

SEMANTICS FROM INDIANS TO ARABS: A TENTATIVE OVERVIEW OF THE EVOLUTION OF THE DEFINITION OF THE FIELD

Hicham Chentoufi

Mohammed V University in Rabat, Morocco

Abstract

This paper presents a brief historical overview of how the study of meaning or 'semantics' has evolved over the years. Intended as an initiation to the thorny issue of what meaning is and how it was grappled with, the paper presents in the first part the early beginnings of the study of meaning in India, and then proceed to illustrate the importance of semantics for Arab Grammarians and jurists. To exemplify semanticists' enterprise and how they developed a whole range of theories grounded in special idiosyncrasies, the final sections touch upon the study of meaning in light of the rise of the logical turn in the twentieth century. It particularly focuses on some key semantic relations as well as the esoteric philosophical and logical debate that characterized the study of meaning among logicians, presenting the referential theory as an example.

Keyword: *Panini, Semantics, Arab Grammarians, Logic, Referential theory, Meaning, Greeks, Ibn Jinni, Frege.*

1. INTRODUCTION

The question "what is meaning?" is an involved and certainly confusing question. The mere attempt to answer it is replete with difficulties as it is related to the settlement of other primordial issues related to natural language, its origin, its acquisition, its structure, evolution, and use since the dawn of humanity.

The other major portion of the burden of this enterprise lies in answering another tricky and oftentimes circular question: "what is the meaning of meaning?" or "what is meaning? Grappling with such questions would necessarily lead one bog down into a rather fiddly

exertion, but defining semantics is a steppingstone towards understanding other aspects of natural language, including the notions related to human cognition. The present article, which is intended to be a brief initiation to the study of meaning, shall present briefly and concisely the evolution of semantics and tract its historical evolution that began with Panini in the Indian continent and did not end with Bloomfield hackneyed claims. In between the paper will look into how Arab Grammarians contributed to the evolution of the study of meaning. The last part presents briefly major semantic relations and a semantic theory to exemplify the type of discussion semanticists usually engage in and how the linguistic turn was in fact an outcome of the logical turn.

2. THE STUDY OF MEANING: EARLY BEGINNINGS

'Meaning' has always been a crucial discipline for thinkers, philosophers and jurists since the early beginnings of human civilization. The ever-growing interest in meaning and its inevitable outcomes has spawned a wide array of theories that began with Panini and did not end with Grice. A whole range of theories have long been trying to unravel issues related to terms, propositions, utterances, and their meaning both from a logical and discursive stance. Identity theory, behaviorism and lexical semantics are among the theories that have tried to discuss such issues with little or no success of coming up with a full-fledged theory of meaning. This relentless search for the meaning of

words, propositions¹ and all types of sentences seems to be an abiding matter that sets humans apart. In this regards, Ogden and Richards (1923, 2) points out that

"Throughout the whole history of the human race," wrote the late Dr Postgate, "There have been no questions which have caused more heart-searchings, tumults, and devastation than questions of the correspondence of words to facts. The mere mention of such words as religion patriotism and property is sufficient to demonstrate this truth."

Of course, the semantic enterprise goes far beyond the scope of the abovementioned quote to show the crucial role of language and meaning to humans as both social and political beings. The central role of language in conceptualizing, organizing, structuring and legitimizing the political, the social and the religious life of humans has long led the illuminati to puzzle over its origin and sparked very pertinent questions that were and still are directly related to the relationship between natural language, its wide array of functions and meanings or, to cut it short, meaning.

The early beginnings of semantics date back to the second half of the first millennium BC that witnessed an immensely rich and diverse linguistic scholarship in India as a result of a religious drive to preserve sacred texts. According to Malmkjaer (2006, 255)

"As far as is known, the inspiration for Sanskrit studies in India stemmed from the desire to preserve religious ritual and the orally transmitted texts of the earlier Vedic period (1200–1000 BC) from phonetic, grammatical, and semantic erosion. Sanskrit grammar, the *Astadhyayi* or 'Eight Books' was a grammarian's grammar and not designed for pedagogical purposes."

