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Semantics in Linguistics

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1. Definition of Semantics

Semantics is the study of meaning in language. It can be applied to entire texts or to single words. In linguistics, semantics is the subfield that studies meaning. Semantics can address meaning at the levels of words, phrases, sentences, or larger units of discourse. One of the crucial questions which unites different approaches to linguistic semantics is that of the relationship between form and meaning. (Kroeger, 2019: 4; Betti, Igaab & Al-Ghizzi, 2018: 264):

Semantics involves the deconstruction of words, signals, and sentence structure. It influences our reading comprehension as well as our comprehension of other people's words in everyday conversation. Semantics play a large part in our daily communication, understanding, and language learning without us even realizing it (Betti and Mahdi, 2021: 51; and Palmer, 1997: 5-8). For example, in everyday use, a child might make use of semantics to understand a mom's directive to "do your chores" as, "do your chores whenever you feel like it." However, the mother was probably saying, "do your chores right now." (Betti and Al-Jubouri, 2009: 2).

2. Definition of Meaning

Semantics is the study of meaning, but what do we mean by ‘meaning’? Meaning has been given different definitions in the past. Meaning equals connotation. The meaning is simply the set of associations that a word evokes, and it is the meaning of a word defined by the images that its users connect to it (Betti and AlFartoosy, 2019: 99; Igaab, 2015: 83). So ‘winter’ might mean ‘snow’, ‘sledging’ and ‘mulled wine’. But what about someone living in the amazon? Their ‘winter’ is still wet and hot, so its original meaning is lost. Because the associations of a word don’t always apply, it was decided that this couldn’t be the whole story (Igaab, 2010b: 155).

It has also been suggested that the meaning of a word is simply the entity in the World which that word refers to. This makes perfect sense for proper nouns like ‘New York’ and ‘the Eiffel Tower’, but there are lots of words like ‘sing’ and ‘altruism’ that don’t have a solid thing in the world that they are connected to. So meaning cannot be entirely denotation either (Betti, 2021c: 3). So meaning, in Semantics, is defined as being Extension: The thing in the world that the word/phrase refers to, plus Intension: The concepts/mental images that the word/phrase evokes (Betti, 2021d: 15).

Thus, semantics is interested in how meaning works in language: The study of semantics looks at how meaning works in language, and because of this it often uses native speaker intuitions about the meaning of words and phrases to base research on. We all understand semantics already on a subconscious level, it’s how we understand each other when we speak (Palmer, 1997: 85-6; and Betti and Ulaiwi, 2018: 82).

How the way in which words are put together creates meaning is one of the things that semantics looks at, and is based on, how the meaning of speech is not just derived from the meanings of the individual words all

put together (Lyons, 1979: 293; and Betti, 2020a: 11). The principle of compositionality says that the meaning of speech is the sum of the meanings of the individual words plus the way in which they are arranged into a structure. Likewise, semantics also looks at the ways in which the meanings of words can be related to each other.

3. Sense Relations

Here are a few of the ways in which words can be semantically related (Betti, 2021b: 5):

1. Synonymy – Words are synonymous/ synonyms when they can be used to mean the same thing (at least in some contexts – words are rarely fully identical in all contexts). Begin and start, Big and large, Youth and adolescent (Lyons, 1979: 291; Betti, 2021n: 2): (Betti, and Igaab, 2015: 23):

2. Antonymy Words are antonyms of one another when they have opposite meanings (again, at least in some contexts). Big and small, Come and go, Up and down (Palmer, 1997: 86; and Al-Sheikh, 2006b: 60).

3. Polysemy – A word is polysemous when it has two or more related meanings. In this case the word takes one form but can be used to mean two different things. In the case of polysemy, these two meanings must be related in some way, and not be two completely unrelated meanings of the word. Bright (shining) and bright (intelligent). Mouse (animal) and mouse (computer hardware) (Lyons, 1979: 291; Betti, 2021e: 89).

4. Homophony – Homophony is similar to polysemy in that it refers to a single form of word with two meanings, however a word is a homophone when the two meanings are entirely unrelated. Bat (flying mammal) and bat (sports equipment). Pen (writing instrument) and pen (small cage) (Betti, and Yaseen, 2020: 61). (Al-Seady, 1995: 77) .

4. Sentence Relations

Sentences can also be semantically related to one-another in a few different ways (Igaab, 2015b: 21). (Betti, and Al-Jubouri, 2015c: 69; Igaab, 2010: 12; and Betti, 1996: 45):

1. Paraphrase – Paraphrases have the same truth conditions; if one is true, the other must also be true. ‘The boys like the girls’ and ‘the girls are liked by the boys’, ‘John gave the book to Chris’ and ‘John gave Chris the book’ (Igaab, and Al-Manhalawey, 2010c: 41; and Betti, 1998: 4) .

2. Mutual entailment – Each sentence must be true for the other to be true. ‘John is married to Rachel’ and ‘Rachel is John’s wife’, ‘Chris is a man’ and ‘Chris is human’.

