

**TRANSLATION AND ARABICIZATION
STRATEGIES OF ENGLISH SCIENTIFIC AND
TECHNICAL TERMS INTO ARABIC AND
THEIR DISSEMINATION IN THE ARAB PRESS**

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by

GHADA SAEED SALMAN AL-DOURI

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DEDICATION

﴿وَقُلْ رَبِّ ارْحَمْهُمَا كَمَا رَبَّيْتَنِي صَغِيرًا﴾

For my late parents,

My Lord! Bestow on them Your Mercy as they did bring me up when I was young.

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**STRATEGI PENTERJEMAHAN DAN ARABISASI ISTILAH SAINTIFIK
DAN TEKNIKAL BAHASA INGGERIS KE DALAM BAHASA ARAB DAN
PENYEBARANNYA DALAM AKHBAR ARAB**

ABSTRAK

Akademi Bahasa Arab (ALA) telah berusaha untuk memperkenalkan terminologi dalam bentuk Arabisasi ke dalam bahasa Arab. Walau bagaimanapun, istilah yang dihasilkan oleh akademi tersebut masih belum tersebar secara meluas dalam sektor berkaitan bahasa termasuk media. Kajian ini bertujuan mengkaji strategi dalam penghasilan istilah Arabisasi serta sejauh mana istilah ini diimplementasikan dalam media Arab bagi menyokong usaha ALA. Faktor linguistik dan ekstralinguistik yang memberi kesan ke atas penyebaran istilah ALA dalam kalangan media Arab dikaji. Kajian menggunakan kedua-dua kaedah penyelidikan kuantitatif dan kualitatif bagi menjawab soalan kajian. Analisis komparatif dan deskriptif strategi terjemahan dan pembentukan kata ALA dilakukan dengan menggunakan strategi penterjemahan oleh Vinay dan Darbelnet (1995) dan kaedah pembentukan kata oleh Darwish (2009). Soal selidik dan temu bual bersama penterjemah jurnalistik dikendalikan bagi mengkaji faktor linguistik dan ekstralinguistik yang mempengaruhi penyebaran terminologi ALA dalam media Arab. Hasil kajian menunjukkan bahawa kedua-dua strategi terjemahan langsung dan tak langsung oleh Vinay dan Darbelnet digunakan dalam menterjemah istilah bahasa Inggeris ke bahasa Arab. Hasil kajian juga menunjukkan kaedah pembentukan kata termasuk peminjaman fonetik, pinjam terjemah, penerbitan dan penciptaan digunakan secara meluas oleh ALA. Hasil soal selidik dan temu bual membuktikan penterjemah jurnalistik kurang biasa dengan istilah ALA dan tidak memainkan peranan penting dalam penyebaran istilah akademi itu dalam media Arab. Kekurangan kerjasama dan saluran koordinasi antara akademi tersebut dan pihak media menyumbang kepada kekurangan penyebaran istilah Arabisasi ALA dalam media Arab.

**TRANSLATION AND ARABICIZATION STRATEGIES OF ENGLISH
SCIENTIFIC AND TECHNICAL TERMS INTO ARABIC AND THEIR
DISSEMINATION IN THE ARAB PRESS**

ABSTRACT

Arabic Language Academies (ALAs) have made every possible effort to introduce terminologies in Arabicized forms into the Arabic language. However, the academy's Arabicized terms have not been well distributed in the language-related sectors, including the media. This study aims to investigate strategies of coining Arabicized scientific and technical terms, as well as the extent of implementation of these terms in the Arab press to support the academy's efforts. The linguistic and extralinguistic factors, which affect the dissemination of the ALA's Arabicized terminology in the Arab press, are also investigated. The study used quantitative and qualitative research methods to answer the research questions. A comparative and descriptive analysis of the ALA's translation and word-formation strategies was conducted by adopting Vinay and Darbelnet's translation strategies (1995) and Darwish's Arabic word-formation methods (2009). A survey and interviews with journalistic translators were conducted to investigate the linguistic and extralinguistic factors influencing the dissemination of the ALA's Arabicized terms in the Arab press. The findings showed that Vinay and Darbelnet's direct and oblique translation procedures were used to translate English terms into Arabic. Moreover, the findings revealed that word-formation methods including composition, derivation, and compounding were used by the academy. The survey and interview results confirmed that journalistic translators are not familiar with the academy's terms and naturally play very little role in disseminating them in the Arab press. Moreover, the lack of cooperation channels between the academy and the press contributed to the poor dissemination of the ALA's Arabicized terms in the Arab press.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The wide spread of scientific knowledge from the West to the Arab World is an issue of concern today (Saraireh, 1994). The unceasing rapid advances in science and technology have in fact encouraged many scientific and technical terms to emerge every year. These terms, which are communicated through their developers, are occasionally unfamiliar to receiving nations (Talebinejad, Dastjerdi, & Mahmoodi, 2012). Therefore, foreign terms, mainly from English, have to be appropriately naturalized into receptor languages including Arabic. The Arabic language has endeavoured to respond to terminological challenges by translating and Arabicizing an ever-increasing number of English scientific and technical terms. However, like many other languages on the receiving end of scientific and technical innovations, Arabic is under a growing pressure to keep abreast of an accelerated process of scientific and technological innovations (Yousif, 2010). According to Talebinejad et al. (2012), not only the survival of a language, but also its modernization can be guaranteed by integrating modern terminologies obtained either by coining neologisms or by simply borrowing terms from donor languages.

