

Bilateralism and Its Impact on Arabic Morphology and Lexicography: A Vernacularist Reading of Anstās Mārī Al-Karmilī

الثنائية وأثرها في علم الصرف والمعجمات العربية :
قراءة في ضوء نظرية المحلية لأعمال الأب أنستاس ماري
الكرمللي

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ABSTRACT

This paper offers a critical re-examination of the Bilateralism theory (al-ṭnā'iyya al-ṣarfīyya) as first articulated by Father Anstās Mārī al-Karmilī (1866 - 1947) and redefined by Dr. Nasser Hajjaj within the framework of Vernacularism. Bilateralism posits that Arabic, like its Semitic counterparts, evolved primarily from bi-radical etymons rather than the later tri-radical structures canonized by medieval Arab grammarians. While al-Karmilī approached this theory as both a comparative philologist and a lexicographer - drawing connections between Arabic and Indo-European linguistic patterns - Dr. Hajjaj extends its application to resolve diglossic tensions in Arabic morphology. Specifically, Hajjaj reintroduces the authentic bi-radical morphological templates فَع and فَعَّ for words such as مَلَّ / مَلَ ("to tire" / "tired"), rejecting the prescriptive and historically artificial triliteral form مَلَل (fa'ala → malala) imposed in classical lexicography.

Through an analysis of historical dictionaries from Kitāb al-'Ayn to Lisān al-'Arab, alongside modern lexicographical works, this study demonstrates how the triliteral model became an entrenched orthodoxy despite its incompatibility with many vernaculars and even classical usage forms. By reinstating abandoned bi-radical roots, the paper proposes a morphological and lexicographic reform that bridges the gap between 'Arabī as a living tongue and the grammaticalized form of Arabic, thereby mitigating structural diglossia. This approach not only revives al-Karmilī's underexplored insights but also positions Bilateralism as a viable methodology for modern Arabic lexicography, pedagogy, and computational linguistics.

الخلاصة

تقدّم هذه الورقة البحثية إعادة فحص نقدية لنظرية الثنائية الصرفية كما صاغها لأول مرة الأب أنستاس ماري الكرمللي (1866-1947)، وأعاد تعريفها ناصر الحجاج في كتابه المحلية العربية. (Arab Vernacularism, 2024). تفترض الثنائية أنّ اللسان العربي، شأنه شأن اللغات السامية الأخرى، نشأ أساساً من الجذور الثنائية لا من البنى الثلاثية التي قنّتها النحاة العرب في العصور الوسطى. وبينما تناول الكرمللي هذه النظرية بصفته فيلولوجياً مقارنة ومعمجماً، رابطاً بين اللسان العربي والأنماط اللغوية الهندوأوروبية، فإن الحجاج وسّع تطبيق ظاهرة الثنائية لمعالجة مشكلة الأزواج (الازدواجية اللغوية) في بنية الصرف العربي. فقد أعاد الحجاج الاعتبار للثنائية، وبخاصة الفعل الثنائي، بما أضاف وزناً جديداً للميزان الصرفي، وطرح الأوزان الصرفية الثنائية الأصلية فَعَّ و فَعَّ في كلمات مثل: مَلَّ / مَلَ ("تعب" / "متعب"), رافضاً اعتبار الفعل الثنائي فعلاً ثلاثياً، كما فرضه النحاة بصيغته المعيارية المصطنعة مَلَل (fa'ala → malala) التي فرضت في المعاجم الكلاسيكية.

من خلال تحليل معاجم تاريخية تبدأ من كتاب العين وصولاً إلى لسان العرب، فضلاً عن المعاجم الحديثة، يبرهن هذا البحث على أن النموذج الثلاثي ترسخ كمسلمة لغوية رغم عدم انسجامه مع لغات العرب المحكية وحتى مع بعض صيغ الاستعمال الكلاسيكي. وبإحياء الجذور الثنائية المهملة، تقترح الدراسة إصلاحاً صرفياً ومعمجماً يجسر الهوة بين العربي كلسان حي، وبين الشكل المأسس من العربية، وبذلك يخفّف اعتماد الثنائية من حدة الأزواج البنوية (الفصحى . العامية). ولا يكتفي هذا المنهج بإحياء رؤى الكرمللي المهملة، بل يضع نظرية الثنائية كمنهجية صالحة للمعجمة العربية الحديثة، ولتعليم اللسان العربي، وللإنشآت الحاسوبية.

Keywords

الكلمات المفتاحية

الثنائية الصرفية، الصرف العربي، المعجمية، أنستاس ماري الكرملّي، المحليّة العربية، الأزواج اللغوي، اللسان العربي المحكي المعاصر، العربي

Bilateralism, Arabic Morphology, Lexicography, Anastās Mārī al-Karmilī, Arab Vernacularism, Diglossia, Contemporary Standard Spoken Arabic CSSA, Arabi

Received	Accepted	Published online
استلام البحث	قبول النشر	النشر الالكتروني
10/7/2025	3/9/2025	5/10/2025