Indian linguistic enterprise is considered to be the dawn of linguistic inquiry, especially with regard to the issues related to words and their meaning that led to some findings that are still relevant today despite the huge progress within modern linguistics. Chatterjee (2006) points "that the importance of Sanskrit grammarians is

unequalled anywhere in the world, and that Panini's work regulated the language of the classical literature in the language "to the last detail" (p.167). This claim can justify how modern studies are influenced by the Indian linguistic legacy to the point that some linguists like Bloomfield, the founder of American linguistics, conceived of Panini's Grammar as a model for grammar writing. He expounded an axiomatic system of grammatical terms in 1926 and showed great interest in Panini and Candra. This unequalled influence of Indian studies of language still holds up to date on account of its viability and usefulness across the board. Kruijff (2006, 545), maintains that Panini's *Ashtadhyayi* (AD), a grammar of Sanskrit (350–250 B.C), C." Indeed, Panini's semantic theory is far more comprehensive than it has been claimed. Kiparsky and Staal (1969) maintained that Panini's theory of *Karaka*, a theory similar to what has been "traditionally called "logical subject-of", "logical-object-of", etc (83)" is another proof that Panini's contribution cannot be limited to the following four major classes of meaning, or parts of speech as they first classified by Panini:

1. A Class means a general or exhaustive signified (man).
2. A Class denotes an adjective (tall).
3. A class represents an event (come).
4. A class represents an entity (Mohamed).

In addition to this early classification of parts of speech which has proved to be very useful as more linguistic corpora have been produced over time, the Indians came up with many other ideas that are still influential in semantics in particular and in linguistics in general. Suffice it to mention in this regard the following:

- i. the context plays a crucial role in determining the meaning of utterances.
- ii. synonymy and polysemy are cross-linguistic phenomena;
- iii. analogy and metonymy do change meaning.

Another major contribution is closely related to Chomsky's theory of generative grammar and the subsequent issues it led to. In this regard, Kiparsky and Staal (1969) sustains that

¹ Hypokei'menon Aristotle calls pro'tasis (Latin propositio) "The term proasist occurs for the first time on the first page of Prior Analytics, which contains his doctrine of syllogisms (Prior Analytics 24a16): 'A

proposition (protasis) is an affirmative or negative expression that says something of something.' See P A M Seuren's (2006, pp.469-471).

"Panini's grammar is a system of rules for converting semantic representations of sentences into phonetic representations via two intermediate levels which may be respectively compared with the levels of deep underlying structure and surface structure in a generative grammar'(84). Suggestive of Chomsky's theory, the quote shows that Indian studies of language are an indispensable building block if one is to consider the evolution of linguistics in general and semantics in particular. In what follows, a brief initiation of the evolution of the subject matter at hand in another context, i.e. the Arabian Peninsula, where language studies were ahead of their times and oftentimes regarded as both creative and extensive, is provided.

2.1. Greeks and Arabs Semantic² Quest

Although most of Indian linguistic treatise was centuries ahead of both the Greeks and the Arabs, these latter's early philosophical and religious studies subsumed novel and pertinent inferences on the nature of language and meaning. In the Hellenistic era, for example, scholars have reached an apogee in the study of language and issues related to meaning.

Whether the meanings of things in the world are inherent attributes of objects under scrutiny or they are established by mere convention is an instance of such an unheard-of speculation. Much of Cratylus, a Plato's dialogue, is about this particular issue. Long before the two major figures of the Greek philosophy, Plato and Aristotle, Heraclitus³ stated that language (*logos*) plays a crucial role in understanding everything. His treatise is based on the modern notion of implicature and explicature in determining significance of language use, as Taylor (1997, V.I.p.105) summarizes it stating that

"the claims he makes about significance in the more general sphere of human practices and social custom, indicate his commitment to the idea that language does

not have meaning independently of the particular context in which it is used [...]. Meaning is not fixed by the individual words, but is nevertheless governed by a system or rationale which explains how it can be open to various or opposed meanings, yet not become a meaningless flux of indeterminate sense."

