

*Corresponding author:

Dr. Essa Alfaifi

Department of Arabic Language and Literature, Jazan University, Jazan, Saudi Arabia Email: <u>alfaifiessa@gmail.com</u>

Keywords:

Arabic terminology, Arabic modernization, borrowing, scientific terminology, coining words. A R T I C L E I N F O

Article history:

Received	2
Accepted	1
Available online	1

26 Dec 2023 14 Mar 2024 1 Apr 2024



ISSN: 1999-5601 (Print) 2663-5836 (online)

Lark Journal

Available online at: https://lark.uowasit.edu.iq



A perspective on the development of modern technical terminologies in Arabic: Linguistic terminologies in Modern Standard Arabic as a case study

ABSTRUCT

Due to globalization, and cultural and language contact, the Arabic language has been on the receiving end of a massive unidirectional influence from foreign languages in general and English in particular. This influence opens the gate for foreign words, expressions, scientific terminology, and stylistic features to gain access to Arabic. This paper investigates the methods of incorporation of modern technical scientific terms in Arabic. The paper also reviews the extensive debate among Arabic language planners regarding Arabic modernization, secularization, and westernization of its identity due to foreign influence.

The paper compiles and examines data on (I) borrowing and (II) coining new words through templatic derivation, affixation, analogy, compounding, and blending. The paper evaluates the methods of terminology borrowing in the field of Arabic linguistics, as a case study. Furthermore, it discusses the distinction between a 'word' and a 'term' as the distinction between them resolves multiple issues regarding the incorporation of new words into Arabic.

The paper argues that borrowing is the best option to keep up with the rapid expansion of scientific terminologies in Linguistics and other scientific fields. The conclusion provides some implications and suggestions for Arabic publishers and language planners regarding foreign words in Arabic.

© 2024 LARK, College of Art, Wasit University

DOI: https://doi.org/10.31185/lark.Vol1.Iss16.3382

نظرة في تطور المصطلحات العلمية الحديثة في اللغة العربية: المصطلحات اللغوية في اللغة العربية الفصحى أنموذجا

د. عيسى الفيفي/ قسم اللغة العربية وآدابها، جامعة جازان، جازان، المملكة العربية السعودية **الخلاصة:**

نتيجة للعولمة والتواصل الحضاري واللغوي، نلحظ تأثير اللغات الأجنبية – وخاصبة اللغة الإنجليزية – على اللغة العربية. هذا التأثير تتجلى معالمه بوضوح في الكلمات والمصطلحات العلمية والسمات الأسلوبية

الدخيلة على اللغة العربية من اللغات الأخرى. يناقش البحث استعمال المصطلحات العلمية الحديثة في اللغة العربية، ويستعرض الخلاف الكبير في مجامع اللغة العربية الخاصة بأساليب تجديد اللغة العربية ومواكبتها لحاجات العصر في ظل تأثير اللغات الأجنبية.

ويستعرض هذا البحث بيانات متنوعة تخص أساليب إثراء اللغة العربية بالمفردات الجديدة، بوساطة : (أ) استعمال الكلمات الدخيلة أو ما يسمى بـ "الاقتراض"، (ب) صياغة كلمات عربية جديدة بطرق متنوعة كالاشتقاق الصرفي، والزوائد الصرفية، والقياس، والتركيب، والمزج. ويقدم البحث تقييمًا عمليًًا لهذه الأساليب وذلك بدراسة حالة المصطلحات العلمية في حقل "اللسانيات". كما أن البحث يناقش ضرورة التفريق بين "الكلمة العادية" و "المصطلح العلمي" ؛ إذ إن التمييز بينهما يحل إشكاليات كثيرة ناتجة عن دخول المصطلحات الأجنبية على اللغة العربية.

وقد خلص البحث إلى أن الاقتراض هو الخيار الأمثل لمواكبة التوسع السريع في المصطلحات العلمية في حقل اللسانيات أو غير ها من المجالات العلمية الأخرى. وتضمنت الخاتمة بعض التوصيات والمقترحات للناشرين والعاملين في مجال التخطيط اللغوي فيما يتعلق بطرق التعامل مع الكلمات الأجنبية في اللغة العربية.

ا**لكلمات المفتاحية**: المصطلح العربي، تحديث اللغة العربية، الاقتراض اللغوي، المصطلح العلمي، صياغة الكلمات

1. Introduction

The Arab world has been in contact with the Western world in recent years more than ever. The effects of this contact, whether positive or negative, are quite seen in every way of life, whether in science, literature, culture, and other aspects. the Arabic language also continued to be on the receiving end of a massive unidirectional influence from Western languages, especially English. This massive influence of Western languages opens the gate for foreign words, expressions, scientific terminology, and stylistic features to gain access to Arabic (Modern Standard Arabic being the particular focus of this paper), which in turn brought forth an extensive debate about Modern Standard Arabic (henceforth MSA) modernization, secularization and westernization of its identity (Abu-Absi, 1986;

Abd Al-Azīz, 1990). The extensive debate about the identity of MSA has had great consequences on its vocabulary development, but the consequences are largely seen in the development of technical terms.

This paper is divided into four sections. Section (2) begins with a brief overview of the methods of creating and introducing new terms in Arabic. This section briefly highlights the distinction between a 'word' and a 'term', as the distinction between the two terms is important in defining the issues discussed in this paper. Section (3) discusses the different views among scholars regarding the means of expanding Arabic vocabulary and the reasons that such different views have emerged since the Nahda period (a cultural movement that flourished in Arab-populated regions during the second half of the 19th century as a reaction to European colonial encroachment). This section also includes a discussion about the religious and cultural ideologies that framed the debate about Arabic terminologies. Section (4) addresses the debate's effect on the real development of modern terminologies in Arabic. This section further illustrates the effects of two concrete cases, the colliding views within language academies, and the usage of modern linguistic terminologies in MSA. Finally, the paper concludes with a brief evaluation of the situation in Section (5).

2. Methods of creating and introducing new terms in Arabic

The process of forming new words in Arabic has a long tradition. This section briefly defines the most common word formation methods in Arabic and gives examples, but more importantly, it discusses some issues relating to the use of these methods in MSA (in 2.1). After that, the section draws the distinction between two concepts, a 'word' and a 'term' (2.2).

