו המחשבה. ואמנם יודע טעותו בכמו אלה השאלות הסאוינות  
 מצד שהם מחויבות

-8-

- 2 : אחר: אחר/ (ב)  
 3 : אבל: ו אבל/ (ב) (ב) חוזק: חוזק/ (ב) מאפשרות: מאפשרות/ (ב)  
 4 : (על/ (ב) המוחשות: המוחשות/ (ב)  
 5 : וכמספטו... אל רקות: וכמספטו העולם כלה אל ריקות: / (ב) (או/ (ב)  
 6 : אחרי: אחר/ (ב)  
 7 : אליו: בו/ (ב) שאלה העניינים: השאלה טעניינים/ (ב)  
 8 : בטולו: בטולת/ (ב)  
 9 : בטל היה עצם המחשבה: בטול היה עצם המחשבה/ (ב)  
 10 : אבל: בט/ (ב) ישיגוהו: ישיגוהו/ (ב)  
 11 : טעותו: טעותם/ (ב) אלה: אליו/ (ב)

sylogisms constructed from first principles, which the estimative faculty accepts. And we will admit that when the premises of the syllogisms are constructed from first principles the conclusion is true. Therefore, when after we arrive at the conclusion the estimative faculty still refuses to accept it, we know that its refusal is due to its nature, which refuses to accept what is not derived from sense objects.

CUSTOMARY BELIEFS are propositions which are believed in because of popular belief alone. The masses and the pseudowise consider them to be necessary first principles of the pure intellect, e.g., "Falsehood is improper", "The pious man ought not to speak  
(114b) falsely, nor to enter the bathhouse without his cloak in a way that would reveal his privy parts", "Justice is necessary and injustice improper", etc. These notions have been multiplied in one's hearing since youth, and people agree to them in order to improve their lives. The soul hastens to accept them, through habit. They may be  
(115) strengthened by the gentle virtues. But if one could suppose that  
(116) he was born a thinker and was not trained to goodness nor attached to virtue nor accustomed to be friendly, and these propositions were brought to his intellect, it might be possible for him to refrain from accepting them. It is not like our saying two is

מהקשים סודרו מראשונות עולה המחשבה על קבלתם ותודה שהקדמות ההקש  
 כאשר סודרו סן הראשונות היו התולדות צודקות אחר כן כאשר הגיעה  
 התולדה נפגע מקבלת התולדה ונודע בזו שהסנעו מהקבלה בעבור טבעו כי  
 הוא ירחק מקבלת מה שאינו על צד המוחשות ואולם המפורסמת הנה הם  
 המשפטים אשר לא יאמר במ אלא על הפרסום סופסט ויחשבו ההסון והנראים  
 מבעלי החכמה שהם ראשיות מחוייבות ביסודות השכל כמו אמר הכוז  
 סגונה והחסידי ראוי שלא יכזב ולא יכנס למרחץ בזולת סלית בצד תגלה  
 הערוה. והיושר מחוייב. והחטט סגונה ודומה לו ואלה עניינים נכפלו על  
 השפע מהנערות. ויסכימו עליהם אנשי הארץ לתקון חיייהם ותסחר הנפש  
 לקבלם לרוב ההרגל ופעמים יחזקום משפטי התכונות סן האקות ולו שער  
 האדם מצמו וכבר נברא משכיל ולא יוסר בהסכמה ולא יסתבך בסדה ולא  
 יתחבר עם אדם בהרגל והובאו על שכלו. אלה המשפטים אפשר לו ההמנע  
 מקבלתם לא :סרנו השנים

- 1: (סודרו)/(2) מראשונות:מראשונות/(2) (מראשונות...כאשר סודרו)/(2)
- 2: מראשונות:מראשיות/(2) הגיעה:הגיע/(2)
- 3: בזו:בזה/(2) (2) שטבעו:שטבעו/(2)(2)
- 4: הקרה: לפני "והולת המפורסמות" סכנים מקובצת השני את החלק למטה "הסידור והראשונות הם שער..." הנמצא בדרך סנ ע"ב בקובצת העיקרי. חלוצי גבריהאות של חלק זה של קובצת השני יסננו בדרך סנ ע"ב של קובצת העיקרי.
- 5: המשפטים:נמשפטים/(2) סנ:נחם/(2) ויחשבו:וחשבו/(2)
- 7: בצד:סלם/(2) תגלה/(2)
- 8: עניינים:העניינים/(2)(2)
- 10: הדקות:הסדות/(2) הדקות:נ"א סן הזכות והפטר/(2)
- 11: הטרם:טרם/(2) וכבר:שכבר/(2) (פסכיל)/(2)
- 13: סרנו:כאשרנו/(2) לא באמר:לא/(2)



more than one. Some of these premises may be true, but only on the grounds of close examination or of evident truth, though people think they are absolutely true, as they think the statement "God is omnipotent" is true. That is a customary belief and its denial is unworthy, but it is not absolutely true, for He cannot create one like Himself. What one should say is that He is able to do everything that it is possible for Him to do. So, too, our saying "He is omniscient" when He is not omniscient, for He does not know of another Existence like Himself. These customary beliefs may vary in strength and weakness according to the varied customary beliefs, customs and habits. They may vary in different countries and among different professions. A customary belief among physicians is not the same as among carpenters, and vice versa. A customary belief does not contradict falsehood, it contradicts the improper, while truth contradicts falsehood. Truth may be improper and falsehood may be a popular customary belief. There is no doubt that first principles and some judgements of perception, opinions generally accepted all, and judgement of experience are customary beliefs. But we are dealing here only with beliefs based on custom.

AUTHORITATIVE STATEMENTS are judgements received from excellent

יותר מן האחד. וכבר יהיו קצת אלה ההקדמות צודקות ואבל בתנאי דק או סופת ויחשב שהם צודקות בשלוח. כמו שחשב שפאמר האומר שהאל יכול על כל דבר צודק והוא ספורסם וכפירתו מגונה אבל אינו צודק כי הוא אינו יכול על שיברא כמו עצמו. אבל ראוי שיאמר הוא יכול על כל ענין אפשר בעצמו ויאמר הוא יודע בכל דבר ואינו יודע בכל דבר כי הוא אינו יודע במציאות כמותו ואלה הספורסמות כבר ישתנו בכח והחלשה בפי חלוף הפרסום וחלוף הסנהגים והתכונות וכבר יתחלפו בקצת המדינות ובחק מיני הפעלים הנה אין ספורסם אצל הרופאים ספורסם אצל הנגרים ולא בהפך. והספורסם אינו סותר לבטל אבל סותר הספורסם המגונה וסותר הבטל האמת ופעמים אמת מגונה ופעמים בטל אהוב ספורסם. ואין ספק בשהראשיות וקצת המוחשות והנמשכות והנסיגות ספורסמות אבל אנחנו כוננו בזה מה שאין בו אלא הפרסום לבד. ואולם המקובלות הנה הם המשפטים המקובלים סיותר טוב.

- 1: מן האחד: ספורסם/ (ב) (אלה)/ (ב)
- 2: שחשב: שיהסוב/ (ב)
- 3: אבל וזאבל/ (ב) (ב) (הוא)/ (ב)
- 4: (אוא יכול על)/ (ב)
- 5: יודע בכל: יודע כל/ (ב) ואינו יודע בכל: ואינו יודע כל/ (ב) כי הוא: יודע כל דבר אשרי ויאמר כי הוא: (ב)
- 6: כמותו: במציאות: (ב) ואלה: ואולם/ (ב)
- 7: (ובחק מיני הפעלים)/ (ב)
- 8: הנגרים: האנשים
- 9: ופעמים: ולפעמים/ (ב) אמת: האמת/ (ב)
- 10: בטל: הנבטל/ (ב) ספורסם: וספורסם/ (ב)
- 11: והנסיגות: והנסיגות/ (ב) כוננו: כוננו/ (ב) מה: במה/ (ב)
- 12: סיותר טוב: ספורסם/ (ב)

men, the greatest in wisdom, and from elders of (ancient) <sup>(117)</sup> times. When these, received from them through their books and repeated, are combined with sound judgement, they become established in the soul.

ADMISSIONS are those which are admitted <sup>(a)</sup> by the opponent or are accepted as conventions by the two opponents alone. For it is used only against an opponent but not against anyone else. Admissions and customary beliefs differ as to their being universal or particular. For the latter are admitted by all, while an admission is admitted by the opponent alone.

SEMBLANCES are those which are confused with first principles or with judgements of experience, or with customary beliefs because of their semblance, but in truth they are only outwardly similar.

OPINIONS WHICH APPEAR TO BE GENERALLY ACCEPTED are those which are accepted by whoever hears them and is satisfied with a first view and a cursory glance. But when he investigates them more thoroughly he finds them unacceptable and perceives that they are false, like the statement "Help your brother the robber or the robbed." <sup>(118)</sup> The soul at first accepts <sup>(119)</sup> it, then investigates and only then realizes that to help <sup>(120)</sup> the robber is not a logical consequence.

PRESUMPTIONS are acquired by opinion,

a) Reading with ms. Gimmel.

האנשים ויותר גדולים כחכמה וזקני הזמן כאשר נכפלה העתקת זה מהם  
 ובספריהם והצטרף אל זה סוב המחשבה כם כי זה יקוים כנפש פיוס מה  
 ואולם המודות הנה הם אשר הורם בעל הריב או היה מפורסם בין שני בעלי  
 הריב לבד כי הוא יעשה בלתי זולתו ולא יפרד המורה מהמפורדם אלא  
 בכללות והיחוד כי המפורסם הודאת הכלל וזה יורהו בעל הריב לבד. ואולם  
 המתדמות הנה הם אשר ישתכשו כהדמותם כראשיות או כנסיונות או המפורסמות  
 ולא יהיו כאמת כן אכל הם יקרבו כנראה. ואולם המפורסמות כנראה הנה  
 הוא אשר יקבלהו כי מי ששמעו ומספיק התחלת הדעת ובראשית העיון  
 וכאשר עיין וחפש אחריו מצאו בלתי מקובל והרגיש בהיותו נפסד  
 כמאמר האומר שמור אחיך גוזל או גזול כי הנפש תפדם לקכלו עד תעיין  
 ותדע ששמירת גוזל אינה מחוייבת. ואולם הנחשבות הנה מה שתקנה אותו  
 המחשבה עם

- -
- 1: וזקני: ורוב/ (ב)
  - 2: ובספריהם: מספריהם/ (ב)
  - 3: הורם: הורה/ (ב) הודם/ (ג)
  - 4: ועשה: יעשה/ (ב) מה מפורסם: מהמפורסמים/ (ב)
  - 5: כי המפורסם: מהמפורסמים/ (ב) הודאת: הוראת/ (ב) וזה: זה/ (ב)
  - 7: יהיו: יהיה/ (ב)
  - 8: יקבלהו: יקבלוהו/ (ב) כי מי: כל מי/ (ב)
  - 9: מצאו: ומצאו

but allow for the possibility of their contradiction, as it is said of him who goes out at night that he is a robber, for if he were not a robber he would not go out at night; or "If some-  
 one has saved our enemy, he too is our enemy," <sup>(121)</sup> even though it admits the interpretation of his having saved him through the trickery and strategem of one of our friends.

IMAGINED THINGS are premises which are known to be false but influence the soul to desire to antipathy, like calling  
 sweetness wormwood, <sup>(122)</sup> provoking the soul to reject it ~~which~~ <sup>(123)</sup> as knowing it to be false.

We shall now discuss the manner in which they are employed.

COMMENTARY: "First principles are judgements which are made necessary by the very nature of the mind as pure intelligence" means without depending on the particular perception, which is not the case with experience. For when the intellect forms a universal, it really relies on the repetition of the experience, not on the fact that the universal, as such, is necessarily found in pure intellect without being combined with perceptions, i.e. with particulars. His saying "He is not omniscient because He does not know of another Existence like Himself", means that knowing may be said of what does not exist, as well as of what does exist. For knowing does not cease with absolute non-existence. He also said

השעור באפשרות סותרו כמו שמי שיצא כלילה יאמר שהוא חומס. כי לו לא יהיה חומס לא יצא כלילה. וכמו שיאמר שפלונני יציל השונא. הנה הוא שונא גם כן עם שהוא יסכל שתהיה הצלתו אותו פיוס כאדעה וגולה בעבור האוהב. ואולם המדומות הנה הם הקדמות יודע שהם כוזבות אבל הם יורשמו כנפש בתאווה וההרחקה כמו הדמות המתיקות ותחזק הנפש ממנו עם הידיעה כשהוא כזב הנה אלה הם הקדמות ונזכור עתה דרך עשייתם. הפירוש אמרו והראשונות הם אשר יכריח יסודיות השכל בהיותה מופשטת אל האמות כם ירצה מבלי השען אל החלקי המוחש. מה שאין כן בנסיוני כי השכל כשיחייבהו כולל ישען בעת שהוא על ההכפל לא על שהענין מחוייב בעצמו בשכל המופשט מבלי הצטרף אל המוחש רל החלקיים. עוד אמר ואינו יודע בכל דבר כי הוא אינו יודע במציאות כמותו. ירצה והדבר יאמר על הנעדר כמו שיאמר על הנמצא והידיעה לא תכלה בנעדר כשלוח עור אחר

- -

- 1: השעור: השיעור/ (כ) יאמר: לו: / (כ)
- 2: שפלונני: לפלונני/ (ג)
- 3: כאדעה: וגולה/ (ג) גם כן: ג"כ/ (כ) יסכל: סוכל/ (כ)  
כאדעה... האוהב: האוהב כה להתעולל שלא או להתחכם לו
- החלק הראשון של הפרוש עד סוף הדף חסר כאן בקונטרס ב' אבל מצוי לפני "ואולם המפורסמות" המצוי בקונטרס א' דף מב ע"א שורה 7.
- 5: ותחזק: ותרחק/ (ג) והרחקה: והרחקה/ (כ) ובהרחקה/ (ג)  
המתיקות: כלענה והמרירות כדכש: / (כ)
- 6: הקדמות: ההקדמות/ (כ) (ג)  
ונזכור: ועתה/ (כ) אמרו: אמר
- 8: בנסיוני: הנסיוני/ (ג)
- 9: (על) / (ג)
- 10: החלקיים: החלקיים/ (ג)
- 12: תכלה: תחלה/ (ג)

"It varies in different countries". People of one country may deem it improper to uncover the privy parts, while others deem it improper to uncover even their mouths and are always thus covered. If the covering is missing they put their hands to their mouths. This customary belief may be due to the fact that the mouth is an organ, serving the sense of taste, and man works for his mouth (124). He further said, "It (i.e. a customary belief) contradicts the improper, while truth contradicts falsehood." (124b) The Torah called the proper and improper good and evil. But it is not said of the false and true that they are good and evil; for good and evil are not applicable to the apodictic at all, but to the true and false. Since the judges know only what customary beliefs are considered proper but not that they are true in themselves", the Biblical verse says "And ye shall be as God, knowing good and evil", as was shown by Maimonides. (125) (126)

EXPOSITION OF THE DIVISION OF THESE PREMISES into syllogisms:

The first five are suitable for demonstrative syllogisms. They are: first principle judgements, perception, judgements of experience, opinions generally accepted, propositions containing in themselves syllogisms by their very nature; The value of proof is that it is used to reveal the truth and to achieve certainty. Customary beliefs and admissions are

וכבר יתחלפו בקצת המדינות אנחנו ראינו אנשים מארץ לא היה מגונה  
 אצלם גלות הערוה וראינו אנשים אחרים היה מגונה אצלם גלות פיהם  
 ויכסיהו לעולם ואם יפקרו המכסה ידם ישאלו למו פה ואפשר שסכת הפרסום  
 הוא להיותו כלי משרת לחוש הטעם כל עמל אדם לפיהו. עוד אמר אכל  
 סותר המפורסם המגונה וסותר הכסל האמת והתורה קראה המפורסם  
 והמגונה טוב ורע כי הכסל והאמת לא יאמר עליהם טוב ורע כי אין  
 בהכרחי טוב ורע כלל אכל שקר ואמת ולפי שהידוע אצל השופטים הם  
 עניינים הסכמיים מפורסמים לא הנמצאות בעצמותם האמתות אמר והייתם  
 כאלוהים יודעי טוב ורע כמו שרמז הרב. אמר הפאטר כחלוקת אלה ההקדמות  
 בהקשים אולם החמש הראשונות הנה הם ייסכו להקשים המופתיים  
 והם הראשונות והחושיות והנסיוניות והנמשכות והמשפטיים אשר הקשתם עמם  
 כטבע. ותועלת המופת הראות הצדק והגעת האמת ואולם המפורסמות והסודות  
 הנה

- -
- 3: ישאלו: שמו/(ב)  
 4: להיותו כלי: כלי להיות/(ב) (כלי) (אכל סותר)/(כ) כל: וכל/(ג)  
 6: (כי הכסל... טוב ורע)/(כ) והמגונה: המגונה/(ג)  
 8: הנמצאות: המציאות/(ג)  
 10: בהקשים: בהקש/(כ) החמש: החמשה/(ב)  
 11: הראשונות: הראשיות/(ג) והנסיוניות: והנסיוניות/(ג) הקשתם: הקשם/(ג)  
 12: והגעת: והגלות/(ב) והמידות: והמרירות/(ב)  
 13: הנה: הנה/(ג)



premises of the dialectical syllogism. Were the first principles and the others of the five and those which accompany them used in dialectic, it would have been stronger. (127)  
 But only customary beliefs and admissions are employed in dialectic because they are popular admissions. For the art of dialectic does not require stronger arguments than these. The advantages of dialectic are four in number. (128)

EXPOSITION OF THE FOUR ADVANTAGES OF DIALECTIC: (128)  
 (a) First, to train every beginner and everyone who does not proceed in the way of truth and whose understanding of the method of proving truth by demonstration is insufficient. They therefore turn him towards customary beliefs which he accepts as being necessarily true. And thus his false opinion is disproved by dialectic. Second, he who wishes to understand truth, and is intellectually superior to ordinary people and cannot be satisfied by mere rhetoric and persuasion, but yet cannot grasp the method of judgement, to be able to grasp the conditions of demonstration, may nevertheless acquire truth by means of dialectical syllogisms. This is the method of most (129) jurists who seek knowledge. Third, it is impossible for students to know, through demonstration, the premises and principles of the doctrines of a particular science like medicine, geometry, etc., at the very beginning. Were they to begin with these premises it would not be easy for them to grasp them. Therefore, they are suited to

a) Reading with ms. Bet.