Certainly, Hiraclitus, Plato and Aristotle were and still are among the major pioneers in the field of what has come to be known as theoretical linguistics, the oldest part of which according what is deemed a sensible conclusion at least, is semantics. A large part of his contribution to linguistics in its wider scope, including semantics, is his treatise on the notion of truth which bred an endless controversy that will be addressed in this article. Being 'the first theoretical linguist' as Seuren (2006) maintains, resulted in a number of novel and abiding claims such as the definition of what truth is, the difference between truth and falsity⁴ and the classification of sentences as it is held in 'On Interpretation'(17a1-12):

"Every sentence is meaningful, not in virtue of some natural force but by convention. But not all sentences are assertions, only those in which there is question of truth or falsity. In some sentences that is not so. Wishes, for example, are sentences but they are not true or false." (Quoted in Sauren 2006, 470).

In addition to the early use of the term proposition and the insinuation to what has become known as pragmatics, the quote shows a rather syntactic classification of sentences, though the word syntax was not in use at the time. Strictly speaking, semantics in its modern use was also nonexistent, but, thanks to Aristotle, 'the first semantic analysis of sentence structure in history', as Seuren said, was achieved by determining what a proposition is and what its parts are.

Besides the Indians and The Greeks' contribution to the field of 'semantics', Arabs' contribution to the field

² Semanteme, sematology, semalogy, semasiology and signification were all once used to designate the discipline concerned with the study of meaning but only semantics has gained ground and become the standard label. Adolf Noreen, for example, opted for the term semology.

³ Catherine Osborne (1997), Heraclitus, states in this regard that "Words and names can be significant, and clearly for Heraclitus their significance tells us a lot about the kind of non-material connections between things that make the world a place governed by a

systematic rationale. But the significance of the words may still depend upon the surrounding context, just as the names for God can change with the ritual context, we encounter him in. This is why Heraclitus can say that the name Zeus is both the right name and the wrong name: 'One, alone, the wise, likes and dislikes to be spoken of by the name'(105).

cannot be demoted. This is because they had not only pioneered some areas of research but came up with ideas that are still applicable up to the modern era of linguistics. The Arabs, or Muslims in general as many grammarians were non-Arabs, paid much attention to the meaning of words, and sentences and the context situation, especially in studies triggered by their incomparable interest in determining the meaning of the Holy Quran language and the rules a given interpretation of verses may lead to. For example, the major work of Islamic jurisprudence (Fiqh), *Al-Rissala* (The Thesis) written by the greatest jurist of all time *ʿAl-Imam ʿAshafīʿī*, is in fact based on grammar as well as a combination of linguistic fields that appeared only a century ago.

In fact, Arabic linguistic heritage is fraught with scholars, be they grammarians or jurists, who dedicated themselves to the study of language for a better understanding of the holy Quran. This interest in the language of revelation had also led to the rise of the two major schools that are regarded the real culmination of linguistics in the Arab peninsula, despite the different approaches to some minor grammatical issues. In fact, it was the foundation of the two schools, the Basrah and Kuḥfah that paved the way for the emergence of a whole range of theories and triggered debates among leading figures in Arab linguistics. In this regard, we can mention the some prominent scholars and their works that can be regarded as the immanent beginning of Arabic grammar, the most important of which was semantics. The most prominent members of the two major schools were *Al-Khaleel* (719–791 A.D.) and his student *Sibawayh* (757–796 A.D.) for the Basurah school and *ʿAl-Kisāʿī* (737–805 A.D.) and *ʿAl-farraʿ* (761–822 A.D.) for the Kuḥfah school. *Sibawayh* can be referred to as an example because of his major work *ʿAl-Kitaab*, “The Book” which came to life under the tutelage and influence of the master *ʿAl-Khaleel* and is regarded by many scholars as the Quran of the Arabic grammar. *Sibawayh*’s first semantic conception appears at the very beginning of *ʿAl-Kitaab* through the classification of words into ‘noun’, ‘verb’, and ‘particle’, with a meaning that is neither noun nor verb. Secondly, *Sibawayh* also clearly distinguished between the signifier and the signified, claiming that the signified is an abstract entity that has no bearings on the signifier. *Najm Bezigran* (1979, 77) elucidates this point by claiming that