1. INTRODUCTION

Lexicography has played a pivotal role in consolidating the vocabulary of the Arabic language since the era of al-Farāhīdī (718–786 CE), who adopted a mathematical methodology in compiling *Kitāb al-‘Ayn* during the early centuries of the Islam.⁽¹⁾ The ancient linguists chose to organize their lexicons based on various principles. Some arranged them according to phonetic articulation and the method of root permutation, which Ibn Jinnī elaborated upon in the introduction to his book *Al-Khaṣā’iṣ*, as seen in the works of Al-Khalīl and Al-Azharī. Others adopted an alphabetical ordering, such as *Al-Ṣiḥāḥ* by Al-Jawharī and *Lisān al-‘Arab* by Ibn Manẓūr. Meanwhile, several linguists structured their dictionaries thematically, exemplified by Al-Tha‘ālībī’s *Fiqh al-Lughah* (961–1038 CE).⁽²⁾ In a later phase of lexicographical development, several lexicographers emerged who adopted new methods influenced by Western models, striving to modernize classical Arabic dictionaries. Among the prominent works produced during this period are *Muḥīṭ al-Muḥīṭ* (1869) by Buṭrus al-Bustānī, *Aqrab al-Mawārid fī Faṣṭḥ al-‘Arabiyyah wa al-Shawārid* by al-Shartūnī (1889), and *al-Bustān* by ‘Abd Allāh al-Bustānī (1927).⁽³⁾

Numerous modern Arab scholars have devoted significant attention to the concept of etymological bilateralism⁽⁴⁾ as a foundational principle of Arabic word formation, among them Jurjī Zīdān, Father Aughustīn Marmarjī (1962 BC) (of the Dominican Order), and Ahmad Fāris al-Shidyāq.⁽⁵⁾ Bilateralism suggests that Arabic, like other Semitic languages, evolved from biradical roots. Moreover, triradical roots can be traced back to biradical origins.⁽⁶⁾

al-Karmilī’s⁽⁷⁾ interest in linguistic bilateralism emerged as part of his effort to demonstrate a connection between the Arabic language and languages belonging to the Indo-European family.⁽⁸⁾ Karmilī interest in the bilateralism root theory was shaped by several Arab linguists, such as Al-Farāhīdī (2002), Ibn Jinnī (2007), Al-Azharī (2001), and Ibn Duraid (1970).⁽⁹⁾ However, many scholars rejected this theory, asserting that the Arabic language, particularly in its evolutionary trajectory leans more toward triliteral and quadrilateral roots. In addition, Arabic is divided into formal (Fuṣḥā) and colloquial forms (‘āmmiyya); a phenomenon known in linguistic science as "diglossia".

⁽¹⁾ al- Farahīdī (2002): 1: 31-33.

⁽²⁾ Haywood(1960) :22- 23.

⁽³⁾ ‘Abd al- Tawwāb(1999): 203-304, 238; al- Qazāz (1979) : 13-14.

⁽⁴⁾ This theory is based on the premise that Arabic and its Semitic sister languages evolved from bi-radical rather than tri-radical etymons. Al- Karmilī (1938); Marmarjī (1937).

⁽⁵⁾ al-Zālimī (2018), 44-48; Zīdān (2012), 19-21; Zīdān (1987), 88 -72 ,71 -63, al- Shidyāq (1284): 1: 1010.

⁽⁶⁾ Marmarjī (1937), 6-7.

⁽⁷⁾ Father **Anastās Mārī Al-Karmilī** (1866-1947) was born in Baghdad on August 5, 1866, to a Lebanese father and an Iraqi mother. He received his primary education at the Carmelite Fathers' School, followed by further studies at the Catholic Union School. His academic path led him to the Jesuit Fathers' College, where he gained mastery in Arabic and Greek. In 1887, he moved to Belgium and joined the monastic order at the Chevetogne Abbey, adopting the name "Anastās Marī Al-Karmilī". His birth name was Boutros Mikha'il Al-Marini. He passed away at the age of eighty in 1947 at the Royal Hospital in Baghdad. al- Samra’ (1969) p: 9-11; Awwad (1966): 7-14, al- Jabūrī 1947: 1-10; al- Fakhourī (2005-2006): 311-312.

⁽⁸⁾ al-Karmilī (1938), 8-10.

⁽⁹⁾ Attallah (2005):11-12; Abd al- Tawwāb (1999): 360- 369; Itkonen (2005): 51- 75; Bennett (1998): 63.

Among the scholars who have critiqued bilateralism is Al-Baʿlbakī (1999), who asserts that bi-radical origins exist within Proto-Semitic, though not necessarily across all its languages. He argues that reducing triliteral words to a bi-radical base often involves analogical reasoning. Furthermore, Al-Baʿlbakī notes that roots in Semitic languages were generally unstable, making reliance on them a complex issue. The limitation of this principle becomes evident in the presence of triliteral roots that resist reduction to a bi-radical origin—particularly in verbs whose final radical is *r yāʾ* followed by a vowel, such as *saruwa* ("to be noble") or *nasiyā* ("to forget"), which tend toward a genuinely triliteral structure rather than a bi-radical one.⁽¹⁰⁾

This research presents Father Anastās Al-Karmilī's theory of bilateralism and demonstrates its morphological and lexical impact on Arabic. The study posits that biliteral etymons hypothesized to predate triliteral roots—constitute the original foundation of Arabic and can serve as an influential mechanism for reconstructing morphological rules and establishing new derivational patterns. Additionally, this work compares al-Karmilī's bilateralist approach with the morphological framework for biliteral roots proposed by researcher Nasser Hajjaj within his Vernacularism paradigm⁽¹¹⁾.