בהקדמות הקש הנצוחי והראשונות ומה שעמם לו נפלו כנצוח היה יותר  
 חזק אבל אמנם יעשו כנצוח מצד שהם מודות בפרסום כי לא מצטרך  
 מלאכת הנצוח אל יותר מסנו ולנצוח תועלת ארבעה. זכר תועלת הנצוח  
 הארבעה. הראשונה ילך זולת דרך האמת ותהיה הכנתו מקצרת מידיעת  
 האמת כמופת ויסוד עמו אל המפורסמות אשר יחשב כפ שהם מחייבות כקבלה  
 באמת ויכסל עליו דעתו הנפסד כט. השני שמי שירצה שיכין הסכרא האמתית  
 והיה מסולק מדרך התמון והיה שלא יספיק בדבור ההלציי והוכוחי ולא  
 יתעורר אל דרך האמתות בצד שיוכל להקיף בתנאי המופת הנה אפשר שיפנה  
 כנפשו הסכרא האמתית כהקשים הנצוחיים והוא חלק רוב התוריים  
 מדורשי החכמה השלישי שהלמודים לתכמת החלקיות כמו הרפואה וההנדסה  
 וזולתם אי אפשר שידעו הקדמות אותם הענינים והתחלותם כמופת כראשית  
 הענין ולו התחילו כם לא יזל אל נפשותם לקבלם ותיסבנה נפשותם עליהם

- -

- 1: בהקדמות: זה קדמות/ (ב) לו: לא/ (ב) (הית)/ (ב)
- 2: חזק: היה/ (ב) מודות: מודות/ (ב)
- 4: הראשונה: לסדר כל מתחיל אשר:/ (ב) לחדד כל מתחיל וכל מי שילך/ (ג)  
 (ילר)/ (ב) (ג)
- 7: והיה: ויהיה והוכוחי: והוכוח/ (ב) הוכוחי/ (ג)
- 9: כנפשו: כעצמו/ (ב) התוריים: התוריות/ (ג)
- 10: השלישי: השלישית/ (ב) שהלמודים: שהלומדים/ (ב)
- 11: כראשית: כתחלת/ (ב) לחכמת: לחכמות/ (ג)
- 12: אל: על/ (ג)

dialectical syllogisms constructed of premises which are commonly held opinions until it is possible to teach them by demonstration. Fourth, the nature of dialectical syllogisms makes it possible for the investigator to arrive at two contrary conclusions in one thesis. If he does so, and investigates the place of error, he may discover the truth through this investigation. This consideration of the art of dialectic will suffice. If it does not, there is a separate book dealing with it; Further preoccupation with this exposition is unnecessary.

ESTIMATIVE OPINIONS AND SEMBLANCES: are premises of (130) sophistic syllogisms, they are of no use whatsoever. We must know them to avoid them. Sometimes they are employed to test whether one's knowledge is defective or perfect. Therefore, it is called a testing syllogism. It is sometimes employed to reveal the disgracefulness of one who pretends ~~kk~~ before the masses that he is wise and thus seeks to attract them. For he can be refuted by these premises and his ignorance revealed. After they truly know how he has erred and recognize his lack of knowledge they will not pay him any heed. This is called an eliminating syllogism.

BELIEFS WHICH APPEAR TO BE GENERALLY ACCEPTED: presumptions, and authoritative statements are suitable for premises or rhetorical

בהקשר נצותיים מהקדמות מפורסמות עד שאפשר ידיעתם כמופת. הרביעי  
 שמטבע ההקשים הנצותיים שאפשר שיוליד המעיין שני קצות  
 הסותר בשאלה. וכאשר עשה זה ועיין מקום הסעות פעמים נתגלה אופן  
 האמת בזה החפוש ויספיק זה השיעור ממלאכת הנצוח ואם לא הנה הוא  
 ספר בפני עצמו ואין צורך אל העסק בחקוי זה. ואולם המחשבות  
 והמתדמות הנה הם הקדמות ההקשים המעטים ואין תועלת בהן כלל אלא  
 שיודיעו להזהר ולהשמר ופעמים יבחן כם הכנת מי שלא נדע שהוא מקצר  
 בחכמה או שלם עד יעויין אין יפרד מהם. ועל זה יקרא הקש בחיני.  
 ופעמים יעשו בו מי שיביא לדמות אל ההמון שהוא יודע וימשכם ויחלוק  
 בזה לפנייהם ויראה להם לאותו מזה אחר שידעו באמת אופן הסעות בו עד  
 ידעו קצורו ולא יקפידו בו ואצל זה יקרא הקש מחלוקי ואולם המפורסמות  
 כנראה. והנחשבות והמקובלות הנה תסכנה לשתיינה הקדמות להקש ההלציי

- -

- 1: בהקש: בהקשים/ (ב) (ג) נצותיים: הנצותיים/ (ב) שאפשר ידיעתם: שיתכן  
 להודיעט/ (ב)
- 2: שמטבע: כי מטבע/ (ב) המעיין: מהם: (ב)
- 4: האמת: האמן
- 5: (ספר)/ (ב) המחשבות: המחשבות/ (ב)
- 6: שיודיעו: שיודיעוהו/ (ב) שהוא: אם הוא/ (ב) בהן: להם/ (ג)
- 7: ועל זה: וכזה/ (ב) כם: כהם/ (ג)
- 8: בו: בגלות חרפת/ (ב) ועל: כי/ (ג)
- 9: להם: לפנייהם/ (ב) ואותו: אותו/ (ב) וימשכם: והמשיכם/ (ג)
- 10: אחר: לאחר/ (ג)
- 12: לשתיינה: שתיינה/ (ב)

and juridical syllogisms and wherever certitude is not sought. The advantage of rhetoric in influencing man's soul to desire truth and reject falsehood is well known. The same is true of the advantage of figh. The exposition of rhetoric is a book in itself. There is no need for its exposition.

IMAGINED THINGS are premises of the poetic syllogism. First principles, like the premises that are usually employed in rhetoric or poetry, are used only by way of poetry and imitation. What is other than that, their apodictic character, is not needed except for investigation in the demonstrative syllogism and the avoidance of error in the sophistic syllogism. We shall make its exposition brief.

COMMENTARY: "Are used only by way of poetry and imitation" means that they are employed only to the extent that they are - though first principles - ~~make~~ poetic and imitative, which latter are restricted to rhetoric and poetry. What is not poetic and imitative is not a condition of the poetic premise but is accidental. <sup>(132)</sup> That is what is meant by the statement "what is other than their apodictic character, is not a condition". He just happened to make poetic use of first principles.

THE CONCLUSION OF THE EXPOSITION OF THE SYLLOGISM: we shall now mention the places of error concerning which we must be cautious. They are ten in number.

(a)

FIRST: dialectical arguments come in confused form and many an error arises from them. It is proper for the student to become accustomed to arrange them in the above stated order so that he may know whether it is a syllogism or not. If it is, then of what type, of what figure of the type, and of what mood of the figure, until the place of error is revealed, should there be one. <sup>(135)</sup> SECOND: the middle term must be understood and studied sufficiently to denote the same thing in both premises. For if it should be even slightly changed by some addition or subtraction the syllogism would be destroyed and would result in error. We have mentioned an example of this, when the universal negative is converted per se. If the statement "No jug contains wine" <sup>(136)</sup> is true, then its converse, "No wine is in a jug", is not true, because the conditions of conversion are not understood. The conversion of the proposition, "No jug contains wine" should be "Nothing that contains wine is a jug" <sup>(137)</sup>. This, too, is true. The place of error in the false conversion lies in the fact that the predicate of the original proposition is the word "contains wine" <sup>(138)</sup> and not simply "wine". The entire predicate should become the subject of the conversion. <sup>(b)</sup> When you understand its conditions, the conversion will be true. THIRD: the minor

a) Reading with ms. Bst.

b) Reading with ms. Bst.

הראשון שהטענות כלכ ילכו מעורכות ויתעורר מהם טעות רב וראוי שירגיל המעיין השבתם אל סדורו הנזכר כדי שידע אם הוא הקש אם לא. ואם היה מאי זה מין הוא ומאי זו תמונה מהמינים ומאי זו חלק מהתמונות עד יגלה לו מקום הטעות אם היה. השני שיוכנו הגבול האמצעי ויעוין בו עיון מספיק להיות נפילתו כשתי הקדמות על אופן אחד כי אם ילך אליו מעט שנוי בתוספת או חסרון נפסד ההקש והוליד טעות דמיונו שאנחנו זכרנו שהשוללת הכוללת תתהפך כעצמה ולו אמר אומר אין חכית אחת כיון צודק והפוכו והוא שאין יין אחד כחכית לא יצדק וזה סכתו שלא יוכנו הנאי ההפוך אבל המחויב שיאמר אין חכית אחד כיון והפוכו והוא שאין דבר אחר ממה שהוא כיון חכית והוא גם כן צודק. ומקום הטעות בו הוא שהנשוא בזאת הגזרה הוא אמרן כיון לא היין מופשט וראוי ששייב הוא בשלמותו נושא בהפוך וכאשר הכסת זה צדק ההפוך השלישי שיוכנו הגבול

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- 1: הראשון: הראשונה/ (כ) שהטענות: הנצוחיות: / (כ) כלכ: כלם/ (ג)
- 2: סדורו: הסידור/ (כ) (ג) הנזכר: כם: / (כ)
- 3: זו: זה/ ( )
- 4: השני: השנית/ (כ) (לו)/ (ג)
- 5: הקדמות: ההקדמות/ (כ) אופן: ענין/ (כ)
- 6: והוליד: בו: / (כ)
- 7: בעצמה: כמו עצמה/ (כ) ולו: ולא/ (כ) אם/ (כ)
- 8: אחד: אחת/ (כ)
- 9: יוכנו: יצדק/ (כ) אין חכית... גם כן צודק: אין חכית אחד יין והפוכו אין יין אחד חכית וזה צודק. ואולם אם הוסיף השימוש ואמר אין חכית אחד כיון הנה הפוכו הוא שאין הדבר אחד מה שהוא כיון חכית והוא ג"כ צודק/ (כ)
- 11: בזאת: כזו/ (כ)
- 12: הכסת: הכינות/ (כ) ההפוך: ההיפוך/ (כ) וראוי: הוא: / (ג) צדק: המשפט כזה/ (ג)
- 13: שיוכנו: שיוכנו/ (כ)

and major terms must be understood so there should be no change in meaning between them and the two extremes of the conclusion. For the syllogism requires the bringing together of the two terms with no change in meaning. This is made clear by what we have stated concerning the conditions of the contradictory. FOURTH: the three terms and the two extremes constituting the conclusion must be investigated so that they do not contain a homonym. For frequently the term is one and the meanings many, and so the syllogism would not be a true one. This, too, has been made clear by the condition of the contradictory. FIFTH: ~~CONSIDER~~ ~~CONSIDERED~~ the pronominal particles must be considered very carefully, for the direction of their predicate may change and cause error. Were we to say, "Whatever the knower knows <sup>(139)</sup> hu is like what he knew," our saying hu may refer to the knower or to the known, since we might say, what he already knew was the stone. Therefore, hu refers to stone. SIXTH: indefinite premises should not be considered to be true universally. Were they considered universal, the intellect would recognize their falsity. Thus, when it is said, "Men are in Egypt," the intellect accepts and believes it. But when this proposition is made universal, e.g., "All men are undoubtedly in Egypt," <sup>(140)</sup> the intellect recognizes the fact that the proposition



הקסון והגבול הגדול עד לא יהיה בין שניהם ובין שני קצות התולדה  
שנוי כלל כי ההקש יחויב קבוצה השני גבולים מכלתי שנוי וזה יודע כמה  
שאמרנוהו כתנאי הסותר והכייעי שיעויינו הגבולים השלשה ושני  
קצות התולדה עד לא יהיה כס שם משותף כי השם פעמים היה  
אחד והענין רב ולא יהיה אמרתי ההקש וזה גם כן יודע מתנאי הסותר.  
החמישי שיושגחו מיני הכנוי השגחה אמתיית כי יתחלפו צודי  
נשיאותו ויתעורר ממנו סעות כמו לו אמר אומר כל מה שידעו היודע הנה  
הוא כמו שידעו ואמרו הוא פעמים שב אל היודע ופעמים שב אל היודע כי  
כבר יאמר והוא כבר ידע האכן הנה הוא אם כן אכן. הששי שלא יקבל  
הסתמיות כי הם יביאו לדמות הצדק ככל ולו נכלל הסתום התעורר  
השכל להיותו כוזב. הנה כאשר נאמר האדם כמצרים קבלו השכל והאמינו ולו  
הוקף ונאמר כל אדם הנה הוא כלי ספק כמצרים התעורר השכל

- 1: הקסון: הקסון/ (ב)  
2: יחויב: יחויב/ (ב)  
5: אמרתי ההקש: אמיתי בהקש/ (ב) גם כן: גי'כ/ (ב)  
6: שיושגחו: שיעויינו/ (ג)  
7: ממנו: ממנה/ (ב) אמר: אמ/ (ב) כל: כן/ (ב)  
8: ואמרו הוא: ואמרוהו/ (ב) היודע: היודע: (ב) היודע: הנודע/ (ב)  
9: (אם כן)/ (ב) הששי: השישית/ (ב) שלא: כן לא/ (ב)  
10: ככל: כשכל/ (ב) התעורר: יתעורר/ (ב)  
11: נאמר: נאמ/ (ב) (והאמינו... התעורר השכל)/ (ב) והאמינו: ואמתו  
הוקף: נכלל/ (ג)

is not necessarily a universal. When it is said, "The friend of your enemy is also your enemy", the intellect accepts it. But when it is made universal, e.g. "Everyone who loves your enemy must also be your enemy", then the intellect recognizes the fact that the proposition is not necessarily a universal.