2.1 Methods of creating and introducing new concepts in Arabic

Arabic exhibits a variety of devices to expand its lexicon. These linguistic devices fall into two main categories: (i) derivation from Arabic and (ii) borrowing foreign words into Arabic, traditionally known in the Arabic literature as *al-ishtiqāq* and *al-ta'rīb*, respectively. Although these two categories overlap in many aspects (as shown below), it is better to distinguish them here because the source word in each category is different, i.e., Arabic roots being the source for derivation and foreign words being the source for borrowing. Each category, however, includes specific linguistic devices that have been extensively discussed in the literature, whether by early Arab grammarians or modern-day scholars (Ali,1987; Sawaie, 1991; Tarzī, 2005, among many others).

Derivation has perhaps been the most common process of new word formation in Arabic, and it has been regarded as the most natural way of lexical growth of Arabic (Stetkevych, 1970). Arabic derivation consists of various methods including, but not limited to, the following:

- **Templatic derivation** (the most productive process) such as the template $f\bar{a}$ 'il (or CāCiC) which denotes the meaning of 'person doing', and the template *maf*' $\bar{u}l$ (or maCC \bar{u} C) which denotes 'the object of an action'.
- Affixation such as the suffix /-iyah/ in *rawhaniyah* 'spirituality' from *rūh* 'spirit'.
- Analogy such as extracting *sallab* 'to solidify' from *salb* 'solid', and *esta'sada* 'be brave' from '*sad* 'lion'.
- **Compounding** (AKA *tarkīb*) such as *barmā*'ī 'amphibious'.
- Blending such as *lā-akhllāqī* 'amoral' and *lā-silkī* 'wireless'.

However, there are some issues associated with derivation as a method of creating new words from Arabic roots. One major issue is that not every concept or a new object can easily be named by semantically extending an existing Arabic word (or roots). Also, derived words from Arabic roots are not always accepted by

native speakers (examples to follow). A relevant way to conceptualize some of the various problematic issues that might arise from limiting derivation to Arabic roots is the plethora of names that could be derived from one single invention such as a car, a phone, or a computer. Consider how many parts there are in a car, and how anyone can create names for each part from Arabic roots only. Therefore, limiting derivation to Arabic roots is impractical, especially when it comes to modern fields of science, as we will see throughout the discussion below.

The second category is borrowing, which includes methods of adopting foreign words into Arabic (AKA *al-ta'rīb*) either by copying the foreign word without much change to its original structure (e.g., iPhone, computer, helicopter) or making it sound like Arabic words (e.g., *ghaz* for 'gas' and *kulliyya* for 'collage'). Some scholars refer to this category as *circumlocution*, which is the use of many words that fewer would do (Elmgrab, 2011). However, this term is not accurate since it is restricted to cases of the literal translation of foreign words. Each category mentioned above (derivation and borrowing) involves its specific linguistic mechanisms of generating new words in Arabic. However, since the focus here is on the debate and its effects, a complete review of those mechanisms is beyond the scope of this paper. Previous scholars have extensively discussed those mechanisms (see, for example, Watson, 2002; Holes, 2004; Tarzī, 2005, among many others).

Perhaps the main issue that triggers much debate around the method of adopting foreign words is where to draw the line between derivation from Arabic roots (the first category) and borrowing foreign words (the second category). Allowing unlimited borrowing into Arabic will open the gate to an enormous amount of vocabulary pouring from other languages into Arabic, a practice that is believed to compromise the cultural and structural integrity of the language. On the other hand, limiting borrowing will restrict the language's ability to cope with

modern world needs and limit the speaker's exposure to new terminologies, especially in scientific fields. Section (3) includes a discussion about the debate and outcomes between the opposing sides of derivation vs. borrowing. Section (2.2) discusses the distinction between a 'word' and a 'term'.

2.2 A 'word' and a 'term'

The distinction between what constitutes a word and what constitutes a term is at the heart of the debate over the methods of expanding Arabic vocabulary. At the most basic level, a 'term' can be defined as a lexical unit or a sequence of lexical units used to name an object or to express a concept in a particular branch of study. A term is like a word, and so it constitutes part of the lexicon of individual languages, but as far as meaning is concerned, terms do not share all types of meaning with regular words since terms are specific points of reference to objects, events, relations , etc. However, whether the term is processed the same as a lexical item of a language is debatable (Sager, 1998).

A lexical unit that was a term, at one point in time, may lose its specificity and become a regular word due to frequency of usage e.g., computer and television. On the contrary, a lexical unit may become a term when its circumstances of usage become so restricted that its new meaning is no longer related to its original meaning , e.g., 'window' in the computing filed, 'waste' in the nuclear field and 'noise' in linguistics field. The Arabic versions of these terms are *al-nifāyāt al-nawawīyah* 'nuclear waste', *nāfidhah al-kumbuyūtar* 'window in a computer', and *al-tashwīsh al-ṣawtī* 'noise'.

Making the distinction between terms and words is particularly important in formulating ideas about adapting foreign words and determining much of what needs to be borrowed and what can reasonably be constructed from Arabic roots. A foreign 'word' expressing a concept may be easily derived from Arabic roots

whereas a 'term' may not always be flexible to construct from Arabic roots. Therefore, in most cases, foreign terms are incorporated as they are into the Arabic lexicon by Arab writers, a practice that triggers much of the debate about foreign words, as Section (3) explains.

3. The controversy over the correct means of expanding the MSA lexicon3.1 Background

The modern controversy over the means of lexical expansion in MSA has its roots starting back in the 8th century when the foundation of the Islamic Arab empire brought the Arabs in the peninsula into contact with Persia, Greece, and India at all levels, whether social, cultural, scientific and linguistic (Zaydan, 1988, Sawaie, 1991). Consequently, Classical Arabic began to change due to its constant need to incorporate new words and terminology into the language from foreign languages. Therefore, concepts such as $Ta'r\bar{r}b$ 'Arabization', *Lahin al-kalām* 'grammatical incorrectness', *Ishtiqaq* 'word creation', *Taṣrīf al-kalima* 'word derivation' , and other linguistic concepts emerged in Arabic literature in the Umayyad and the Abbasid dynasties to address issues related to language purity and change.