2. Al Karmilī's⁽¹²⁾ THEORIES ON THE EMERGENCE OF THE ARABIC LANGUAGE AND THEIR CONSEQUENCES

To study bilateralism, the researcher compared Arabic with other Semitic languages, as, in Karmali's view, all of these languages are believed to have descended from a single source: 'Proto-Semitic'. Similarly, the Carmelite's adherence to the concept of duality may be linked to another theory he elaborates in his book *The Emergence of the Arabic Language*, in which he presents the idea that language developed because of humans imitating natural sounds; an approach known as the "phonetic imitation theory."⁽¹³⁾

Al-Karmilī states in his book *The Emergence of the Arabic Language* (1938): "Language was originally formulated with a single utterance and later evolved into more complex forms based on the linguists' methods of induction and their observation of phenomena and objects".⁽¹⁴⁾

This biconsonantal root is not identical to the triliteral root; rather, he referred to it as a 'base' (مادة) or 'orthography' (هجاء). Moreover, he did not establish a clear rule for how this biradical form is to be defined. Most of his explanations focused on the comparative study between Arabic and other Semitic or Indo-European languages, such as Latin, Greek, and Saxon. The biconsonantal etymon evolves through verbal augmentations such as prefixes, intensifiers, and eliminators, all of which serve to broaden its original semantic scope. Based on the biconsonantal theory, verbs were formed from doubled, hollow, and defective roots, followed by roots with a hamza in the initial, medial, and final positions, respectively, culminating in biliteral forms with an initial wāw or yāʾ. As for nouns, the addition of letters beyond the root structure stems from the communicative needs of speakers. These letters express new requirements that emerged with the development of time, while anything beyond that signifies that the word's origin is non-Arabic. This is the principle adopted by Al-Karmilī in clarifying Arabized vocabulary.⁽¹⁵⁾

Anastās al-Karmilī's interpretation of linguistic duality is grounded in the theory of imitation in the origin of language. Imitation, or onomatopoeia, partially aligns with the theological theory of divine designation (al-tawqīf). The latter is based on the Qurʾanic verse: "And He taught Adam the names—all of them."⁽¹⁶⁾

⁽¹⁰⁾ Al- Baʿlbakī (1999): 45-48.

⁽¹¹⁾ The Vernacularism paradigm, as introduced by Nasser Hajjaj (*Nāṣir al-Ḥajjāj* / ناصر الحجاج) in his Arab Vernacularism (2024) (*Al-Maḥalliyah al-ʿArabiyyah*), is mainly represented in three major dimensions: the Creative Dimension, the Critical Theory/Research Dimension, and the Ideological/Identity Dimension. (Al-Sabah Newspaper, Tue. 28 Jan. 2025, Issue No. 6095).

⁽¹²⁾ When considering the amount and frequency of research in comparative linguistics, the Arabic language seems to have been neglected, mainly due to its sanctity, being the miracle of the Holy Qurʾān. However, the Iraqi linguist Anastās Mārī al-Karmilī (1866-1947) had a different attitude towards Arabic, and he explored it in many of his studies on comparative linguistic with other languages, especially Semitic languages. His research in Arabic stemmed from the fact that Arabic is a Semitic language, a branch of a specific family of Semitic languages. Through his research, he managed to raise the status of Arabic by adopting a different research approach compared to those prevailing amongst Arabic linguists at the turn of the twentieth century, thus the significance of al-Karmilī's works. al-Karmilī (1938): 1-10; Awwād (1972): 27-125. [النظرية الثنائية في اللغة](#)

⁽¹³⁾ al-Karmilī (1938), 8-10

⁽¹⁴⁾ al-Karmilī (1938), 7-10.

⁽¹⁵⁾ al-Karmilī (1938): 8-10

⁽¹⁶⁾ al-Karmilī (1938):169-171.

According to this view, the emergence of language was not solely a product of human evolution or social necessity, but rather a divinely initiated act. Al-Karmilī's approach attempts to reconcile the mimetic nature of early linguistic expression with the notion of divine instruction, suggesting that sound imitation may have served as a foundational mechanism within a divinely guided framework of naming and communication.

Bilateralism is neither a morphological, lexical, nor syntactic principle; rather, it fundamentally contradicts the structural foundations upon which Arabic and other Semitic languages are built.⁽¹⁷⁾ This theory alone cannot be effective in understanding the lexical rules of the Arabic language. Furthermore, the theory of permutations becomes ineffective when applied to a bilateral root, unlike its proven efficacy with trilateral roots.

Despite the gap created by Ibn Jinnī's theory of the six permutations when applied to bilateral roots, Al-Karmilī reconstructs the rules of Arabic morphology and its stages of evolution. Verbs begin with two letters, then expand to three and four, with the quadrilateral form originating from the intensified trilateral. This implies a developmental sequence: *fa'ila*, followed by *fa'ala*, and then *tafa'ala*.