3. Asymmetrical entailment – Only one of the sentences must be true for the other to be true, but that sentence may be true without the other sentence necessarily having to be true. ‘Rachel is John’s wife’ entails ‘John is married’ (but John is married does not entail Rachel being his wife), ‘Rachel has two brothers’ entails ‘Rachel is not an only child’ (but Rachel not being an only child does not entail Rachel having two brothers) (Betti, and Mahdi, 2020: 99).

4. Contradiction – Sentences contradict each other when one sentence is true and the other cannot be true. ‘Rachel is an only child’ and ‘Rachel’s brother is called Phil’, ‘Alex is alive’ and ‘Alex died last week’ (Betti, 2002b: 39).

5. Ambiguity

One of the aspects of how meaning works in language is ambiguity. A sentence is ambiguous when it has two or more possible meanings, but how does ambiguity arise in language? A sentence can be ambiguous for either of the following reasons (Igaab and Al-Bdeary, 2016: 13):

1. Lexical Ambiguity: A sentence is lexically ambiguous when it can have two or more possible meanings due to polysemous (words that have two or more related meanings) or homophonous (a single word which has two or more different meanings) words.

Example of lexically ambiguous sentence: Prostitutes appeal to the Pope. This sentence is ambiguous because the word ‘appeal’ is polysemous and can mean ‘ask for help’ or ‘are attractive to’ (Al-Seady, 2002b: 71).

2. Structural Ambiguity: A sentence is structurally ambiguous if it can have two or more possible meanings due to the words it contains being able to be combined in different ways which create different meanings (Al-Sheikh, 2006a: 81).

Example of structurally ambiguous sentence: Enraged cow injures farmer with axe. In this sentence the ambiguity arises from the fact that the ‘with axe’ can either refer to the farmer, or to the act of injuring being carried out (by the cow) ‘with axe’ (Betti, 2002d: 92).

6. Semantics in the Field of Linguistics

Semantics looks at these relationships in language and looks at how these meanings are created, which is an important part of understanding how language works as a whole. Understanding how meaning occurs in language can inform other sub-disciplines, such as Language Acquisition, to help us to understand how speakers acquire a sense of meaning, and Sociolinguistics, as the achievement of meaning in language is important in language in a social situation (Betti, 2013: 8). Semantics is also informed by other sub-disciplines of linguistics, such as Morphology, as understanding the words themselves is integral to the study of their meaning, and Syntax, which researchers in semantics use extensively to reveal how meaning is created in language, as how language is structured is central to meaning (Betti, 2003: 3).

Situational Semantics

Remember the different connotations of the phrase, “I care for you?”

Let’s revisit the idea that a single line of text can be interpreted in different ways. Suppose a college grad was just hired to a new job. She was excited to start this new chapter; everything seemed glossy and bright. On the first day, her boss mentions she’ll have to travel to the new Miami office to help the office hit the ground running. In reality, she’ll be going there to do very mundane chores like order office supplies and clean the cubicles (something that nobody else wants to do). So, as the new employee exclaims, “You chose me? Thank you!” and the supervisor says, “Yup, I chose you all right,” we’ll know that, given the context of the situation, the supervisor isn’t saying this in a positive light. However, the new employee will interpret it to mean something very positive. Or, what if a husband comes home with what he labels a “brand new” coffee table. He might tell his wife it was a steal and a gorgeous new piece for their home. The wife might take one look at it and say, “This isn’t new. I saw this at the local consignment shop the other day.” The husband might

retort, “Semantics. It’s new to us!” Indeed, two people can take one word or expression and take it to mean entirely different things (Betti, and Igaab , 2019: 242).

Semantics in Puns

In your reading, you may come across a pun or two. Puns like to play on words. They deliberately use multiple meanings to reshape the meaning of a sentence. So, what we understand a word to mean can be twisted to mean something else (Betti, 2007: 11):

- Time flies like an arrow. Fruit flies like a banana.
- Diet slogan: Are you going the wrong weigh?
- I fired my masseuse today. She just rubbed me the wrong way.
- The best way to communicate with a fish is to drop them a line.
- Two silkworms had a race. They ended up in a tie.

Lexical Semantics

Lexical semantics deconstruct words and phrases within a line of text to understand the meaning in terms of context. This can include a study of individual nouns, verbs, adjectives, prefixes, root words, suffixes, or longer phrases or idioms (Betti, 2021o: 1).

Semantics in Everyday Life

One part of studying language is understanding the many meanings of individual words. Once you have a handle on the words themselves, context comes into play. The same word can be said to two people and they can interpret them differently. For example, imagine a man told a woman, “I care for you... a lot.” Wouldn’t that made the woman’s heart melt? Sure, if he just said that out of the blue, walking down the beach one day. But, what if the woman told the man, “I love you,” and, after a long pause, all he said was, “I care for you... a lot.” She’d be crushed. So, context (the current situation) will always play a role in everyday semantics (Igaab, 2010b: 162).

Here are some examples of everyday words that can have more than one meaning:

- A water pill could be a pill with water in it but it is understood to be a diuretic that causes a person to lose water from his body.
- “Crash” can mean an auto accident, a drop in the Stock Market, to attend a party without being invited, ocean waves hitting the shore, or the sound of cymbals being struck together.
- Depending on context, a flowering plant could be referred to as a weed or a flower.