The Nahda period, around the end of the nineteenth century and the beginning of the twentieth century, brought cultural reforms in different parts of the Arab regions as a response to Westernization and the Western influence on the intellectual, social, and political lives in the colonized Arab world (Suleiman, 2003; Versteegh, 2014; Abbas, 2023). Nationalism began to emerge in the Arab world, and it was inevitably linked with the Arabic language. Whether nationalism was pan-Arab as in Syria (see Suliman, 2003) or territorial as in Egypt (see Haeri, 2003), the language was always invoked in an identity formation and at the heart of most debates. Therefore, the modernization of the Arabic language was considered

essential for all other developments at Nahda time, whether intellectual, social, or political.

However, it is important at this point to distinguish between two different battles or debates about the Arabic language that occurred when language reforms were initially brought up. One of the debates, which is not the focus of this paper, was regarding the duality of the Arabic language (colloquial vs. standard), famously referred to in the literature as 'diglossia' (Ferguson 1959;1991). The debate regarding diglossia, in short, revolved around whether the colloquial Arabic can and should serve as the literary language that will be used as a medium of instruction. Although this is an important debate, that has been largely settled, it is not the focus of this paper. The focus here is on the second language battle regarding terminological development (derivation from Arabic roots vs. borrowing) which started at the time of Nahda and has remained a major issue until today.

Within this context, in the following subsection (3.2), the paper summarizes the two schools of thought on terminological development in MSA, their main arguments, and the ideologies that led to the controversy. In subsection (3.3), the paper looks more closely at different approaches to the topic by intellectuals such as Abd Al-Qadir Maghribi, Jurji Zaydan, and others.

3.2 The battle over lexical development in MSA

The controversy around modernization attempts within the area of the lexicon was over the question of whether to incorporate words and terminology from foreign sources and to what extent. Two schools of thought emerged from this controversy, opponents and proponents of foreign words borrowed into Arabic.

Opponents of borrowing or the so-called 'language purists' argued that accepting foreign words into Arabic would compromise the structural integrity of the Arabic language and change its Semitic character. They maintained that the linguistic tools of Arabic are more than capable of accommodating the composition of foreign words (see Stetkevych, 1970). Therefore, foreign words must be rejected unless they are absolutely necessary to incorporate them. Mustafa Al-Shihābī (1893-1968), a pioneer in the field who had affiliation in both Syrian and Egyptian Academies, was on the opposing side of borrowing. His approach to terminological development is discussed further in Section 3.3.

Proponents of foreign words borrowing argued that Arabic throughout its history has adopted words from various languages, including Greek, Persian, and Latin. Both Classical Arabic and the language of the Quran exhibit foreign words from these languages (Kadhim, 2022). Proponents maintained that borrowing has happened throughout the history of Arabic and, therefore, there is no reason to stop this enriching process in MSA. They pointed to the fact that once foreign words had been admitted and adapted into Classical Arabic, they behaved like other Arabic words. Words like *'ibrīq* 'kettle', *tannūr* 'oven', *sundus* 'type of clothing', and hundreds of words like them were integrated into the language, and they behaved like Arabic words. In addition, proponents argued that adopting foreign words, especially scientific terminology, is necessary to keep up with the rapid scientific growth of modern days and bring the speakers closer to the international scientific community (see Abd Al-Azīz, 1990).

Although the debate, on the surface, revolves around the best way to deal with the influx of Western words into the Arabic language (i.e., language structure debate), there were underlying cultural, religious, and political dimensions contributing to the debate, as well. Yasir Suleiman summarizes the underlying reasons behind the strong opposition to foreign borrowings as follows:

"By holding this position, the traditionalists clearly display a keen awareness of the role of symbolism in conceptualizing issues of linguistic change as emblematic manifestations of larger change in society. What is ultimately at stake here is the attempt to fashion a concept of language and nation that is rooted in the past and that will remain true to it" (Suliman, 2003;172).

The controversy around lexical reforms was more than a linguistic debate. It was a complex issue that involved national issues. The Nahda period and the years that followed it were more about the construction of national identity across all ways of life, and the language was at the heart of it. Policies were made at the time to promote Arabic status by making it the official language in most Arab countries. Policies were also made and enforced, making Arabic the medium of education across all levels so that pupils can use it actively in writing and reading. Language academies were also established with the mission of guarding Fusha 'standard' Arabic integrity to preserve it from dialectal and foreign influence. Therefore, it is important to bear in mind that the debate over lexical reforms, which is purely a linguistic debate, occurred at a time when these reforms were implemented across different Arab regions. This is perhaps the main reason why lexical reforms gained this attention and became a major and sensitive issue in Arabic, more than any other language. This is also why language purists seem to always win the debate since their arguments are usually wrapped in powerful language about the nation's pride, linking language reforms to the nation's identity and heritage.

The following subsection (3.3) looks closely at different views on lexical reforms, whether Arabic should accept foreign words and to what extent.

3.3 Different approaches to lexical development

Intellectuals since the Nahda period, who addressed lexical reforms, can be divided into three categories: Those who are in favor of borrowing argue that borrowing in Arabic, or in any language, is not a sign of weakness or corruption but a sign of strength and advancement forward. This view is seen, for example, in the work of Maghribi (2013; first published in 1908) and Zaydan (1988). On the other hand, most intellectuals who played a central role in the language academies were more conservative in their attitudes toward borrowing, and they allowed it only if necessary. Foreign words, in their view, are contrary to the spirit of the Arabic language (Al-shihābī, 1955, Ghunaim, 2014). The third group includes intellectuals who were not involved in the debate and did not formulate clear opinions about accepting/rejecting borrowed words (Ali, 1987; Elmgrab, 2011; Al-Asal and Smadi 2012). Instead, they observed the phenomenon through their empirical and experimental work and wrote their reports on how foreign words are perceived and used by native speakers. However, while they did not clearly state their opinions about borrowing, their work suggests that they fully accepted the reality of foreign words in Arabic. Foreign words make up a significant portion of Arabic, and they are an important component of the language that deserves to be studied thoroughly.