In this approach, one may conclude that both the glottalized (hamzated) and doubled (geminated) verb forms are evolutions of the hollow verb form—for instance, *za'ala* زَالَ stemming from *zāla* زَالَ, and *daf'a* دَفَعَ from *dafā* دَفَعَ.⁽¹⁸⁾

Al-Karmilī's explanations of the bilateral theory aim to establish a linguistic kinship between Arabic and other Semitic or non-Semitic languages, reinforcing the idea that the world's languages are offspring of a single mother language, originally formed through bilateral syllables.⁽¹⁹⁾

3. THE BILATERALISM THEORY: BETWEEN AL-KARMILĪ AND OTHER SCHOLARS

Al-Karmilī was not alone in advocating for the bilateralism etymon theory; many linguists followed this approach, including Ahmad Faris al-Shidyāq (1804–1887), who addressed it in his book *Sirr al-Layālī fī al-Qalb wa al-Ibdāl* (1284 AH)⁽²⁰⁾, and Ibrahīm al-Yazijī (1847–1906), who affirmed that the bi radical etymon form inherently carries meaning in and of itself.⁽²¹⁾

Jurjī Zaydān (1861–1914) stands as a key figure in examining bilateralism etymon parallels among Semitic tongues, offering compelling insights into how Arabic, Hebrew, and Aramaic share foundational linguistic features.⁽²²⁾ Father Augustin Marmarjī (1881–1963), a Dominican priest and prominent linguist, was known for his extensive work on Semitic philology. In his writings, such as *Lexicographie arabe à la lumière du bilittéralisme et de la philologie sémitique* (1937), he emphasized the role of bilateral roots in understanding the structural parallels between Arabic and other Semitic tongues.⁽²³⁾ Father Marmarjī viewed bilateralism as a methodological tool for reconfiguring Arabic lexicography; an approach that was not prominently adopted by al-Karmilī scholars and others.⁽²⁴⁾ Despite the strong adherence of these linguists to the theory and its effectiveness in reshaping Arabic lexicography, it remains largely unaccepted by many scholars.

Al-Karmilī presents the concept of bilateralism through the examples mentioned in the previous section, albeit in a highly concise manner. He does not incorporate it into the structure of his auxiliary lexicon, nor does he clarify its impact on the development of Arabic lexicography or the methods for identifying bilateral roots.⁽²⁵⁾ In contrast, Father Marmarjī offers clear and illustrative examples in his book *Arabic Lexicography in Light of Bilateralism and Semitic Linguistics* (1937). Marmarjī asserts that the trilateral root often emerges as an extension or development of this bilateral base. According to his view, the bilateral structure is the original root in the language, and adding a third letter does not generate a completely separate meaning, but rather evolves the original sense. He supports this with examples such as 'ab, um, akh, ḥam' as bilateral roots that developed into trilateral forms, and further analyses words like 'nahbal, tarfal, zambīl,' showing how they stem from bilateral origins with added phonetic or semantic elements. Marmarjī concludes that trilateral meanings remain

⁽¹⁷⁾ Pierre Larcher and Daniel Baggioni [pre-print version, corrected] (2005): 186–191, Bennet (1998): 63.

⁽¹⁸⁾ al-Karmilī (1938): 8–10.

⁽¹⁹⁾ Moscati and others (1993): 40–49.

⁽²⁰⁾ al-Shidyāq (1887): 1:1010.

⁽²¹⁾ Hejā (1992): 40–45.

⁽²²⁾ Zaydān (2012): 63–88.

⁽²³⁾ Marmarjī (1950); al-Zalimī (2018): 46–48.

⁽²⁴⁾ Marmarjī (1937): 5–7.

⁽²⁵⁾ al-Karmilī (1938): 5–10; Marmarjī (1937): 5–7.

interwoven with their biliteral roots, reflecting a deep interplay between phonological form and semantic development in Arabic.⁽²⁶⁾

One of the striking marginal observations made by Father Marmarjī in his book is that the final vowel in Syriac and Arabic words is a grammatical invention introduced by grammarians. This assertion reinforces the idea that the biliteral root is the original foundation of the word.⁽²⁷⁾

4. THE BILATERALISM THEORY AND VERNACULARISM (HAJJAJ, 2024) ⁽²⁸⁾; MORPHOLOGICAL ANALYSIS

The *Bilateralism* theory is considered highly controversial across various fields of Arabic linguistics, especially since the majority of Arab grammarians attribute the *Bilateralism* origin to a trilateral root. Moreover, lexicographers have constructed their Lexicons based on the arrangement of trilateral roots, except for a small minority among them.⁽²⁹⁾

The trilateral root represents an evolution of the biliteral form, intended to refine and specify meaning. The initial trilateral structure emerged through the addition of a prefix, either semantic intensifier or generalizer. The original biliteral root retains a unified, general meaning.⁽³⁰⁾

We may assume that the controversy surrounding binarity stems, as Munshed and others⁽³¹⁾ have pointed out, from the fact that Semitic languages and Arabic in particular, are derivational languages that do not rely on compounding, unlike those of the Indo-European family. Furthermore, constructing a derivational Arabic dictionary based on binary roots fundamentally depends on comparative derivational and semantic analysis between Arabic and its Semitic sister languages. Additionally, the investigation into biliteral roots can affirm the continuity between Arabic and other non-Semitic languages, based on the views of Al-Karmilī⁽³²⁾. This contributes to broadening the scope of semantic research in the Arabic language, discerning between borrowed and original elements, and identifying the mechanisms behind the formation of loanwords and the development of Arabic dialects in general.

