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Arabic Linguistic Research in Cognitive Linguistics -Mechanisms and Problems

-البحث اللساني العربي في اللسانيات العرفانية- الآليات والإشكاليات

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Abstract:

As the various disciplines of science evolve and intertwine, they collectively enrich humanity's repository of knowledge, offering new theoretical and methodological insights. Linguistics, in particular, demonstrates profound interconnectivity and overlap with other fields, focusing predominantly on the intricacies of human language, a central subject of study in diverse cognitive disciplines. These include psychology, neuroscience, computer science, and others, each contributing unique goals, methodologies, and tools. Cognitive linguistics, a relatively nascent paradigm, integrates findings from these diverse branches to delve into the essence of human language, its mental processing, and comprehension.

This paper employs a descriptive approach to probe the array of challenges that Arab linguistic researchers encounter in cognitive linguistics. It specifically addresses the cognitive and methodological hurdles, such as the complexities arising from Arabization, the translation of terminologies, the varied interpretations of imported concepts, and their adoption and practical applications in the Arab context.

Keywords: Cognitive Approach; Mechanisms; Translation; Localization.

الملخص:

تتطور العلوم وتتفاعل فيما بينها لتقدم للإنسانية كل جديد يخدم حصيلتها المعرفية من نظريات ومناهج تختلف باختلاف مصادرها ومواضيع بحثها. ولعل اللسانيات من أكثر العلوم التي تتجلى فيها ملامح التفاعل والتداخل، كونها تعالج موضوع - اللغة الإنسانية - مدار بحث جملة من التخصصات المعرفية المعاصرة المختلفة في أهدافها ومناهجها وأدواتها الإجرائية، من علم نفس وعلم أعصاب وحاسوبيات وغيرها. ومعلوم أن العرفانية من أحدث المقاربات التي جمعت ما توصلت إليه هذه الفروع في مجال دراسة اللغة البشرية وماهيتها وكيفية اشتغال الذهن لإنتاجها وفهمها.

لذلك تسعى هذه الورقة وفق منهج وصفي للبحث في الإشكالات التي تواجه الباحث اللساني العربي المهتم بالمقاربة العرفانية، وتحديد أنواع الصعوبات المعرفية والمنهجية التي تواجهه كالتعدد المصطلحي الناتج عن التعريب والترجمة، والاختلاف في تحديد المفاهيم المنقولة عن الدرس اللساني الغربي، بالإضافة لكيفية تلقّيها والاشتغال عليها. الكلمات المفتاحية: مقاربة عرفانية؛ آليات؛ ترجمة؛ تأصيل؛

1. INTRODUCTION:

Interdisciplinary studies significantly contribute to the growth and sophistication of scientific knowledge, enriching the intersections between various disciplines with novel insights. While each scientific field possesses distinct characteristics, it is through their common junctures that they can be developed and enhanced. Among these, linguistics emerges as a pivotal discipline within the humanities, dedicated to the autonomous study of language.

This contemporary view of linguistic research methodology positions it at the nexus of numerous knowledge domains and sciences. The influence and interaction between linguistics and the natural sciences were particularly highlighted by the groundbreaking contributions of Noam Chomsky.

His work not only connected linguistics with philosophy, mathematics, logic, and psychology but was also deeply influenced by Humboldt's philosophy and Descartes' rationalism. Chomsky's shift towards exploring supra-linguistic elements, beyond the central focus on syntax, underscored the complex nature of language and underscored the necessity for diverse linguistic approaches.

These methodologies, while distinct, often converge to fortify the shared concepts that epitomize humanity's advancement in understanding language ¹. Among these modern methodologies is cognitive linguistics. This paper aims to define cognitive linguistics within this context, explore its reception in the Arab world,

delineate its primary mechanisms, and discuss the prevalent challenges faced by Arab linguistic researchers in this field.

2. Cognitive Linguistics:

This term represents the intersection of linguistics and cognitive sciences, highlighting a pivotal multidisciplinary connection. To understand the full import of this term, a thorough investigation into the concept of cognition and its related scientific fields is essential.

2.1 Linguistic Concept:

The term "cognition" is etymologically derived to mean the act of knowing or coming to recognize an event, as explored in depth in the historical lexicon. It denotes a form of deep knowledge. Initially, this term was notably connected to Sufism, where the type of knowledge embraced is not founded on empirical evidence but on a profound, almost mystical understanding.²

This leads to the identification of two principal categories of mental information processing: The first category, epistemology, relates to the ancient tradition of scientific inquiry, encompassing philosophical and methodological dimensions. This has evolved to spawn modern epistemological theories that significantly influence current scientific and logical discourse.