In favor of borrowing

From the perspective of intellectuals who have positive attitudes toward incorporating foreign words into Arabic, languages including Arabic should be viewed as living beings. Languages have families and relatives, just like humans do. Some languages are born and developed from others while other languages cease to be spoken and eventually die. Word borrowing, therefore, must be viewed as a natural phenomenon that happens in all languages to maintain them and keep them in constant development.

In his book *Kitāb al-'ishtiqāq wa al-Ta'rīb* 'The Book of Derivation and Arabization' (Maghribi 2013; first published in 1908), Abd Al-Qadir Maghribi had a clearly favorable view of loan words. He believed that adapting words and new concepts from foreign languages is a necessity that all languages undergo at some point in their development, including Arabic. Using foreign words, in Maghribi's view, is a natural change that Arabic exhibits, which is something that language purists cannot, and should not, control.

Maghribi's main argument can be summarized as follows: The development and change of the Arabic language resemble the development and change of the Arab nation throughout its history. The Arab nation rose, rivaled, and increased in number only through contact with other nations. Arabic language development bears a resemblance to a nation's development. In his view, the notions of *altawālud* 'reproduction' for people parallels *al-istiqāq* (derivation) for the language. Also, the notion of *al-tajannus* 'citizenship and naturalization' for people parallels the notion of *al-ta'rīb* (Arabization) for the language. Therefore, language develops, changes, and adapts itself due to social and cultural circumstances that are beyond our control.

More importantly, Maghribi rejected the common belief (among language purists) that language is a revelation from God to his first human creature. People who believe in language 'revelation theory' usually use a verse of the Quran "*wa* '*allama* '*ādama al-*'*asmā*' *kullaha*" 'and he taught Adam the names - all of them', sūrat al-Baqarah, 31) to support the purity of the language (see Weiss, 1974 for more on revelation theory). Maghribi rejected this claim, pointing to the logical interpretation of this verse that God taught Adam concepts and meanings of things, not the actual language itself. To further support borrowing, he also pointed out the fact that most eloquent speakers of Arabic in history used foreign words in their speeches and poetry, including Uday Ibn Zayd, Al-A'sha, Al-Mutanabbi, Al-Jahiz

and many others. Therefore, the claim that Arabic purity will be corrupted by the usage of foreign words must be completely rejected.

Another prominent scholar with a favorable view of lexical borrowing is Jurji Zaydan (Zaydan, 1988). The title of his book Al-lugha Al-'arabiya Kā'n Hayy 'Arabic is a living being' tells us that he had a similar view on language borrowing to that expressed by Maghribi. Zaydan clearly stated his view in the introduction by making the analogy between human development and language development and change. He began his book with some observations about nawāmīs al-hayāh 'life norms' and how the human body goes through phases of cell replication, growth, and correction. Languages, in his view, follow the same norms because they regularly lose words, obtain new ones, and replace old words with new ones. In Zaydan's view, a language is like a nation of people given that a nation normally reproduces and branches into various groups and so do languages. The so-called 'language family' is like a nation since each group of languages is genetically related to a mother language. Zaydan discussed the genetic relation between Arabic, Hebrew, and Syriac as an example of languages that share a common ancestry. Nevertheless, a shared word between these sister languages may evolve to denote different meanings from one language to another. For example, lahm 'meat' in Semitic languages originally meant food but, with the passage of time, it changed in Hebrew and Syriac to become 'bread' and in Arabic to become 'meat'. Such examples should be taken as evidence that languages evolve historically in the context of their social environment, and MSA cannot be an exception. Arabic should evolve and accept today's scientific terminology.

Zaydan stated that borrowing should be regarded as a sign of strength, not weakness. His supporting argument was that Arabic, in all its history, was open for borrowing even in the pre-Islamic era. Arabic of today should also use terms from other languages, just like other languages use Arabic terms when needed. Zaydan

rejected the language purists' idea that our dictionaries already include the repertoire we need for most technical terminologies. He emphasized that we cannot only rely on old dictionaries to extract new words or make judgments about what is acceptable as *faṣīḥ* 'elegant' and what is not acceptable. A foreign word may gain native speakers' acceptability more than a word taken from an Arabic dictionary.

Zaydan argued that languages inevitably change and, therefore, we cannot control the change or stop it from happening. Languages, like all living beings, cannot be stopped from developing, growing, and becoming different from their original shapes. Therefore, structural and lexical change in a language is inevitable including Arabic.

In addition, Zaydan made an interesting observation which is that borrowing is not limited to word level. Arabic in fact has accepted some sentence-level structures from foreign languages, and they appear productively in the modern writing style such as:

- the usage of passive verbs in academic writing,
- insertion of the pronoun (*huwa*) where it is acceptable to be dropped in Arabic,
- the usage of 'negation construction' e.g., *al-lā-darūrah* 'unnecessity', *al-lā-nihāyah* 'infinity', and
- the frequent usage of the auxiliary verb *kāna* 'was' in the writing system where it is not needed.

To sum up, both Maghribi and Zaydan supported lexical borrowing and looked at the language from a philosophical point of view. In their view, a language is a natural phenomenon that cannot be easily manipulated to be in a particular form or shape. A language, like a living being, may be born from another language, start its life in a small and primitive way then develop into a fully

functional tool of communication. During its lifespan, a language uses all available resources to it, including borrowing from other languages. MSA, in Maghribi and Zaydan's view, is a fully developed language that has the linguistic capabilities for admitting foreign words and ultimately changing their original shapes to fit the Arabic structure. Borrowed words into Arabic would eventually be used, and derived from, like any other Arabic word (e.g., *telefezyūn* 'TV', *telefezyūnāt* 'TVs, and *telfaza* 'making TV'). Therefore, closing the gate on all foreign words does not help the language; in fact, it may obstruct its development.

Against borrowing

Other intellectuals, mostly those affiliated with language academies, opposed using foreign words in Arabic. They strongly believed that Arabic is capable of competing with English and other Western languages in all aspects of modern-day life, whether education, scientific publication, media, or other aspects. Most opponents of all types of borrowing into Arabic were driven by the strong ideology that Arabic is sacred and superior to other languages, especially Western languages. They, however, often rejected or failed to draw a distinction between Classical Arabic, Quranic Arabic, and MSA. By doing so, they argued that accepting foreign terms would result in MSA drifting away from its ancestor.