To understand the local value of a specific region, one must delve into the context of linguistic studies, a field that researcher Nasser Hajjaj dedicated to in his book *Arab Vernacularism* (2024) Hajjaj classifies the local language (vernacular) or dialect as one of the most prominent themes of locality, as it is unique to one nation and not shared by others.⁽³³⁾

Hajjaj posits that Classical Arabic compels an Arab to abandon their native tongue in order to communicate with another Arab who speaks a different dialect. This, in turn, widens the gap between spoken Arabic and Classical Arabic, as linguistic discourse treats them as two distinct languages, a phenomenon known in linguistics as “diglossia”. Linguistic diglossia is not a modern phenomenon; Arab tribes historically spoke various dialects—'Vernacular languages'—which early Arab grammarians, in their prescriptive approach, often regarded as jargon or linguistic error *Lahin*.⁽³⁴⁾

Hajjaj offers an extensive explanation of the theory of *Bilateralism*, which was strongly supported by Al-Karmilī. Moreover, we find in Hajjaj's work a morphological foundation for this theory. According to Al-Karmilī, language originated from biradical roots; two-letter units each consisting of a single phonetic utterance that mimics natural sounds. This original utterance is referred to as a “matter” or “structure”. Based on our study of this theory's explanation, a distinction emerges in Al-Karmilī's view between the 'origin' and the 'root': the origin is the biradical utterance that forms the basis of roots in a language that is fundamentally triradical. The triradical root is formed through the addition of affixal letters, either prefixes, infixed elements, or suffixes. Al-Karmilī refers to Arabic as the languages of the tribes that spoke it in the Arabian Peninsula; namely, Banū Qaḥṭān, Banū Adnān, and Banū Muḍar.⁽³⁵⁾ This implies that Al-Karmali does

⁽²⁶⁾ Marmarjī (1937): 5-7; al Zalimī (2018): 308.

⁽²⁷⁾ Marmarjī (1937): 62-63.

⁽²⁸⁾ “Hajjaj, while considering iṣṭiqāq the most powerful generative tool in Arabic, did not pursue al-Karmilī's argument that biliteral verb is the root of trilateral; rather, he sought to recover the neglected morphological form fa' (فَع), often ignored or treated merely as a biliteral fa'ala فَعَل. Moreover, Hajjaj has inaugurated the first systematic definition of Bilateralism in Arabic linguistics, as a phenomenon and mechanism operating not only in biliteral verbs but also in nouns, prepositions, and particles.

⁽²⁹⁾ Munshed (2016):70-103.

⁽³⁰⁾ Munshed (2016):70-103; Tanasra Barghout 2025: 161-179.

⁽³¹⁾ Munshed (2016):70-103.

⁽³²⁾ Al karmilī (1972)1: 24-26,71.

⁽³³⁾ Hajjaj (2024): 8-9, 45.

⁽³⁴⁾ Hajjaj (2024): 15-16.

⁽³⁵⁾ Al-Karmilī (1938): 5-10.

not consider the Qurayš dialect to be a mirror of Arabic as a whole. Rather, he investigates the earliest phase of the language, which, in his view, necessitates the study of Sumerian, as it represents a lower linguistic stratum within Arabic and other Afro-Asiatic languages.⁽³⁶⁾

Al-Karmilī explained how the biradical origin evolved into a triradical root, and how the verb developed into its various forms; from the doubled verb (muḍʿaf) to the hollow (ajwaf), and then to the glottalized (mahmūz) and the assimilated (mithāl). However, he did not establish a morphological rule for these verb forms, as the aim of his theory was limited to identifying affinities between Arabic and other Semitic languages, as well as ancient and modern European languages.⁽³⁷⁾ Conversely, Nasser Hajjaj highlights the role of Bilateralism in uncovering the layered meanings within a single Arabic word. By comparing it with other Semitic languages, the researcher can trace its biliteral origin and thereby grasp its original meaning.⁽³⁸⁾

Both Hajjaj and Al-Karmilī agree that language evolved from biradical origins that preceded the formation of triradical roots. However, Hajjaj goes further by considering the assimilation of biradical verbs into the triradical system a grave linguistic error committed by descriptive grammarians. This, he argues, has widened the gap between Classical Arabic and colloquial dialects, to the extent that grammarians assumed the former to be the correct form, in contrast to the latter.⁽³⁹⁾

Through the study of both Hajjaj and Al-Karmilī, we understand that Hajjaj was able to advocate for bridging the gap between Classical Arabic and colloquial dialects by examining the biradical origin and its development from *faʿ* to *faʿala*. This binary root, to which Hajjaj assigned a morphological form, was considered part of the theoretical framework in Al-Karmilī's book (1938). He merely stated that language was originally formed from a single syllable consisting of one consonant and one vowel. Many researchers have pointed to the relationship between language and society. If language is a mirror of society and a part of its identity, then what kind of society and identity would emerge if the language itself were dual, comprising both Classical Arabic and colloquial dialects. Furthermore, the reliance on the triliteral root system and the morphological pattern *'faʿala'* in Classical Arabic widens the gap between the colloquial and the formal. This is evident in many verbs that appear in specific morphological forms in the colloquial dialects yet are considered incorrect according to the morphological rules of Classical Arabic.⁽⁴⁰⁾ Hajjaj examined bilateralism within the context of his study of vernacular languages⁽⁴¹⁾ as one of the elements of locality in Arabic poetry. Through his theoretical framework of Vernacularism, we observe partial convergence with Al-Karmilī's propositions. Hajjaj's theory emphasizes the significance of semantic understanding and social context for specific lexical items through their etymological reduction to biliteral origins.⁽⁴²⁾

Indeed, what Hajjaj intended by introducing this morphological pattern was to emphasize the existence of biliteral roots in Arabica; phenomenon that cannot be properly defined without examining other Semitic languages.⁽⁴³⁾ This aligns with our specialized study of biliteral origins as explored by Anastās Al-Karmilī, who argued that many triliteral roots in Arabic evolved from more ancient biliteral forms.

