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"Engaging Global Community: Breaking the barriers to effective communication"

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## **Linguistic Argumentation and Logic:** An Alternative Method Approach in Arabic Grammar

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#### **Abstract**

This research emphasizes the relationship between linguistic argumentation and logic. Linguistic argumentation is a language system which uses the meaning of expressions in a sentence to draw a complete meaning of the sentence, as there lies a dependence between expressions. In fact, this connection between expressions enhances the overall meaning from the very fundamentals of the sentence structure in the logical relationship between ideas; where there lies a relation between words and the mind which is dependent on the logic of combined utterances. In order to signify the above concept of thinking, the researcher has turned to the theory of the early system of Arabic grammar which focuses more on analogical approach rather than anomaly. The analogical approach in the system is based on the underlying theory which implies the aforementioned relationship, even though some modern views may disagree on the interpretation of this issue. To round out the discussion, the researcher has included similar existing theories on Latin grammar which have shown the logical approach to be a result of the connection between linguistic argumentation and logic. As a result of this discussion, the connection between words and logic is shown to be a universal concept.

Keywords: Logic, Method, Grammar and Analogy

#### Introduction

The relationship between language and logic was discovered by early Muslim's scholars. They believed that drawing a relationship between the two was basically a rouse to redirect the topic of discussion to theology and law in terms of Aristotelian logic. However, in order aver this argument and in order to exhibit the relevance of logic for the study of grammar, the researcher will henceforth use the term 'linguistic argumentation' to refer to the study of the Arabic grammar system. In fact, Al-Fārābī (d.950)¹ developed such a theory on the relationship between language and logic, discussing the origin and development of language from a logician`s point of view. This can be found in his book *Kitāb al-ḥurūf*¹ wherein he connects the ideas of Arabic grammar demonstrating his awareness of the relevant differences between languages, in general, and between Greek and Arabic, in particular. His aim was to incorporate the disciplines grammar and logic together, for he believed there was no doubt that they were connected to each other. He based this on his view that logic the use of logic transcends the domain of any particular language and is common to all languages¹. In fact, this connection has been proven in his book:

"This science (logic) corresponds to the science of grammar because the relationship of the science of logic to reason and the intelligible equals the relationship of the science of grammar to language and the expressions. The rules that the science of grammar provides for the expressions are paralleled by the rules that the science of logic provides for the intelligible....it has in common with the science of grammar that it provides the rules for the expression and it differs from the science of grammar in that the science of grammar only provides rules concerning the expressions of a particular nation, whereas the science of logic provides universal rules that are valid for the expressions of all nations".

He here has explained the connection between language and logic concerning the expression of a particular linguistic group, a nation, are related to their mode of expressing meaning in a grammatical sense, and that the expression of all nations or logics demonstrates a universality of approach which is a valid means of expression for the all nations.

This point has been supported by,  $Ikhw\bar{a}n$  al- $Saf\bar{a}$ , The Brethren of Purity, in their  $Ras\bar{a}$  'il. They believed that the heart is the organ responsible for distinguishing between intelligible  $(mafh\bar{u}m)$ , and unintelligible sounds. From the former, it distills the meaning  $(ma'\bar{a}n\bar{\iota})$  of sounds. They regarded this as the process of knowledge in establishing a correspondence between word and meaning. They explained in  $Ras\bar{a}$  'il,

"... therefore, we need exterior speech and we have to teach it and to study its laws, which take a long time to explain. The pure spirit that are not embodied do not need language and speech for the mutual understanding of the knowledge and the meanings that are in their thoughts".

The Brethren of Purity are not the only scholars to have discussed the correspondence relationship between the issue of word, meaning and thought, Jabīr 'Ibn Hayyān¹ also has a speculation about the correspondence between word and meaning where he believed this correspondence are based on the balance of letters (*Mizān al-Hurūf*). This theory is clearly derived from Greek sources and is based on concepts ranging from the numerical speculations of the Pythagoreans to Plato's dialogue on *Kratylos¹* postulation on the origin of language. However, 'Ibn Hayyān places greater interest on the nature of physical elements in his investigation. Thus, he often uses grammatical theory as a heuristic instrument such as the grammarian applies his methods of *Tasrīf* (morphology) in order determine their radicals in contrast the alchemy or physical scientist

dissects the objects in order to find out their constituent element<sup>1</sup>.

The discussion on the origin of language by 'Ibn Jinnī and his teacher, 'Ibn Fāris, should also be considered for his arguments on the origin of language being revelation or agreement between word, meaning and thought. Notably, most of the speculative philosophers held that the connection between language and logic is a matter of mutual agreement and convention rather than revelation and inspiration. This statement emphasizes the human nature of language and origin of speech is with man. Based on this concept, arises the Mutazilite correlation that since man has free will, then men are responsible for their own acts, their own words. In the context of the spoken word, by speaking man he is the one who brings into being, such as the nomenclature of *mutakallim* can be given only to someone who produces speech<sup>1</sup>.

This leads to the discussion of the literary study conducted al-Jurjānī on meaning and expression where he considered the logical ideas to be signified by the expression. He linked his view to meaning as being the determining factor differentiating the level of quality of the between linguistic dimension in a text; by not considering this dimension in isolation but rather as it is realized within a coherent text<sup>1</sup>.

From the aforementioned viewpoints, it is relevant that the relationship between language and logic is not a matter of philosophical speculation discussed among philosophers, but it's also been a field of study and discourse between grammarians and rhetoricians.

#### **Views Regarding Logic being Enhanced by Linguistics Argumentation**

We acknowledge that vast the contributions of Arab logicians during the Golden Era of Islam enhanced the concept of meaning in the sentence structure, yet must also give note to the Orientalist perspective on this issue. They claimed that the idea of the existence of a relationship between syntax and semantics was taken directly from Aristotle's works. This theory has been supported by Prof. Bursill Hall, who states:

"Nevertheless, the attention paid to syntax by the grammarians of the later 12<sup>th</sup> century laid the basis for the continued close association between logic and grammar, a relationship fruitful enough to create a logical grammar within the domain of grammar and which culminated in the speculative grammars of the modesties. This was a development from the result of the full assimilation of the `new` Aristotle and the works of the Arab logicians".