The simple word "on" can have many meanings, such as: on call, on the roof, on cloud nine, on edge, on fire, on purpose, on demand, on top, or on the phone (Igaab, 2015a: 149).

6. Theories in linguistic Semantics

Formal semantics

Formal semantics seeks to identify domain-specific mental operations which speakers perform when they compute a sentence's meaning on the basis of its syntactic structure. Theories of formal semantics are typically floated on top of theories of syntax such as generative syntax or Combinatory categorial grammar and provide a model theory based on mathematical tools such as typed lambda calculi. The field's central ideas are rooted in early twentieth century philosophical logic as well as later ideas about linguistic syntax. It emerged as its own subfield in the 1970s after the pioneering work of Richard Montague and Barbara Partee and continues to be an active area of research (Betti, 2015a: 42).

Formal semantics uses techniques from math, philosophy, and logic to analyze the broader relationship between language and reality, truth and possibility. Has your teacher ever asked you to use an “if... then” question? It breaks apart lines of information to detect the underlying meaning or consequence of events (Betti, and Ghadhab, 2020: 67).

Conceptual semantics

This theory is an effort to explain properties of argument structure. The assumption behind this theory is that syntactic properties of phrases reflect the meanings of the words that head them. With this theory, linguists can better deal with the fact that subtle differences in word meaning correlate with other differences in the syntactic structure that the

word appears in (Levin, and Pinker, 1991: 23; Igaab, 2016: 51;). The way this is gone about is by looking at the internal structure of words. These small parts that make up the internal structure of words are termed semantic primitives. (Jackendoff, 1990: 5; Betti, and Hasan, 2020: 73).

Conceptual semantics deals with the most basic concept and form of a word before our thoughts and feelings added context to it. For example, at its most basic we know a cougar to be a large wild cat. But, the word cougar has also come to indicate an older woman who's dating a younger man. This is where context is important (Betti, 2020c: 16). Conceptual semantics opens the door to a conversation on connotation and denotation. Denotation is the standard definition of a word . Meanwhile, connotation deals with the emotion evoked from a word. Connotation will be derived from the manner in which you interpret a word or sentence's meaning. As such, semantics and connotation are deeply entwined. For a deeper dive, read these examples and exercises on connotative words (Betti , 2006: 71).

Cognitive semantics

Cognitive semantics approaches meaning from the perspective of cognitive linguistics. In this framework, language is explained via general human cognitive abilities rather than a domain-specific language module. The techniques native to cognitive semantics are typically used in lexical studies such as those put forth by Leonard Talmy, George Lakoff, Dirk Geeraerts, and Bruce Wayne Hawkins. Some cognitive semantic frameworks, such as that developed by Talmy, take into account syntactic structures as well. Semantics, through modern researchers can be linked to the Wernicke's area of the brain and can be measured using the event-related potential (ERP). ERP is the rapid electrical response recorded with small disc electrodes which are placed on a person's scalp (Goldstein, 2015; Betti, 2021: 5)

Lexical semantics

A linguistic theory that investigates word meaning. This theory understands that the meaning of a word is fully reflected by its context. Here, the meaning of a word is constituted by its contextual relations. Therefore, a distinction between degrees of participation as well as modes of participation are made. In order to accomplish this distinction any part

of a sentence that bears a meaning and combines with the meanings of other constituents is labeled as a semantic constituent. Semantic constituents that cannot be broken down into more elementary constituents are labeled minimal semantic constituents (Cruse, 1986: 56; and Betti, 1990: 93).

Cross-cultural semantics

Various fields or disciplines have long been contributing to cross-cultural semantics. Are words like love, truth, and hate universals? (Underhill, 2012: 8; and Betti, 2020b: 18).

Is even the word sense – so central to semantics – a universal, or a concept entrenched in a long-standing but culture-specific tradition? (Wierzbicka, 2010: 6; and Betti, 2021m: 2).

These are the kind of crucial questions that are discussed in cross-cultural semantics. Translation theory, ethnolinguistics, linguistic anthropology and cultural linguistics specialize in the field of comparing, contrasting, and translating words, terms and meanings from one language to another (see Herder, W. von Humboldt, Boas, Sapir, and Whorf) ; and Igaab, 2010b: 151). But philosophy, sociology, and anthropology have long established traditions in contrasting the different nuances of the terms and concepts we use. And online encyclopaedias such as the Stanford encyclopedia of philosophy, Stanford Encyclopedia of Philosophy, and more and more Wikipedia itself have greatly facilitated the possibilities of comparing the background and usages of key cultural terms. In recent years the question of whether key terms are translatable or untranslatable has increasingly come to the fore of global discussions (Cassin, 2014: 15; and Igaab, 2010a: 18).

Computational semantics

Computational semantics is focused on the processing of linguistic meaning. In order to do this concrete algorithms and architectures are described. Within this framework the algorithms and architectures are also analyzed in terms of decidability, time/space complexity, data structures that they require and communication protocols (Nerbonne, 1996: 95; and Betti, 1990: 81):

Various ways have been developed to describe the semantics of programming languages formally, building on mathematical logic (Nielson, 1995: 38; and Betti, 1990: 97).