The second category, cognitive theory, leans more towards empirical scientific endeavours. It represents a modern research trajectory in the natural sciences, primarily driven by advances in biology, specifically in the areas of physiology and deep neurological research ³.

2.2 Terminological Concept:

George Lakoff characterizes cognitive science as "a nascent field that integrates insights about the mind from diverse academic disciplines: psychology, linguistics, anthropology, and computer science. It endeavours to provide comprehensive answers to perennial questions such as: What constitutes the mind? How do we interpret our experiences? What is the conceptual system, and how is it structured? Do all humans share a uniform conceptual system? If they do, what are the characteristics of this system? If not, what are the universal elements in human cognition?"

This perspective underscores that although these questions are not novel, the approaches and some answers offered by cognitive science are indeed groundbreaking⁴.

Embarr views cognitive sciences as "an aggregation of disciplines focused on understanding the workings of the mind and intelligence, fundamentally underpinned by the convergence of fields contributed by philosophy, psychology, artificial intelligence, neurosciences, linguistics, and anthropology.

The study of cognitive sciences extends to intelligence in general, and particularly human intelligence and its biological basis, exploring its expressions in psychological, linguistic, and anthropological contexts."

This definition highlights the critical convergence of three key areas: psychology, neuroscience, and cybernetics, which has evolved into artificial intelligence and computer sciences, culminating in the formation of what is now recognized as

cognitive sciences⁵.

According to Al-Azhar Al-Zanad, cognitive linguistics is perceived as "a broad label for a movement or current that includes various theories sharing core principles but differing, intertwining in their structures, concerns, orientations, and emphases." It is broadly categorized into two main directions: cognitive aspects and the latest developments in generative grammar.

Cognitive linguistics is closely aligned with cognitive sciences in terms of its agenda and operational concepts and critically examines what is deemed non-cognitive in absolute terms, especially within linguistics, as it was founded on a methodological rejection of earlier paradigms based on structural, distributional descriptions, and formalistic methodologies⁶.

The emphasis of cognitive linguistics lies in the nature and function of language; therefore, it explores semantic cognitive attributes and how language interacts with other cognitive faculties such as memory, perception, imagery, embodiment, and experience. It fundamentally investigates the cognitive dimensions in the process of linguistic communication⁷.

A considerable body of research in cognitive linguistics focuses on metaphor, exemplified by Lakoff's seminal work, *Metaphors We Live By*, emphasizing that our everyday language communication is rarely devoid of metaphorical elements.

The reciprocal relationship between linguistics and cognitive sciences highlights the interdisciplinary nature of linguistics. Cognitive linguistics benefits from cognitive psychology through concepts like schemata, mental imaging, and stylistics, and from

computer science, it adopts notions such as computing and types of computer memory.

From neurosciences and brain sciences, it draws on concepts such as the reticular formation, connections, distribution, and synchrony in movement. Conversely, the contributions of cognitive linguistics to cognitive sciences are notably through its reestablishment of linguistic activities to their neural mental foundations, recognizing them as a unique human skill.

This recognition offers a gateway to understanding various facets of human cognition, an aspect overlooked by the formalistic approaches that were once predominant⁸.

This approach, upon its introduction into the Arab world, has significantly transformed the trajectory of Arabic linguistic studies. It has spurred a vibrant interest in researching the cognitive aspects of language, linking linguistic processes to cognitive skills and other mental faculties.

Furthermore, it has advanced the application of these insights in the realm of language acquisition, both native and foreign, which aligns closely with the core investigations of this approach and is highly receptive to its theoretical frameworks. It is crucial to explore the impact of this approach, how it has been received by Arab linguistic scholars, the methodologies they employ, and the specific challenges they encounter.

This discourse is inherently tied to the broader integration of linguistics into the regional context, sharing similar realities and difficulties.

3. Current Trends in Modern Arab Cognitive Linguistics:

Despite its presence in the Arab world for over half a century, many Arab researchers still perceive linguistics as an alien discipline. Munther Ayashi articulates this sentiment by noting, "linguistics remains that unknown entity that arouses in us more suspicion, doubt, apprehension, and fear than it does curiosity about our place within the global cultural, scientific, and knowledge landscape"⁹.

Similarly, Mahmoud Al-Sa'ran observes that early academic engagements with this new science were met with resistance, with many scholars clinging to outdated focuses that, although possibly improved or simplified, do not resonate with contemporary scholarly demands¹⁰.