Charles E. Butterworth supported this idea in a similar statement, saying:

"Aristotle's writing found a much more receptive audience on the other side of the Mediterranean as learning on his writings flourished in Constantinople, Edessa and Antioch.

When the School of Alexandria was forced to close, it moved to Antioch in Syria. In the  $6^{th}$  century, many of Aristotle's writings had been translated into Syriac. This activity continued until some Syriac translations were rendered into Arabic. In the  $10^{th}$  century, the school moved to Baghdad..."<sup>1</sup>.

This historical movement of study of the Aristotle's works has been proved by 'Aḥmad 'Amīn when he showed the interest of a number of Arab scholars in the translations of Greek philosophy and science within Islamic world. These include Hunain bin Isḥaq, Yaḥya bin Bitrīq and 'Ibn al-Muqaffa'<sup>1</sup>.

The process of translation of Greek philosophical works went through a process of serious scholarly endeavors when they were translated from Arabic<sup>1</sup> and rendered into Hebrew during the period of Islamic Spain and then into Latin in the middle of the 12<sup>th</sup> century. Prior to this, the writings of Aristotle were unknown in the West. While, in the East, these works had already been studied and commented on by Al-Kindī, Al-Fārābī and 'Ibn Sīnā, and they were redressed again by Averroes, in the beginning of 13<sup>th</sup> century. Even after the Latin conquest of Constantinople in 1204 and the discovery of new Greek manuscripts, the most complete translations of Aristotle's works were still those done from Arabic texts<sup>1</sup>.

The researcher believes it essential to highlight some of the tremendous contribution of Averroes in enhancing the ideas of Aristotle when he translated the `Categories` in his `Middle commentary on Aristotle's *Categories*, as this work had a great impact on the development of the *Modistae*<sup>1</sup> in Europe and, as it seems, the starting point in the progress of understanding Aristotle's categories in the Middle Ages. Charles E. Butterworth supports this view without, writing:

"...without exaggeration, the beginnings of scholarship in the later middle ages can be traced to the effect this newly found legacy had upon western Europe, especially to the effect it had upon such important thinkers as John of Salisbury, Saint Thomas Aquinas, Albertus Magnus and Roger Bacon".

Butterworth notes that in Averroes' commentary, he presented the

"...uncombined utterances which denote uncombined ideas necessarily denote one of ten things either substance or quantity or quality or relation or where or when or position or to have or doing or being acted upon...".

To further our understanding from of Averroes' view on this matter the researcher gives one of his examples on the subject. Averroes gave the situation of a man and a horse and how they are distinguished from each other, as both of them have a dependant relationship on each other, as in "Zayd rode a white horse last year". The words Zayd and horse are understood by the listener when they are used together in a context they have a relationship. A new meaning is added to this image with the addition of the word 'white'; conveying that is a white horse. Here, the word 'white'

shows the concept of quality and thus is termed an adjective. Analysis of this example shows that Averroes was more concerned with meaning conveyed in a relationship between word as it is related to the concept of thinking, such that there is relation between words and thinking which depends on the logic of utterances when combined.

Analysis of this statement is similar to the concept of nazm introduced by Al-Jurjānī in his book  $Dal\bar{a}'l$  al-' $Ij\bar{a}z$  when he described that what is understood by a sentence is dependent on the connection of meanings in utterances of which it is made. This is idea is highlighted in Part two of Chapter 14 of Averroes' commentary on the *Categories*. However, it must be kept in mind, that the statement and supposition do not admit truth or falsehood in as far as the thing to which the supposition refers outside the mind is itself altered. For example, take the supposition that "Zayd is sitting", is indeed true when Zayd sits and false when he stands Averroes manner of analyzing here is similar to the concept of logical analysis when the case is that the action of something needs to be confirmed with the correct word of the action and not vice versa.

It can be concluded from this discussion that the connection between syntax and semantics in linguistic theory has been thoroughly debated among Muslims scholars. This activity is especially important in the study and interpretation of the meaning of the Quran and *Sunna*, and should be applied to reach a correct understanding of its meaning in a modern context.

#### The Relationship between Linguistic Argumentation and logic

We have discussed previously the role of early grammarians in linguistic polemics, and we have found that there is a group of Modern scholars who have debated aforementioned issue. These include Khālid 'Ibn Sulaymān Muhanna al-Kindī. He has mentioned in his book, 'Uṣūl al-Naḥwī wa al-Ta'alam al-Naḥwī fī al-Dars al-Lughawī al-'Arabī al-Qadīm¹, that the argumentation in the explanation of grammar is divided into four divisions which are; first, the linguistic argumentation is affected by philosophy and speech, secondly, linguistic argumentation is affected by the principles of Jurisprudence, thirdly, linguistic argumentation seeks more than one external influence, and fourthly, linguistic argumentation has not been subjected to these influences.

The researcher views that al-Kindī's divisions are unnecessary, as its essence can be stated as: linguistic argumentation is affected by speech, philosophy and jurisprudence. Why? This is due to the fact that the philosophical influence of grammar is an aspect that requires delicacy in its exploration and application. Regarding the impact of jurisprudence, it is an important matter to be

cited because the grammatical normative process is purely a result of the ancient Arabs' dexterous scholarly endeavors. As for the remaining two points, al-Kindī' himself has mentioned they are two normal events that do not require a discussion.