“*Sibwayhi* starts with the assumption that every change that takes place in the structure of words is the effect of causes that are themselves beyond these words. This cause-effect formula also explains the relationship between ‘the signifier’ -lafz and the signified maḥna. One of the unhappy consequences of assuming his necessary causal relationship was that maḥna for ‘*Sibawayh*’ actually exists as something while lafz is rendered into a mere sign.”

In addition to *Sibawayh*, many other scholars have successfully grappled with the thorny issue of semantics in Arabic linguistics some of whom like *ibn Jinni*, initiated full-fledged theories, like the theory of ‘*NaZem*’ regarding the derivation of words and the effect of the morphology on the meaning. *Ibn Jinni*’s (932–1002 A.D. p.453) contribution to the field of linguistics is monumental and showed not only breadth and depth but ingenuity and comprehensiveness. His work *ʿAl-Xasaaʿis* and the distinction of minor derivation (*ʿAl-ʿistiqaq ʿal-ʿasṣar*), the common type that was adopted by all Grammarians, and major derivation (*ʿAl-ʿakbar*), the type of derivation expounded by *Ibn Jinni*, and their relation to meaningfulness can be mentioned as an example. According to *Ibn Jinni* major derivation is achieved through positing that the six possible combination of the three radical are often governed by a relatively one meaning that is subject to variations. For example the three radicals: K-M-L:k-l-m;m-k-l;m-l-k;l-k-m;l-m-k and the six combinations share dots and bits of the governing meaning grounded in ‘difficulty or toughness’. L-a-K-a-M-a- for example means “to punch”.

Further, *Ibn Jinni* tried also to tackle the issue of synonymy in Arabic with much peculiarity and creativity. This semantic phenomenon, which is very common in Arabic, is mentioned by *Sibwayh* in his *Kitab* “The Book” but only in passing. *Ibn Jinni*’s treatise of synonymy is manifested in what he calls “*taʿaadi ʿal-ʿamthila wa talaqi ʿal-ʿadʿād*” (disharmony of synonyms and harmony of opposites).

Many other successful attempts had marked the development of linguistics, especially semantics by other scholars whose works are still at the heart of

Arabic linguistics. Azzamaxjari's "ʔasasu Al Balara" (the foundation of rhetoric) tries to distinguish between literal meaning and rhetorical meaning with a remarkable success. Ibno Al Sarraj and his extremely interesting dictionary "ʔal Makaji:es" is a study that tries to link the partial meanings with a more general and encompassing meaning of words.

For the sake of clarity and brevity, the word semantics is used in this section to refer to the same field of study that emerged only in the beginning of the nineteenth century with Breal in France as we shall see in the next section.

3. MEANING AS SEMANTICS

This section presents the modern conceptualization of semantics and introduces some definitions that have gained popularity ever since Breal published his essay. The first step would be to decompose the word "semantics" itself and dissect it so as to get an idea about its meaning. Etymologically, John Ayto (2005, 446) in defining the term "Semantic" sustains that

"The adjective derived from *sēma* was *semantikós* which reached English via French *sémantique*. It was fleetingly adopted in the mid-17th century as a word for 'interpreting the 'signs' of weather', but it did not come into its own as a linguistic term until the end of the 19th century."