Operational semantics:

The meaning of a construct is specified by the computation it induces when it is executed on a machine. In particular, it is of interest how the effect of a computation is produced.

Denotational semantics:

Meanings are modelled by mathematical objects that represent the effect of executing the constructs. Thus only the effect is of interest, not how it is obtained (Betti, 1990: 97).

Axiomatic semantics:

Specific properties of the effect of executing the constructs are expressed as assertions. Thus there may be aspects of the executions that are ignored.

7. Semantic models

The Semantic Web refers to the extension of the World Wide Web via embedding added semantic metadata, using semantic data modeling techniques such as Resource Description Framework (RDF) and Web Ontology Language (OWL) (Betti, 2021i: 11).

On the semantic Web, terms such as semantic network and semantic data model are used to describe particular types of data model characterized by the use of directed graphs in which the vertices denote concepts or entities in the world and their properties, and the arcs denote relationships between them. These can formally be described as description logic concepts and roles, which correspond to OWL classes and properties (Sikos, 2017: 55; Betti, 2021f: 70).

Semantic memory

In psychology, semantic memory is memory for meaning – in other words, the aspect of memory that preserves only the gist, the general significance, of remembered experience – while episodic memory is memory for the ephemeral details – the individual features, or the unique particulars of experience. The term 'episodic memory' was introduced by Tulving and Schacter in the context of 'declarative memory' which involved simple association of factual or objective information concerning its object. Word meaning is measured by the company they keep, i.e. the relationships among words themselves in a semantic network. The memories may be transferred intergenerationally or isolated in one generation due to a cultural disruption. Different generations may have different experiences at similar points in their own time-lines. This may then create a vertically heterogeneous semantic net for certain words in an otherwise homogeneous culture (Giannini, 2010; Betti, 2021a: 72). In a network created by people analyzing their understanding of the word (such as Wordnet) the links and decomposition structures of the network are few in number and kind, and include part of, kind of, and similar links. In automated ontologies the links are computed vectors without explicit meaning. Various automated technologies are being developed to compute the meaning of words: latent semantic indexing and support vector machines as well as natural language processing, artificial neural networks and predicate calculus techniques (Betti and Hashim, 2018: 281).

Ideasthesia

Ideasthesia is a psychological phenomenon in which activation of concepts evokes sensory experiences. For example, in synesthesia, activation of a concept of a letter (e.g., that of the letter A) evokes sensory-like experiences (e.g., of red color)(Betti, 2002c : 89).

Psychosemantics

In the 1960s, psychosemantic studies became popular after Charles E. Osgood's massive cross-cultural studies using his semantic differential (SD) method that used thousands of nouns and adjective bipolar scales. A specific form of the SD, Projective Semantics method (Trofimova, 2014; (Betti, 2021h: 10) uses only most common and neutral nouns that correspond to the 7 groups (factors) of adjective-scales most consistently found in cross-cultural studies (Evaluation, Potency, Activity as found by Osgood, and Reality, Organization, Complexity, Limitation as found in other studies) (Betti, 2021k: 16). In this method, seven groups of bipolar adjective scales corresponded to seven types of nouns so the method was thought to have the object-scale symmetry (OSS) between the scales and nouns for evaluation using these scales. For example, the nouns corresponding to the listed 7 factors would be: Beauty, Power, Motion, Life, Work, Chaos, Law. Beauty was expected to be assessed unequivocally as "very good" on adjectives of Evaluation-related scales, Life as "very real" on Reality-related scales, etc. However, deviations in this symmetric and very basic matrix might show underlying biases of two types: scales-related bias and objects-related bias. This OSS design meant to increase the sensitivity of the SD method to any semantic biases in responses of people within the same culture and educational background (Trofimova, 1999; and Betti, 2002e: 85).

Prototype theory

Another set of concepts related to fuzziness in semantics is based on prototypes. The work of Eleanor Rosch in the 1970s led to a view that natural categories are not characterizable in terms of necessary and sufficient conditions, but are graded (fuzzy at their boundaries) and

inconsistent as to the status of their constituent members. One may compare it with Jung's archetype, though the concept of archetype sticks to static concept. Some post-structuralists are against the fixed or static meaning of the words. Derrida, following Nietzsche, talked about slippages in fixed meanings (Cruse, 2003: 137; and Betti, 2002a: 13):

Systems of categories are not objectively out there in the world but are rooted in people's experience. These categories evolve as learned concepts of the world – meaning is not an objective truth, but a subjective construct, learned from experience, and language arises out of the "grounding of our conceptual systems in shared embodiment and bodily experience (Lakoff and Johnson, 1999: 241; and Betti, 2020d: 13). A corollary of this is that the conceptual categories (i.e. the lexicon) will not be identical for different cultures, or indeed, for every individual in the same culture. This leads to another debate (see the Sapir–Whorf hypothesis or Eskimo words for snow) (Lobner, 2002: 130-2; and Betti and Igaab, 2018: 23)..