In order to thoroughly discuss on logic, we have to discover the point at which philosophy entered the discussion of Islam? According to 'Ibn Nadīm in *al Fihrist*, "We find recently that the Persians transferred something of logic and medicine books from Greek into their Persian language, and it remained so until they were transferred to Arabic by Abdullah bin al-Muqaffa' Relying on this evidence, the researcher believes that the concept of philosophy was digested by the great Arab grammarians from their study and translation of Greek philosophical works during the later part of the second century *hijrī*, and henceforth they imparted such theories in the discussion of studies in their own fields. It has its authorship in medicine, engineering, astronomy and logic and this means proximity of time, philosophy and speech. However, the intended meaning of the researcher is that the philosophical idea which appeared in Arabic grammar was the work of Muslim philosophers who sought wisdom in their work and they were convinced of this method. In fact, the acquisition of philosophy is not a result of a relationship with the Greeks, but rather is evidence of the dexterous Arabs' work and their ability to apply this knowledge to problems in Arabic grammar. From study of this matter, the researcher concludes that the grammatical rules which have their

From study of this matter, the researcher concludes that the grammatical rules which have their origin in philosophy are: *al-Taqdīrāt*, *al-Hadhafāt* and *al-Iḍmārāt*, This conclusion is confirmed by 'Ibrahīm Muṣṭafā in his book '*Ihyā* ' *Al-Naḥw*, wherein he discusses the influence of philosophy on Arab grammarians. He comments that Arab grammarians, in this path of theirs, are affected by all means by the philosophy of the Word (al-*Kalām*). This concept was not only common among them, but it dominated their thinking, and was taken as a standard means of practice based on the information available to them at their time<sup>1</sup>.

'Ibrahīm Mustafā responded to this view with regards to the issue of estimation:

"أولولا طولُ إِلْفِنَا لها لرأيناها لغواً وعبثاً". He describes the Arab grammarians' as being in search of answers for linguistic dilemmas and in this situation they were by all means going to find a resolution even if their methodology was foolish. He puts forth many examples of this including: رأيت . He explains that some grammarians have claimed that this sentence is in fact truly; رأيته . This is based on analogy of the following Quranic verses:

which means إن استجارك أحد من المشركين استجارك and

that means: لو تملكون تملكون خزائن رحمة ربى, and

## 1﴿ وَأَمَّا ثَمُودُ فَهَدَيْنَاهُمْ ﴾

which means: أو أما ثمودَ فهدينا هديناهم 'Ibrahīm Muṣṭafā these examples in linguistic and semantic and meanings are similar to the case of: إحذرك واحذر الأسد إياك والأسد , where there is a case of omission yet this meaning is understood by the reader. He also gives the example of the ruling for the case where the predicate exists of an omitted subject, such as in the case of the sentence: الحمدُ الله ربّ العالمين. He puts forth that for the word بن it is possible to assign it the accusative case as though the estimated meaning is أمدحُ رُبّ , and it is equally valid to assign it the nominative case when its meaning is estimated as هو ربّ He views that such examples of omission are common in every language, however, in the case of the Arabic language in particular, this type of expression is most often reserved for the cases of al-'Ijāz and al-Takhfīf. Herein, by eliminating that which is understood, the argument for estimation is rejected (al-Taqdīrāt). 'Ibrahīm Muṣṭafā continues that estimation and expansion lead to the loss of an existing Arabic grammar rule saying:

"They did not make for him a conclusive word and decisive saying, and they overdid the aspects of the speech. Many types of parsing are intolerable. They estimate the factor as a nominative, hence they make [it] nominative case and estimate [it] as the accusative hence they make accusative case, and they do not see that it is followed by a difference in meaning or a switch in the understanding".

Then 'Ibrahīm Muṣṭafā points out that the Arab grammarians adherence to philosophy led them lose their concern for the meanings of speech relative to its different conditions, such as the case of علم المعلق على المعلق على المعلق على المعلق على المعلق على المعلق على المعلق ا

الت؟ وكيف أنت؟ وكيف أخوك؟ This conveys a different meaning than: كيف أنت؟ وكيف أخوك؟ It is as though the estimation took place to explain the connection between the two subjects.

However, the majority of the grammarians do not accept the aforementioned argument, due to their view that a double enténdre was indeed meant by the speaker  $^1$ . And this has caution of the majority is based on a history of such double meanings in Arabic language. For example if an Arab said,  $^1$ كيف أنت وقصعةً من ثريدٍ, where the word following the conjunction, قصعة من ثريدٍ is in the accusative case due to its carrying the meaning of مفعول معه  $^1$ .

The researcher has observed other forms of linguistic rules based on linguistic constants and these too, have marked influence of philosophical matters and logic. This is other than the note made by 'Abdul Raḥmān Ayūb with regards to the matter of omission of parsing at the end of the word; including estimated parsing (الإعراب المقدر) in the case that al-maṣdar al-mu 'awal (المؤول) is made accusative case by fatḥatun muqaddaratun (المؤول) because it is an accusative object and they have based this assumption on the interpretation of the example by أريد أنْ أقومَ from the words where the parsing of the defective noun is estimated in it are:

is made nominative case by case by latent ending in an original yā' and عيسى , where القاضي is made nominative case by case by latent ending in an original yā' and is made accusative case by the argument: بفتحة مقدرة منع من ظهور ها التعذّر, and of the words which can be estimated by what is known by the location is occupied by harakatu almunāsibah (حركة المناسبة) as in: ليس بقائم as in: ليس بقائم to be parsed as genitive case, and at the same time this prepositional phrase is a predicate of ليس and is thereby made accusative case by fathatun muqaddāratun that is not apparent due to the location being occupied by harakatu al-munāsibah.