SEVENTH: when we assert the truth of the premise of a syllogism and the reason for the truth of the assertion is that we sought a contradictory for it and did not find it, this will not ~~be~~ necessarily affirm the truth of the assertion. It will be true only when we know that the thing itself has a contradictory that is true, not that we could not find it, for it may exist even though we cannot find it immediately, as the assertion of the statement that "God is omnipotent." For it would not occur to us that there might be something over which He did not have power until we realized that He could not create another like Himself. Then we became aware of the error of your assertion. But the true assertion is that "He is able to do everything that it is possible for Him to do." This has no contradictory that is true. <sup>(141)</sup> EIGHTH: the premise should be outside of the conclusion, so that the thesis should not be put as a premise of the syllogism, in which case we would be begging the question. It would be like saying that the proof of the statement, "Every movement requires a mover", is that nothing moves by itself. But this is

להיות זה בלתי מחוייב על הכללות. וכאשר נאמר אהב שונאך שונאך  
 זבלו השכל וכאשר נכלל ונאמר כל מי שהוא אהב שונאך הנה אי אפשר  
 שלא יהיה שונאך התעורר השכל להיות זה בלתי מחוייב בהכרח על  
 הכללות השכיעי שאתה כאשר תאמת הקדמה בהקש ותהיה סבת האמות שאתה  
 דרשתו לו סותר בשכלך ולא מצאתו וזה לא יחוייב האמות הנאמן אבל  
 יצדק כאשר ידעת שאין לו סותר בעצמו לא שאתה לא תמצאהו כי הוא יהיה  
 ואתה לא תמצאהו פתאום באמותך כמאמר האומר שהאל יכול על כל דבר  
 ולא יעלה כלכך דבר שלא יצדק בשהוא יכול עליו עד שיעלה כלכך שהוא  
 לא יוכל על בריאת כמותו ותתעורר לסעותך באמות אבל הצודק שהוא יכול  
 על כל ענין אפשר בעצמו וזה אין לו סותר כלל. השמיני שתהיה ההקדמה  
 זולת התולדה לא עצמה עד לא תושם השאלה הקדמה בהקש ויהיה כנגד ערך  
 על הנפש הדרוש כמו שיאמר הראיה על שכל מתנוועע יצטרך אל מניע שהמתנוועע  
 לא יתנוועע בעצמו וזה

- 1: להיות: להיות/ (ב) (ג) נאמר: נאמ/ (כ)  
 3: (להיות)/ (כ)  
 4: תאמת: תתאמת/ (כ) סבת האמות: סיבת האימות/ (כ)  
 5: לו: לומר/ (כ) מצאתו: מציאותו/ (כ) יחוייב: יהיה/ (כ) יחייב/ (ג)  
 האמות: האימות/ (כ)  
 7: ואתה לא: אתה ולא/ (כ) באמותך כמאמר: באמותך כמאמר/ (ג)  
 כמאמר: כמאמ/ (כ) (על כל... כלכך דבר)/ (כ)  
 8: שיעלה כלכך: שיעלה כל כר/ (כ)  
 9: יוכל: יכול/ (כ) לסעותך: כסעותך/ (כ) לסעות כן/ (ג) הצודק: הפרק/ (כ)

the very point of the claim. He only changed the wording and made it appear as proof. NINTH: a thing should not be proved by something else whose proof depends on the very thing you want to prove, as when it is said "The soul is immortal because it is eternally active". We cannot know that the soul is eternally active as long as we do not know that it is immortal. For it is only through its being immortal that we can establish that it is eternally active. TENTH: to guard against imagined things, common opinions and semblances and to regard as true only first principles, judgement of perception and their like. When we have observed these conditions, our syllogism will, without doubt, yield a true conclusion and we will attain certainty. Then, even should we wish to doubt this being true, we should be unable to do so.

COMMENTARY- The statement, "This is made clear in what we have stated concerning the conditions of the contradictory" means that the same conditions which must prevail between the two premises before they can become contradictories must also prevail between the extremes of the conclusion and the major and minor terms before a true conclusion can be drawn. There should be no change in terms, whether in meaning or in usage, nor should any of the terms be a homonym. They must always remain the same. And since varied examples sharpen the mind, I have deemed it proper

עצם הטענה וכבר שנה מלותיו ושמה ראייה וזושיעי שלא תאמת הדבר בענין  
לא יתאמת זה הענין אלא בדבר כמו שיאמר הנפש לא תמות לפי שהיא פועלת  
על התמידות ולא תדע שהיא פועלת על התמידות כל זמן שלא נודע  
שהיא לא תמות וכוה יקוים תמידות פעלתה. העשירי שישמר מהמחשבות  
והמפורסמות והמדומות ולא תאמין אלא בראשיות והחושיות ומה שעמם  
וכאשר עינך אלה התנאים היה הקשך בלי ספק מאמת התולדה ומגיע בו אמת  
בלי ספק ולו רצית שתספך נפשך בו לא תוכל הפירוש אמרו וזה יודע כמה  
שאמרנוהו בתנאי הסותר. ירצה כי התנאים ההם בעצמם אשר צריך  
שיהיו בהקדמות קודם שיהיו סותרים התנאים ההם בעצמם צריך שיהיו  
בקצות התולדה והגבול הגדול והקטן קודם שתהיה התולדה כאמת והוא שלא  
יהיה שם שנוי כלל לא במובן ולא בשמוש ולא שיהיה שם מלה משותפת אבל  
יהיה הוא כאמת ולפי שהמשלים יצליחו השכל בהתחלפת ראיתי

- -
- 1: התשיעי: התשיעיה/ (ב)
  - 2: (לפי שהיא... נודע שהיא לא תמות)/ (ב)
  - 3: נודע: יודע/ (ג)
  - 4: פעלתה: פעולתה/ (ב) העשירי: העשירית/ (ב) יקוים: יקויימו/ (ג)
  - 5: מהמחשבות: מהמחשכיות/ (ג)
  - 6: הקשך: צודק: (ב) (מאמת התולדה)/ (ב) ומגיע: ויגיע/ (ב) אמת: האמת/ (ב)
  - 7: בלי ספק: אשר אין ספק בו/ (ב) ולו: ואלו/ (ב) שתספך נפשך: להיות מספך בעצמך/ (ב) אמרו: אוסרו/ (ב)
  - 8: שאמרנוהו: שאמרנו/ (ב) או: (ב) בתנאי (הסותר)/ (ב)
  - 9: (בהקדמות... צריך שיהיו)/ (ב)
  - 10: שתהיה התולדה: שתהיה תולדה/ (ב)
  - 11: שנוי: כינוי/ (ב) כמובן: כולל/ (ב) (כלל)/ (ג)
  - 12: יצליחו: יצליח/ (ג)

to adduce three examples of fallacious reasoning by which a very wise Roman tested me, and I shall bring their solution as he taught me. He said to me, "You ate what you bought." "What you bought is a live fish." Therefore, "You ate a live fish." The two premises are correct, yet the conclusion is wrong. The solution is as follows: "What you bought" (142) refers to substance only, while "live" is a quality. (143) Therefore, this syllogism is a fallacy of the second type. (144) He further said, "You gave only one plain coin." "What you gave was yours." Therefore, "Only one plain coin was yours." The solution is as follows: "Plain coin is the subject of the minor premise, as "only one" is of the middle term, which (145) is suppressed in the major premise. So that he might have had a million gold coins. (146) This, too, is a fallacy of the second type. He further said, "If time ceases now, it will not be day." "Whenever it is not day it is night." Therefore, "Now that time has ceased it is night." The repeated middle term "It is not day" does not have the same meaning in both premises. In the first premise it means absolute absence of time (147) while in the second premise it means different periods in time. (148) This syllogism is a fallacy of the fourth type.

FIFTH SECTION OF THE BOOK CONCERNING the derivation of the syllogism and demonstration. There are four chapters.

להכיא הנה שלש הטעאות בהנני בהם חכם פופלא מן הרומיים ואכיא  
התרם כמו שהורה לי אפר אלי מה שקנית אכלת דג חי קנית אם כן דג חי  
אכלת הנה שתי ההקדמות אמתיות והתולדה כוזבת. התר זה כי מה שכ אל  
העצם והחיות איכות והוא מהמקום השני עוד אמר מה שנתת היה לך לכד  
אחד פשוט נתת אם כן לכד אחד פשוט היה לך התר זה כי הפשוט נושא  
הקטנה ולכד אחד מהגבול האמצעי והוא נשמש בגדולה ולכן כבר יהיו לו אלף  
אלפי דינרי זהב. והוא גם כן מהמקום השני. עוד אמר אם עתה אינינו  
שום עת אינינו יום ואם אינינו יום הנה הוא לילה. אם כן אם אין עתה  
שום עת הנה הוא לילה התר זה כי אינינו יום הנשנה אין הרצון בשניהם  
אחד כי הנרצה באינינו יום ראשון אכל הוא העדר מוחלט והנרצה  
בשני שהעת שאינינו יום הנה הוא לילה והוא מהמקום הרביעי. אמר  
הראשון החמישי במשיגי ספר ההקש והמופת והם פרקים ארבעה הפרק  
הראשון בדרושים

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- 2: אם כן:אכ/(כ) שהורה:שהורה/(ג)  
3: שתי:השתי/(ג)  
5: אחד/(כ) פשוט:אחד:/(כ)  
6: היו:יהיה/(כ) אלף:אלפי/(כ) הקטנה:בקטנה/(ג)  
7: (עוד אמר)/(כ)  
8: הנה)/(כ) (אם כן...לילה)/(כ)  
10: הנרצה:הרצון/(כ) (אכל)/(כ) ראשון:הראשון/(ג)  
11: שהעת:שמעת:/(כ) (והוא)/(כ)

THE FIRST CHAPTER concerning the scientific problems to be investigated and their divisions: we refer to the questions which may occur in the sciences. There are four. <sup>(148a)</sup> The first problem, "whether" concerns the existence of the thing; the second, "what", concerns the essence of the thing; the third "which", concerns what differentiates the thing from others which are included in the same genus; the fourth, "why", is the question of cause. The problem "whether" is two-fold in character. Part concerns the very fact of existence, as when we say, "Does God exist?", "Does the void exist?"; and part concerns the mode of existence, as when we say, "Does God will?", "Was the world created?" The problem "What" is also of a two-fold character: first, it transmits the meaning of the speaker by giving his words the meaning he intended, <sup>(149)</sup> e.g., when he said "cheres" <sup>(150)</sup> and was asked "What do you mean by it?", and said "The sun". <sup>(151)</sup> Second, the question is asked concerning the essence of the thing, e.g., "What is wine?" and the answer is "It is an intoxicating drink pressed from grapes". The problem "what" in the first sense has precedence over the problem "whether". For he who does not know what thing is meant cannot ask about its existence. But in the second sense it must come after the problem "whether", because as long as the fact of the existence of a thing is not known the question of its essence cannot be raised. The problem "which" is a question concerning differential or distinguishing properties. The problem "why" is two-fold in





character. Part concerns the cause of existence, as when we say, "Why was this cloak burned?" and we answer "because it fell into the fire". Part is a question concerning the cause of the assertion, e.g., that we ask "Why did you say that the cloak fell into the fire?" You answer "Because I found it burnt".<sup>(152)</sup> The problems "what" and "which" refer to conceptions. The problems "whether" and "why" refer to judgements.

COMMENTARY - The statement "Part concerns the very fact of existence"<sup>(a)</sup> means simple existence. That is, does the thing, in itself, exist or not. "And part, concerns the mode of existence" means composite existence, i.e., does one thing exist in combination with the other. These four questions were indicated by the author of the "Book of Creation" when he said, "All things are investigated by four questions, namely, "Is it?"<sup>(153)</sup> "What"? "How?" "Why?" "Is it?", means  $\Sigma$  & "Whether". "How" means "Which".

THE SECOND CHAPTER concerning the demonstrative syllogism is divided into that which reveals the cause of the existence of the conclusion and that which reveals the cause of the<sup>(1)</sup> judgement concerning the existence of the conclusion. The first is called the demonstration of the cause of the fact, the second<sup>(1a)</sup> the demonstration of the cause of the judgement. For example, one who asserted that there is smoke in a certain place, and when he was asked, "why did you say that in that place there is smoke?" said, "Because in that place there is fire, and wherever there is fire there is smoke, therefore, in that place there is smoke". So this demonstration has revealed

a) According to ms. Gimmel.

מעלת המציאות כאמור למה נשרף זה הבגד ותאמר לפי שנפל באש. והאחר  
 שאלה פעלת הטענה והוא שתאמר למה אמרת הבגד כבר נפל באש. ותאמר לפי  
 שאני מצאתיו נשרף. ודרוש מה ואי זה הציוור ודרוש אם ולמה האמות.  
 הפירוש אמרו אחד מהם ששרש המציאות ירצה בו כח המציאות הנפרד רל  
 האם הדבר כעצמו נמצא אם לא ואמרו והשני מענין הדבר. ירצה בו האם  
 המורכב והוא אם כך נמצא לכך. ואל אלו רמו בעל ספר יצירה כשאמר  
 וכלם נחזרים כארבעה חזירות והם יש ומה איך ולמה ירצה ביש אם וכאין  
 אי זה אמר הפרק השני כשהתקש המופתי יתחלק אל מה  
 שיפנה עלת מציאות התולדה ואל מה שיפנה האמות במציאות: והראשון יפרא  
 מופת למה והשני מופת אם ומשלו שמי שטען שכמקום עשן הנה נאמר לו  
 למה אמרת ששם עשן ואמר לפי ששם אש וכאשר היה אש הנה שם עשן הנה אם  
 כן שם עשן. וכבר הפנה מופת למה

- -
- 1: מעלת: מעילה/ (ג) (זה) / (כ) והאחר: ואחר/ (כ)
  - 3: (נשרף) / (כ) ואי זה: ואיזה/ (כ)
  - 4: כח: זה/ (כ) (כח) / (ג)
  - 5: (האם) / (ג) הדבר: שהדבר/ (ג)
  - 6: אלו: הארבעה: / (כ) כשאמר: כשהאמר/ (כ)
  - 7: איך: ואיך/ (כ) וכאין: ואיך/ (כ)
  - 8: אי זה: איזה/ (כ) כשהקש: בהקש/ (ג)
  - 9: עלת מציאות התולדה: האמות בעלה/ (כ)
  - 10: (מופת למה ושני) / (כ) והשני: יפרא: / (ג)
  - 11: למה: מה/ (כ) וכאשר: וכאשר/ (כ) אם כן: וא"כ/ (כ)
  - 12: (שם) / (כ)

the cause of the fact that "In that place there is smoke", and the cause of the existence of the smoke. But when he said, "In that place there is fire", and he was asked, "Why (did you say that," and he answered, "Because in that place there is smoke", and "Wherever there is smoke there is fire," therefore, "In that place there is fire"<sup>(2)</sup>, - - he revealed the cause of his judgement concerning the existence of the fire. But it does not reveal the cause of the existence of the fire, nor what caused it to reach that place. In general, the effect indicates the cause, and the cause also indicates the effect. But the effect does not necessitate the cause, while the cause necessitates the effect. This is the point.<sup>(3)</sup> One of the two effects may indicate the other when their inseparable connection is established,<sup>(4)</sup> both being the effects of one cause. In the demonstration of the cause of the fact (the middle term)<sup>(5)</sup> does not have to be the cause of the existence of the entire major term. If it is the cause of the connection between minor and major terms, it is enough that the middle term should cause the major term to be in the minor premise. Therefore, when you say, "All men are ~~xxx~~ animals", and "All animals are matter", therefore, "All men are matter", this is a demonstration of the cause of the fact because the middle term is the cause of the inference of the major term ~~in~~<sup>(6)</sup> in the minor. For man is matter because he is an animal,<sup>(7)</sup> e.g., "matter" is an essential attribute of "animal". It follows that man is matter because he is an animal, not because of a more general attribute, e.g., his existing, and not because of a more particular attribute, e.g. his writing, or being tall.

COMMENTARY - the statement, "This demonstration has revealed the cause of the fact that 'In that place there is smoke', and the cause of the existence of the smoke"

והוא עלת האמות כששם עשן ובעלת העשן ואולם כאשר אמר שם אש ונאמר לו למה ואמר לפי ששם עשן וכאשר היה שם עשן שם אש הנה כבר הקנה עילת האימות במציאות האש. ולא יקנה עלת מציאות האש ושהוא כאי זה סכה הגיעה בזה המקום. ובכלל העלול יורה על העלה והעלה גם כן תורה על העלול ולא יחייב העלה והעלה תחייבהו וזה הכונה אבל אחר השני עלולים כבר יורה על העלול האחר כאשר קוים חיוכם ושניהם יחד עלולי עלת אחת ואין מתנאי מופת למה שיהיה עלה למציאות הגבול הגדול משולח אבל אם היה עלה לצירוף הגבול הקטן בגדול יספיק. רצוני שיהיה עלה להיותו בו כי אתה תאמר האדם חי וכל חי גשם הנה האדם גשם הנה הוא מופת למה לפי שהגבול האמצעי עלת מציאות הגדול כקטן כי האדם היה גשם לפי שהוא חי רל הגשמות תאר עצמותי לחי תשיגהו מצד שהוא חי לא לענין יותר כולל ממנו כהיותו נמצא. ולא לענין יותר מיוחד כהיותו כותב או ארוך. הפירוש אמרו וכבר מופת למה והוא עלת

- -

- 1: והוא: והיא/ (ג)
- 2: ובאשר: ובאשר/ (ב) (שט)/ (ג) אש: א"כ שם אש: / (כ)
- 3: כאי זה: כאיזו/ (ב)
- 4: העלול: וא"כ העלול: / (ב) הגיעה: הגיע/ (ג) הכונה: הרצון/ (ג)
- 5: העלול: ואם העלול/ (ב) ואכל העלול לא/ (ג) ולא: לא: / (כ)
- 6: עלת: עלת/ (ב) (ג)
- 7: שיהיה: הגבול האמצעי/ (ג)
- 8: יספיק: כי/ (ב) די/ (ג) רצוני: רצונו/ (כ)
- 9: (כי אתה תאמר... הגול כקטן)/ (ב)
- 11: הגשמות: הגשמות/ (ב) (ג) עצמותי: עצמותו/ (כ) תשיגהו: ישיגהו/ (ג)
- 12: כהיותו: להיותו/ (ב) כהיותו/ (ג)
- 13: וכבר: יקנה/ (ב) עלה: עלת/ (ב) והוא: הוא/ (ג)

means that the syllogism gave the existence of the smoke and its cause, and is called proof of existence and its cause. It may be called absolute proof. It is that which Maimonides called, in the Guide, <sup>(8)</sup> decisive proof, <sup>(9)</sup> when he said that the eternity of the world cannot be explained by decisive proof: The same is true of God, Praised be He, concerning Whose Existence there is no decisive proof, for He has no cause but is the cause of all existing things. The further statement, "he revealed the cause of his judgement concerning the existence of the fire" means that it was <sup>(10)</sup> proved from its effects. It is called the proof of existence, or a proof from effect. The statement, "In the demonstration of the cause of the fact, the middle term does not have to be the cause of the existence of the entire major term", means that it is called a proof revealing the cause, <sup>(11)</sup> but not absolute proof.