The quote above, especially the date of the first use of the term, is debatable as there were other names given to the discipline concerned with the study of meaning. Despite the quasi-consensus that it originated in France, the term semantics, according to some American scholars, was first used by Lady Viola Welby as "significs" as Hayakawa (1954) argues. Coseriu and Geckeler's (1974, 104) quote below clearly shows the evolution of the use of the term semantics. The authors claim that

"During the course of development of linguistics since the end of the nineteenth century, the term semasiology and semantics both came to be used to designate that linguistics discipline which is concerned with the study of linguistic, especially lexical meaning. [...] the term semantics, which has served since the 1950s in international linguistic terminology as the undisputed

designation for this discipline, was to originate in France. M. Bréal used this technical term (1883) and it was immediately taken over by A. Darmesteter (1887), but the real breakthrough for this terminological innovation came as a consequence of Bréal's well-known monograph of 1897: *Essai de sémantique* (Science des significations)."

Although the abovementioned quote traces clearly the evolutionary path the term has taken, there are other scholars who contributed to the development of this discipline and widened its scope of inquiry. The German philologist Max Muller (1877) has beaten the path of language and thought by claiming that these latter are closely intertwined as early as the beginning of the nineteenth century.

Within this process of evolution, the period from 1921 to 1931 has proved to have been significantly important as was marked by two major works, namely Ogden and Richards' *The Meaning of Meaning* (1923) and Stern's *Meaning and Change of Meaning* (1938) that are regarded foundational within the field of semantics.

Ogden and Richard's *"The Meaning of Meaning"* gives an idea about its subject matter. It maps a number of different definitions of the term semantics, reaching up to twenty-four definitions. Their ultimate goals are to confine the concern of semantics to linguistics and clearly define the discipline not only within semantics but within other disciplines as well. The triadic relational theory of meaning can be regarded as a groundbreaking invention, too.

Gustav Stern's treatise rests on delineating the constituent parts of meaning and bringing to the fore the reasons behind the shifts in meaning with a particular reliance on Wundt's (date?) mentalist psychology. Stern's reliance on the psychological dimension in dealing with meaning is apparent in his insistence on the state of meaning as a mental content. Linked to this point is Stern's (1938, p.38) claim that "Instead of saying with Ogden-Richards that the symbol 'stands for' the referent, and symbolizes the thoughts, I shall make use of the terms already indicated above (3.11): that the word expresses the mental content (meaning, thought) and names or denotes the referent. The mental content is the speaker's apprehension of the referent."

These works and many others including the colossal works by major logicians and mathematicians like Russell, Frege and Tarski among others, which had an indelible significance on the evolution of semantics, are discussed later in this article. The misunderstanding of Bloomfield's (1933) statements, especially in America, was a real regression. Part of this was due to the fact that Bloomfield considered the study of meaning to be outside the scope of linguistics proper. For him, its study falls rather within the boundaries of other sciences such as chemistry, physics, or more specifically psychology and anthropology. Bloomfield's claim was based on a reductionist view of meaning as we have little or a 'weak or imperfect knowledge of' what meaning is. In this regard, Bloomfield (1933, p.140) points out that "the statement of meanings is therefore the weak point in language-study, and will remain so until human knowledge advances very far beyond its present state" Bloomfield's view of semantics is regarded nowadays null and void because studies on meaning are part and parcel of linguistic theories. Any attempt to deal with language without taking into account the semantic component would be a mere shot in the dark. With all this in mind, there is a need to distinguish between the following three definitions of semantics in order to gain a little insight into this rather involved and demanding phenomenon. According to Hayakawa,(1954) :

1. In modern logic, semantics is defined as the study of laws and conditions under which signs and symbols, including words, may be said meaningful; semiotics.
2. The study of the relation between words and things.
3. The historical study of changes in meanings of words.

In what follows a brief account of the major semantic theories that have developed as a result of what can be called the logical turn is provided.