It is noteworthy to mention that both sides of this debate have used the Quranic language to support their view and gain people's attention and support for their argument. Proponents of borrowing point out that the Quran contains many borrowed terms, while opponents point out the purity of the Quran and the urgent need to maintain Arabic as an uncorrupted language by foreign influences.

On the opposing side was Muṣṭafa Al-Shihābī, a pioneer in the field who was involved in both Syrian and Egyptian Academies, who believed that allowing foreign technical terminologies could be used only when necessary as a last resort.

He outlined his methods for creating terminologies for foreign concepts in the following steps that must be implemented in that order (Al-shihābī, 1955, as cited in Abu-Absi, 1986).

- Search old Arabic dictionaries and texts for appropriate words that fit the meaning.
- 2) If nothing can be found in old dictionaries and texts, then literal translation may be used, e.g., *'ilm al-hayāh* for 'Biology'.
- If the translation is not possible, then coinages may be used. The coinages must be, however, from Arabic roots e.g., *qițār* for 'train'.
- 4) Only when these methods are exhausted, the foreign word may be used, but they must be assimilated into Arabic phonological patterns, e.g., *ghāz* for gas.

Another example of recent authors who strongly oppose borrowing is Kamal Ghunaim (see Ghunaim, 2014), the head of the language academy of Palestinian schools. In his article, he completely opposes the incorporation of foreign words into Arabic and argues that Arabic roots can do the job. Even in cases in which the created Arabic term is found to be more complex or less acceptable than the foreign term, language planners must then force the Arabic form to be used.

Ghunaim raises an interesting argument in his article. He defends his position by making the argument that all new words, and particularly technical terminology, must be learned in any language when they are first introduced. Therefore, if Arabic speakers, especially students, are learning the new term in its foreign form, then why not learn it in Arabic? He uses examples of Arabized words that have gained acceptance in Arabic over their foreign counterparts such as *al*-*hātif* 'telephone', *al-ḥāfilah* 'bus', *al-ddrrājah* 'bicycle', *al-barqīyah* 'telegram', and *al-ssayyārah* 'car'. Ghunaim argues that, perhaps, these words sounded odd and

were difficult to pronounce by the native speakers at the time when they were first introduced in the language. However, once they were learned, they gained acceptance in the language and remained widely used over their foreign sources.

Ghunaim, in fact, raised a good argument. However, like many others who oppose borrowing, he was selective in his illustration. Ghunaim did not address the fact that hundreds, if not thousands, of foreign words, are common in MSA today such as *ghāz* 'gas', *kumbuyūtar* 'computer', *tilifizyūn* 'television', '*īmīl* 'email', and *dayzal* 'diesel'. Opponents of foreign influences do not question why native speakers seem to favor foreign words such as the *internet*, *email*, *film*, *cinema*, *bank*, and many like them to the words extracted from Arabic roots, e.g., *bank* is used more than *maşrif* and *email* more than *barīd electrūni*, etc. The claim that Arabic-rotted words would be more acceptable to the native speaker than foreign words is not accurate in all cases.

The other important point that opponents of foreign influences fail to address is the problematic issue of massive scientific terminology imports into Arabic today. Arabic needs technical terminologies to survive, which is the real issue when it comes to the debate on borrowing. Intellectuals who resist using foreign words in the scientific field have failed in most cases to offer realistic solutions to the problem of foreign scientific terminology, as Section 4 illustrates in more detail.

Let us before concluding this section consider some empirical work that has been done on the topic. There have been attempts to address this problem empirically (Ali, 1987; Elmgrab, 2011; Al-Asal and Smadi, 2012), but the work of Ali (1987) is of most relevance to the present paper. In his study, Ali assessed speakers' tolerance of linguistic innovations in Arabic and their acceptability of various types of terms, especially those around which most of the controversy has

revolved. The speakers he surveyed were Iraqi students at Baghdad University. The results varied, but the following patterns emerged:

- When coinages are harmonized with Arabic word structures, they enjoy high acceptability even if the roots were abstracted from foreign words (e.g., *talfazah* from television).
- When both the Arabic and foreign terms are equally unfamiliar to the speakers, the general tendency is rather to adopt the Arabic term.
- Respondents majoring in Arabic or those in fields of study taught in Arabic preferred Arabized terms (e.g., they favor '*ālat taṣwīr* 'camera' over kāmirah). However, students of chemistry and physics were less reluctant to accept foreign words.
- The brevity of the term was most preferred, except when competing with the familiarity of the term. For example, for the word 'helicopter', the Arabic terms *hīlūkābtar* and *al-marwaḥīyyah* were both preferred over *al-țā 'irah al- 'amūdiyyah*.

Such empirical evidence offers a window through which we can understand why some terminologies live at the expense of others.

4. Effects of the debate on terminological development efforts in Arabic

This section illustrates how the debate has affected lexical development efforts in MSA. The section discusses two cases: The inner work of language academies (4.1) and the use of foreign terms in the field of modern linguistics (4.2).

4.1 Colliding views within the language academies

Language academies played a central part in the process of modernization of Arabic at the beginning of the twentieth century. Their mission was twofold: On one hand, to maintain the purity of the language by guarding its integrity to preserve it from foreign influence. On the other hand, to adapt Arabic to the needs of modern times through the conversion of teaching methods, curricula, and textbooks from foreign languages (Versteegh, 2014). However, the first aim of the mission (i.e., guarding the language integrity) is the reason behind the colliding views within the language academies and in public opinion because no one seems to have a clear definition of what Arabic 'integrity' really means.

Internally, language academies around the Arab world suffer from colliding views, which impedes their progress and productivity. Consider, for example, the work of Mohammed Abd Al-Azīz (1990) as it is one of the most comprehensive works on Arabization, which documents a lot of language academy policies and internal working progress. Abd Al-Azīz talks about the two opposing views within the language academy of Cairo in its initial days. For example, Ahmed Al-Askandari, one of the intellectuals who led the Arabization committee at Cairo Academy, had a clearly opposing view regarding foreign terminologies in Arabic. Al-Askandari led the language purists' team inside Cairo Language Academy, and he always believed in a single mission of the academy which is (as stated in Abd Al-Azīz, 1990):

"lā budda lil-majma' al-lughawī min **taṭhīr** lughat al-tadrīs min **'adrān** al-'ujmah."