THE THIRD CHAPTER concerning things around which the demonstrative sciences revolve. There are four: subjects, essential accidents, theses and axioms.

<sup>(1)</sup> SUBJECTS: <sup>(2)</sup> By this is meant the subjects whose judgements are investigated in the sciences, <sup>(a)</sup> for every science without exception has a subject matter which is investigated. And we inquire as to the judgements in that science, e.g., man's body in relation to medicine, magnitude in relation to geometry,

a) Reading with ms. Bat.

האסות בשסם עשן ובעלת העשן. ירצה שהוא נתן המציאות והסבה והוא  
 אשר יקרא סופת הסבה ומציאות. וכבר יקרא סופת מוחלט והוא אשר יקרא  
 האלהי בספר הסורה סופת חותן כשאמר כי קדמותהעולם לא יתבאר בסופת  
 חותן. וכן האמת גם השם ית' אין עליו סופת חותן. כי אין לו סבה ית'.  
 אבל הוא סנת כל הנמצאות. עוד אמר הנה כבר הקנה עלת האמת במציאות  
 האס. ירצה והוא לקוח מהמתאחרים ויקרא סופת מציאות או סופת ראייה. ואמר  
 הנה הוא סופת למה ירצה והוא אשר יקרא סופת סבה אבל לא סופת מוחלט.  
 אמר הפרק השלישי בענינים אשר עליהם סבוב החכמות המופתיות. והם ארבעה  
 . הנושאים. והמקרים העצמותיים. והסאלות. וההתחלות. הראשון הנושאים  
 וירצה בו הדברים אשר יתקרו בענינים סן ספטיהם. בשכל חכמה לה בלי  
 ספק. נושא תעין בו וידרשו באותה החכמה מספטיור בגוף האדם לרפואה.  
 והשעור להנדסה.

- 1 : המורה : האמת / (ב)  
 2 : המורה : המורה / (ב)  
 3 : האמת : המורה / (ב)  
 4 : המורה : האמת / (ב)  
 5 : המורה : המורה / (ב)  
 6 : המורה : המורה / (ב)  
 7 : (למה) / (ב)  
 8 : סבוב : המורה / (ב)  
 9 : הדברים : הדברים / (ב)  
 10 : הדברים : הדברים / (ב)  
 11 : האמת : האמת / (ב)  
 12 : השעור : השעור / (ב)
- כי קדמות העולם... סופת חותן / (ב)  
 במציאות : במציאות / (ב)  
 המורה : המורה / (ב)  
 בענינים : במחשבות / (ב)  
 מספטיהם : מספטיהם / (ב)

number in relation to arithmetic, melody in relation to music and the actions of responsible beings in relation to juris-  
prudence. (3) (In each one of these sciences) (4) it is not incumbent on the one occupying himself therewith to prove the existence of these subjects (in his science) (5). The jurist does not have to prove that man acts, nor do the geometers (5b) have to prove that magnitude is an accident which exists. The proof of this is attempted in another science. It is incumbent upon him to understand these subjects with their limits by way of conception.

THE ESSENTIAL ACCIDENTS: By this is meant the distinguishing properties which occur in the subjects of that science but do not occur outside of it, like the triangle and the quadrilateral in certain magnitudes, the curved and the straight in others. These are essential accidents of the subjects of geometry, as even and odd are of number,



האדם לרפואה ושיעור להנדסא. והמספר לחשבון והניגון למוסיקא ופעולות  
 המשתדלים הנה לא יחייב על המשתדל כה שיקיים מציאות אלה הנושאים ואין על  
 התוריים שיקיימו על האדם פעל. ולא על המהנדסים שיקיים משהשיעור מקרה נמצא.  
 אבל ישתדל בקיום זה בחכמה אחרת. אבל עליו שיכין אלה הנושאים  
 כגדריהם ועל דרך הציור. השני המקרים העצמותיים. וירצה כו הסגולות  
 אשר יפלו בנושא אותה החכמה ולא יפלו חוץ ממנו כמשולש והמרוכב  
 לקצת השיעורים. והוות והיושר לקצתם והם מקרים עצמותיים לנושא  
 ההנדסא והזוג והנפרד למספר

- 1: ופעולות: לתורה וכל חכמה מאלה החכמות/ (1) (המשתדלים)/ (1)  
 2: יחייב: יחייב/ (1) (כה)/ (1) הנושאים: כחכמתו: (1)  
 5: ועל: על/ (1)  
 7: לנושא: אותה החכמה: (1)/ (1) (ההנדסא)/ (1) והזוג והנפרד: וכזוב וההפרדה/ (1)

and harmony and ~~x~~ disharmony of melody, that is, relation (of sounds], and sickness and health of the animal. But it is necessary at the beginning of the investigation of every science to understand these essential accidents, with their limits, by way of conception. Their existence in the subjects only follows the demonstration of that science. For the purposes of the science is to demonstrate their existence in it.

THE X THESES: "Thesis" is an expression for the combination of these essential accidents with the subjects. They are the problems of each science. Questions in it are asked concerning them, and in so far as questions are asked concerning them, they are called theses of that science. In so far as they are investigated, they are called problems. And in so far as they are conclusions of a demonstrative syllogism, they are called conclusions. But whatever the name, all refer to the same thing. These names change with the change of the viewpoint. The subject of every demonstrated thesis in science will be either the subject of that science or some of the essential accidents of the subject of that science. If its subject is the subject of the science it may be the subject itself, as it is said in mathematics, every magnitude is ~~wt~~ either commensurate with another magnitude which is homogeneous with it, or is not commensurate with it. This is the thesis investigated. As it is said in arithmetic every number will be a half of another number if it is equidistant from the two ~~x~~ ends of the other number, e.g., five is half of the sum of six and four, and three and seven, and eight and two, and one and nine. Or the subject will be the subject of the science with an essential description,

(כל חלופי הנוסחאות מכאן ואילך שייכים לקונטרס ג')

- 1: וכהסכמה וכחילוף: וכהסכמה והחלוף. ההתיחסות: ההתיחסות
- כהתיחסות החולי: התיחסות וכחולי
- 3: בגדריהם: ובגדריהם
- 4: יקרה משלימות: יקנה משלמות. כרצון: כי רצון (החומר) החכמה שיבארהו
- 5: ראשית: דרושי
- 6: יקראהו: יקראו שאלות אותה החכמה ומאשר ידרשו יקראו:
- 10: (נושאם)
- 11: (לו). אם: או
- 15: עצמות: עצמותי. המקרא: המקרים בהנדסא: כל:
- 16: לכלי: לכל: לקחנו: לקח בו. לא (השיעור)
- 17: והוכרל: והנכרל
- 18: יחלקלים: יחלק לחצאין הנה הכאת חצין כחציו רביעית הכאת כלו ככלו  
כי הוא לקח המספר הנחלק לחצאין (כאין)
- שיאמר: בהנדסא שכל קו ישר אפשר שיחלק לחצאין כי הוא הדין מהשיעור  
אשר הוא נושא מהנדסה וכמו שיאמר בחשבון הששה: (הוא)
- 19: כי הוא: כי הששה. מהמספר: מהחשבון. מן: מין. הנושא: מהנושא.
- מהקרה: ממקרה
- 21: נושא: לו:

i.e. an essential accident. As it is said in geometry, the magnitude incommensurate to a thing is incommensurate to every magnitude which is commensurate with it. So what was taken was the incommensurate magnitude, not mere magnitude, seeing that the incommensurate is an essential attribute of the magnitude.

And as we say in arithmetic, <sup>(13)</sup> if you multiply one-half of a number - which is divisible into halves - by the other half, the product will be one-fourth of the square of the number. Here we take a divisible number, not number in general. Or the subject will be one of the species of the subject of the science, <sup>(14)</sup>

as it is said in arithmetic, <sup>(15)</sup> "six", and "six" is a species of number. Or the subject will be one of the species of the subject of science with a description of an essential accident, as we say in geometry, a straight line drawn to another straight line will yield two angles whose sum is equal to two right angles. The line is a species of magnitude which is the subject of the science, and straight is an essential accident in it. Or the subject will be only description, <sup>(16)</sup> as you say in geometry, the angles of every triangle are equal to two right angles.

- 1: ובאכמה ובאילוף: ובחכמה ואלוף. אחי אסות: אחי אסות
- 2: כחתי אסות חוללי: אחי אסות וכוזלי
- 3: בגדדי אסות ונדדי אסות
- 4: יקרא פסלי פסות: יקנה פסלמות. כרצון: כי רצון (חוסר) אחכמה שיבארנו
- 5: ראשינו דרושי
- 6: יקראנו: יקראו שאלום אותה אחכמה ומאשר ידרשו יקראו
- 7: (נושאת)
- 8: (לו).
- 9: אסו או
- 10: עמות: עמותי. מקרא: מקרים בהנדסה: כלל
- 11: לבלי: לבלו. לקחנו: לקח בו. לא (אשיעור)
- 12: וחובדל: וחובדל
- 13: יחלקים: יחלק לחצאין אנה אכמה אציו בחציו רביעים אכמה כלו בכלו
- 14: כי הוא לקח אספסר אנהלק לחצאין (באין)
- 15: שיאמר בהנדסה שכל קו ישר אספסר שיחלק לחצאין כי הוא חדין פתיעור
- 16: אשר הוא נושא אנהדסה וכוו שיאמר בהנדסון אששנו (אוא)
- 17: כי הוא: כי אששה. אספסר: אהנדסון. פנסי: אנושאו פנושאו.
- 18: מקרא: מקרא
- 19: נושאו: לוי

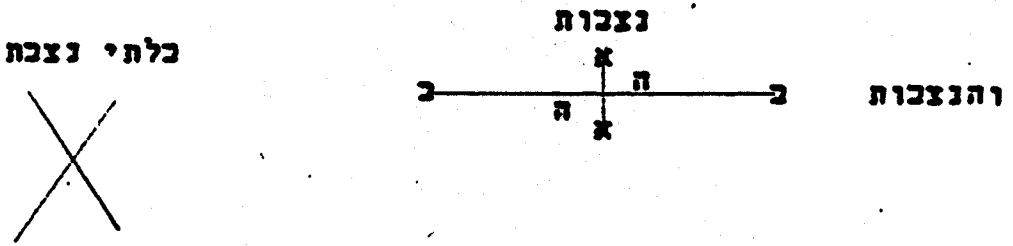
for triangles are essential accidents in some magnitudes. Therefore, the subject of the demonstrated theses in the sciences must be one of these five. But their predicates are particular essential attributes in that subject.

AXIOMS: By this is meant the admitted premises in that science (17) by which theses are demonstrated. These premises are not demonstrated in that science. Either they are first principles, which are called axioms, as it says in the beginning of Euclid, if (18) equals are taken from equals or added to equals equals remain. Or if they are not first principles but admissions of the student of that science, then if the student (18b) admits them and is satisfied, they are called hypotheses. If some doubt remains in his soul they are called postulates. He will admit them (to the one who advances them) (19) only when they are demonstrated to him by another science, so that in the meantime he can build his proof on them (20) as it is said in the beginning of Euclid, (21) that we must admit that every point may become the center of a circle to be drawn around it, though some people deny the conception of a circle, i.e., that the radii from the center to the circumference are equal. But it is admitted at the beginning of the science.

COMMENTARY - The statement "it is not incumbent on the one occupying himself therewith to prove the existence of these subjects in his science" means that it is not necessary, even though it may be possible. But then Ibn Rushd explained that it is impossible to establish (the existence of) the subject of any science by demonstration. Therefore, he said, metaphysics (22) receives from physics the existence of the Separate Intellect and explains its truth. In this, Abū Hāmid follows

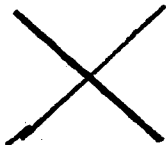
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כי המשולשים מהמקרים העצמותיים לצבת שיעוריים אג"כ לא ימנענו  
 נושא השאלות המופתיות כתכמות מאלה החמשה. ואולם נשואיהם הנה הם המקרים  
 העצמותיים כאותו הנושא הרביעי ההתחלקות ונרצה בו ההקדמות המורות כאותה  
 החכמה הם יקוימו כם שאלות אותה החכמה הם יקוימו כם שאלות אותה החכמה  
 ולא יקוימו המה. ואכל אפ שיהיו ראשונות ותקראן ידיעה נודעת כאמרם  
 כראשון מאקולידס כאשר לוקח מה שויים שוה היה הנשאר כם ואם נוסף עליהם  
 שוה היא הכל שוה. ואם שלא יהיו ראשונות ואם תהיינה מורות מן החכמה.  
 ואם תהיינה מורות הנפש טובה נקראות שורש מונח. ואם נשארה כנפש סתירה  
 נקראת מערכה. ויורה זה למי שיערוך עליו עד שתכאר כחכמה אחרת כמו  
 שיאמר כראשו מאקולידס אי אפשר מכלתי שיורה שכל נקודה מרכז כי איפשר  
 שתעשה עליה עלולה. ומהאנשים מי שכופר ציור מציאות העגולה. על אופן  
 יהיו הקוים היוצאים מהמרכז אל המקיף שוה שויים ואכל יעריך עליו כתחלת  
 הידיעה. הפירוש אמרו וכל חכמה מאלה החכמות הנה לא יחויב על המשתדל  
 בה שיקיים מציאות אלה הנושאים כחוכמתו. ירצה שלא יוכרח בזה ואם כבר  
 איפשר. ואמנם רושד ביאר כי אי אפשר לחכמה מן החכמות שיתכאר בה  
 כמופת קיום נושא אותה החכמה. ולכן אמר כי האלהי יקבל מן הסכעי מציאות  
 השכל הנבדל והוא יכאר אמתתו. ואכוחד נמשך בזה אל דעת סינא. עוד  
 אם כל מספר יחלק לחצאין הנה הכאת חציו רביעית הכאת ככולו. המשל  
 בזה כי הדי' יחלק בכ והכאת ב שני פעמים הם ד. והכאת ד על  
 ד והד רביעית היו. ואמרו וכל קו ישר עומד על קו ישר הגיע ממנו  
 שתי זוויות לשתי נצבות ירצה יתחדד מה שיתחדד ותרחיב מה שתרצה להרחיב  
 הנה שתי הזוויות ישרו לשתי נצבות וזה צורת כלתי נצבות והנצבות

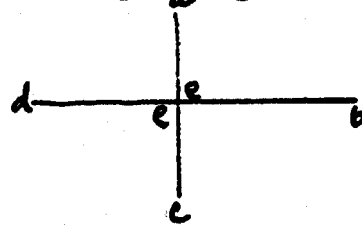


the view of Ibn Sīnā'. In the further statement "If you multiply one-half of a number - which is divisible into halves - by the other half, the product will be one-fourth of the square of the number" the example is that four is divided into two and two, and multiplying two by two, we get four. Multiplying four by four yields sixteen, and four is one-quarter of sixteen. The statement "A straight line drawn to another straight line will yield two angles, whose sum is equal to two right angles" means we may increase the acuteness or the obtuseness (of the angles) in any proportion we wish, the two angles will always be equal to two right angles. This is the diagram of the non-right angles and of right angles.