Semantic technology

Semantic technology is a way of processing content that relies on a variety of linguistic techniques including text mining, entity extraction, concept analysis, natural language processing, categorization, normalization and sentiment analysis. Compared to traditional technologies that process content as data, semantic technology is based on not just data, but the relationships between pieces of data (Hurford, and Heasley, 1996: 33). When it comes to analyzing text, this network enables both high precision and recall in search, and automatic categorization and tagging (Lobner, 2002: 130-2; and Al-Seady, 2002a: 2). It can manage a huge knowledge base to integrate information and

data and allow organizations to find the information necessary for making decisions. Information growth in terms of volume, velocity, variety and complexity, as well as in the variety of ways in which it is being used, makes its management more difficult than ever before. Here, semantics plays a key role in extracting meaning from unstructured data, transforming it into ready to use information for knowledge management, customer service, operational risk management and social media monitoring (Betti, 2020d: 11).

Semantics for Operational Risk Management

Semantic technology helps organizations manage unstructured information and transform it into usable, searchable and actionable intelligence. It uncovers data from within the organization and from the web to provide valuable insight (Betti, 2013: 7).

Semantics for Customer Service

Managing customer experience today requires being able to streamline interactions with customers, maintaining a high level of customer satisfaction and hearing the Voice of the Customer. Semantic technologies support the implementation of advanced listening platforms, streamlining access to support, whether it is delivered directly to customers, or to support staff to help customers who need additional assistance. The key to providing efficient automated customer support is understanding the customer's request and ensuring access to the information they need at the right time (Hurford, and Heasley, 1996: 31; and Al-Seady, 1998a: 12).

Semantics for Knowledge Management

External and internal sources are important resources that contain insight valuable for identifying risks and mitigating threats. To minimize operational risks and threats hiding in the supply chain and within an organization's ecosystem, semantics can be used to support analysts in making the vast amount of content they acquire available to fuel the risk assessment process with actionable insight and intelligence. Semantic technology allows organizations to minimize their exposure to risks, and provides early identification and analysis of consumer sentiment, market trends and competitor information (Betti, 2021g: 52).

<https://www.expert.ai/blog/introduction-to-semantics/>

References

Alexis Burgess, Brett Sherman (eds.), *Metasemantics: New Essays on the Foundations of Meaning*, Oxford University Press, 2014, p. 29 n. 13.

Algburi, Basim Yahya Jasim and Zainab Kadim Igaab (2021).
Defamation in English and Arabic: A Pragmatic Contrastive
Study. *International Linguistics Research*, 4(2): 31-45.

Al-Seady, Mohammed J. B. (1998a). Comparative Education: Some
Basic Contributions of Islamic Education to Western Educational
Thought. *Al-Qadisiya Journal*, 3, 2, 82-89.

Al-Seady, Mohammed J. (1998b). Teaching EFL Vocabulary. *Al-Qadisiya Journal*, 3, 2, 59-69.

Al-Seady, Mohammed J. B. (1998c). The Employment of English
Lexicons by Adolescent Speakers of Nasiriya Iraqi Arabic as
Determined by Sex Differentiation. *Al-Qadisiya Journal*, 3, 2, 72-79.

Al-Seady, Mohammed J. B. (2002a). English Phonetics. *Nasiriya: Afaaq*.

- Al-Seady, Mohammed J. B. (2002b). Some Morphological, Lexical and Syntactic Aspects of the Interlanguage of Third Year Students/ Dept. of English/College of Education/ University of Qadisiya. Journal of Qadisiya for Educational Sciences, 2, 1, 13-19.
- Al-Seady, Mohammed J. B. and Mohammed K. A. Al-Sehlani (2002). Collocation in Three Texts of the Absurd: A Stylistic Comparative Cohesive Study. Journal of Al-Qadisiya for Educational Sciences, 3, 2, 34-44.
- Al-Sheikh, Zainab Kadim (2006a). Iraqi EFL Performance in using evidentiality. Journal of University of Thi-Qar, 2(3): 68-86.
- Al-Sheikh, Zainab Kadim (2006b). The Ability of Iraqi Undergraduates to Recognize and Produce Confusing Words in English. Journal of University of Thi-Qar, 2(3): 68-85.
- Betti, Mohammed Jasim (1990). Teaching English Drama for Educational Purposes in the Iraqi Colleges of Education with Reference to the Universities of Basrah, Baghdad and Mosul. Basrah: University of Basrah.
- Betti, Mohammed Jasim. (1993). English for Literary Purposes (ELP): A Case Study. Published in the literature of The Conference of Applied Studies in Linguistics and Poetics. University of Mosul.
- Betti, Mohammed Jasim. (1995). Computers and TEFL. Al-Qadisiya Journal. 5, 1, 5-12.
- Betti, Mohammed Jasim (1996). An Eclectic Method for Teaching English Drama in the University Departments of English in Iraq as Compared to the Aesthetic and Linguistic methods. Unpublished Ph.D. Dissertation. Baghdad: University of Baghdad.
- Betti, Mohammed Jasim (1998). English Sentence Patterns As Viewed by Nine Structuralists: Exposition and Discussion. Qadisiya Journal, 1, 1, 1-13.
- Betti, Mohammed Jasim (2002a). Translation: Dis/Advantages in TEFL. Qadisiya Journal, 2, 3.
- Betti, Mohammed Jasim. (2002b). Testing. Nasiriya: Al-Hadir.