3.1. Semantics and the logical turn

Despite the often-invoked wide discrepancy between the semantic theories or theories of meaning and how they conceive of 'meaning', their main goal is to account for what meaning does really mean. Thus, the first stepping step towards gaining some insight into meaning is to present some semantic phenomena that are part and parcel of the debate that has been simmering over centuries regarding what meaning really

is. Below is an abridged presentation of the types of meaning or semantic phenomena.

1. Synonymy: this type of meaning applied to both words and sentences such as "sophomore" and "Second year university student", e.g. "Ahmed is a sophomore" or "Ahmed is a second-year university student".
2. Antonymy: This is the case when the meaning of two words is incompatible in one or more aspect, e.g. the words succeed and fail are antonyms.
3. Ambiguity: can involve both one word (lexical ambiguity) or a sentence which has a wide array of meanings, e.g. the words "set" and "draw"; the sentence "the teacher presented the book to his student wearing a green tie" is ambiguous as it is not clear who was wearing a green tie, the teacher or the student.
4. Semantic anomalies: this phenomenon is often equated with the dichotomy "grammaticality and meaningfulness/meaninglessness" as it is the case in the famous sentence "Colorless green ideas sleep furiously" whose meaning is anomalous, despite its respecting the grammatical rules.
5. Analytic meaning: this type refers to the propositions that are always true since the subject and the predicate express the same meaning as in "all spinsters are unmarried ladies".
6. Syntheticity sentences: neither true nor false when we take into account the linguistic meaning solely, but can be true in one case and false in another. "Men are courageous" is neither true nor false when it is not linked to actual state of affairs.
7. Inconsistency: when two sentences expressing the same property about the same entity cannot be both false and true at the same time. For instance, we cannot claim that "Plato is dead" and "Plato is alive" are both true or false; one must be true and the other false.
8. Entailment: when a semantic relation is operative between two propositions and determines their truth-falsity, e.g. the sentence "the bird flies" entail "the bird has got wings". It should be noted here that entailment within semantic treatise is different from material implication used in logic. The basic idea here is that a proposition P materially implies Q where P is never true and Q is false. The main difference is that entailment is governed by meaning while material implication is determined by truth values.
9. Presupposition: According to Seuren 2009, 741) 'presupposition is a semantic property of a sentence making that sentence fit for use in certain contexts and

unfit for use in others. This property is partly based on the fact that if a sentence B presupposes a sentence A ($B \text{ } \text{f} \text{ } A$), then B entails A ($B \text{ } \text{f} \text{ } A$): whenever B is true, A is necessarily also true, given the same situation re-ferred to, in virtue of the meanings of B and A.'

The queen of Jamaica is black, presupposes that Jamaica is ruled by a queen of black origin. It should be noted that entailment and presupposition are often hard to set apart. The negation test is used in this regard to differentiate between these two semantic relations. Consider the sentences below.

- a. The chef fried potato.
- b. The chef cooked potato.

Negating sentence (a) makes it hard to tell whether sentence (b), 'the chef cooked potato', is true or false as there is no clue that he cooked potato. However, negation doesn't affect presupposition as shown below.

- c. The queen of Sweden visited Morocco.
- d. Sweden is ruled by a queen.

Negating sentence (c), The queen of Sweden didn't visit Morocco, does not affect the fact that Sweden is ruled by a queen⁴. There are of course other semantic relations that go beyond the scope of this paper which tries to track the evolution and emergence of semantics. However, mapping out the evolutionary path of semantics without tackling some semantic theories would be a serious shortcoming. Thus, in what follows two major theories of meaning are briefly presented. The previous section has briefly mapped out the major semantic relations in order to pave the way for a succinct presentation of the major semantic theories that marked the twentieth century.