'Abdul Raḥmān Muḥammad Ayūb analyzed and critiqued this aforementioned argumentation. He agrees with the position that estimation plays a significant role in Arabic grammar. However, he ridiculed the grammarians' saying that *al-maṣdar al-mu'awal* is made accusative case by estimated فقت. He ridiculed their conclusion as being delusional or built on the assumption that the parsing mark that doesn't have an existence. He described their situation as like a teacher who entered an empty classroom, and assumed that there are students in it. Then, he passed out test questions and the answer sheets! In the case of the sentence الست بقائم, he believes that it leads to two sites of parsing: genitive site due to the action of the preposition and accusative

predicate as a effect of the "Limb site. He said that the former of the two is of no necessity and it is better to say that this sentence is of one predicative side. In this matter, the researcher agrees with the fact that the prepositional phrase in this sentence is in a predicative position, however, disagrees with Ayūb in regards to the discountability of the effect of the preposition on the name of the preposition as this is necessary to mention as it is that which is responsible for the genitive case attribute of the name of the preposition or else we would find it in the accusative case.

Another scholar who stands by the view that Arabic grammar is affected by philosophy is Ibrahim Anis. He is of the opinion that the Basrans are from the people of logic due to their conscientious effort in judgments<sup>1</sup>. He means by this that it was the Basrans who were concerned with esoteric interpretation, reasoning, exegesis and measurement. He explains that it is as if in their pursuit of linguistic scholarship they wanted to imbue the subject of grammar with flexibility. Ibrahim Anis believes that the Basrans are the people of logic based on their interest in measurement and reasoning, and with the methods of *Fiqh* scholarship. This leads the researcher to ask whether Ibrahim Anis considers the Basrans to be people of philosophy and logic due to their interest in measurement and reasoning?

Shawqi Daif holds a similar position, and believes that the intellect of Basran grammarians was more acute and deeper than their Kufan counterparts. They were more prepared than the Kufan grammarians for the introduction to scientific study, as they preceded them in communication with foreign cultures, in general and Greek thought in particular, and surpassed them in that they were familiar with Aristotle's work in logic; its limits and measurements<sup>1</sup>. Daif sees the linguistic immersion of the Basrans' with *Taq'iūd* theories of the placement of bases of the Arabic grammar and the depth of their knowledge of them evidences the high degree of influence by Greek language and philosophy.

Al-Makhzūmī took the same path of Shawqi Dhaif, noting that many of the Arab linguists were scholars of *al-Kalām* and have been affected by philosophy and logic. This is a a general claim that all Arabs linguistics at this time were affected by logic and speech, yet the researcher has discussed previously that the Kufans were not deemed to have been affected or influenced to the same degree as the Basrans by philosophical and logic subjects. Evidence to support this position is in the Kufan grammarians rejection of the idea of reason of *Ibtid'i* for making the subject nominative case. In so far as whether or not the Arabic language was being influenced by philosophy and logic after the second century *hijrī*, it seems to have been the case as mentioned by

'Ahmad 'Amīn in his book *Dhuha al-Islam*. He mentions clearly here that both *al-Ma' mūn* and  $H\bar{a}r\bar{u}n$  *al-Rashīd* sent delegates to Rome during this period to learn the Roman language, in order that they may use this knowledge to translate the Roman sciences into Arabic<sup>1</sup>.

Occasionally, not all linguistic arguments proved to be as clear, and such is the case for the study of some examples put forth by Arab linguistic scholars. The researcher is of the opinion that some examples and arguments put forth by 'Abdul Qādir Al-Muhairī fall into this category and considers his arguments to be strange. Take for the example his explanation of the parsing of a subject noun when it begins a sentence. He starts with analysis of: الزائرُ وصل. He claims that الزائرُ وصل: is a subject in the nominative case , and وصل: a verb corresponding to its subject in the position of the predicate. Then, he analyzes the sentence: إلزائر وصل Here. إن الزائر وصل: is a subject in the accusative case due to the effect of وصل ! وصل: a verb corresponding to its subject. The final example upon which he build his argument is الزائرون. الزائرون وصلوا is a subject that begins the sentence and is in the nominative case, وصلوا: a verb corresponding to its subject 1. The researcher notes that this example is similar to the first in this series with the exception that the subject is plural and the corresponding verb is conjugated in the 3<sup>rd</sup> person plural according to the action of the preceding subject. Al-Muhairī views that the verb وصل, in the example of الزائر, is what makes الزائر be nominative and that it is not nominative by reason of its being the subject (Ibtida') of a nominative sentence. This line of argument is similar to the opinion of the Kufan grammarians on this issue. The Kufans responsed to the Basrans saying: Verily, the subject is not made nominative case by the *Ibtidā* 'but the subject and predicate are nominative. Therefore, this opinion does not leave with the governor and the governee, but it is a difference in explanation and an attempt to understand the construction of the word through its meaning, as it is clear in the saying: not every subject is nominative, not every object is accusative, and not all annexed are genitive. It is possible of parsing a noun at the beginning of the sentence by looking at the meaning of the sentence; hence, the meaning becomes the judge<sup>1</sup>. However, the researcher believes that Al-Muhairī 's view is based on assumptions.

On the other hand, the researcher sees that Shawqi Daif is certain of the parsing of meanings through nominative of the subject and accusative of the object, and he is opposed to the educational estimated parsing. Shawqi Daif has referred to the idea of canceling the parsing of the nominal conditional tools such as such as: مَنْ يقم أقم معه . He said,

"The grammarians have disagreed in assigning the agent in عَنْ. Some say: the conditional verb alone contains its pronoun, and some say: it is the answer verb because the benefit completes with it, and say: It is the sum of both because both complete the sentence."

Thus, he called for the cancelling of the parsing of the metaphor of the number such as:

since it does not serve any interest in its appropriateness of pronunciation. This is due to the fact that both are always built on the 'absence of vowels'(سكون) and are correlative to one pronunciation. It suffices to know that the first is called عم استفهامية والخبرية and the second is called من استفهامية في أن استفهامية والخبرية, in order to differentiation between them. In terms of usage, the first is always followed by singular noun in the accusative case, while the second is differentiated as being either a singular or plural noun in the genitive case. This process of assigning special names to a single term, in fact, has been used to facilitate linguistic education, both past and present.