non-right angles



right angles





- 1: מהמקרים העצמותיים: מקרים מהעצמותיים שיעוריים: השיעורים  
 ימנעו: ימנעו. נושא: נושאי
- 2: כחמות: כחמות. העצמותיים: המיוחדים:.
- 3: כאותו: כאותו. כו: כם. חמורות: חמורות. אם: אשר
- 4: (הם) ולא יקוימו הם כה. (שאלות...המה)
- 5: ותקראן: ותקראנה
- 6: מה שוים: מהשוים. כם: שוה
- 7: ואם: ואכל מורות: מורות
- 8: מורות הנפש: מורות מנפש
- 9: ויורה... שיערו: ויורה זה לפי שיעריך. שתכאר: שיתכאר לו
- 10: כראשו מאולידס: כראשו אקלידס שורה: שורה
- 11: (שוה). כתחלת: כהתחלת
- 12: וכל: שכל
- 13: (אותא)
- 14: אל: על
- 15: הכאת: כלו:
- 16: בכ' שנים שנים. כ' על כ': שנים על שנים רוצה לומר שתי פעמים שנים  
 הם ד'.
- 17: יו': ששה אשר. וכל: כל
- 18: זויות: שורות: יתחדד: נתחדד. שיתחדד: שיחדד. להרחיב: כשיעור שתרצה:
- 19: הזויות: זויותיו. ישו: שורות. כלתי: הכלתי נצכות: והנצכות
- 20: יו': ששה אשר. וכל: כל
- 21: זויות: שורות: יתחדד: נתחדד. שיתחדד: שיחדד. להרחיב: כשיעור שתרצה:
- 22: הזויות: זויותיו. ישו: שורות. כלתי: הכלתי נצכות: והנצכות

נצכות

שתי

נרחכת

חדה

FOURTH CHAPTER concerning the conditions of the premises of demonstrations. There are four conditions: They must be true, necessary, immediate <sup>(1a)</sup> and essential. By true is meant the certain, as for example first principles, perceptions and their like. This condition has already been mentioned. By necessary we mean that <sup>(1b)</sup> the relation between subject and predicate should be a necessary one, like the relation of "animal" to "man", not like the relation of "writing" to "man" whenever a necessary conclusion is being sought. For if the premise is not necessary it will not compel the thinker to assert the necessity of the conclusion. By immediate we mean that the predicate of the premise should exist in the subject because of the subject, e.g., when you say <sup>(2)</sup> "every animal is corporeal" it means that it is corporeal because it is an animal and not because of a more universal attribute, <sup>(3)</sup> not as when you say (in the conclusion) "Man is corporeal". For "He is corporeal" not because he is a man but because he is an animal, <sup>(4)</sup> which is more universal. After we know that he is an animal we know that he is corporeal. Corporeality is first asserted of animals then through the animal it is extended to man, and it is corporeal not because of a more particular attribute than it, e.g., "animals write". It writes not because it is an animal but because it is man. And man is a particular animal. <sup>(7)</sup> So the first term is that predicate which has no middle term between it and its subject. <sup>(8)</sup> Therefore, that predicate will be immediately true of that middle term. Then this idea will be extended by means of the middle term to the subject. This is the condition of the major premise. This condition does not hold in premises which are conclusions

## אמר הפרק הרכיעי

בתנאי הקדמות המופת  
 והם ארבעה שיהיו צודקו'  
 והכרחיות וראשונות  
 ועצמותיות. אולם

הצודקות הנה נרצה כס האמיתיות כראשיות והמוחשיות ומה שעמם וככר קדם זה התנאי. ואולם ההכרחיות הנה נרצה כס שיהיה יחס נשואיהם אל נושאייהם כחייב כמו החי לאדם. לא כמו הכותב לאדם זה אם היה דורש ממנו תולדה הכרחית. כי ההקדמה כאשר לא תהיה הכרחית לא תחייב על המשכיל הכרח האמות כתולדה. ואולם הראשונות הנה נרצה כס שיהיה הנשוא בהקדמה קיים לנושא בעבור הנושא כאומרים כל חי גשם כי הוא גשם לפי שהוא חי לא לענין יותר כולל ממנו לא נאמרו האדם גשם כי הוא לא יתגשם בעבור שהוא אדם. אבל לפי שהוא חי והוא יותר כולל אח"כ להיותו חי הנה היה גשם. והגשמיות לחי האשון אחר באמצעיתו לא לאדם ולא לענין יותר מיוחד ממנו ככותב לחי לפי שאין זה לחיות. אבל לאנושות. והיא יותר מיוחדת. הנה בראשון מה שאין כינו ובין הנושא אמצעי ויהיה לאותו האמצעי ראשון אחכ" באמצעיתו לו זה התנאי הראשונות. ואולם בהקדמות היו תולדות הקשים אחר הושמו הקדמות כהקש אחר לא יותנה זה בו אבל יותנה ההכרחיות והעצמותיות ואולם העצמותי הנה הוא שמירה מהמקרים הזרים. כי החכמות לא יעויין בהם במקרים הזרים ואין ענין למהנדס אם הקו הישר טוב. לפי שהטוב וההפך זר בנושא חכמתו והוא השיעור כי הוא ישיג השיעור לא לפי שהוא שיעור אם לתואר יותר כולל ממנו. וכאשר אמר הרופא הנה זאת החבורה מתאחרת הנה אות לפי שהיא עגולה והעכולות יותר שבתמונות לא יהיה מה שזכרו חכמת רופא ולא יורה זה על חכמתו ברפואה. אבל כתשכורת וא"כ אי אפשר מכלתי שיהיה נשוא השאלה כחכמות עצמותי

of other syllogisms and are made premises of a new syllogism.

(9)  
But they must be necessary and essential. The essential guards against irrelevant accidents, for the sciences do not deal with irrelevant accidents. It is of no concern to the geometer whether the straight line or the circle is more beautiful, or whether ~~xx~~ roundness is the contrary of straightness, because beautiful and its opposite are irrelevant to the subject of his science, i.e., magnitude. These attributes follow from magnitude not because they are magnitude but because of an attribute which is more universal than magnitude, i.e., because it exists etc. (11)  
The physician does not inquire whether or not the wound is circular or not, for roundness is not characteristic of the wound because it is a wound but because of something more universal than the wound. And when the physician says this wound is slow in healing because it is circular and circles are the widest of figures he is not stating (anything in) the science of the physician and it does not testify to his knowledge of medicine but of geometry. Therefore, the predicate must be essential in the thesis of the sciences and in the premises.

- 2: צודקו: צודקות  
 5: כראשיות והמוחשיות: כראשיות והמנחשות  
 10: כאומרים: כאמרך  
 11: נאמרו: כאמרך. כעכור: לפי  
 13: בעצמיותו: לאדם ולא לאדם  
 14: והיא: והוא. כראשון: הראשון  
 15: האמצעי: אמצעי. כאמצעיתו: כאמצעותו  
 16: התנאי: תנאי כהקדמה  
 17: אחר: הנה:  
 19: ענין: עיון. הישר: יותר. טוב: או העגול ולא אם העגולה תהיה הפך הקו הישר:  
 21: אם: אבל. ממנו: כהיותו נמצא או זולת: והרופא לא יעיין אם החכורה עגולה אם לא לפי שהעגול לא ישיג החכורה לפי שהיא חכורה אכל לענין יותר כולל ממנו:  
 וכאשר אמר הרופא...  
 22: (הנה את): הכריאות. יותר: רחבות:

But there is a slight difference between them, namely, that the essential is applied in two meanings. One of them is that the predicate is a part of the definition of the subject, e.g., "Man is an animal". For the predicate "animal" is essential because it is included in the definition "man", since the meaning of "man" is that he is an animal with certain attributes. (The second is that the subject is part of the definition of the ~~subject~~ predicate, and the predicate is not part of the definition of the subject) <sup>(12)</sup> e.g., the crookedness of the nose, and the straightness of a line. For the crookedness of the nose is an expression used for the possessor of the nose with the special attribute "crooked". The nose is part of the definition without a doubt. The essential in the first sense cannot become the predicate of the conclusion in theses which are investigated in the sciences because the subject is known only by it, <sup>(13)</sup> and the knowledge of it <sup>(14)</sup> precedes the knowledge of the subject. Then how would its existence in the subject be investigated? For he who has no conception of the triangle as it is defined will not investigate its laws. After he knows that <sup>(15)</sup> he may investigate whether or not its angles are equal to two right angles. But he cannot investigate whether or not a triangle is a figure because he must first understand what a figure is, and then he must understand that it may be divided into a figure bounded by three sides, i.e., a triangle, or by four sides, i.e., a quadrilateral. So the knowledge of the figure precedes the knowledge of the triangle.

<sup>(15b)</sup>  
PREMISES: The predicates of the premises, too, must be essential. The predicates of both premises may be essential in the second sense, but may not be essential in both premises

ובהקדמות עצמותי. ואבל ביניהם הבדל מה. והוא שהעצמותי הנה ישולח  
הנה על שני ענינים. אחד מהם שיהיה נכנס בגדר הנושא כחי לאדם. כי  
הוא עצמותי בו לפי שהוא יכנס בו כי ענין האדם שהוא חי בתאר כך  
בעקמימות לאף והיורסר לקו. כי עקום האף הוא מליצה סבעל אף בתאר  
סיוחד. והאף יכנס בגדרו בלי ספק והעצמותי בענין הראשון סקר שיהיה  
נשוא בשאלות הדרושות בחכמות ולפי שהנושא לא יודע אלא בו על הידיעה  
בנושא ואיך תהיה הגעתו לנושא דרושה כי מי שלא יבין המסולש בגדרו  
על דרך הציור לא ידרוש מספסיו ואיפסר שידרוש אם שוות שם לשתי נצבות  
אם לא. ואולם שידרוש אם הוא תמונה אם לא הנה סקר כי התמונה הראשונה  
אח"כ יובן חלוקה. אבל מה שיקיפו בה שלשה צלעות והוא המסולשש או ארבעה  
והוא הסרובע והידיעה בו תקדם עליו. ואולם הנה יוחיב שיהיה נשואה  
עצמותי ואיפסר שיהיה נשוא השני הקדמות עצמותי בענין האחרון ואי אפשר  
שיהיה כל שניהם עצמות בענין ששששש הראשון לפי שהתולדה תהיה ידועה  
קודם ההקדמה לפי שעצמותי העצמותי באותו הענין עצמותי. ואי איפסר  
שיאמר כל אדם חי. וכל חי גשם. הנה כל אדם גשם על שיהיה זה דרוש לפי  
שהידיעה בגשמיות תקדם על הידיעה באנושות. וכאשר היה נושא השאלה הוא  
האדם הנה אי איפסר מבלתי שששש שיהיה ראשונה ססודר עד ידרוש מספסיו  
ומצויר האדם מצויר לחי ולגשם מקודם בלי ספק כי בין הגשם ושהוא יחלק  
אל החי וזולתו. אח"כ החי יחלק אל הסובר וזולתו. ואבל איפסר שתהיה  
נשוא ההקדמה הקטנה עצמותי בענין הראשון ויהיה נשוא הגדולה בענין  
עצמות השני וכן בהפך הנה זה מה שרצינו הבנתו וחקיו סההגיון סהם ושב  
לאל לבדו יססך אליה החכמה האלהית. הפירוש אמרו כי ההקדמה כאשר

in the first sense. For the conclusion then will be known before the premise because the essential is the very essence of that subject. We cannot say "Every man is an animal" and "Every animal is corporeal", "Therefore every man is corporeal", so that this should be a problem to be investigated for the knowledge of corporeality precedes the knowledge of being a man. And since the subject of the question is "man" we must first have a conception of him before we investigate the laws about him. The conception of man is necessarily preceded by the conception of animal and matter. Since we know matter, we know that it is divided into animal and non-animal, and that animal is divided into rational and non-rational. But the predicate of the minor premise may be essential in the first sense and the predicate of the major premise essential in the second sense, and vice versa. This is what we wished to explain about the rules of logic, and praise be to God alone. The science of metaphysics follows.

COMMENTARY - "For if the premise is not necessary it will not compel the thinker to assert the necessity of the conclusion"



- 1: (הנה)  
 3: עצמותי: עצמי. כתאר: כתארו. כן: והשני שהיה הנושא נכנס בגדרו  
 לא הוא נכנס בגדר הנושא:  
 בעצמות לאף...
- 4: (הוא)  
 5: בלי: בלא  
 6: ולפינלפי. אלא כן: ותקדם: על הידיעה: הידיעה כן.  
 8: שידרוש אם: שוריותיו:  
 9: הראשונה: תוכו ראשונה  
 10: אכל: אל  
 11: ואולם: ההקדמות: נשואה: נשואם  
 12: השני: השתי  
 15: הנה: אם כן  
 17: מסודר: מצוייר. משפטיו: משפטו  
 18: ולגשם: והגשם (כ'). כין: יכין  
 19: שתהיה: שיהיה  
 20: ההקדמה: מההקדמה. הגדולה: בעצמותי:  
 21: (עצמות). ישכ: ושכח  
 22: (תהיה)

means that the syllogism will not only necessitate affirmation or negation but it will be of the same mode. <sup>(17)</sup> For the nature of the source must be found in that from which it is quarried. <sup>(18)</sup> "As the mother, so her daughter." <sup>(19)</sup> The further statement: "So the first idea is that predicate which has no middle term between it and the subject.... Therefore that predicate will be immediately true of that middle term"... means that afterwards, by means of that middle term, the predicate will be extended to the subject. The further statement, "but they must be... essential. The essential guards against irrelevant accidents," means that they should be relevant. And by relevant he means that they should not be foreign to it nor outside of the genus being investigated, i.e., they should not extend beyond the genus of the science under consideration. They must deal with the same essentials as the subject. For they are called essentials because the predicate is part of the definition of the subject, or vice versa. <sup>(20)</sup> And they are called relevant because they must not extend beyond the genus of the science under consideration. In general, insofar as the predicate of the question is essential, it is called relevant. Insofar as the predicate of the premises is essential, it is called an essential. When the predicate and subject are transposed, the predicate will be a particular. Praised be the First Cause who helped us explain the first part.

- 1: המשכיל: ההכרח: . ירצה: כ"י:  
 2: מהקש: מההקש: . נדון: צדו ר' ל חוסר ההקדמות.  
 3: שיחשכ: שיחשכ. כאמת: כאמה בתח. אמר עוד 1-2. הא' : הראשון  
 4: ויהיה לאותו: . לאמצעי: האמצעי  
 6: העצמות: העלמות  
 7: (הנה)  
 9: וירצה: ונרצה במיוחסות  
 11: רצוני: רוצה לומר  
 16: אליו: אלה  
 17: מיוחסות: מצד שלא יעברו סוג המוכנס במלאכה ובכלל כמה שנשוא השאלה  
 כחכמות עצמותי תפראנה:  
 18: עצמותי: תפראנה עצמותיות: בקראו יקראו מיוחדות. ראשונות: ראשיות.  
 19: לכאר: לפרש. הראשון: מההגיוניות אמן
- השורה האחרונה "הם ונשלם... " חסרה. ובמקומה כאה השורה: בעזרת שוח  
 עליות ורב העליליות  
 נשלמו ההגיוניות  
 ויבואו אחריהם  
 האלהיות

לא תהיה הכרחית לא תחייב על המשכיל האימות כתולדה ירצה לא יחויב  
 מהקש הקיום או הסלוק לכר אבל נגדו כי טבע המקור ראוי שיהיה  
 נמצא במה שיחשב מסנו כאמת. אמר עוד הנה הא' מה שאין  
 בינו ובין הנושא אמצעי ויהיה לאמצעי ראשון אח"כ  
 כאמצעותו לו ירצה אח"כ כאמצעותו אותו האמצעי

ימצא בנושא. עוד אמר ואולם העצמות

הנה הוא שמירה מהמקרים הזרים ירצה

וזה הרצון ב שיהיו מיוחדות

וירצה אשר אינם נכריות

ולא חיצוניות מן הסוג

המעויין בו רצוני

שלא יעברו

לסוג

המלאכה

המוכס

כה והם אחד בנושא עם העצמיות כי נקראו אליו עצמיות מצד שהנשוא  
 נקלה בגדר הנושא או בהפך. ונקראו מיוחדות ומצד שהוא בהקדמות  
 עצמותי וכאשר יתהפכו על הנושא נקראו והם ראשונות יתברר הראשון.  
 אשר עזרנו לבאר החלק הראשון.

תם ונשלם תהלה לאל עולט. חזק ונתחזק בקורא לא יזק ובסופר יחזק

PART IINOTES ON TRANSLATION

Page I

- Note 1. Isaiah 57:2. The Hebrew has the first letter of each word of the verse.
2. Steinschneider, Die hebräischen Übersetzungen des Mittelalters, vol. I, p. 316, translates m<sup>^</sup>iqim to mean 'missgeschicke'.
3. Abū Bekr ibn Fufail, Ḥayy Ben Yaqdhān ed. Leon Gauthier, Beyrouth, 1936. Arabic text P. 18, 1.3 f, French translation p. 16. "We do not doubt that the master Abū Ḥāmid (al-Ghazālī) belongs to those who have enjoyed Supreme Bliss and who have arrived at that sublime degree of union (with God)."
4. Omit.