The word *nahr* (river), for instance, represents the evolution of the Semitic biliteral root *nr*, meaning 'light,' through the addition of the letter *hār*. This results in a semantic composite encompassing both *nr* and *hr*: the former denoting illumination and the latter signifying flow. Furthermore, it is crucial to note that Arabs, as Hajjaj observes, assimilated numerous biliteral verbs into triliteral patterns, thereby contributing to the widening gap between colloquial and Classical Arabic; particularly given that the former constitutes an extension of the tribal dialects of the Arabian Peninsula's inhabitants.⁽⁴⁴⁾

⁽³⁶⁾ Hajjaj (2024): 207-210.

⁽³⁷⁾ Al-Karmilī (1938): 8-10. Consider, for instance, Al-Karmilī's proposition regarding the affinity between Arabic and other European languages such as Latin, Greek, Saxon, and others.

⁽³⁸⁾ Hajjaj (2024): 208-209.

⁽³⁹⁾ According to Hajjaj: the Arab world is unified by its language, not by its spoken tongue. Colloquial Arabic differs significantly from Classical Arabic, which relies on the modification of word structures according to grammatical functions Hajjaj (2024): 208; Al-Karmilī (1938): 8-10.

⁽⁴⁰⁾ Anīs (1976): 20-21; Frīḥa (1981): 68-71.

⁽⁴¹⁾ Hajjaj prefers to use "vernacular language" instead of "dialect" clarifying that a "vernacular" represents sociolinguistic, cultural dimension and "dialect" represent the geographical dimension, giving "Black vernacular" in the United States as an example.

⁽⁴²⁾ Hajjaj (2024): 205-209.

⁽⁴³⁾ Hajjaj (2024): 205-209.

⁽⁴⁴⁾ Ibid.

Numerous linguists have contested this theory, with prominent evidence of this opposition manifest in morphological studies, as Arabic relies on verbal templates founded upon trilateral structures. In our view, trilaterality represents an effective evolutionary development in Arabic; however, we propose that trilateral patterns should be complemented by the bilaterality for which Hajjaj established the morphological pattern *faʿ*.⁽⁴⁵⁾ Which is never recognized by the ancient Arab grammarians in their morphological scale “*Al-Mizān Al-Ṣarfī*”.⁽⁴⁶⁾

Through the morphological weight (*faʿ*) theorized by Hajjaj and the theory explained by Al-Karmil, we can propose a method for determining the dual root of various words in the Arabic language. In doing so, we would have laid the foundation for a **Biliteral** Arabic etymological Lexicon. This dictionary could bridge the gap between spoken Arabic and the Arabic used in the Arab world as a Contemporary Standard Spoken Arabic CSSA *Aʿrabi* (Hajjaj, 2025).⁽⁴⁷⁾

To find the bilateral etymon, it is essential to compare the Arabic word with its counterparts in other Semitic languages. For example, if we compare the Arabic word *أَجَدَ* / *ʾağad*, which means "to bind" or "to strengthen", with the Hebrew word *גָּדַד* and its equivalents in Mandaic, Phoenician, and Aramaic, we can propose the *أَج* as the origin for this word.⁽⁴⁸⁾ From this etymon, additional three-consonant roots were formed, such as *أَجَجَ* and *أَجَمَ*, which are semantically related to the biliteral etymon *أَج*. Among other examples that can be presented in this context is the term *ʾam*, from which words such as *ʾama* (female servant), *ʾumm* (mother), and *ʾumma* (nation or community) have evolved.⁽⁴⁹⁾

The examples in this context are virtually limitless. In analysing the semantic range of the terms *batar* (to sever), *batta* (to decide decisively), and *batala* (to cut off or amputate), one may propose the biliteral root *bat* as a common origin for all of them. This hypothesis suggests that these seemingly distinct trilateral forms may have evolved from a shared biliteral core, reflecting a unified semantic field centred around notions of cutting, severing, or decisiveness.⁽⁵⁰⁾

5. CONCLUSION

In a general overview of the preceding discussion, the role of biliteralism becomes evident across multiple dimensions. Through the theory of Al-Karmilī and its propositions, the effectiveness of comparative analysis between Arabic and other Semitic languages becomes evident. Arabic is not an isolated language, but rather part of a broader familial branching. Comparative linguistic study can reveal foundational features of Arabic and highlight areas of structural and semantic correspondence with other Semitic tongues.

Moreover, based on the theory of *hijjāj* *ججاج* (argumentation) and the application of a morphological weight to biliteral roots, it becomes possible to construct a biliteral etymological lexicon. This lexicon would be grounded in the proposed morphological pattern and developed through systematic comparison of Arabic terms with their cognates in other Semitic languages.