As Shawqi Daif commented in his book Tajdīd al-Naḥwī, this has been a humble attempt to facilitate Arabic grammar; freeing it from the rules, excess subsectioning and distressing complications. What Shawqi Daif was referring to here was the canceling of educational parsing that confuses students yet, he does not imply that implicit parsing should be done away with as it influences factors such as nominative of the subject and accusative the object, like that is found in the example: سأل الوالدُ الولدُ the Arabic language as it manifests itself in many forms, the highest example of which is in the rhetoric of the Quran and Hadith, and not to simplify grammar to the extent with preference towards the student and will show prejudice to the linguistic history of Arabic.

Al- Shāṭibī referred to this concept and recognized the role of the context of grammar to meaning, noting that grammar with Sībawayhi was not limited to showing that the subject is nominative, and the object is accusative, but also shows what befits it of meanings and words<sup>1</sup>. This indicates that Sībawayhi did not limit himself to the science of linguistics but was also involved in the science of rhetoric and in the clarification of the meanings of a word; its explanation and esoteric interpretation.

Due to their similarity of views, it seems that Al-Makhzūmī was influenced by his teacher Tbrahīm Muṣṭafā . Al-Makhzūmī is known to have commented on the fact that many grammarians were scholars of al- $Kal\bar{a}m$  and they realized the depth of the relationship between grammatical study and the methods of speech and logic. He holds that during the fourth century  $hijr\bar{\imath}$  Arab grammarians were influenced by their contact with philosophy and logic and with their exposure to the methods of the scholars of al- $Kal\bar{a}m^1$ . That is, it seems that Arab grammarians in the fourth and fifth century  $hijr\bar{\imath}$  were much influenced by philosophy and logic, and then they combined grammar and speech at the fundamental level of grammatical studies.

The researcher observes that, 'Ibrahīm Muṣṭafā's views did not form in a void nor are they unique, rather they are a repetition of the ideas put forth by the scholar *Ibn Maḍa*. According to 'Ibrahīm Muṣṭafā', who has focused on the studies on estimation, he has come to the conclusion that Arab grammarians estimated in order that their linguistic rules be synchronized in one form. He sees that the rule of estimation put forth by Muhammad 'Ahmad 'Arafah is faultless, and that estimation used in order to that the grammar convey the correct meaning. If it was assumed that Arabic doesn't have parsing signs that indicate the meanings, then estimation would have been essential to convey the correct meaning. Take for example the sentence: الجائف و الأسد المسلم و المسلم المسلم و الم

Elsewhere, 'Arafah remarks on the essentiality of estimation to Arabic language and grammar. He comments that estimation is a requirement of the meaning, so that we do not find fault in it. If we find an effect and we didn't find it [the factor], then we turn to its estimation. In the aforementioned case we find the use of the accusative case evidence that an integral part of the meaning is not stated in words. The grammarians would then estimate any factor, such as in the examples of: المناف والأسد as being similar to قَبُل وِدَاعِبْ as they are similar in the use of the accusative case. Some scholars have refused this approach, and don't accept the estimation of احذر and the meaning it conveys, in spite of its correctness. He stands by the idea that estimation serves the meaning and does not serve the pronunciation.

The researcher points out that Ibrahim's refusal to the estimation, altogether and detailed needs to be considered, if only he had shortened his rejection on some of the arbitrary estimates that had a philosophical color. The difference in the factor is not considered a defect because we could not imagine that all the linguistic sections are the subject of an agreement between the grammarians, and this is required by the nature of things. From the perspective of the parsing mark, the grammarians made the parsing as a purely verbal rule that follows the factor's pronunciation and its effect, and they neither saw, in its marks, a signal that refers to a meaning nor an effect in forming the concept or shedding light on its image<sup>1</sup>.

This argument is not absolute and we can see the effect of alternative parsings in the books which discuss the meanings of the Qur'an. Take discussion of the parsing and the effects of the factor in the following Quranic verse:

The discussion revolves around the parsing of کلّ شيء with accusative case. The Sunnis say: کلّ شيء (everything) is a creation of God is assigned the accusative case, because it is the predicate of the verb which has been placed in the initial position (*Ibtidā'*). The majority opinion (الجمهور) disagrees with this argument because they hold that if the verb is not benefiting by adding value to the description, and rather that which comes after it fulfills this role corrects the predicate and the meaning was such that the verb is the chosen predicate accusative in the first noun, the pronoun attached to إلى then it is clear that the verb descriptive.

An alternative reading, the *qadariyah* reading (القراءة القدرية), disagrees with the accusative parsing of كلَّ in the same ayah and stand by its reading in the nominative case:

The hold that the verb خلقناه is in the position of adjective for گل. They base this on the fact that it conveys the meaning: Everything We created. This argument has been based on its estimation, the extent in its appearance and its time, and so on 1.

Al-'akbār agrees with the first argument on this issue as mentioned in his book At-tibyān  $f\bar{\imath}$  ' $Ir\bar{a}b$  Al-qur'an ,that being  $\dot{\boxtimes}$  in the accusative. However, he puts forth a different argument for this effect. He considers that the factor in this verse is a deleted verb that is explained by the mentioned; the evidence is that  $\dot{\boxtimes}$  has been parsed in the accusative. He also believes that the accusative reading is preferred over nominative as it conveys the significance of the creation of everything more emphatically. He considered the possible reading of  $\dot{\boxtimes}$  in the nominative, in the position of  $ibtid\bar{a}$ ', and  $\dot{\boxtimes}$  adjective for all or something, and  $\dot{\boxtimes}$  is its predicate, and came to the conclusion that it does not support the position that this indicates the generalization of creation. But rather conveys that everything created is done so by pre-measurement.

understood without esoteric interpretation and estimation, even if this is a mental process; occurring in the mind of the speaker and the listener.