Page 2.

- Note 5. The following is "a regular convention in the writing of didactic treatises," to begin "with an address to a supposed disciple who has asked for instruction". D; B. Macdonald in Isis, May-September 1936, p. 10.
6. i.e. his brother in faith and in religion.

Page 3.

Note 7.

"The word 'meanings' in its title is used much in the same way as in the title of Charles Kingsley's pamphlet, "What, then, does Dr. Newman mean?" This is what the philosophers 'meant'. A Maqṣad is what is intended or meant. Maqṣad al-Kalām is "the intended sense of the saying". The word is thus a synonym of ma'nā in the sense 'meaning' or 'idea'. But the whole Western world took it that here al-Ghazālī was speaking for himself, and drew up lists of his principal errors. They were genuine errors for the world, but not his. There is a full examination of this by Fr. Maurice Bouyges, S. J., in the Mélanges de la Faculte Orientale de la Université Saint Joseph, Beyrouth, vii, pp. 398 f, 444ff."

D. B. Macdonald, "The meanings of the philosophers" by al-Ghazzālī in Isis, May-Sept. 1936, vol. 25p. 8. ff.

8. Omit.

9. "Articles of belief" - D. B. Macdonald, ibid, p. 11.

"Articles of faith" - Carra de Vaux, "Averroes, Averroism" in Encyclopedia of Religion & Ethics, vol. II, p. 262.

Page 4.

Note

10. "earnestly and with zeal" - only in Arabic.

11. "The falling to pieces of the structure built by the philosophers" - D. B. Macdonald, ibid, p. 9 ff. On all the meanings of tahāfut see Asin Palacios, "Le sens du mot tahafut dans les oeuvres d'El-Ghazālī et d'Averroes", in Revue Africaine, vol. 50, 1906, pp. 185-203.

Page 4.  
(Contd)

- Note 12. Narboni leaves out the next sentence: "These causes are enumerated by Alexander". Maimonides, Guide for the Perplexed, translated by M. Friedländer, p. 41.
13. Narboni leaves out, "not mentioned by him because it did not then prevail" ibid. There then follow in THE GUIDE the words: "namely, habit and training" without the word "custom" preceding them.
14. Babylonian Talmud, ḥagigāh 14<sup>b</sup>.
15. Maimonides, op. cit., p.42.

Page 6

- Note 16. Omit.

Page 7.

- Note 17. Omit.

18. Amos: 3:7.
- 18b. Called "Kawwānôt hak-kawwānôt v. Munk, Mélanges de Philosophie juive et arabe. p. 379 ff. As to its authenticity v. Munk ibid, p. 382 note 1 and Steinschneider, Hebräische Uebersetzungen p. 338, Par. 192.
- 18c. Should be "fifth method". For to the four wrong methods ("causes") he adds the "building of a wall" which is the correct and fifth method. If the king's ban on philosophy is considered the fifth in addition to what Maimonides mentions then al-Ghazālī's "Wall" is a sixth method.

Page 8.

- Note 1. 'Conception' and 'Judgement' according to Efros, in Maimonides' Treatise on Logic, p. 30. Klatzkin 'oṣar ham-mūnaḥīm hap-pilôṣôfīm, 'conception' and 'verification'. Goichon, Voculaires comparés

Page 8. (Contd).

Note 1. (Contd)

d'Aristote et d'Ibn Sina, 'conception' and  
'assentiment', Madkour, L'Organon d'Aristote dans  
le monde arabe, 'perception' or 'intuition' and  
'affirmation' p.53 f.

2            2. mādith.

Page 14.

Note 3. i. e. the material intellect.

4. i.e. it cannot exist without them.

5. i.e. it is not a part of the soul.

6. Of the Active Intellect to potentiality and the  
memory images.

7. i.e. light.

8. In his commentary on the De anima of Aristotle.

See Husik, A History of Medieval Jewish Philosophy.  
p.332 ff.

9. Hebrew has: hylic

10. Of Aphrodisias. See Husik ibid.

Page 15.

Note 11. De Anima, 43Ca.

Page 16.

Note 12.

13. The reflection of perfect forms in the soul.

14. Genesis 16:13, i.e. the angel she apprehended.

Page 17.

Note 15. i.e. Terms - the entire premise.

16. Omit.

Page 18.

Note 17. The Aristotelian logic which to the Arabs meant

beyond the Isagogae of Porphyry as introduction  
the following eight books: Categoriae, De Inter-  
pretatione, Analytica Priora, Analytica Posteriora,



Page 18. (Contd).

Note 17. (Contd)

Topica, De Sophisticis Elenchis, Rhetorica, De Poetica.

18. Abū Ḥāmid.

Page 19.

- Note 1. i.e. designating a particular by a universal.
2. Ar. iltizām means consequence, consecutive in its etymological signification - Maakour, op. cit., p.60. Since the terms "consequence" and "consequent" in the Latin logical terminology, refer to relations between propositions (or to "implications" in the logical sense), whereas Ghazālī is here speaking of implicit connoted meanings of terms or concepts, the term "connotations" is being used here.
3. Ar. adds: "There was no escape from inventing a third term."
4. "in the sciences" added by Cairo Arabic and not by Beer's Arabic.

Page 20.

Note 5. i.e. an adjective, an epithet.

Page 21.

Note 6. Jeremiah 38:8.

Page 22.

Note 7. Which is particular.

8. Omit.

9. "And the adverb a syncategorematic term." Not in Arabic. The Scholastics used "syncategorematic term", as the technical logical name for those elements of language which have only a connective function and do not have independent meaning. Nouns and verbs were

Page 22. (Contd).

Note 9. (Contd).

called "categorematic terms." I have, therefore, substituted "syncategorematic term" - the equivalent of what we nowadays call "logical constant" - for the Hebrew כלי Keli "instrument" ~~and~~ which is an alternative for "adverb", and categorematic term" for the Arabic Kalimat and the Hebrew millah. The literal text with its logical meaning is as follows: "What the grammarians call a verb, the logicians call a word (i.e., categorematic term), and what the grammarians call an adverb, the logicians call a particle (or syncategorematic term)".

10. The Hebrew waw of "and understanding" is superfluous.

11. Arabic: "What have you done." "I struck."

Page 23.

Note 12. i.e. The action thought of.

13. "The striking," "health," not in Arabic.

14. Arabic. "first year."

15. 'millah' - superfluous.

16. Hebrew sign of the accusative.

Page 24.

Note 17. Omit.

18. Arabic has: "the word 'ayin meaning dahab, and shams and rizan and 'ain al-ma'"

Page 25.

Note 18b. ~~and~~ "uncombined" not in Arabic.

Page 27.

Note 1. Hebrew adds "asmotay" probably so understood by Arabic.

Page 28.

- Note 2. i.e. both qualities.  
 3. Omit.

Page 29.

- Note 4. So Arabic and Albalag.

Page 31.

- 2 Note 5. Arabic: "Another special."  
 6. In Beer ms., not in Cairo ms., also not in Albalag. Cairo ms. is exactly like Hebrew.  
 7. This arrangement of mentioning: separable, then inseparable and an example of the inseparable followed by an example of the separable is a Biblical arrangement. v. Ibn Ezra on the words masah u'merivah Exodus 17:7. al-Ghazālī seems to be following a general Semitic classification.  
 8. Not in Cairo Arabic but in Beer.

Page 32.

- Note 9; Beer.  
 10. Albalag has "both". "All" refers to all the inseparable; "both" would refer to the difference between zūgīyôt and ḥīyyôt.  
 11. Text adds: "and this is its diagram." But the diagram is not preserved.

Page 33.

- Note 12. Omit.  
 13. al-naw'ā al-naw'ā.  
 14. jins al-jinās.  
 15. Cairo and Beer have ḥīrfat meaning craft or profession or occupation. Hebrew and Beer have "size"

## Page 33.

Note 15. (contd)  
Cairo has Khulq meaning temperament, characteristic  
or essence.

16. Ms. No.2.

17. Song of Songs 7:3.

## Page 35.

Note 18. i.e. ~~Ar~~ and Zaid.

## Page 36.

Note 19. Beer: "specific difference."

20. Arabic.

## Page 37.

Note 21. Beer: "always taking place and immovable."

## Page 38.

Note 22. i.e. white.

23. Cairo Arabic: "the light giving star which rises  
by day.

## Page 40.

Note 1. Arabic: "Zaid is either in 'Irāq or in Hijāz...  
for he may be in Syria.

## Page 41.

Note 2. Omit

3. Omit

4. Arabic: "rises".

5. Arabic: "as in the example given."

6. Cf. Aristotle, Categories 3a25.

7. Until the word 'goes' is according to Arabic  
and ms.No.3. The other two mss. are mutilated.

## Page 44.

Note 7b. Hebrew has: "the sentence 'Zaid nābināsāt' - in

## Page 44.

Note 7b. (Contd.)

Persian - ' (Zaid) bilti ro'eh' - in Hebrew - is.."

8. "think it a negative" - missing in Arabic.

## Page 45.

Note 9. Arabic adds: "but with equilibration for the negative".

10. As the Arabic has it. The Hebrew text says.

bi-leshôn he-hâmôn. Albalag says bi-leshôn han-nôsrîm.

11. Omit.

12. Omit.

## Page 46.

Note 13. Isaiah 40:25.

13a. Cf. Maimonides, millôt ha-higgâyôn, Chap. II.

The similarity is extremely close.

14. Arabic: "Man is in loss", and is a reference to Quar'an 103:2.

## Page 47.

Note 15. Omit.

16. Arabic: "there is cloud present".

17. in Arabic and Ms. No. 2.

18. "disjunctive" added in Mss. No. 2 and No.3 and in Arabic.

## Page 48.

Note 19. See Mss. No. 2 and No. 3 - which note the difference here between Maimonides and al-Ghazālī. Maimonides, millôt ha-higgâyôn, Chap. II considers this a particular. Narboni's interpretation of al-Ghazālī as considering this a universal cannot be correct for al-Ghazālī specifically states that it is a particular

Page 48.

Note 20. God's knowledge.

21. Cf. this argument in Yehudah Halevi's Kuzari.

22. Psalm 29:10.

23. Perhaps this is opposed to those who make knowledge a part of the Goodhood. Being and knowledge are not attributes in God. God is a real unity.

24. Ms. No.2 - i.e. Being and Knowledge.

25. Mss. No.2 and 3 and in Arabic.

Page 49.

Note 26. in the quality of the proposition.

27. Cf. Efros in his introduction p.24 to Maimonides,

Millot ha-higayon.

28. "at a certain time" omitted in Arabic.

29. of propositions.

30. This sentence not in Arabic text.

31. Omit.

Page 50.

Note 32. Omit.

Page 51.

Note 33. i.e. in this apparent contradictory.

34. i.e. the proposition.

35. "five" not in Arabic or Albalag.

36. Example of dog-star in Hebrew but not in Arabic.

## Page 51.

Note 37. Cf. p. 23 in Arabic.

38. "not" should be in first ms. but is not. Appears in second ms. and in Arabic.

## Page 52.

Note 39. Basis text mistranslated Arabic word meaning 'relation' to mean 'silver', i.e. iqā'a to fiqda.

40. ms. No. 3, Albalag, Arabic.

41. Arabic: "save in regard to twenty or some other number."

42. Only in Arabic and Albalag.

43. Arabic has "seventh" instead of "sixth".

## Page 53.

Note 44. Sentences in parenthesis are only in ms. No. 2 and partly in No. 3.

45. Omit.

46. Maimonides. Mil'lot ha-higgayon Chap. V, in Efros, Maimonides' Treatise on Logic, then calls it an "inverted proposition", mishpat mehuppakh.

## Page 54.

Note 47. i.e. the proposition, "No stone is a man."

48. 'em qesat haadam koteb.

49. qesat haadam 'emo koteb.

50. Cf. note 19, page 47.

## Page 55.

Note 1. "e.g... created", not in Arabic or ms. No. 3.

2. This sentence not in Arabic.

3. In Arabic and Ms. No. 3.

Page 55.

- Note 4. In Arabic.  
5. i.e. The formed.

Page 57.

- Note 6. i.e. boundaries.  
7. i.e. boundaries.

Page 57b.

- Note 8. "one of" not in Arabic.

Page 58.

- Note 9. Arabic adds: "and the major a universal."  
10. i.e. some beings are not eternal.

Page 59.

Note 11. Arabic has the following:

(Moods of the first figure, conclusive and non-conclusive).



	<u>Its Examples</u>	<u>Major</u>	<u>Its Examples</u>	<u>Minor</u>
Yields universal affirmative, i.e. Every A is C.	Every B is C	Universal affirmative	Every A is B	Universal affirmativ
Yields universal negative, i.e. No.A is C	No B is C	Universal negative	Every A is B	Universal Affirmative
This mood is non-conclusive because the major is a particular.	Some B is C	Particular affirmative	Every A is B	Universal affirmative
This is inconclusive also as above	Some B is not C	Particular negative	Every A is B	Universal affirmative
Yields a particular affirm- ative i.e. Some A is C	Every B is C	Universal affirmative	Some A is B	Particular affirmative
This is inconclusive because both premises are particulars	Some B is C	Particular affirmative	Some A is B	Particular affirmative
This is inconclusive as above.	Not every B is C	Particular negative	Some A is B	Particular affirmative
Yields particular negative, i.e. not every A is C	No B is C	Universal negative	Some A is B	Particular affirmative
Inconclusive	Every B is C	Universal affirmative	No A is B	Universal negative.
Inconclusive	Some B is C	Particular affirmative	No A is B	Universal negative.
Inconclusive	No B is C	Universal negative	No A is B	Universal negative.
Inconclusive	Not every B is C	Particular negative	No A is B	Universal negative
Inconclusive	Every B is C	Universal affirmative	Not every A is B	Particular negative.
Inconclusive	Some B is C	Particular affirmative	Not every A is B	Particular negative
Inconclusive	No B is C	Universal negative	Not every A is B	Particular negative
Inconclusive	Not every B is C	Particular negative	Not every A is B	Particular negative.

## Page 59.

## Note 11. (Contd).

"Now when the minor is a universal affirmative with the major a universal affirmative it yields a conclusion. Likewise with the major a universal negative. But with the major a particular it does not. When the minor is a particular affirmative with the major a universal affirmative/<sup>and</sup>with the major a universal negative, there is a conclusion also."

12. Not in Hebrew text but in Arabic.

~~13~~ 13. Not in Hebrew text but in Arabic.

12b. Hebrew text wrongly adds "affirmative."

14. Only in Arabic. Hebrew text here is corrupt.

## Page 60.

Note 15. Only in Arabic and Ms. No.3.

16. Omit.

## Page 61.

Note 17. i.e. form.

18. Not in Arabic.

19. According to the Arabic "from it" would refer to "the second figure."

## Page 63.

Note 20. Arabic simply: "to the first figure."

21. i.e. every one of the class 'some'.

22. i.e. that the contradictory of the conclusion is true whereas it is not true.

23. Arabic adds: "so whichever of them is universal satisfies (the requirements)."

## Page 65.

Note 24. Arabic conclusion of the syllogism: "not every one who writes is rational" does not follow.

Page 65.

Note 25. Arabic continues: "as though you were saying, 'Every man is rational,' and 'some men are deaf', therefore 'some who are rational are deaf'. Then you say, 'some who are rational are deaf' and 'no one who is deaf writes', therefore, 'every one who is rational writes'".

Page 66.

Note 26. "mood" omitted in Arabic.

27. Maimonides, *millot ha-higgayon*, Chap.7 makes al-Ghazālī's fifth mood his sixth, and al-Ghazālī's sixth mood, his fifth.

28. i.e. every one of the class "some".

Page 67.

Note 28b. The text was "hypothetical conjunctive".

But this terminology is now obsolete. Since the thirteenth century, "conjunctive hypothetical" has meant a sentence of the form "p and q", whereas al Ghazālī means by it the conditional, i.e., "if p, then q".

29. Gloss explaining that 'ajin means 'ešem and qodēm means muqdam lacking in Arabic and ms. no. 3.

30. Arabic has ṣahih meaning 'true', 'sound'. Hebrew has re'uyāh.

Page 68.

Note 31. Prantl, Geschichte der Logik, is correct in calling the added two- where the consequents are not more universal than the antecedents but the same in extent - 'childish' (läppisch). For there was no point in bringing them in. Since they are the same in extent, what applies to one must apply to the other.

Page 68.

Note 32. Omit.

Page 69.

Note 33. i.e. when the condition is excluded.

34. 'lô'kol shekkân'.

35. i.e. when the contradictory of the consequent is affirmed.

36. 'ihakhi'

37. 'i amarta bishlāma'

Page 70.