Through this lexicon, the following objectives are achieved:

- Bridging the gap between vernacular Arabic dialects and Classical Arabic by reducing instances of linguistic etymological (*lahīn*) that arise from the transformation of biliteral roots into trilateral forms.
- Revealing the primary semantic value of numerous trilateral terms that have emerged through linguistic compounding from two biliteral roots.
- Uncovering the mechanism of semantic evolution from biliteral to trilateral or quadrilateral roots, and beyond. Once the original form is revealed, the derived term becomes intelligible.

Jurjī Zīyādān describes language as a living organism; a characterization that underscores the urgent need to develop a biliteral etymological lexicon. Such a lexicon would illuminate the earliest phase of the Arabic language, a stage capable

⁽⁴⁵⁾ مجمع اللغة العربية الاقتراضي: من تاريخ العربية المجهول: الجذور الثنائية البائدة

⁽⁴⁶⁾ Hajjaj (2024): 208-209.

⁽⁴⁷⁾ Hajjaj, Nasser (2025) *Arabi is the Language of Dhāʾ*: Arabic Phonetic Evolution and the Identity of the Arabi (Contemporary Standard Spoken Arabic CSSA) MJALS.

⁽⁴⁸⁾ Gesenius (Electronic Book): 10; Brown, Francis & S.R Driver & Charles (1906): 17; Jastrow (1903): 1: 10; Klein (1987): 6; Leslau (1990): 10-11.

⁽⁴⁹⁾ Gesenius (Electronic Book): 61, 641; Jeffery (2007): 69; Militarev and Kogan (2005): 2- 7; Tombak (1974): 24; Leslau(1990): 26.

⁽⁵⁰⁾ Klein (1987): 87; Gesenius (Electronic Book): 149; Jastrow (1903) 1: 167- 168; Tombak (1974): 58- 60; B.D.B. (1906): 404- 405.

of revealing linguistic roots that have faded from usage due to their classification as non-standard, despite their prevalence in early literary texts. By tracing these biliteral origins, the lexicon would offer insight into the organic evolution of Arabic and recover elements that were marginalized in the pursuit of linguistic purity.

Vernacularism, as articulated in Arab Vernacularism (2024), establishes a corrective paradigm that liberates Arabic from prescriptive grammar النحو التوجيهي and redefines linguistics, cultural studies, and sociolinguistics. By distinguishing lisān لسان from lughah لغة, reframing diglossia as manufactured, and reclaiming vernaculars as authentic, it exposes centuries of distortion.

Its most radical achievement lies in morphology and phonology: Nasser Hajjaj not only redefined biliteralism in Arabic but also demonstrated that biliteralism is a **core structural phenomenon of the language**. It is not confined to verbs but extends systematically to nouns (sinn → sinnak, jadd → jaddak) and particles (minnak, ‘annak), revealing a **unifying principle of Arabic word-formation and sound-patterning**. While earlier figures from al-Farāhīdī and Ibn Jinnī to Shidyāq, Zaydān, and al-Karmilī acknowledged biliteral forms in passing, none uncovered this deeper mechanism.

This breakthrough is Copernican in scope: just as Copernicus displaced the Earth from the center of the cosmos, Hajjaj’s Vernacularism displaces triliteralism from the center of Arabic morphology. The result is a paradigm shift that demands the re-reading of Arabic scholarship -classical and modern - not as definitive, but as constrained by prescriptive bias.

In the AI age, this corrective is urgent. Natural Language Processing (NLP) systems trained only on prescriptive fuṣḥā الفصحى will always struggle to capture the living al-lisān al-‘arabī العربي اللسان (Contemporary Standard Spoken Arabic) ‘Arabī. Arabs do not use fuṣḥā in daily life precisely because its rules were artificially imposed by grammarians. For AI to achieve deep learning of Arabic, it must internalize the true morphological and phonological system - one in which biliteralism is central, vernaculars are authentic, and descriptive patterns replace prescriptive distortions. Vernacularism thus not only reshapes Arabic linguistics, but also provides the foundation for a new generation of AI-driven Arabic studies that align with how Arabs actually think, speak, and create.

Conflicts Of Interest

None

Funding

None

Acknowledgment

The author gratefully acknowledges Dr. Nasser Hajjaj for his insightful clarifications and valuable notes on Arab Vernacularism (2024), particularly regarding Bilateralism and other linguistic and cultural themes seldom addressed in Arabic studies. Dr. Hajjaj’s work, which both extends and crowns al-Karmilī’s efforts, has inaugurated the first systematic definition of Bilateralism in Arabic linguistics and extracted the neglected morphological form of the biliteral verb along with its phonological mechanism - contributions that greatly informed this study.