The researcher believes that grammarians have used logic in the fundamental steps of grammatical analysis. For example, in the parsing of the verb يَذْهَبُ محمدٌ in the sentence يَدْهُ ; it is a present tense verb, made nominative by an apparent ضحة. The question here is why doesn't يذهب become a predicate as in the example محمد يذهبُ ? The answer to this is that the governor cannot precede the governee, and in order to solve this predicament grammarians have invented an implicit governor for يذهبُ محمدٌ . They came to the conclusion that there is rationale for the effect of accusative or jussive on it, rather it is in the initial position with an implicit agent preceding it. The researcher believes that this is an invention of the grammarians is an influence of philosophy and logic, and the implicit agent in this case is immaterial.

'Ibrahīm Muṣṭafā commented on the condition of Arab grammarians in this path and noted that they by all means affected by the philosophy of words that was common among them. It dominated their thinking, and was taken as a given in the assessment of facts in them<sup>1</sup>. Similarly, with regards to whether the reason for the emergence of the grammar agent is due to the logic and Aristotelian philosophy, or due to the philosophy of words, the researcher believes that the emergence of the grammar agent in the linguistic argumentation is mainly a result of man's natural impulse to search for the cause of all that he sees. Therefore, in the search to understand the cause and effect in grammar, we ask the questions: "Why is the subject made nominative case and the object is made accusative case? And on what basis it is nominative and accusative?" It seems that this rule was used by Arabs in their poems, then grammarians interpreted this phenomenon and took it as a fundamental of grammar. This invention alone shows that Arab grammarians relied on philosophy and logic in linguistic analysis.

Exploring language by questioning the fundamental reasons for parsing brings up other questions. In the case of the accusative object المفعول به which is genitive in the feminine sound plural, such as ضربتُ الطالبات, why do grammarians explain the use of the genitive case 'for lightness'? What is the reasonable standard for this usage?

In a similar case, what is the governor of طالبًا! in the phrase برأيت خمسة عشر طالبًا! Grammarians have said that it is in the accusative case for the reason of distinction (تمييز) and therefore its parsing is not attributed to any other factor, or governer. This brings us back to the claim that every governee must have a governor and the governee doesn't precede it. Then what is the argument for an effect without even an implicit governer?

The case of the circumstantial accusative (الحال) meets with similar objections. Take for example, جاء محمد راكبًا, what is the governor of راكبًا? Grammarians have said¹ the circumstantial accusative الحال must be accusative. Then, taking this rule into consideration, we look at the example of العال in the sentence رأيت زيدًا يخرج where يخرج is a present verb in the nominative case evidenced by an apparent ضمة , and the direct object of said verb زيدًا is in the circumstantial accusative حال position, yet at the same time زيدًا is also the subject of a nominal sentence? The researcher believes that the grammarians claim that زيدًا is in the circumstantial accusative case closes the opportunity for other arguments to be brought forth on the issue.

Scholars agree that there is substantial evidence to support the claim that Arab grammar was influenced by philosophy<sup>1</sup> and the researcher points specifically to the grammarians' adoption of the concept of; that is, for every impact there is an influential, and two influences don't fall on one impact. On the history of this subject, T. J. De Boer mentioned the precedence of the people of Basra using of logic before other Arabs was a social phenomenon that can be attributed to the influence of the establishment of philosophical schools of thought which appeared in Basra before anywhere else. The diversity of Basran grammarians, which included many Shiites and Mutazilites, paved the way for the foreign wisdom to affect their verbal ideologies<sup>1</sup>. De Boer explains the impact of Greek philosophy on Arab grammar, "The logic of Aristotle had an impact on the Science of linguistics that was not concerned in collecting *Shawāhid* and synonyms and the like"<sup>1</sup>.

Arabs grammarians relied on the principles of logic as a means of conducting 'ijtihād in grammatical analysis, and especially relied on the tenet: where every influential has a single impact and therefore, two disputed factors are not accepted on one governee. They applied it in analysis of cases such as: نام واستراح محمد where they sought to explain the apparent influence of two influences on one impact. Remaining committed to this rule, the Basrans chose the second verb as the single influence on the subject i.e. استراح محمد while the Kufans chose the first verb as the single influence on the subject i.e. نام محمد Yet, we raise the following question: why can't an exception be made to account for the possibility of the existence of two influences on one impact, as is manifested in the sentence being discussed here. Isn't is possible for this to be resolved by al-'ishtighāl? What would be the result if نام واستراح محمد was stated and both verbs were considered to be the influence on a single factor? As shown above, it is clear to us that this sentence is correct in terms of parsing and it consists of two verbs connected by واو العطف which is indicative of two shared works, استراح be furicle to a single subject. Acan Meanwhile, the meaning of conveys

that two different actions have occurred. The question then arises as to why the meaning is accepted as a valid social construct, but grammarians argue refuse it?

As mentioned previously by De Boer, Arabic in Basra was affected by the philosophical and logical culture, therefore, the researcher puts forth that the grammar used to explain language should be consistent with the culture of that language. It seems to be in their saying: for every influential there is an impact in the conflict, that they search for the influence, yet have forgotten to guard the meaning. Both the Basrans and Kufans undoubtedly realized that is the subject, yet they disagree on how to explain this in grammatical terms.

In a different example, that of the case of: ضربت زيدًا, again we find two verbs and a single subject, however, the second verb has been given priority as the influence on يزيدًا. It can be said that the subject of غير is غير and that غير is an attached pronoun called yā 'al-mutakallim (المتكلم) which is an objective of the first verb, and these roles are reversed after the conjunction واو where tā 'al-fā'il (تاء الفاعل) is the subject for the second verb غير is the subject. This brings up two questions. Firstly, if Zayd is the subject of the first sentence and the direct object of the second sentence, then what is the role of the first verb if it does not have priority, by nature of its precedence in the sentence, to influence the parsing of Zayd? The second point, what is the role of waw al-'aṭif (واو العطف) when the second verb has an influence and the first verb does not. It is as though the 'aāṭif (عاطف) is points to the existence of al-tadārub in the sentence.