Among the various terminology-related actors, which exert considerable efforts in the translation and Arabicization of English terms throughout the Arab World, are: the Arabic Language Academies (ALAs), scientists, the Bureau of Arabicization in Rabat/ Morocco, terminologists, educators, and translators, who are particularly important in adding new Arabicized terms and expressions to expand and

modernize the vocabulary reservoir of Arabic. In Arabic, coining Arabicized neologisms (new words and/or terms) via native word-formation methods such as derivation, compounding and composition is utilized by the academies in the Arabicization process. The translation procedures of phonetic borrowing via transliteration, loan translation, and word-for-word translation are also employed as assimilation methods in the Arabicization process.

According to Newmark (1988), neologisms are newly-coined lexical units or existing lexical units that acquire a new sense. The introduction of new Arabicized words/terms (neologisms) can be done through the application of the morphological rules of the receiving language such as Arabic. The Arabicization of English terms can also be carried out through direct the assimilation methods such as outright borrowing in terms of loans and loan translation in terms of calques. The criterion, which is applied in the process of Arabicization, is based on three important aspects of brevity, clarity and naturalness (Mollanazar, 2004). In Arabic, there exist hundreds or even thousands of words and phrases that have been either phonetically borrowed or calqued from English and actively used on a daily basis (Abu Absi, 1986). According to Talebinejad et al. (2012: 183), borrowing can have ramifications on the borrower language, because it can accelerate the “foreignization” of the language. Therefore, coining native Arabicized scientific and technical terms through productive word-formation processes using the internal resources of the Arabic language has to be added as another criterion to the process of Arabicization.

In journalistic translation, Arab journalistic translators can contribute to enriching Arabic, as well as protecting it against foreignization by introducing native Arabicized coinages into their language (Arabic). By doing so, translators can be example-setters of high-quality translation practices in the Arab World and help delimit the impact of foreignization on Arabic. Arab journalists and journalistic translators play an influential role not only in introducing native Arabicized neologisms, but also in disseminating them in Arabic through the channels of media outlets in the Arab press. Given this influence, Arab journalists in general and journalistic translators and interpreters, in particular, can contribute to the modernization of Arabic. Arab translators should, therefore, consider the importance of introducing appropriate translational equivalents in Arabicized forms into Arabic and make them current and frequent in usage. From Aal's (1994) perspective, the new Arabicized terms' popularity and circulation among users of Arabic through platforms like Arab media outlets, i.e., the Arab press are considered significant.

Based on Vinay and Darbelnet's (1958/1995) translation model of literal (direct) versus free (oblique) translation strategies and procedures, this study aims to analyse Cairo ALA's translation procedures of English scientific and technical terms into Arabic, which were used by the academy in the Arabicization process. The seven translation procedures include: 1) borrowing, 2) calque 3) literal translation, 4) transposition, 5) modulation, 6) equivalence, and 7) adaptation.

Based on Darwish's (2009) linguistic classification of Arabicization, this study aims to analyse Cairo ALA's word-formation methods in the Arabicization process. These methods include: 1) derivation الاشتقاق [al-ishtiqaq, lit. 'derivation'], 2) composition التركيب [at-tarkib, lit. 'composition'], 3) analogy القياس [al-qiyas, lit.

‘analogy’], 4) metaphor المجاز [al-majaz, lit. ‘metaphor’], and 5) compounding النحت [an-naht, lit. ‘compounding’]. Compounding is further divided into three sub-methods. They are 5a) compounding via blending, 5b) compounding via merging, and 5c) compounding via affixation.

Furthermore, the linguistic analysis of the English-Arabicized terms was conducted as part of the Arabicization process to propose a framework for Arabicization procedures of English scientific and technical terms into Arabic. In other words, the proposed framework aims to devise a standardized method for creating Arabicized scientific and technical terms. This study also aims to investigate Arab journalistic translators’ role in implementing Cairo ALA’s Arabicized terms in journalistic translation and disseminating them in the Arab press to support the academy’s Arabicization efforts. The linguistic and extralinguistic factors, which affect the dissemination of the ALA’s Arabicized terms in the Arab press, were also investigated and discussed in an attempt to enhance acceptance, popularity and dissemination of the academy’s terms in the Arab press.