He acknowledges, however, the existence of a few seminal works aimed at bridging Arabic scholarship with modern linguistic studies, positioning them within the current scientific dialogue, such as Jurji Zaidan's "Linguistic Philosophy and Arabic Terms."

The introduction of linguistics in the Arab context was met with skepticism, primarily because it championed the study of spoken language in its dialectal forms, positing that speech (performance or usage) precedes written forms, contrary to the traditional emphasis on written language first.¹¹

Within the Arab academic landscape, research in linguistics has branched into three distinct directions, as outlined by Mustafa Ghelfan:¹²

- A. A conservative approach that wholly adheres to the traditional linguistic heritage.
- B. An innovative approach that wholly

embraces modern Western linguistic theories.

- C. A conciliatory approach that seeks a synthesis between the rich linguistic heritage and contemporary theories.

This diversity, while enriching the Arab academic corpus with varied research outputs, can sometimes impede the pace of linguistic research. Such research demands concerted efforts to advance towards developing authentic Arab scholarship founded on scientific and objective principles.

The examination of the current state of Arab linguistic research inevitably leads to an analysis of the methodologies adopted by linguists, which include Arabization and translation aimed at simplifying and elucidating Western theories and methods. These efforts are often categorized under introductory writings, alongside original authorship and foundational works.

Notably, significant contributions to Arab research in cognitive linguistics have been made by scholars from Tunisia, Morocco, and the broader Mashriq region. The working mechanisms in this field have been comprehensively delineated by Saber Al-Habasha in the book "Studies in Cognitive Linguistics."

4. Mechanisms of Arab Linguists Working on the Cognitive Approach

To fully grasp the issues and challenges encountered by Arab linguistics researchers in their cognitive studies, it is essential to understand the mechanisms they utilize. Researchers following Arabic studies in cognitive linguistics generally categorize their methodologies into three distinct types, as outlined by Saber Al-Habasha in his

editorial work on the book "Studies in Cognitive Linguistics"¹³

4.1 Definition:

This category primarily encompasses the translation and Arabization of chapters or entire books that aim to introduce cognitive theories by simplifying them. This includes outlining their core principles, highlighting key figures, and providing an overview of the knowledge, concepts, and analytical tools utilized within this approach.

Given the significance of terminology as the key to unlocking the sciences, where scientific terms represent the culmination of accumulated knowledge and distinguish each discipline¹⁴, the emphasis on accurate and insightful translation is crucial. It forms the foundation of deep linguistic awareness, which is integral for fully understanding the transferred knowledge¹⁵.

4.2 Authorship:

This mechanism is observed in the partial application of various cognitive linguistic theories to the Arabic language or specific textual corpora to test their applicability and outcomes.

Theories such as Blending Theory, Conceptual and Perceptual Metaphor Theory by Lakoff, Frame Semantics by Fillmore, Mental Space Theory by Fauconnier, and Cognitive Grammar by Langacker are among those applied, providing insights into their practicality and the results they produce within the Arabic linguistic context.

4.3 Founding:

Efforts in this area aim to establish connections between cognitive science and the Arabic linguistic heritage.¹⁶ These

studies are still in their nascent stages and require extensive research to deepen and reveal the facets of cognitive practice embedded in the Arab intellectual tradition.

Researchers focus on the critical and rhetorical aspects, tracing the origins of cognitive thought among Arab scholars who were pioneers in addressing numerous cognitive issues with their encyclopedic approach, relying on cognitive overlap in interpreting creative processes.

For example, they explored pre-creative cognitive indicators such as perception, intelligence, and memory, and discussed mechanisms of cognitive formulation by analyzing structure, composition, and imagery.¹⁷

Al-Jahiz, for instance, categorized semantics into five evolutionary-based types: the word, indication, contract, line or writing, and posture or state, each reflecting psychological, mathematical, and linguistic dimensions now studied within cognitive linguistics.¹⁸

Similarly, Al-Sakkaki's concept of the "image storehouse" likens the human mind's memory to what is referred to as "logiciel" in modern computer terminology, illustrating an early understanding of cognitive reception and processing akin to modern computational models.¹⁹

These diverse approaches not only underscore the richness of the Arabic cognitive linguistic landscape but also highlight the enduring challenges that Arab linguists face, revealing common hurdles shared between general linguistics and its cognitive subset.