This brings us back to the issue of why did the Basrans choose the second verb as being the influence and not both of the verbs? The researcher recommends the Basrans' awareness of different strength of the verbs according to the meaning intended in the saying; the second has the priority of working. However, the researcher brings up the point that the role of the first verb cannot be non-existent, because without it then the complete meaning is lost.

This dependant relationship between the verbs is seen here in the example: ويسيء ابناك . Grammarians said¹ that the second verb was considered the influence, since if the first verb was considered to be the influence then the second verb would be neglected. The term which they used to explain this situation is 'iḍmār which doesn't mean deletion, but rather that it is not to be effective while working. They explain that the first verb is ineffective ('iḍmār) and the second verb is working ('imal). Since each verb has its own subject then each has in influence on its own subject and the order of the verbs can be switched without causing a problem يسيء ويحسنان التلاميذ and there is no benefit from the presence of two verbs connected by waw al-'aṭif because of the presence of a different subject in يحسنان even though it has been preceded mention of the other subject.

Another example of discourse of Arab grammarians differing in their opinion of defining the influence is the example of زیدًا ضربته. The Basrans claim¹ that the governor of زیدًا is estimated, which means that ضربته is not the influence. So, then why do the Basrans estimate ضربت؟ It is as if this sentence was an answer existed in a context, and was a response to the question: من ضربتًا ? It could not be the answer to the question: هل ضربت زیدًا , as this reply would require an affirmative reply, امن فربت نودًا و yet it could be a response to: منازبتُ , for it would bring about a reply such as ضربت زیدًا . The Kufans disagreed¹ with this argument and explained that منازبتُ , pronounced, is the governor for أمن عنه منازبت و and the proof is that the transitive verb, منازبت , requires an object. In this discussion it is clear that understanding the order of the components of the sentence is vital in order to being able to uphold the idea that the governor must precede its governee. To oblige by this rule, the Basrans invented the idea of an estimated governor preceding منازبت . Hence, they explained that نود is a governee, and its governor is estimated and its estimation is ضربت. This is the mental perception of the existence of an estimated verb in the statement.

We can see from the manner in which Arab grammarians defended the tenet of precedence of the governor before the governee and different schools of grammarians put forth different philosophical arguments to come to this conclusion. In the aforementioned discussion of various grammatical issues it can be affirmed that there was a philosophical influence in Arabic grammar. Although the researcher does not support the argument that this phenomenon existed due to the influence of the Greek and Roman philosophical works, but rather the dexterous Arabs themselves sought out wisdom through philosophy discourse.

### Philosophical Influence in the Concept of 'Modistae',1

In order to have a comprehensive discussion on the concept of relationship between the logic and linguistics on Arabic grammar, it is important to consider the structure of Latin grammar and shed light on the logical discourse which it has gained from Greek philosophy. We will utilize the a minor concept in the construction of the *Modistae* concept in sentences for discussion. For example: *homo currit* (The man runs). According to Alain De Libera's study on 12<sup>th</sup> and 13<sup>th</sup> century thought this sentence would be described as:

"an intransitive construction in which a verb has an immediate dependence on the substantive which represents the first constructible. In analytic approach, it would be considered as follows: There is at least one individual, a man, and he is running; or more simply: Something that was a man (regardless of whether it still is or not) has run, or there is at least one individual, which is a man and that it has been the case that he is running, or more simply. Something that is now a man has run".

He continues that in the case of: *homo currit bene* (The man runs well) the adverb is drawn back to the substantive through the verb, and in *Homo albus currit bene* (The white man runs well) we find an intransitive construction in which adjective and verb are immediately dependent on the substantive, and the adverb is dependent on it through the verb<sup>1</sup>.

Note however that the case of a transitive construction such as *Socrates currit* (Socrates runs), the subject term *Socrates* supposits for a man. This is different from the intransitive construction which is presented as a relation between determinable and determinant such as *homo* est animal, man is an animal<sup>1</sup>.

Martin of Dacia recounts that several debates occurred between *Modistae* scholars on this issue, including the construction of acts and the construction of persons<sup>1</sup>. Herein, we do not find that they had issue with examples such as *Socrates et Plato currunt* (Socrates and Plato run), where two nouns are one *suppositum* (noun phrase).

In the case of one noun being influenced by two verbs, take the example of the conjunction of *si Socrates currit* is literally translated to be: If Socrates runs. Yet, according to Giulio Lepschy conveys the meaning: if he runs he moves<sup>1</sup>. However, Boethius of Dacia holds a different opinion on this matter and commented that a conjunction in a construction is but only a connector between the words in the sentence, so it is not a constructable. Being constructable, it must be a mode of signifying grammatical properties reflected to the mind.

Lepschy gives evidence of further discourse on the matter and offers Radhulphus' different approach to solving this question, for he sees it to be an issue of the fundamental distinction between intransitive and transitive construction. He has summarized that sentences fall into four categories or, four basic constructions:

- 1) intransitive construction of acts such as *Socrates currit* (Socrates runs);
- 2) intransitive construction of persons such as *homo albus* (white man);
- 3) transitive construction of acts such as lego librum (I am reading a book); and
- 4) transitive construction of persons such as *cappa Socratis* (Socrates' cloak)<sup>1</sup>.

Another type of construction in Latin is like<sup>1</sup>: *vado in ecclesiam* (I go to church). In this case the preposition is considered to be a medium of the construction of the verb with the complement and assigned to the complement which is ecclessiam (church) and is termed linguistically *terminans* (the determinator). In the case of the two previously mentioned constructables; *homo albus currit* and *homo currit bene*, the adjective *albus* and the adverb *bene* are determinants.