References

- [1] ‘Abd al- Tawwāb, R. (1999). *Fiqh al Lugha al Muqārin*. Cairo: Maktabat al Khahnjī.
- [2] Al- Ba‘albakī, R. (1999). *Fiqh al-Lugha al Muqārin*. Beirut: Dār il‘ilm lilmaalāyīn.
- [3] Al- Fakhourī, H. (2005-2006). *Tārīkh al Adab al‘Arabī*. Beirut: Dār Al-Jīl.
- [4] Al- Farahīdī, Al- khalīl. (2002). *Kitāb Al ‘Ayn Murtaban ‘alā ḥurūf al Mu‘jam*. Beirut: Dār il-kutub al ‘Ilmiyya.
- [5] Al- Jabūrī, G. (1947). *Al karmilī al khalid*. Baghdad: Al Maṭba‘a al Mlūkiyya.
- [6] Al- Karmilī, A. (1938). *Naṣ‘at al- Luḡa al-‘Arabiyya: Numuwuwuhā wa iktihālūhā*. Cairo. Al-Maṭba‘a al‘Asriyya.
- [7] Al- Karmilī, A. (1972). *Al- Musā‘id*. Baghdad: Dār- ilḥuriyya.
- [8] Al- Qazāz, A. (1979). *Al Dirāsāt il Lughawiyya fī al Nisf al Awwal min al Qarn al ‘īsrīn*. Baghdad: Kulliyat al Aadāb.
- [9] Al- Samra‘ī, I. (1969). *Al-‘abb al- Karmilī wa ‘Arā‘uhu al- Lughawiyya*. Beirut: Maṭba‘at Libnān.
- [10] Al- Shidyāq, A. (1887). *Kitāb Sirr al- Layālī fī al- Qalb wa al-‘Ibdāl*. Istanbul: Al Maṭba‘a al- Sultāniyya.
- [11] Al-Zālimī, H. (2018). *Mu‘allafāt al ‘abb ‘ūghstīn Marmarjī al dūmnīkānī*. Damascus: Tammūz Dīmūzī.
- [12] Anīs, E. (1976). *Dalālt il- alfāḍ*. Cairo: Maktabat il-Anglo.
- [13] Attallah, E. (2005). *Al ‘Uṭūl alṭunā‘iyya fī al‘Arabiyya*. Beirut: Maktabat Libnān.
- [14] Awwād, K. (1966). *Mu‘jam alMu‘alifīn al‘Irāqīēn*. Baghdad: Al-Majma‘ al-Lughawī al-‘Irāqī.
- [15] Bennet, Patrick R. (1998). *Comparative Semitic Linguistic*. Eisenbrauns: Winona Lake.

- [16] Brown, Francis & S.R. Driver & Charles (1906). *The Enhanced Brown-Driver-Briggs Hebrew and English Lexicon*. Clarendon Press: Oxford.
- [17] Frīḥa, A. (1981). *Naḍariyyāt fī il-lugha*. Beirut: Dār il Kitāb il-Lubnānī.
- [18] Gesenius, W. *Hebrew and Chaldee Lexicon to the Old Testament*. (Scanned by Tigran Aivazian). Electronic Book.
- [19] Hajjaj, Nasser (2025) MJALS, *Arabi is the Language of Dhā': Arabic Phonetic Evolution and the Identity of the Arabi* (Contemporary Standard Spoken Arabic CSSA)
- [20] Hajjaj, Nasser. (2024). *Arab Vernacularism-al-Mahalliyah al- 'Arabiyyah*. Basreatha, Iraq.
- [21] Haywood, John (1906). *Arabic lexicography: its history, and its place in the general history of lexicography*. [sic] Leiden; Brill.
- [22] Itkonen, E. (2005). *Analogy As Structure and Process: Approaches in Linguistic, Cognitive Psychology, and Philosophy of Science*. Amsterdam: John Benjamins Publishing Co.
- [23] Jastrow, Marcus (1903). *A Dictionary of the Targumim, the Talmud Babli and Yerushalmi, and the Midrashic Literature*. 2 vols. New York: Verlag Choneb.
- [24] Jeffery, Arthur (2007). *The Foreign Vocabulary of the Qur'ān*. Boston: Leiden, 2007.
- [25] Jehā, M. (1992). *The Unknown Works of Ibrahim Al- Yaziji*. Cyprus: Dār el-Rayyes.
- [26] Klein, Ernest. (1987). *A Comprehensive Etymological Dictionary of the Hebrew Language for Readers of English*. Jerusalem: CARTA (The Israel Map) and Publishing Company.
- [27] Leslau, Wolf (1990). *Arabic Loanwords in Ethiopian Semitic*. Wiesbaden: Otto Harrassowitz.
- [28] Marmarjī, A. (1950). *Mu'jamyyāt 'Arabiyya Samiyya*. Jouni: Maṭba'at al Mursalīn.
- [29] Militarev, Alexander and Leonid Kogan (2005). *Semitic Etymological Dictionary*. Ugarit- Verlag: Münster.
- [30] Moscati and others (1993). *An Introduction to the Comparative Grammar of the Semitic Languages: Phonology and Morphology*. Wiesbaden: Otto Harrassowitz.
- [31] Munshed, H. (2016). Linguistic Contast between bilateral and trilateral roots in Semitics languages (Arabic and Syriac as a model). *Journal of the College of Languages (JCL)*, 33, 70-103.
- [32] Tanasra Barghout, S. (2025). *Arabic Language and Its Semitic Sisters: A Linguistic Study of Fr. Anstās Mārī al-Karmilī's Works*. Amman: al-Arabiyya.
- [33] Tombak, Richard S. (1974). *A Comparative Semitic Lexicon of The Phoenician and Punic Language*. andssoula: Scholars Press.
- [34] Zidān, J. (1987). *Al Falsafa al Lughawiyya w al-Alfāz al- 'Arabiyya*. Beirut: Dār il Ḥadāṭa.
- [35] Zidān, J. (2012). *Al-Lugha al- 'Arabiyya Kā'in Ḥayy*. Cairo: Hindawi.