- Betti, Mohammed Jasim (2002c). An Introduction to English Phonetics and Phonology. Thi-Qar: Al-Hadir.
- Betti, Mohammed Jasim (2002d). English Phonetics and Phonology. Thi-Qar: Al-Hadir.
- Betti, Mohammed Jasim (2002e). English Phonetics. Thi-Qar: Al-Hadir.
- Betti, Mohammed Jasim (2003). A Quantitative Sociolinguistic Study of Educated Speakers' Attitudes Towards and Domains of Free Variation in Nasiriya Iraq Arabic as Determined by Sex and Place of Residence Differentiation. *Journal of Basrah Studies*, 1, 1, 32-45.
- Betti, Mohammed Jasim (2006). The Grammatical Categories of Literary Prose Texts: A Study in Corpus Linguistics. *Journal of Babylon University*, 12, 1, 136-149.
- Betti, Mohammed Jasim. (2007). Jokes in Iraq: A Study of Coherence and Cohesion. *Journal of the College of Education-University of Wasit*, 1,1,399-411.
- Betti, Mohammed Jasim and Al-Jubouri, Chasib Fannokh (2009) A Structural and Intonational Study of theme and Rheme in Iraqi Advanced EFL Learners' language Repertoire. *Ahl-al-bayt Journal*, 7, 363-379.
- Betti, Mohammed Jasim (2013). A Literary Analysis of Ten Plays. Diwaniya: Nippur.
- Betti, Mohammed Jasim. (2015a). An Introduction to Drama. Diwaniya: Nippur.
- Betti, Mohammed Jasim. (2015b). Jokes in Iraq: A Study of Coherence and Cohesion. In Betti & Igaab (Eds.), *Linguistic Studies* (pp. 51-67). Diwaniyah: Nippur .
- Betti, Mohammed Jasim and Al-Jubouri, C. F. (2015c). Approaches and Methods of Teaching English as a Foreign Language. Diwaniya: Nippur.
- Betti, Mohammed Jasim and Zainab Kadim Igaab (2015). (eds). *Linguistic Studies*. Diwaniya: Nippur.

- Betti, Mohammed Jasim and Marwa Jubair Mugeer (2016) Tones in English. *Journal of College of Education, University of Thi-Qar*, 2, 1, 16-34.
- Betti, Mohammed Jasim and Hashim, Thura Ghalib (2018). The Lawyer's Discourse in the Courtroom: A Contrastive Study in English and Arabic. *International Journal of English Linguistics*, 8, 3, 276-296.
- Betti, Mohammed Jasim and Igaab, Zainab Kadim (2018). A Contrastive Study of Modulation in English and Arabic. *International Journal of English and Cultural Studies*, 1, 1, 30-45.
- Betti, Mohammed Jasim and Ulaiwi, W. A. (2018). Stress in English and Arabic: A Contrastive Study. *English Language and Literature Studies*, 8(1), 83-91. <https://doi.org/10.5539/ells.v8n1p83>.
- Betti, Mohammed Jasim, Igaab, Z. K., & Al-Ghizzi, M. T. H. (2018). The Iraqi EFL Learners' Use of Permission, Obligation and Prohibition. *International Journal of English Linguistics*, 8(3), 251-269. <https://doi.org/10.5539/ijel.v8n3p251>.
- Betti, Mohammed Jasim and AlFartoosy, Montadher Hussein Hameed (2019). Ellipsis and Reiteration in English and Arabic: A Contrastive Study. *English Language and Literature Studies*, 9, 1, 93-105.
- Betti, Mohammed Jasim and Zainab Kadim Igaab (2019). Sound Shift and Metathesis in Three Pre-School Nasiriya Iraqi Arabic Children: A Case Study. *International Journal of English Linguistics*; 9, 1, 229-240.
- Betti, Mohammed Jasim. and Yaseen, K. S. (2020). The Iraqi EFL Learners' Use of Conversational Maxims at the University Level. *Education, Language and Sociology Research*, 1(1), 43-60.
- Betti, Mohammed Jasim and Hasan, Ahmed Abd (2020). The Iraqi EFL Learners' Ability to Use Speech Acts in MA and Ph.D. Theses Defense. *Education, Language and Sociology Research*, 1, 2, 41-65.