Thomas of Erfurt, another of the *Modistae* scholars, disagreed with his fellow scholar, Radhulphus with regards to the different forms of construction and believed in the concept of

suppositum (noun phrase) and appositum (verb phrase) such as *Socrates percutit Plato*,(Socrates bit Plato), depends on the term of verb is either oblique<sup>1</sup> or not and therefore follows it in a verb + oblique construction<sup>1</sup>. In all, it can be said that Erfurt emphasized grammar based on the meaning of the word in the sentence.

The point here is not busying ourselves with the polemical issues between the arguments of Radhulpus and Thomas of Erfurt, but rather to point out their different methods for construction analysis. Of important note here is that the semantics of the *Modistae* puts forth a distinction between formal meaning and material meaning, where the formal meaning is stable, and is defined by the nature of words. The material meaning, on the other hand, cannot be properly determined by the context.

We can say, the aim of these grammarians was to explore how a word corresponded to concepts understood by the mind, how it signified reality and how this was successfully realized. Since a word cannot signify the nature of reality directly, it must stand for the thing signified in one of its modes or properties such as being, understanding and signifying. It is this discrimination of modes that the study of categories and parts of speech is all about. Thus the study of sentences should lead one to the nature of reality by way of the modes of signifying <sup>1</sup>.

The researcher would like to highlight the tremendous contribution put forth by Averroes ('Ibn Rushd) when he translated the *Categories* in his *Middle Commentary on Aristotle's* '*Categories*. Here, he enhanced the explanation of Aristotle's ideas, and had a great impact on the development of the *Modistae* in Europe, for it seems, the he was the starting point in the progress towards understanding Aristotle's *Categories* during the Middle Ages. Charles E. Butterworth supports this idea, commenting:

"without exaggeration, the beginnings of scholarship in the later middle ages can be traced to the effect this newly found legacy had upon western Europe, especially to the effect it had upon such important thinkers as John of Salisbury, Saint Thomas Aquinas, Albertus Magnus and Roger Bacon".

In his commentary, Averroes distilled Aristotles' principles and presented them in a concise fashion. For example he said,

"uncombined utterances which denote uncombined ideas necessarily denote one of ten things either substance or quantity or quality or relation or where or when or position or to have or doing or being acted upon".

We can see in his discussion that he combined examples from Greek and Arab grammatical discourse in his discussion of understanding meaning in a sentence based on the relationship of the components. He explained the case of a construct including a man and horse where to differentiate

between the human and animal elements, as both of them have relationship of depending on each other, as in the sentence: Zayd rode a white horse last year. The relationship between Zayd and a horse is understood by the listener when they are combined by the verb 'rode'. The introduction of a new meaning comes about with insertion of: white. In 'white horse', white shows the concept of quality in the sentence and is therefore called an adjective.

Averroes method of analysis reflects that he emphasized meaning where it was in relation to a concept of thinking, i.e. there is relation between words and the mind which depends on the logic of utterances when combined. This issue is specifically dealt with in part two, chapter 14 of Averroes' *Commentary on the 'Categories'*. Notably, Averroes' commentary is very similar to the theory of *naẓm* introduced by al-Jurjānī in *Dalā'il al-'ijāz*, where the later explained that meaning of a the sentence is dependent on the connection of meanings in utterances<sup>1</sup>.

However, not all of Averroes arguments were discussed from the point of view of maintaining meaning. With regards to the idea that a statement and supposition do not admit truth and falsehood in as far as the thing to which the supposition refers outside the mind is itself altered, for example, the supposition that Zayd is sitting is indeed true when Zayd sits and false when he stands<sup>1</sup>, we see that Averroes emphasized concept of logic when the action of something needs to be confirmed with the correct word of the action and not vice versa.

The above discussion shows the role of linguistic argumentation and the concept of logic in the discussion of the construction of meaning and in *Modistae* grammar. The discussion of Latin grammar between *Modistae* scholars, reveals that they too utilized a discursive, analytical approach to grammar. Then, Averroes took an important step towards explaining Aristotles *Categories* and brought it to reach of *Modistae* scholars. It is evident that through Averroes' deep knowledge of both the Arabic and Latin grammatical systems he was able to synthesize many linguistic examples and utilized philosophical arguments from both systems, thereby carrying the influencing of Arab grammar to the world of Latin grammatical scholarship. Averroes' influence by Al-Jurjānī's theory of *naṣm*; wherein an explanation was put forth to arrive at the meaning derived from the connection between the utterances, rang forth in his analysis and discussion of Aristotle's *Categories*. It is evident here that the search for explanations and reasons for linguistic constructs which conveyed the intended meaning created a need for the use of logic, be that Arab or Greek, so that the convention of a grammar system came about to explain the meaning in language.

#### Conclusion

The discussion of the relationship between the linguistic argumentation and logic is an alternative approach to study of grammar, and the researcher has offered evidence from the corpus of Arabic

grammar itself to support this methodology. In order to create a balanced discussion, the researcher tied together both early Arab grammatical theory and modern Arab views. Astonishingly, though some of the modern views are flooded with the idea that Arabic grammar is a philosophically ridden field, they made the error in assuming that the historical discourse was not effective and have even erroneously called for the lack of necessity of parsing, a concept which it at odds with the relationship between the relationship between grammar and the conveyance of an intended meaning. They believe that the concepts of al-taqdīrāt and al-idmār spoil the mood of system in Arabic grammar, and called for their abolishment as being the solution. However, the researcher's stand on the issue is not for a destructive approach but rather to take a constructive approach. Thus, we have presented some ideas from Latin grammatical discourse of the Modistae in order to uncover the methodology used for Latin, as this language has very strong contact with Greek. It was found that most of the scholars of Latin language were students of Arab logicians such as Averroes and therefore had exposure to Aristotle's Categories, but did so through the eyes of a scholar who was grounded in both Arabic and Greek grammatical theories. Based on the evidences shown here, the researcher believes the connection between grammar and logic has been emphasized and seeing how this has been used to describe and analyze the relationship between grammar and meaning in expressions, that this provides a new alternative approach to the study of grammar, not only Arabic grammar, but also may be applied to other languages.

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