"The language academy must **purify** the language of instruction from the **filth** of foreign words."

Those who adhered to this ideology worked in language academese to protect Arabic from the 'defiling' effects of foreign terminologies and believed that almost all foreign terms must be replaced. Abd Al-Azīz (1990) stated that this

ideology proved later to be unsuccessful, especially when considering many terms that they created, at the time, were completely rejected by the scientific community later. What complicates matters, even more, is that by insisting on creating Arabized terms for every foreign concept, they created 'terminological variations' in which a single concept has multiple terms (e.g., *phobia* has more than five different forms in Arabic). This led to more disagreements among the scientific community over what terms to use.

Proponents of borrowing, who also participated in the language academies efforts, rejected the language purists' methods since they limit people's ability to cope with the growing need for new and unified terms. For example, the term *phobia* is universally known in the Arab world, but its Arabized versions such as *ruhāb*, *hala'*, *'ihtiyāl*, *al-khawf al-wahmī* (see Wilmsen and Youssef, 2009) are less known in the Arab world. These regional Arabized variations were created for this concept just to keep the term *phobia* out. Matters would have been much simpler if the term *phobia* had been kept and made official by the language academies. There are numerous examples of terms like this in Arabic today such as *depression*, *empirical*, *ideology*, and *paranoia*, to mention a few (see Wilmsen and Youssef, 2009).

Language purists within language academies seem to have the last word in most cases because (as mentioned earlier) they tend to use powerful language about protecting the heritage and restoring the identity of the nation and its pride. However, many of the proposed Arabic terminologies for scientific terms such as *al-muşdi'* 'oxygen', *al-musjiḥ* 'nitrogen', and *al-qallā'* 'potassium' never gained general acceptance because they were regarded as too artificial both by Arabic speakers and the scientific community, and the foreign terms for those chemical elements remain widely preferable in Arabic today.

4.1.1 Successful efforts by the language academies

It is important to mention that the disagreement within the language academies was not always the case. The Cairo Language Academy, for example, eventually agreed on the policy that curricula can keep foreign words that have been commonly used by the public or the scientific community. This policy has proven to be successful, as seen in the usage of foreign terms such as *meter*, kilometer, watt, oxygen, nitrogen, and other terms that are commonly used in Arabic today (see Al-Oahtani, 2000). Another successful decision by the Language Academy of Cairo was accepting the compound of foreign words if the two terms that make the compound are common in Arabic. Therefore, terms such as 'electromagnetic' (kahrū-maghnāțīsī) emerged in the language. In addition, when the language academy in Cairo successfully agreed to Arabize the English suffix (logy) as either suffix (-*īvyah*) or the prefix word ('*ilm al-*'the science of'), the decision allows numerous derivational forms such as 'ilm al-fadā' 'space science', 'ilm al-'athār 'archeology', 'ulūm al-hāsib 'computer sciences', al-'ulūm al*ijtimā ivvah* 'social sciences', etc. These suffixes and prefixes became very productive in today's Arabic (see Al-Qahtani, 2000).

These cases illustrate what constitutes a good policy and what constitutes a bad policy when it comes to language academies regarding foreign terminologies. It seems that if a policy were made because of nationalistic views or extreme protection of the language, it would very likely fail or produce artificial forms that would hardly gain acceptance. On the other hand, if foreign terms were accepted when they are needed, Arabic has proven to have a powerful process of root abstraction that reanalyzes foreign words and integrates them into the Arabic lexicon. Arabic writers also proved to be creative and never hesitated to produce new derivations from accepted loans. Examples of this are abundant in Arabic such as the derivation of the broken plurals *bunūk*, and *`abnāk* from 'bank', *`aflām* from

'film', and *barāmij* from 'program'. Also, Arabic speakers derive verbs such as *barmaja* from *barnāmaj* 'program' and *talfaza* from *televezyūn* 'television' on a regular basis (see more examples in Versteegh, 2014, p. 231).

4.2 The case of modern linguistics terminology

The example of modern linguistic terminology in Arabic also demonstrates the opposing attitudes among Arab linguists toward adopting foreign linguistic terms into Arabic. In fact, the name of the field itself (Linguistics) suffers a lack of consensus on the correct translation among Arab linguists. The eastern regions of the Arabic world use *'ilm al-lughah* or *al-lughawiyyāt* whereas in the western regions of the Arab world, the terms *al-lisānīyyāt* or *'alsuniyyah* are quite accepted (Versteegh, 2014). Other linguists may use *'ilm al-lughah al-ḥadīth* or *allughawiyyāt al-mu 'āṣirah* 'modern linguistics' to draw a distinction between traditional Arabic language studies and modern linguistics. If there is no consensus among Arab linguists on the name of the field itself, let alone thousands of technical linguistic terms that are primarily a product of English, and they have no equivalents in Arabic.

Although Arabic has well-established linguistic conventions, the language cannot cope with the overflow of modern technical linguistic terms, which are radically different from the traditional terminologies that Arabic already has (Heliel, 1986). If we consider, for example, some basic and introductory linguistic terms (shown in Table I), we see that there is no consensus on unified terms among Arab linguists who, as it appears, know English but chose to publish their work in Arabic.

Table (I): Basic	English-Arabic	linguistic	terminology	(see Omar.	1989)
(-)				(~~~~~~,	

English term	Terms used in Arabic linguistic publications
Phoneme	فونيم، صَوِيْتُم، صُويْتُم، صوتون مىتىلىمە مىسىنىمىسىم مىسىنىمە مىستىنىش
Marchana	fūnīm, ṣawtum, ṣuwaytum, ṣawtūn مورفيم، صَيغم، صرفيم، صرفون، عنصر دالّ، دالّة نحوية
Morpheme	مورقيم، صيغم، صرقيم، صرورن، عصر دان، دان دان دويه mūrfīm, şaygham, şarfīm, şarfūn, 'unşur dāll, dāllah naḥwiyyah
Bilabial	شفتاني، شفوي، شفوي ثنائي، شفوي مزدوج
	shafatānī, shafawī, shafawī thunā 'ī, shafawī muzdawaj
Lexeme	وحدة معجمية، لكسيم، مفردة، مفردة مجردة، مأصل، معجمية
	wiḥdah muʻjamiyyah, laksīm, mufradah, mufradah mujarradah, mu'aṣṣil, muʻjamiyyah

The situation is even worse when we consider the terminology of some advanced-level concepts within subfields of linguistics, which have no equivalents in Arabic. Consider the examples shown in Table (II) in which some linguists, instead of using English terms, coined completely new terms in Arabic.