- Betti, Mohammed Jasim and Ghadhab, Amal Odeh (2020). A Pragma-Dialectical Study of the argumentative Indicators in American Electoral Campaign Debates. *International Journal of Advancement in Social Science and Humanity*, 9, 27-74.
- Betti, Mohammed Jasim (2020a). Compounding in English and Arabic: A Contrastive Study. *International Journal of Research in Social Sciences and Humanities*, 10, III, 1-13.
- Betti, Mohammed Jasim (2020b). A Comprehensive Introduction to linguistics. Diwaniya: Nippur.
- Betti, Mohammed Jasim (2020c). Using and Teaching English Drama. Diwaniya: Nippur.
- Betti, Mohammed Jasim (2020d). A Linguistic Analysis of Two Legal Texts in English and Arabic: A Contrastive Study of International Conventions, *Basrah Journal*, 3, 1, 45-67.
- Betti, Mohammed Jasim and Mahdi, Mohammed Abbas (2020). A Conversation Analysis of Repair Trouble Sources, Inadequacy and Positions in the Iraqi University Viva Discussions in English. *International Linguistics Research*, 3, 4, 69-93.
- Betti, Mohammed Jasim and Mahdi, Mohammed Abbas (2021). A Conversation Analysis of Staff Members' and Researchers' Repair Strategies in the Iraqi University Viva Discussions in English. *Education, Language and Sociology Research*, 2, 1, 14-56.
- Betti, Mohammed Jasim. (2021a). Theoretical and Applied Linguistics.
https://www.researchgate.net/publication/347943117_Theoretical_and_Applied_Linguistics
- Betti, Mohammed Jasim. (2021b). Applied Linguistics.
https://www.researchgate.net/publication/348627973_Applied_Linguistics
- Betti, Mohammed Jasim (2021c). The Department of English in Iraq: A System Approach.
https://www.researchgate.net/publication/349337984_The_Department_of_English_in_Iraq_A_System_Approach

Betti, Mohammed Jasim (2021d). An Operational Analysis of the Department of English in Iraq.
https://www.researchgate.net/publication/349054695_An_Operational_Analysis_of_the_Department_of_English_in_Iraq

Betti, Mohammed Jasim (2021e). An Input-Process-Output Analysis of the Department of English in the Colleges of Education in Iraq.
https://www.researchgate.net/publication/349054602_An_Input-Process-Output_Analysis_of_the_Department_of_English_in_the_Colleges_of_Education_in_Iraq

Betti, Mohammed Jasim (2021f). Applied Linguistics vs Theoretical Linguistics.
https://www.researchgate.net/publication/349336695_Applied_Linguistics_vs_Theoretical_Linguistics

Betti, Mohammed Jasim (2021g). The English Used in the Department of Arabic.
https://www.researchgate.net/publication/351229469_The_English_Used_in_the_Department_of_Arabic

Betti, Mohammed Jasim (2021h). English for Literary Purposes: A Case Study.
https://www.researchgate.net/publication/350487483_English_for_Literary_Purposes_A_Case_Study

Betti, Mohammed Jasim (2021i). Sentence Patterns in English.
https://www.researchgate.net/publication/350975244_Sentence_Patterns_in_English

Betti, Mohammed Jasim (2021j). ESP and ELP.
https://www.researchgate.net/publication/351657343_ESP_and_ELP

Betti, Mohammed Jasim (2021k). Language Alternation.
https://www.researchgate.net/publication/351938765_Language_Alternation

Betti, Mohammed Jasim (2021l). Stress in English with Pedagogical Implications.
https://www.researchgate.net/publication/352248961_Stress_in_English_with_Pedagogical_Implications

Betti, Mohammed Jasim (2021m). Intonation in English with Pedagogical Implications.
https://www.researchgate.net/publication/352313269_Intonation_in_English_with_Pedagogical_Implications#fullTextFileContent

- Betti, Mohammed Jasim (2021n). Needs Analysis.
https://www.researchgate.net/publication/352780645_Needs_Analysis
- Betti, Mohammed Jasim (2021o). Slips of the Tongue and Other Slips.
https://www.researchgate.net/publication/352837551_Slips_of_the_Tongue_and_Other_Slips
- Betti, Mohammed Jasim (2021p). Contrastive Linguistics and Other Related Fields.
https://www.researchgate.net/publication/353052851_Contrastive_Linguistics_and_Other_Related_Fields
- Betti, Mohammed Jasim (2021q). Types of Verbs.
https://www.researchgate.net/publication/353072360_Types_of_Verbs#fullTextFileContent
- Betti, Mohammed Jasim (2021r). Aims and Objectives of Teaching Language and Literature.
https://www.researchgate.net/publication/353143615_Aims_and_Objectives_of_Teaching_Language_and_Literature
- Betti, Mohammed Jasim (2021s). Complement and Complementation.
- Cassin, Barbara. Dictionary of Untranslatables: A Philosophical Lexicon, Princeton University Press, 2014.
- Cruse, D. (2003). Lexical Semantics. Cambridge: CUP.
- Dehham, Sabeeha Hamza, Betti, Mohammed Jasim and Hussein, Nadia Majeed (2021). The Effect of Using Estafet Writing Technique to Enhance Students' Compositional Efficiency. Education, Language and Sociology Research, 2, 1, 1-13.
- Euzenat, Jerome. Ontology Matching. Springer-Verlag Berlin Heidelberg, 2007.
- Goldstein, E. Bruce, 1941- (2015). Cognitive psychology : connecting mind, research and everyday experience (4th ed.). New york: Cengage learning.