5. Challenges in Linguistic Research within the Cognitive Approach

Exploring Arab cognitive linguistic research reveals several challenges that arise from the variability in approaches and references that linguists employ when assimilating and applying this knowledge to the Arabic language. A critical inquiry in this field is the appropriateness of directly transplanting Western linguistic theories, concepts, and models onto the Arabic language without modifications.²⁰

This fundamental question, among others, gives rise to a spectrum of difficulties that Arab linguists encounter, which can be broadly divided into cognitive and theoretical challenges linked to the researchers themselves or the nature of the knowledge under study, and methodological challenges regarding the transfer and practical application of this knowledge to the Arabic context.

5.1 Cognitive Challenges:

One of the initial hurdles for linguistic researchers involves handling the texts or theories intended for translation into Arabic. Hussein Al-Sudani posits that successful translation fulfills two critical roles: Firstly, it is indispensable for spreading awareness and disseminating knowledge to those eager to stay abreast of new developments.

Secondly, translation is inherently a cognitive act predicated on the translator's deep understanding of the theories and texts being translated. The act of translation not only follows comprehension chronologically but is also dependent on a robust cognitive framework supporting this understanding.

- Therefore, the process of embodying any knowledge is intrinsically linked to the pathway of its translation, underscoring the

necessity for translators to be intimately engaged with and knowledgeable about every facet of the content they are translating, as this understanding directly influences the accuracy and quality of the translation.²¹

- The limited knowledge among linguists who specialize in cognitive aspects about the mental processes, largely due to its ties with experimental natural sciences like neuroscience and psychology, points to the need for establishing specialized research laboratories. These facilities would facilitate interdisciplinary studies, crucial for advancing and refreshing these research areas with the latest scientific developments.
- The swift advancement in cognitive sciences poses a significant challenge in staying updated with the latest findings, further exacerbated by the cultural and scientific disparities between the Western context, which is the origin of much of this knowledge, and the Arab context, which often receives this knowledge through translation. This dependency on translation can be both beneficial and detrimental, depending on the accuracy and relevance of the translated material.²²
- Although there are ongoing efforts and projects aimed at reinterpreting and foundationalizing the heritage within cognitive approaches, the Arab academic reception of these methodologies has not yet advanced to the stage of innovation. The process of integrating and innovating

within these frameworks remains a significant challenge.²³

5.2 Methodological Challenges:

- The cognitive approach is still relatively new in its Western origin, not exceeding four decades²⁴, which requires time to research the reasons for its emergence, its intellectual and philosophical references, and to understand its principles and foundations before transferring them to the Arab reader.
- The transition of Arab linguistic studies from accomplishing concepts and linguistic perspectives to working on terminologies,²⁵ and the lack of coordination among researchers interested in translating terms of this science and controlling them, has led to several terms being used for the same concept, such as: cognitive, perceptual, and others proposing perception. The adoption of each researcher's own glossary and its Arabic equivalents can confuse both the reader and the specialized researcher.
- Differences in Arabization mechanisms, including generating and using heritage terms (borrowing), creating new terms, compounding, and deriving, significantly affect the structure of presenting linguistic knowledge and rephrasing it.

6. CONCLUSION:

The introduction of Western linguistic scholarship into the Arab cultural milieu, particularly within the scope of cognitive linguistics, has engendered a complex

landscape replete with various theoretical and methodological challenges. Examining how Arab linguistic researchers utilize cognitive approaches through mechanisms such as definition, authorship, and foundational studies, has underscored a multitude of cognitive and methodological difficulties.

These obstacles significantly impede the advancement of these studies, preventing them from aligning with contemporary global developments. Key issues include challenges with translation, a diversity of terminologies, and a lack of coordinated and collaborative efforts among Arab linguists.

This situation contrasts starkly with that of their Western peers, whose endeavours are often marked by collective authorship and integrated intellectual engagements. Furthermore, there is an evident need for specialized research laboratories dedicated to cognitive linguistic studies, given their interconnections with fields like neuroscience, computer science, and psychology.

These challenges are indicative of broader systemic issues, reflecting a deep-seated methodological crisis, a tension between tradition and modernity often described as the dichotomy of authenticity and contemporaneity, and concerns about the scientific rigor of linguistic terminologies. Consequently, it is becoming increasingly essential to consolidate efforts within the Arab academic community in cognitive linguistic studies and related fields.

This consolidation is crucial to enhancing the vitality of the Arabic language and ensuring its adaptability to ongoing global shifts. It involves the development of Arabic theoretical frameworks grounded in well-

suited procedural tools, terminological systems, and conceptual models that are inherently aligned with the regional environment and cultural nuances.

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