Note 38. parenthetical words understood.

39. idem. Arabic actually has "or such and such, or such and such."

40. Arabic: "save that of a limitation of the unlimited remainder."

40a. It should be noted that Ghazālī interprets the disjunctive in the exclusive sense, and not (as is nowadays customary) in the inclusive sense. It is only on this interpretation that the modus ponendo tollens is valid; i.e., only if "either p or q" is interpreted as meaning "either p is true and q is false ~~and~~, or p is false and q is true." Nowadays we admit the possibility of both being true, and merely exclude the possibility of both being false.

41. Arabic omits the first sentence after "syllogism".

42. "and.. contradictory" lacking in Arabic.

43. Omit.

44. Arabic has instead: "from premises of which one that is false is apparently true. Then you mark the false in the opinion of your opponent."

## Page 71.

Note 45. Omit.

46. I Sam. 24:14.

47. 'osi lō tēmĒ' hakhî'. - i.e. but if its opposite is true the result will be an absurdity.

48. Arabic has instead: "Every animal is either a man or a horse or other than those two. And every man moves his lower jaw while chewing. And every horse moves its lower jaw while chewing. And all others apart from them move their jaws in this way while chewing. It follows that every animal moves its lower jaw while chewing. And it moves its lower jaw while chewing for we have seen the horse, and the man and the cat and other animals thus. Therefore this is true..."

Note 49. Arabic omits the example of the fully constructed syllogism.

## Page 72.

Note 50. Arabic yutrid is equivalent to y'forad as in basic Hebrew text uncorrected by Misah that reads yiṣdaq.

51. Arabic.

52. Job 19:26.

53. Psalms 35:10.

54. mah māṣīnû.

## Page 73.

Note 55. Arabic: "The Jewish and scholastic theologians call this qiyās (analogy) which is the transference of a judgement from a particular to a particular on the ground that it resembles it in some detail or other."

56. Arabic: "but it is suitable for soothing minds and convincing people in conferences, so that it is

Page 73. (contd).

Note 56. (Contd).

commonly used in public discourse. By public discourse is meant conferences where there is competition in the making of dispensation, or complaints or apologies or in praising or blaming, or in boasting about something or belittling it, and things of that sort."

56b. Maimonides, op. cit. Chap. VII where the same example is used.

Page 74.

Note 57. i.e. "The house was created."

58. i.e. by its being formed.

59. parenthetical words only in Arabic.

60. i.e. that whatever was formed was created.

61. Frantl, op. cit. Simile et contrarium.

62. "The other...inverted" omitted in Arabic.

63. "We have looked and seen" in Arabic and Albulag.

64. Arabic adds: "e.g. before its inversion."

64b. Arabic: al-ṣabar w'al-taqṣīn. Frantl, op. cit.  
'coniectatio'.

Page 75.

Note 64c. "all" only in Arabic.

65. "Show it" - Arabic.

Page 75.

Note 65. Arabic and ms. no.2.

66. Arabic. Hebrew has: "Even if the complete investigation were claimed."

Page 76.

Note 67. i.e. the attributes.

68. According to the Arabic. Hebrew has "existent"

Page 76.

Note 68. (Contd).

which is logically wrong because "created" and not 'existent' is being proved.

69. According to Arabic. Hebrew text as follows:

"existent and self-subsisting or because it is a house and existent or because it is material and has form or because it is material and self-subsisting or because it is material and existent or because it is self-subsisting or existent and other combinations..."

70. Only in Arabic.

71. According to Arabic. Hebrew text has: "gall and vitriol."

72. i.e. as opposed to any of its parts.

73. i.e. particulars.

Page 77.

Note 74. i.e. one of the two particulars.

75. Hebrew adas: "which demonstration is impossible as long as the major premise is not a universal."

76. i.e. that 'the house was created'.

77. i.e. that 'the house has form'.

78. i.e. that "Everything that has form was created."

Page 78.

Note 79. Analogies.

80. Talmud Babli: pesāhīm 66a; Niddah 19b.

81. "As below it means".

82. "the points common to both" i.e. to set aright, to settle, to harmonize.

Page 79.

Note 83. "what is the common point".

## Page 79.

- Note 85. "building up" - Arabic.  
 86. "are found" - Arabic.  
 87. Omit.  
 88. Arabic: "either thinking its premise is unnecessary,  
 or with intent to cause ambiguity."  
 89. Omit.

## Page 81.

- Note 90. Only in Arabic: "which are connected with the  
 expressed premises."  
 91. Omit.  
 92. Omit.

## Page 83.

- Note 93. Omit.  
 94. Omit.

## Page 84.

- Note 95. D.B.Macdonald, "Life of al-Ghazālī" in JAOs  
 vol.20, ~~1956-1957~~, 1959 p.128.  
 96. Arabic.  
 97. Only in Arabic.  
 98. Arabic has only "the more" and omits "the lesser."  
 99. "finite" - Albalag.

## Page 85.

- Note 100. Arabic omits "and s ts".  
 101. Arabic "as our knowledge that".  
 102. Albalag has: 'nakkat miṣrayim'.  
 103. i.e. it must become well known in itself.  
 104. i.e. information.  
 105. i.e. the doubter.  
 106. Arabic adds: "because I have seen him."  
 107. i.e. The miracles.



## Page 85.

Note 108. i.e. The existence of the prophet.

109. i.e. The counter.

110. Omit.

## Page 86.

Note 111. "that is.. separated from" lacking in Arabic.

112. i.e. that it is not innate in the intellect.

113. i.e. seventeen being half of thirty-four.

## Page 87.

Note 114. Arabic: "Only the judgement as to its falsity is from the fact that were all of what does not enter into al-wahn ~~fix~~ false, then al-wahn itself would be false, for al-wahn does not enter into al-wahn but al-'ilm and al-Qudra: Now any attribute which is not grasped..."

## Page 88.

Note 114b. Arabic omits "pious man... speaks falsely" and goes on "a prophet ought not to enter..."

115. Omit.

116. Arabic.

## Page 90:

Note 117. Only in Arabic.

118. Arabic: "whether he is the one wronging or wronged."

119. i.e. The statement.

120. Arabic: "doing wrong to another."

## Page 91.

Note 121. Arabic adds: "like him."

122. "wormwood" in Arabic and ms. No.3, lacking in ms. No.1. text.

123. "rejects" in Arabic and ms. No.3, lacking in Arabic.

## Page 92.

Note 124. Ecclesiastes, VI, 7.

124b. 'mefûrsâm' means probabilities, conventions, what is socially approved and disapproved.

124c. i.e. Judges.

125. Genesis, 3:5.

126. Guide - part I, Chap. II, ed., Friedländer, where Maimonides takes 'elôhîm to mean Judges.

126 b. Arabic: "Exposition of what happens to these syllogisms".

## Page 93.

Note 127. i.e. dialectics.

128. Omitted in Arabic.

129. Arabic adds: "and those".

## Page 94.

Note 130. Arabic has correctly "sophistic", and Hebrew has me'atîm instead of correctly mat'im

## Page 95.

Note 131. Arabic: "only by way of setting forth or imagining it..."

132. Omit.

## Page 96.

Note 133. Omit.

134. Omit.

135. No "if there is one" in the Arabic.

136. i.e. "No jug is a container of wine".

137. i.e. "No container of wine is a jug".

138. bay-yayin i.e. "container of wine".

## Page 97.

Note 139. i.e. 'he' or 'it'.

140. Arabic does not have "in Egypt" but 'fî Khasni' a Qur'anic expression.

Page 98.

Note.141. Omit.

Page 100

Note 142. Without any qualities, i.e. "fish".

143. Added to the substance.

144. The middle term contains an addition, e.g.  
the quality of fish which is not meant in the  
minor premise.

145. i.e. only one.

146. Here is an example of defection.

147. i.e. being outside of time.

148. i.e. of the homonymous middle term.

Page 101.

Note 148a. In Aristotle the four types of problems are:

the 'that', the 'why', the 'if', the 'what'.

149. Arabic - "by the expression that was not explained."  
(i.e. by the ambiguous expression).

150. i.e. a homonym with meaning of "sun" and "potsherd."

151. And not the potsherd.

Page 102.

Note 152. Arabic: "because I saw it and found it burnt."

153. "yēsh"

Page 102 - Chapter II

Note 1. Only in Arabic.

1a. Hebrew 'im is equivalent to Arabic 'in. But  
Arabic here is 'an.

Page 103.

Note 2. Conclusion is omitted in Arabic.

3. Arabic adds: "of the difference between the  
'verily demonstration and the 'why' demonstration.

## Page 103.

- Note 4. Arabic: adds "because".
5. Manuscript No.3.
6. i.e. the minor term.
7. i.e. the middle term.

## Page 104.

Note 8. I - 71, II - 15.

9. "...proving the existence of any being from its causes" as opposed to "mofet re'ayah" which is a proof from its effect". (Efros: Philosophical Terms in the Mōrēh Nebukim, p.70).
10. Taking the text as niṭṭāḥarīm and not as text has it niṭṭāḥādīm or ms. No.2, māḥmat aḥerīm.
11. Which must also reveal existence. But here existence needs no proof. For the existence of man is taken for granted.

## Page 104. Chapter III

- Note 1. Albalag: "we mean by them the subjects whose essential accidents are investigated in the sciences."
2. Arabic: "by this we mean that every science without exception has a subject matter which is investigated." The Arabic omits the next sentence and seems to be right. It would appear that Warmoni's explanation crept in here.

## Page 105.

- Note 3. according to Arabic. Hebrew text has instead: "the actions of the niṣṭaddīm." Ms. No.3 has "the actions in relation to jurisprudence."
4. Arabic and Ms. No.3.
5. Ms. No.3 and Albalag. Arabic has: "in it".
- 5b. Meaning in their science. Arabic and Ms. No.3.

## Page 106a.

Note 6. i.e. essential accidents.

7. i.e. in the subject.

7b. According to Arabic and Ms. No.3.

8. i.e. in the science;

9. Arabic adds: "and expressions."

10. Omit.

11. Next sentence omitted in Arabic.

12. Omit.

13. What follows is according to the Arabic and Ms. No.3.

14. Ms. No.3 adds an example from geometry.

15. arabic: "as it is said that six is a whole number and six is a species of number".

16. i.e. of an accident.

## Page 107.

Note 17. Omit.

18. Book I.

18b. Albalag: "student".

19. Not in Arabic.

20. Only in Albalag.

21. ibid.

22. the natural sciences.

## Page 107b.

Note 23. Omit.

## Page 108a.

Note

1. The scholastic "primo vera".

1a. Arabic omits: "the relation... necessary one," and then: "it will be like..."

2. The syllogism is: "Man is an animal," "Animals are corporeal" therefore "Man is corporeal."

## Page 108a.

- Note 3. As for example, 'existence'.
4. Arabic omits "which is more universal."
  5. Omit.
  6. Omit.
  7. i.e. of the major premise 'animals are corporeal'.
  8. of the syllogism.

## Page 108b.

- Note 9. i.e. the premises.
10. According to Arabic and Ms. No.3.
  11. In Arabic and Ms. No.3.

12.

## Page 109a.

- Note 12. In Arabic and Ms. No.3, the correct rendering.
13. i.e. by its definition.
  14. i.e. of the predicate. In Arabic and Ms. No.3.
  15. Albalag.
  - 15b. in Arabic and Ms. No.3.
  16. Arabic has: "about its rules," and ends here.

## Page 110.

- Note 17. Omit.
18. Ms. No.3.
  19. Ezekiel 16:44. Only in Ms. No.3.
  20. According to Ms. No.3. Ms. No.2 is defective.

BIBLIOGRAPHY

- 'Abd al-Ghafir b. Ismā'il, in the Tabvīn of Ibn 'Asākir of Damascus from the text as published by M.A.F. Mehren in Travaux de la troisième Section du Congrès Internationale des Orientalistes, St. Petersburg, 1876, Tome II.
- 'Abd ar-Rāziq, Muḥammed Ḥassain, 'Ilm al-mantiq al-ḥadīth, Cairo, 1928.
- Affifi, A. E., The Mystical Philosophy of Muḥyid-Din ibn al-'Arabi, Cambridge, Mass, 1939.
- Agathias, Agathiae Myrinaei Historiarum libri V, in CSHB, vol. 3 Bonn 1828.
- Ahmad Amīn, Duḥā 'l-Islām, III, Cairo, 1936.
- al-Alūsī, Bulūgh al-Arib, 3 vol. Cairo, 1924.
- Anawati, G. O., Essai de Bibliographie Avicennienne, Le Caire, 1950.
- Aristotle, Works of, Translated into English under the Editorship of W. D. Ross, Oxford, 1928.
- ash-Shahrastani, Kitāb al-Milal wa'n-Nihal, ed. Wm. Cureton, London, 1842.
- Asin y Palacios, M., "Le Sens du mot tahafut dans les oeuvres d'el-Ghazālī in Revue Africaine, vol. 50, 1906.
- Assemanus, Bibliotheca Orientalis, 3 vol. Rome, 1719-28.
- Augustine, Confessions, Book VIII, Transl. by E. B. Pusey, Everyman's Library, N. Y. 1950.
- Bailey, H. W., Zoroastrian Problems, Oxford, 1943.
- Banet, D. Z., "The Common Source of Bahya Ibn Paqoda and Ghazali" in Magnes Anniversary Book, Jerusalem, 1938.
- in Keneset, R. Yehuda Halleivi v'al-Ghazali, Vol. VII, pp. 311-329, Tel Aviv, 1942.
- Bardenhewer, Die pseudo-arist. Schrift über das reine Gute, bekannt unter dem Namen Liber de Causis, Freiburg i. Br. 1882.

- Barhebraeus, *Chronicon Syriacum*, ed. Bruns et Kirsch, Lipsida, 1789.
- Baumstark, A. *Geschichte der syrischen Literatur*, Bonn, 1922.  
 "Reste pagan-philosophischer Arbeit in Syrien", in  
 "Ostsyrisches Christendom und Ostsyrischer Hellenismus",  
 in Römische Quartalschrift für christliche Altertumskunde  
 XXII, (1908).
- Aristoteles bei den Syrern, om v. bis VIII. Jahrhundert, Leipz 1900  
 "Lucubrationes syro-graecae" in Jahrbücher für Klass. Phil. for  
 1894 (Supplement band.)
- "Griechische Philosophen und ihre Lehren in Syrischer  
 Ueberlieferung: Abschnitte aus Theodoros bar Koni's Buch der  
 Scholien", in Oriens Christianus, v. (1905).
- "Zur Vorgeschichte der arabischen Theologie des Aristoteles",  
 in Oriens Christianus, II (1902) pp. 187-191.
- Becker, C. H., "Christliche Polemik und Islamische Dogmenbildung" in  
Zeit, Ass. XXVI, (1912).
- Bergsträsser, G., "Ḥunain b. Ishaq und seine Schule" Leiden, 1931  
 "Ḥunain b. Ishaq über die Syr. und Arab. Galenübersetzung"  
 in the Abhandlungen für die Kunde des Morgenlandes, XVII, 1925;  
 and "Neue Materialien zu Ḥunain b. Ishaq's Galen-Bibliographie  
 in the same Abhandlungen, vol. XIX, 1932.  
 Grundzüge des islamischen Rechts, Berlin, 1935.
- Beer, Georg, *Al-Gāzzālī's Maqāṣid al-Falāsifa*, I Teil: Die logik Cap. 1-11  
 Leiden, 1888.
- Braun, O., *Moses bar Kepha und sein Buch von der Seele*, Freiburg, ~~18~~ i. B.,  
 1891.
- Brockelmann, C., *Geschichte der arabischen Literatur*<sup>2</sup>, 2 vols.  
 Leiden, 1943-49.
- Bouyges, Maurice, in Mélanges de la Faculté Orientale de la Université St.  
Joseph, Beyrouth, VII.