Table (II): Abstract English-Arabic linguistic terminology (see Daud et al., 2003)

English term	Definition	Arabic term
Complementar	A pair of sounds that never occur in the	توزيع تكاملي
y distribution	same phonetic environment.	tawzī' takāmulī

Backchannel	Verbal feedback and non-verbal cues.	ر د خلفي		
	They are given while someone is speaking	radd khalfī		
Language	Gradual native language lost	التلاشي اللغوي		
attrition		al-talāshī al-lughawī		
Minimal pair	Two words in a language that differ in	ثنائية صغرى		
set	meaning when only one sound changes	thunā ʾīyyah ṣughra		
	e.g., pail vs. bail, bad vs. bed.			
Noise	Irregular vibrations when speech sounds	تشويش صوتي ، قرع صوتي		
	are produced, especially with s, z, f, and	qariʻ ṣawtī, tashwīsh ṣawtī		
	other fricative sounds			

Some of these examples in Table (II) are cleverly coined and are very likely to be promoted (*al-talāshī al-lughawī*, *al-qari* '*ṣawtī*). Others contain rather complicated descriptions or literal translations and are very likely to be on the way out soon (*radd khalfī*, *tawzī* '*takāmulī*). The future, along with the linguistic community, will have to decide whether to accept or reject these new linguistic terminologies in Arabic.

Finally, since Arabic has well-established linguistic conventions, many of the modern linguistic terms have existing equivalents in Arabic. In this case, linguists seem to prefer the Arabic terms because they fit the desired meaning and help their readers comprehend the connotations of these terms. Examples of this type are abundant; some are shown in Table (III).

Table (III): Linguistic terms with existing equivalents in Arabic (see Daud et al., 2003)

English	Arabic	English	Arabic
compound	مرکب	Non-finite verbs	أفعال مصدرية

Lark Journal	2024/4/1	(2)ج1	ا عدد	(16)	المجلد
--------------	----------	-------	-------	------	--------

	murakkab		'af'āl mşdariyyh
assimilation	إدغام	Reduplication	التكرار أو التضعيف
	'idghām		al-tikrār or al-taḍʻīf
Auxiliary verb	الفعل الناقص	Palatalization	تحنيك الصوت (إخراجه من
	al-fiʻl al-nāqiṣ		الحنك)
			taḥnik al-ṣawt
metathesis	القلب المكاني	Phrasal verb	تركيب فعلي
	al-qalb al-		tarkīb fi'lī
	makānī		
Nasal sounds	حروف الغنَّة	Relative clause	عبارة الاسم الموصول
	<u></u> hurūf al-		ʻibārat al-'ism almawṣūl
	ghunnah		

Overall, the trend among Arab linguists regarding the usage of foreign terms has been that if equivalents exist, then the Arabic equivalents are used. But, if there is no equivalent term in Arabic, then the options are either borrowing literal translation or coining a new term, as we saw in the previous illustrations. Arabic language academies, as they function today, cannot keep up with rapid scientific growth in all fields, including linguistics, as Elkhafaifi fairly describes it:

"An important part of the language planning dilemma relates to the rapid changes taking place in the fields of science and technology. Scientists eager to publish their findings are unlikely to wait for a language planning agency to review their work for new borrowed terminology, nor will they delay publication until a language planning agency coins the terms they need for their work. A scientist may well decide to publish in English or French and ignore Arabic altogether" Elkhafaifi, (2002, p. 256).

The problem seems to be growing fast and it is not due to a lack of ability to coin new terminology by Arab linguists, but due to the weak role of language academies, lack of funding, and, most importantly, inadequate communication among language academies themselves and between them and publishers in the Arab world.

5. Conclusion

In a world dominated by English, modernization and terminological development is a process affecting almost all written languages including Arabic (Shraybom-Shivtiel, 2001). The dilemma facing Arabic reforms, especially on the lexical level, is a complex one that will not be resolved quickly and easily. Any solution requires a balance between what Arabs desire from their language and what is possible and acceptable in the reality of MSA today. Standard Arabic, as it is today, struggles between its role as an instrument of communication and its symbolic role in the Arab world with all the nationalistic, cultural, and religious prejudices associated with it.

The development of modern technical terminologies in Arabic remains one of the most controversial aspects of language policies in the Arab world. It seems that much of the controversy surrounding the topic emerged because of the existence of two different notions of Arabic reforms tied together in most debates and discussions. One notion of Arabic reforms has to do with national issues such as language policies addressing Arabic usage in education, government communications, media, landscape, and other functions in modern Arabic societies. The other notion of Arabic reforms has to do with linguistic aspects such as the modernization of language forms to cope with today's need to adopt foreign terms into Arabic. The first notion is about politics, ideologies, and beliefs المجلد (16) عدد (2)ج Lark Journal 2024/4/1 المجلد (16)

regarding the language while the second notion is about the linguistic structure of Arabic and speakers' psychological acceptability of new terms (whether coined or borrowed). The two notions are clearly different but mixing them together in most discussions on Arabic terminology leads to misconceptions and hampers the reform efforts. It seems that any serious discussion or attempt to deal with the terminological development has been lost between the ideology of the ideal Arabic form and the linguistic reality of Arabic as it is today.

The first step for solving the problem is that planners must first distinguish between foreign 'words' and 'terms' and treat them differently in the process of lexical construction. Most foreign 'words' can be translated or coined from Arabic roots because finding equivalents in Arabic is possible. But foreign 'terms' are different, especially those with no equivalents in Arabic. Therefore, borrowing scientific terms as they appear in their source languages seems to be a good solution because it has many advantages. It modernizes the language, speeds the process of terminological development (for publishers and educators), brings Arabic speakers closer to international scientific communities, and, perhaps, makes MSA academically easier for second language learners, especially those who are familiar with English terms in their fields of study.