3.2. Referential theory of meaning and its counterexamples

Influenced by the Greek philosophers, including Plato, as well as the paradigm case of naming, this theory, which was championed, later on, refuted or reconsidered by Frege and Russell (Sullivan, 2009), is based on the extensional dimension of meaning rather than the intensional one. The basic idea behind this theory is that meaning is related to the world in the sense that for words to be meaningful they should be assigned referents in the actual world. This is applicable

especially to proper nouns as they can determine the truth value with complete clarity as in the example below:

1. Goethe was a German poet.
2. Shakespeare was a German poet.

Sentence (1) is true but sentence (2) is false because it is known that Goethe was German and Shakespeare was British. The bottom line here is related to the fact that a proper noun like Goethe and Shakespeare determine the truth and falsity of the sentence with clarity. However, things get more complicated when this line for reasoning is followed as it shows with the objections to this theory below.

3.3. Semantic impasses and the logical dream

The objection can be adduced by asking what are the referents of some words like love, in spite, or nevertheless, that are grasped by speakers of natural languages though they have no referent whatsoever in the outside world. In addition, some words have meaning but no reference like the word "ghoul" (Ghost) in Arabic. Some words like proper names themselves have referents but no meaning if one asks about the meaning of "Johan Wolfgang von Goethe" or "Hafiz". It should be noted here that Russell's (date?) conception of proper names brought about a lot of contention as some philosophers like Saul Kripke and Stuart Mill hold to the meaninglessness while others think proper names do have a meaning, but this will not be discussed as it falls outside the scope of this paper.

Further, some sentences are meaningful though their reference does not exist in actuality as is the case of the famous example "The present king of France is bald". The sentence is grammatically and semantically immaculate, but France is no longer ruled by a king. Another objection to this theory comes from negative existentials like "Unicorn doesn't exist" or "the Loch Ness monster doesn't exist" in the real world. However, if unicorn and Loch Ness monster do have referents, then their negation would be a relegation of something that exists while we claim it is non-existent. Such an impasse is not the only one. Consider the sentence "the morning star is the evening star" that was introduced by Frege (1882) to distinguish between sense and reference.

Frege's (1882) objection to referential theory of meaning by arguing that "the Morning star and the evening star" have the same referent (planet Venus) but their meaning is not identical. If they were similar, "the morning star is the morning star" would mean the same as "the morning star is the evening star". To solve this issue Frege (1948) distinguishes between 'reference' or what the words really stand for in actuality; and 'sense' or what we cognitively grasp when we hear a word or an utterance. Thus, it becomes clear that this theory's major shortcoming lies in the impracticality to deal with the intricacies of synonymy in natural language.

Frege along with many other philosophers of language, including Wittgenstein and Russell, are regarded as the major figures of the study of meaning utilizing logical and mathematical rigour to account for a phenomenon that seems to be one of the marvels of natural language and humans: meaning. The best example of these interrelations between the study of natural language and logic, especially propositional logic, can be found in how truth conditional semantics evolved.

The truth conditional semantics approach which came to life as a response to possible world semantics and the verificationist theory gained some ground before Quine and later on his student, Davidson, tried to point out some shortcomings of these theories. Chief among all the criticism levelled against the verificationists was provided by Quine especially in the 1950s and his major contribution to the philosophy of language, 'Words and Objects' (1890).

Drawing on his teacher's critic of verificationism and Alfred Tarski's (1933) efforts to define truth for formal languages, Donald Davidson (1967) departed from behaviour or experience to focus on meaning from the truth angle. Davidson's (1967a) initial and major claim rested on the idea that Tarski's theory of truth is, in fact, a theory of meaning. Hence, his treatise was based on the belief that through the adoption of the dichotomous distinction provided by Tarski (1933:1944) between 'object language' or the language of everyday talk and 'meta-language', an artificial language employed in the analysis of the object language, can provide a coherent theory for the semantics of natural languages. However, this latter's vicissitude of meaning go beyond the 'logical dream' of equating logical languages to natural

languages and thus settle the issue of meaning once and for all as it was the case with Montague who claimed that 'there is in my opinion no important theoretical difference between natural languages and the artificial languages of logicians (1970c,p.222)'.