- Broyde, I., "Ghazali", Jewish Encyclopedia, V. pp 649-650, N. Y. 1903.
- Browne, E. G., A Literary History of Persia, N. Y. 1902.
- Carra de Vaux, B., "Aflāṭūn" in Ency. Isl. I pp. 173-175, Ghazali, Paris, 1902.
- Cayré, F., Patrologie et histoire de la Théologie, Paris 1947, 3 vols.
- Chabot, J. B., "L'École de Nisibe" in Journal Asiatique, juillet, aout, 189
- Cheikho, L. Trois traités anciens de polemique, Beirut, 1923.
- Christensen, A., L'Iran sous les Sassanides,<sup>2</sup> Copenhagen, 1944.
- Clement of Alexandria, Stromateis, in the GCS ed. O. Stählin, Leipzig 1906
- De Boer, T. J., Art. "Aristūṭālis", in Ecy. Isl. I. 432-434  
A History of Philosophy in Islam,<sup>2</sup> London, 1933.
- De Faye, E. Clément d'Alexandrie, Paris, 1906.
- Origène, Tome III. De la doctrine, Paris 1928.
- De Menasce, P. J., Arābsche Philosophie, Bern 1948 (appearing as no.6 of  
Bibliographische Einführungen in das Studium der  
 Philosophie.)
- Denis, M. J., De la philosophie d'Origène, Paris, 1884.
- Duval, R., Histoire d'Edesse, Paris, 1892.  
La littérature syriaque,<sup>2</sup> Paris 1900;
- Eusebius, Historia Ecclesiastica, ed. Wm. Bright, Oxford, 1881.
- Epiphanius, Adv. Haer, LXIX, ed. K. Holl in GCS XXV, Leipzig 1915-1933.
- Efros, I., Philosophical Terms in the Moreh Nebukin, N. Y. 1924.  
Maimonides Treatise on Logic, Milot Hahigayon, N. Y. 1938.
- al-Farabī, Fi'ittifāq ra'I al-hakīmain Aflāṭūn wa Aristūṭālis, ed. by Dieterici in his Alfarabis Philosophische Abhandlungen,  
 Leiden, 1890.

- Forget, J., "De L'influence de la philosophie arabe" in Revue néo-scholastique, I. (1894).
- "Forster, De Aristotelis Secretis secretorum commentatio, Kiel, 1880.
- Freimann, A., Die Isagoge des Porphyrius in den syrischen Uebersetzungen, Berlin, 1897.
- Frick, H., Ghazalis Selbstbiographie, ein Vergleich mit Augustins Konfessionen, Leipzig, 1919.
- "Friedländer, M., Griechische Philosophie im Alten Testament; eine Einleitung in die Psalmen und Weisheitsliteratur, Berlin, 1904.
- Furlani, G., "Meine Arbeiten über die Philosophie bei den Syrern" in Archiv für Gesch. d. Philos. XXXVII (1925) pp. 1-25
- on the Scholion of Eusebius on the Categories in Rendiconti della R. Accad. dei Lincei. XXIII, 1914, pp. 156.
- on the Scholion of Pseudo-Olympiodorus on the Categories in Rivista degli studi orientali, VII
- Two tractates of John Philoponos in Atti del Reale Istituto Veneto, LXXXI, 1921, pp. 83-105, and in Bessarione for 1923, XXXIX, pp. 45-65.
- on Severus of Sebokht, in the Rendiconti della R. Accad. dei Lincei for 1916 and 1917 and in Atti del Reale Istituto Veneto, LXXXI, 2.
- on Jacob of Edessa on the Metaphysica in Rendiconti XX, pp. 268-273.
- on George, Bishop of the Arabs in Zeitschrift für Semitistik I, 1922, pp. 34-37.
- on George, Bishop of the Arabs on the Categories in Memorie della R. Accad. dei Lincei, for 1933 and 1935.
- on Athanasius of Balad on the Isagoge in Rendiconti della R. Accad. dei Lincei for 1916 and 1917, XXV, pp. 715-778, and in

the Atti del Reale Istituto Veneto, LXXXI, 2, pp. 537-644.  
on Ishō'bokht in Rendiconti, XXIII, 1914.

Fritsch, E., Islam und Christentum in Mittelalter; Beiträge zur Geschichte der muslimischen Polemik gegen das Christentum in arabischer Sprache, Breslau, 1930.

Gardet L., et M. Anawati, Introduction à la théologie musulmane; Essai de théologie comparée, Paris, 1948.

Georr, Kh., Les Catégories d'Aristote dans leurs versions syro-arabes; édition de textes précédée d'une étude historique et critique et suivie d'un vocabulaire technique, Beyrouth, 1948.

Gesenius, W., De Pentateuchi Samaritani origine, Commentatio, Halle, 1815.  
al-Ghazālī, Munqidh min ad-Dalāl, 3 vol.

(1.) Schmolders text in Essai sur les Écoles philosophiques.

(Paris, 1842).

(2.) MC Barbier de Meynard's French translation in Journal Asiatique, Septième série, Tome IX.

(3.) Claud Field, Confessions of al-Ghazali, N.Y. 1909.

Maqāṣid al-fālāsifah, Cairo, 1936.

Tahāfut, ed. M. Bouyges, Beyrouth, 1927.

Gibb, H.A.R., Mohammedanism, London, 1949.

Gilson, E., "L'Étude des philosophes arabes et son rôle dans l'interprétation de la scolastique", in the Proceedings of the Vith Internat. Congress of Philosophy (1927).

Goichon, A.M., Vocabulaires comparés d'Aristote et d'Ibn Sina, Paris.

Goldziher, I. "Ueber muhammedanische Polemik gegen Ahl al-Kitab" in ZDMG, XXXII, 1879.

"Ueber muhammedanische Polemik gegen Ahl, al-Kitab" in  
ZDMG XLII, (1888.)

REJ, vol. 49, 1904, pp. 154-157.

Graetz, Heinrich, History of the Jews, vol. IV, Philadelphia, 1891.

Graf, G., Geschichte der christlichen arabischen Literatur 2 vols. Rome  
1942-47.

Gross, Henri, Gallia Judaica tr. Moise Bloch, Paris, 1897.

Gudemann, A., "Die syrisch-arabische Uebersetzung der aristotelischen  
Poetik", in Philologus, LXXVI, 1920.

Guidi, I., Gli statui della Scuola di Misibe, Roma, 1890.

Guterbock, K., Der Islam im Lichte der byzantinischen Polemik, Berlin,  
1912.

Hallevi, Judah, Kitāb al Khazarī, London, 1905.

Harnack, A., Dogmengeschichte, <sup>5</sup> 3 vol. Tübingen, 1931-32.

Hoffman, M., De Hermeneuticis apud Syros Aristotelis, Leipzig, 1873.

Hoonacker, van, A., "Le traité du philosophe syrien Probus sur les  
premiers Analytiques d'Aristote" in Journal asiatique,  
juillet-âout, 1900.

Horovitz, S., Ueber den Einfluss der griechischen Philosophie auf die  
Entwicklung des Kalam, Breslau, 1909.

Horten, M., Die Philosophie des Islams, München, 1923.

Die Philosophischen Systeme der spekulativen Theologen im  
Islam, Bonn, 1912.

Husik, I., History of Medieval Jewish Philosophy, Philadelphia, 1914.

Hussain, Taha, in his Muqaddima to the edition of Qudāma b. Ja'far,  
Naqd an-Nathr, Cairo 1933.

Ibn an-Nadīm, Kitāb al-Fihrist, ed. G. Flügel, 2 vol. Leipzig, 1871-72.

- Ibn al-Qiftī, *Tārīkh al-Ḥukamā'*, ed. J. Lippert, Berlin, 1903.
- Ibn Hazm, *Kitāb al-Fisal fi'l-Milal wa'l-Aḥwā' wa'n-Nihal*. Cairo, A.H. 132
- Ibn Khaldūn, *Prolegomena*, trans. de Slane, 3 vols., Paris, 1862-68.
- Ibn Khallikān, *Biographical Dictionary*, translated from Arabic by  
Baron McGlukin de Slane, Paris, 1843.
- Ibn Paqoda, *Bahya, Al-Hidāja Ilā Farā'id Al-Qulūb*, ed. A. S. Mahāda,  
Leyden, 1912.
- Ibn Qutaiba, *Kitāb Mukhtalif al-Ḥadīth*, Cairo, 1326 A. H.
- Ibn Tufail, *Ḥayy Ben Yaqdhān* ed. Leon Gauthier, Beyrouth, 1936.
- Jerome, *De viris illustribus*, ed. Bernoulli, Friburg i. B., 1895.
- Joel, M., *Don Chasdai Creskas' religions-philosophische Lehren*, Breslau, 1
- John of Damascus, *Tractatus contra Jacobitas*, in Migne, PG. XCIV col.  
1436-1501.
- Klinge, G., "Die Bedeutung der syrischen Theologen als Vermittler der  
griechischen Philosophie an den Islam, "in Zeitschrift  
für Kirchengeschichte, LVIII, (1939).
- Kutsch, W. "Zur Geschichte der syrisch-arabischen Übersetzungsliteratur"  
in Orientalia, 1937, pp. 68-82.
- Kahle, P., *The Cairo Geniza*, London, 1947.
- Kauffman, D., *Geschichte der Attributenlehre*, Gotha, 1877.
- Keller, A., *Der Geisteskampf des Christentums gegen den Islam bis zur  
Zeit der Kreuzzüge*, Leipzig, 1896.
- Klatzkin, J., *Ozar Hamunahim hapilosofim*, 4 vols., Berlin, 1928.
- Kokowzoff, P., "The date of the Life of Bahya ibn Paqoda" in Poznanski  
Memorial Volume, Warsaw, 1927.
- Kraus, Paul, "Zu Ibn al-Muqaffa", in RSO, XIV, 1934.
- "Plotin chez les Arabes", in the Bulletin de l'Institut  
Egyptien, XXIII, 1941.
- Le Christianisme dans l'Empire perse<sup>2</sup>, Paris, 1904.

Lewis, Mrs. A. S., Catalogue of the Syriac Manuscripts in the Convent of St. Catherine, on Mount Sinai, London, 1894.

Macdonald, D. B., "Life of al-Ghazzali", in Journal of the American Oriental Soc. vol. 20 First Half, 1899.

Development of Muslim Theology Jurisprudence and Constitutional Theory, N. Y., 1903.

Appendix II to Article, "Emotional Religion in Islam as affected by Music and Singing", Journal of the Art. "Kalām", in Enc. Isl. II, pp. 670675.

"The Meaning of the Philosophers by Al-Ghazzali", in Isis, Vol. 25, (1936) pp. 8 ff.

Madkour, I., L'Organon d'Aristote dans le monde arabe, Paris, 1937.

Maimonides, Guide for the Perplexed, transl. by Friedländer<sup>2</sup>, London and New York, 1910.

Le Guide des Égarés, I. trans. S. Munk, Paris.

Margoliouth, D. S., "Assassins", in ERE, vol. II, New York, 1924.

"The Book of the Apple ascribed to Aristotle", in JR'S for 1892.

Analecta orientalia ad poeticam Aristotelem, London, 1887..

Marx, Alexander, Glimpses of the Life of an Italian Rabbi of the first half of the 16th century. in HUC Annual, vol. I, 1924, Cincinnati.

Unpublished lecture notes at the Jewish Theological Seminary, New York City.

Massignon, Louis, an Analysis of ar-Radd al-Jamīl in Revue des Etudes islamiques for 1932, Cahier IV.  
Mas'ūdī, Le livre de l'avertissement et de la revision, trans. Carra de Vaux, Paris 1896.

Murāī adh-Dhahab, ed. Barbier de Meynard et Pavet de Courteille  
Paris, 1861-1877.

Matter, J., Histoire de l'École d'Alexandrie<sup>2</sup>, 3 vol. Paris, 1840.

Mieli, A., La science arabe, Leiden, 1939.

Muir, Sir W., The Apology of al-Kindi, London, 1911.

Müller, August, Die griechischen Philosophen in der arabischen Ueberlieferung, Halle, 1873.

Müller-Graupa, Art. "Museum", in Pauly-Wissowa, XVI, 1, # 797-821.

Munk, S., Mélanges de Philosophie Juive et Arabe, Paris, 1927.

Nagy, A., "Die philosophischen Abhandlungen des Jakobi ben Ishaq al-Kindi"  
in Beiträge zur Geschichte der Philosophie des Mittelalters.  
Münster, 1897.

Narboni, Commentary on the Moreh.

Nau, F., "L'Araméen chrétien," in RHR, XCVIII, (1928).

Nyberg, H. S., Kleinere Schriften des Ibn al-'Arabi, Leiden, 1919.

Obermann, J., Der Philosophischen Und Religiöse Subjectivismus Ghazalis,  
Wien and Leipzig, 1921.

Oriental Studies presented to E. B. Browne, Cambridge, 1922.

Origen, Contra Haereses, in Migne PG. XVI (1863).

Parthey, G., Das Alexandrinische Museum, Berlin, 1838.

Peeters, P. "La Passion de S. Michel le Sabaité" in Analecta Bollandiana,  
XLVIII (1930) pp 65-98.

Périer, A., Yahyā ben 'Adī, un philosophe arabe chrétien du X<sup>e</sup> Siècle,  
Paris, 1920.

Prantl, K., von, Geschichte der Logik im Abendland, 4 vols. Leipzig  
1855-1870.

... Philosophie arabe. Paris. 1947.

- Renan, E., "Lettre à Reinaud", in Journal asiatique for 1852  
 8  
 Averroes et L'Averroisme, Paris 1925.
- De philosophia peripatetica apud Syros Commentatio  
 historica, Paris, 1852.
- (and Neubauer, A.) Les Ecrivains juifs français du XIV<sup>e</sup> siècle,  
 Paris, 1895.
- Rosenthal, Fr., "On the knowledge of Plato's Philosophy in the Islamic  
 World" in Islamic Culture, XIV, 1940.
- Ryssel, V., Ein Brief Georgs Bischofs der Araber, mit einer Einleitung  
 über sein Leben und seine Schriften, Gotha, 1863.
- Sarton, George, Introduction to the History of Science, vol. I,  
 Baltimore, 1927.
- Schaeder, E. H., "Der Orient und das griechische Erbe", in Die Antike,  
 IV, (1928.)
- "Bardesanes von Edessa", in Zeitschrift für Kirchengeschichte,  
 L.I., (1932).
- "Ursprung und Fortbildung des manischäischen Systems" in  
Vorträge der Bibliothek Warburg, IV, Leipzig, 1927.
- Schreiner, M., "Zur Geschichte der Polemik zwischen Juden und Mohammedaner  
 in ZDMG, XLII, (1888).
- Schultess, Fr., "Der Brief des Mara bar Serapion", ZDMG, LI, (1897).
- Smith, Margaret, al-Ghazali the Mystic, London 1944.
- "A Forerunner of al-Ghazali", in the JRAS, 1936.
- Steinschneider, M., Die arabischen Uebersetzungen aus dem Griechischen,  
 1889-1896.
- Polemische und apologetische Literatur in arabischer  
 Sprache zwischen Muslimen, Christen und Juden, Leipzig, 1877.
- Die hebräischen Uebersetzungen des Mittelalters und die  
 Juden als Dolmetscher, Berlin, 1893.



- Sukenik, E. L., *Ancient Synagogues in Palestine*, London, 1934.
- Totah, Kh., *Contribution of the Arabs to Education*, N. Y. 1926.
- Talmud Babli: Standard Aramaic Edition.
- Torrey, C. C., *The Apocryphal Literature*, New Haven, 1945.
- Tkatsch, J., *Die arabischen Uebersetzungen der Poetik des Aristoteles, etc*
- Vajda, G., *Introduction à la pensée juive du Moyen Âge*, Paris, 1947.
- Weil, G., "Zum Verständnis der Methode der Moslemischen Grammatiker. Ein Beitrag zur Geschichte der Wissenschaft in Islam," ~~in~~ in Sachau Festschrift, Berlin, 1915, pp. 300-392.
- Weir, T. E., Art. "Harrān" in Ency. Islam, II, 270.
- Weiss, I. H., *Dor Dor V'dorshov Book II*.
- Wenrich, J. G., *De auctorum graecorum versionibus et commentariis syriacis, arabicis, armeniacis persicisque Commentatio*, Leipsig, 1842.
- Wensinck, A. J., *La Pensée de F Ghazzali*, Paris, 1940.
- Williams, A. L., *Commentary on Ecclesiastes in Cambridge Bible for Schools*, Cambridge, Mass., 1947.
- Wolfsohn, J., *Der Einfluss Gazali's auf Chisdai Crescas*, Frankfurt A.M., 1905.
- Wolfson, H. A., *Crescas' Critique of Aristotle*, Cambridge, Mass., 1929.
- Philo, *Foundations of Religious Philosophy in Judaism, Christianity and Islam*, Cambridge, Mass., 1947, 2 vols.
- Wright, W., *Catalogue of the Syriac Manuscripts in the British Museum*, 5 vols., London, 1870-72.
- Wutz, Fr., *Die Transcriptionen von der Septuaginta*, Stuttgart, 1933.
- Ya'qūbī, Historia, translated by Klamroth in ZDMG, XLI, 1887
- Yahuda, A. S., *Prolegomena zu einer erstmaligen Herausgabe des Kitāb Al-Hidāja 'Ilā Farā'id Al-Qulūb*. Frankfurt A.M. 1901.

Al-Hidāja 'Ilā Farā'id Al-Qulūb des Bachja ibn Joseph  
ibn Paqūda, Leyden, 1912.

Zwemer, S. M., A Moslem Seeker after God, New York, 1920.