- Hashim, Ahmed Mohammed and Mohammed Jasim Betti (2020).
Language Performance and Impairment of Iraqi Patients with
Alzheimer's: A Case Study. *Glossa*, 3, 8, 291-309 .
- Hurford, James and Brendan Heasley (1996). *Semantics: a coursebook*.
Cambridge: CUP
- Igaab, Zainab Kadim (2010a) Reduplication in English and Arabic: A
Contrastive Study. *Journals Education for Girls*, 1, 1, 3-24.
- Igaab, Zainab Kadim (2010b). A Contrastive Study of Metathesis in
English and Arabic. *Wasit: Journal of College of Education*, 1, 7,
152-172.
- Igaab, Zainab Kadim and Al-Manhalawey, Manahil Salman Owaid.
(2010c). Case in English and Arabic: A Contrastive Study.
Journal of University of Thi-Qar, College of Arts, 1, 1, 1-54.
- Igaab, Zainab Kadim (2015a). Apposition in English and Arabic: A
Contrastive Study. *University of Thi-Qar, College of Education
for Humanities*, 5, 4, 110-143.
- Igaab, Zainab Kadim (2015b). Modification in English and Arabic: A
Contrastive Study. *Journal of University of Thi-Qar, College of
Arts*, 2, 1, 1-23.
- Igaab, Zainab Kadim and Al-Bdeary, D. R. T. (2016). Substitution in
English and Arabic: A Contrastive Study. An Unpublished MA
Thesis, College of Education, University of Thi-Qar.
- Igaab, Zainab Kadim and Israa Kareem (2018). Affixation in English and
Arabic: A Contrastive Study. *English Language and Literature
Studies*, 8, 1, 92-103.
- Igaab, Zainab Kadim and Hanan Abdulhasan (2018). Collocation in
English and Arabic: A Contrastive Study. *English Language and
Literature Studies*, 8, 4, 89-103.
- Igaab, Zainab Kadim and Altai, Saja Mohammed Magrood.(2018).
Concord in English and Arabic: A Contrastive Study. *International
Journal of English Linguistics*, 8, 2, 288-297.

Igaab, Zainab Kadim and Tarrad, Intisar Raham (2019). Pronouns in English and Arabic: A Contrastive Study. *English Language and Literature Studies*, 9, 1, 53-69.

Igaab, Zainab Kadim (2010). The Iraqi Undergraduates' Ability to Use and Find Correspondence between Lexical and Sentential Relations. *University of Thi-Qar: College of Arts Journal*.

Igaab, Zainab Kadim (2015): A Contrastive Study of Acronymy in English and Arabic. Diwaniya: Dar nippur.

Jackendoff, Ray; *Semantic Structures*, MIT Press, Cambridge, Massachusetts, 1990

Kroeger, Paul (2019). *Analyzing Meaning*. Language Science Press. pp. 4–6.

Levin, Beth; Pinker, Steven; *Lexical & Conceptual Semantics*, Blackwell, Cambridge, Massachusetts, 1991.

Lobner, Sebastian (2002), *Understanding Semantics*. London: Arnold.

Lakoff, George; Johnson, Mark (1999). *Philosophy in the Flesh: The embodied mind and its challenge to Western thought*. Chapter 1. New York, NY: Basic Books.

Lyons, John (1979). *Semantics*. Vol. 2. Cambridge: CUP.

Nerbonne, J.; *The Handbook of Contemporary Semantic Theory* (ed. Lappin, S.), Blackwell Publishing, Cambridge, Massachusetts, 1996

Underhill, James, W. *Ethnolinguistics and Cultural Concepts: truth, love, hate & war*, Cambridge University Press, 2012.

Wierzbicka, Anna. *Experience, Evidence, and Sense: The hidden cultural legacy of English*, Oxford University Press, 2010.

Sadow, Lauren, ed. *In Conversation with Anna Wierzbicka*, <https://www.youtube.com/watch?v=jCw3dfmgP-0>

Salman, Hussien Salah and Mohammed Jasim Betti (2020). Politeness and Face Threatening Acts in Iraqi EFL learners' Conversations. GLOSSA, 3, 8, 221-233.

Nielson, Hanne Riis; Nielson, Flemming (1995). Semantics with Applications, A Formal Introduction (1st ed.). Chicester, England: John Wiley & Sons.

Palmer, F. R. (1997). Semantics. Cambridge: CUP.

Sikos, Leslie F. (2017). Description Logics in Multimedia Reasoning. Cham: Springer International Publishing.

Giannini, A. J.; Semiotic and Semantic Implications of "Authenticity", Psychological Reports, 106(2):611–612, 2010

Trofimova, I (2014). "Observer bias: how temperament matters in semantic perception of lexical material". PLOS ONE. 9 (1): e85677.

Trofimova, I (1999). "How people of different age sex and temperament estimate the world". Psychological Reports. 85/2: 533–552.

Websites

<http://www.britannica.com/EBchecked/topic/289860/intension-and-extension> [Accessed 29.05.2013]

<http://cmgm.stanford.edu/~lkozar/punctuation.html>

<http://plato.stanford.edu/entries/compositionality/#1>

<https://www.expert.ai/blog/introduction-to-semantics/>