Such was the dream of Richard Montague in the 1970s whose major claim was that both logical and natural languages can be studied in the same fashion. He, thus, set out 'to give a completely successful analysis of logical consequence for ordinary language' (Partee (2004, p.59). Montague's claim has bred a lot of criticism and the shortcomings of his claim were laid bare by a number of researchers including Partee (2004) who maintains that Montague's conception of tense is very limited and cannot be applied in many instances. It was also shown that Montague's claim cannot be applied to natural languages across the board as there are a number of languages, especially fusional ones like Modern Standard Arabic, that pose serious challenges to Montague's conception of the principles of compositionality and homomorphism (Jalal, 2006; Chentoufi,2017).

4. CONCLUSION

This article is an attempt to track the evolution of 'the meaning of meaning' both as a primordial feature of human cognition and existence and as a field of study that gained ascendancy for a long time with the rise of the analytics. Drawing on Greeks and Arabs' contributions to the study of meaning, the paper presented some key figures and issues that led to the evolution of the study of meaning. The modern conception of the study of meaning or what is referred to as semantics was also introduced in a very simple language devoid of logical technicalities. Thus, the paper could not be considered a complete account of what meaning and the study of meaning are, nor is it a detailed account of how meaning has been grappled over time.

4. Presupposition and negation are very thorny issues that induced a wide range of disagreement among semanticists especially the two factions: presuppositionalists and anti-presuppositionalists Carston (1998) for more details.

REFERENCES

Periodicals

- [1]Coserieu, E., & Geckeler, H. (1974). "Linguistics and Semantics," *Current Trends in Linguistics*, 12(1), 103.
[2]Bezigran,N. (1979). "Some Logical Rules in Al Kita:b", *Al Arabiyya*,12, No. 1/2, pp.77-82.
[3]Kiparsky, P., and Staal, J. F. (1969). "Syntactic and Semantic Relations in Pāṇini," *Foundations of Language*, 83-117.
[4]Tarski, A. (1944). "The Semantic Conception of Truth," *Philosophy and Phenomenological Research*, 4, pp. 341-375.

Online Sources

- [1]Frege G. (1948). "Sense and reference," *The philosophical review*, 57(3), 209-230.[online]
<https://www.jstor.org/stable/2181485>.
[2] Stern, G. (1931).Meaning and change of meaning; with special reference to the English language.[online]
<https://archive.org/details/meaningchangeofm00ster>

Books and Encyclopaedias

- [1]Chatterjee ,R. (2006). "Burrow Thomas: 1909-1986," in Brown, K. Encyclopaedia of Language and Linguistics (Vol. 1). Elsevier.
[2]Hayakawa, S.I. (ed.) (1954). *Language, meaning, and maturity*. New York: Harper & Brothers.
[3]Kruijff,G.M.(2006. "Dependency grammar," in Encyclopedia of Language and Linguistics. pp. 444-450.
[4]Malmkjaer, K. (2006). Encyclopaedia of Linguistics. London and New York: Routledge Taylor and Francis Group.
[5]Ogden C. K and Richards, I. A. (1923). *The meaning of meaning: A study of the influence of language upon thought and of the science of symbolism*. London: Routledge.
[6]Seuren, M.(2009). "Presupposition", in Keith, A and Keith, B(eds.), *Concise Encyclopedia of Semantics* , Amsterdam:Elsevier,pp.810–816.
[7]Seuren, M. (1985). *Discourse semantics*, Oxford: Basil Blackwell.

- [8]Sullivan,A. (2009). "Reference: Philosophical theories," in Keith, A and Keith, B (eds.), *Concise Encyclopedia of Semantics* , Amsterdam:Elsevier,pp.810–816.

Theses

- [1]Jalal, N. (2006). The temporal system of Arabic and the compositionality principle, Doctorat d'Etat, Mohammed V University, Rabat.

Unpublished

- [1]Chentoufi, H.(2017). The Semantics of negation in modern standard Arabic. Unpublished Master's Thesis, Mohammed V University, Rabat.