Finally, as mentioned earlier, one area of concern regarding the language academies is the lack of unified scientific terminology across Arab regions. Language planners in the Arab world (including politicians and the heads of education ministries) must work on bridging the gap between language academies in different parts of the Arab world. The establishment of the Bureau of Coordination of Arabization in Rabat in 1961 (known in Arabic as *maktab tansīq al-ta 'rīb*) is a good first step toward bringing the efforts together, but more collaborations are obviously needed.

Bibliography

Abbas, Y. (2023). Secularism in Islamic thought (Reading in the most important stances of the pioneers of the Arab renaissance in favor of benefiting from it). *Lark*, *15*(3), 1065-136. https://doi.org/10.31185/lark.Vol2.Iss50.3202

Abd Al-Azīz, M. (1990). Al-ta'rīb fī Al-qadīm Wa Al-Hadīth. Cairo, Dar Al-Fikr Al-'arabī.

Abu-Absi, S. (1986). "The modernization of Arabic: Problems and prospects". *Anthropological linguistics*, 337-348. https://www.jstor.org/stable/30027961

Al-Asal, M. and Smadi, O. (2012). "Arabicization and Arabic expanding techniques used in science lectures in two Arab universities". *Perspectives in the Arts and Humanities Asia*, 2(1), 15-38.

https://www.researchgate.net/publication/280767054_Arabicization_and_Arabic_Expanding_Te chniques_Used_in_Science_Lectures_in_Two_Arab_Universities

Ali, A.M. (1987). *A linguistic study of the development of scientific vocabulary in standard Arabic*. New York;London;: Kegan Paul International.

Al-Qahtani, S. (2000). *Arabization in written discourse in Saudi Arabia* (Doctoral dissertation, Ohio State University), 1-261.

Al-shihābī, M. (1955). *Al-muṣṭalaḥāt Al-ʻilmīyyah Fī Al-lughah Al-ʻarabiyyah Fī Al-qadīm Wa Al-ḥadīth*. Cairo: Institute of Higher Arab Studies, Publications of the League of Arab States.

Daud, N. M., Hanafi H.D. and Badri N.Z. (2003). Linguistics Dictionary: English-Arabic,

Arabic-English. Kuala Lumpur: A.S. Noordeen.

Elkhafaifi, H. (2002). "Arabic language planning in the age of globalization". *Language Problems and Language Planning*, *26*(3), 253-269.

https://benjamins.com/catalog/lplp.26.3.03elk

Elmgrab, R.A. (2011). "Methods of creating and introducing new terms in Arabic". *IPEDR-International Proceedings of Economics Development and Research*, *26*, 491-500.

https://www.researchgate.net/publication/272431518_Methods_of_Creating_and_Introducing_N

ew Terms in Arabic Contributions from English-Arabic Translation

Ferguson, C. (1959). "Diglossia". word, 15(2), 325-340.

https://www.tandfonline.com/doi/pdf/10.1080/00437956.1959.11659702

Ferguson, C. (1991). "Diglossia revisited". Southwest Journal of Linguistics, 10(1), 214-234.

Haeri, N. (2003). Sacred language, ordinary people: Dilemmas of culture and politics in Egypt. New Youk: Springer.

Heliel, M. (1986). "Terminological Lexicography: Bilingual Dictionaries of Linguistic Terms (English-Arabic)". *In Zurilex'86 Proceedings* (pp. 299-306). <u>https://euralex.org/wp-</u>

content/themes/euralex/proceedings/Euralex%201986/041_Mohamed%20H.%20Heliel%20(Ale xandria)%20-

Terminological%20lexicography.%20Bilingual%20dictionaries%20of%20lingui.pdf

Holes, C. (2004). *Modern Arabic: Structures, functions, and varieties*. Georgetown University Press.

Kadhim, A. (2022). The term between the Qur'anic rooting and contemporary foreignness. *Lark, 14*(4), 1949-1029. https://doi.org/10.31185/lark.Vol3.Iss46.2203

Maghribi, A.A. (2013). Kitāb Al-ishtiqaq Wa Al-ta'rīb. Egypt: Al-Hilāl books.

Omar, A. M. (1989). Al-mustalah Al-'alsunī Al-'arabī Wa Dabt Al-manhajīyyah. Kuwat: 'ālam Al-Fikr.

Sager, J.C. (1998). "In search of a foundation: Towards a theory of the term". *Terminology*. *International Journal of Theoretical and Applied Issues in Specialized Communication*, *5*(1), 41-57. https://www.jbe-platform.com/content/journals/10.1075/term.5.1.05sag

Sawaie, M. (1991). *Risala Fī Taḥqīq Ta'rīb Al-kalima Al-'arabiya*. Damascus, Al-Jafan and Al-Jabi books.

Shraybom-Shivtiel, S. (2001). "The development of the coining system in Hebrew and Arabic and the problem of compounding Words". In Rosenhouse, J. & Elad-Bouskila, A. (ed.) (2001). *Linguistic and cultural studies on Arabic and Hebrew*. Wiesbaden, Germany: Harrasowitz, pp. 193–211.

Stetkevych, J. (1970). *The modern Arabic literary language: lexical and stylistic developments*. Georgetown University Press.

Suleiman, Y. (2003). *The Arabic language and national identity: A Study in Ideology*. Edinburgh University Press.

Tarzī, F. (2005). Al-'ishtiqāq. Beirut, Dar Al-kutub.

Versteegh, K. (2014). The Arabic Language. Edinburgh University Press.

Watson, J. (2002). The phonology and morphology of Arabic. Oxford University Press.

Weiss, B. (1974). "Medieval muslim discussions of the origin of language". Zeitschrift der Deutschen Morgenlandischen Gesellschaft, 124, (1), pp. 33-41. https://www.jstor.org/stable/43370636

Wilmsen, D., & Youssef, O. (2009). Regional standards and local routes in adoption techniques for specialised terminologies in the dialects of written Arabic. *Journal of Specialised Translation*, (11), 191-210.

Zaydan, J. (1988). Al-lugha Al-'arabiya Kā'in Hayy. Beirut, Dar Al-Jīl.