To conclude, translation is basically perceived as a means to overcome various linguistic and cultural obstacles, which emerge in any intercultural exchange between different languages and cultures. Translating across different languages and diverse cultures “enhances the interactive dimension and facilitates the search for and invention of new lexicons to develop the meaning of the receptor language in a new signifying context” (Thawabteh, 2011: 103). Casares (in Nida, 1964) has interestingly compared translation to a customs office, where many smuggled foreign goods can pass through if customs officers are not watchful and alert, especially if the ultimate goal is “to control further foreignization resulting either from calquing

of source language syntax or from lexical borrowings” (Talebinejad et al., 2012: 183). Last but not least, translation as a profession is depicted by Newmark (1988: 6) as “a collaborative process between translators, revisers, terminologists, often writers and clients where one works towards a general agreement”

1.2 Statement of the Problem

Arabic Language Academies (ALAs) are the official language institutions in the Arab region, which regulate the Arabic language. The academies’ main aim is to maintain the integrity of Arabic, fulfil the needs of sciences, arts, and modern civilization, produce comprehensive linguistic dictionaries, publish journals of linguistic research, and explore new horizons for its progress and modernization. The Arabicization of foreign terms has been the main mission of these academies since their establishment. The academies of Arabic have established certain standards that can achieve the greatest possible accuracy in translation and Arabicization of English scientific and technical terms into Arabic, as lower quality translations can cause misunderstanding or even distortion of new terms and concepts. Arabic Language Academies have undertaken the responsibility of coining and publishing dictionaries and glossaries of standard Arabic neologisms in an attempt to introduce and assimilate appropriate Arabicized equivalents into Arabic.

Arabic Language Academies have so far made every possible effort to tap and cultivate rich native resources of Arabic by implementing natural Arabic word-formation methods in the Arabicization process. The academies’ terminology work of translation and Arabicization aimed to provide access to the expanding knowledge of civilization and technology throughout the Arab World (Beaugrande, 1994). Strenuous endeavours have been exerted by these academies to create appropriate

translational equivalents in Arabicized forms using the morphological and derivational rules of Arabic in an effort to confront the ceaseless flow of foreign terms into Arabic and preserve its integrity (Jordan Language Academy of Arabic, 2013). However, their proposed terms are not current in usage and wide in circulation among users of Arabic. More importantly, the ALA's Arabicized terms are not popular among journalists and journalistic translators in the Arab press. This problem was emphasized by Bahumaid (1994: 138), who stresses that "the most disquieting problem is the failure of many terms proposed by these academies to gain circulation". The author believes that there are three factors behind such hindrance for these terms to achieve acceptance and circulation among users of Arabic, in general, and among Arab journalistic translators in the Arab press, in particular.

The first factor is the non-appealing status of the proposed Arabicized terms to Arab specialists or the educated non-specialists. In this respect, Bahumaid (1994: 138) suggests that "the academies should conduct regular, large-scale surveys to assess the traits that render terms more or less appealing". The second factor is the academies' low profile in the Arab cultural scene. The academies' huge terminology work of translation and Arabicization is not well-advertised in the media. The third factor, which is the most fundamental one, is the infrastructural gap of term circulation as Bahumaid (1994) puts it. In other words, there is a lack of effective mechanisms to disseminate terms throughout the Arab region. Mechanisms can include channels of coordination and cooperation between the academy and the Arab press. In support of Bahumaid's perspective, Fahmi (in al-Qinai, 2000: 21) provides the following example:

The unfortunate coinage of the word جماز /dʒammaz/ for ‘tram’, which is similar in pronunciation to جمباز /dʒumbaz/ ‘gymnastic’, a thing which may justify the unpopularity of the word جماز /dʒammaz / in comparison with its Arabicized loanword ترام /tiram/ ‘tram’.

The problem of terminology methodologies and management in Arabic, as well as terminology dissemination and coordination, was highlighted by Darwish (2009: 156), who indicates that Arabic terminology work today is “a task fraught with insurmountable intricate difficulties”. He adds that although the linguistic aspect is a common denominator among many linguists and language agencies, the fact that the Arab World is divided into 24 sovereign states with 24 different political systems and social structures poses one of the most difficult and crucial hurdles to overcome such a chaotic situation of Arabic terminology dissemination and organization. Darwish (2009) also emphasizes that in the absence of clear guidelines towards Arabicization, Arab linguists, language academies, Arab lexicographers, planners, and translators do not have a unified policy towards the application of translation and Arabicization strategies in the Arabicization process.

This study, therefore, addresses a particular problem, which is the failure of the new Arabicized terms proposed by Arabic Language Academies (ALAs), to gain acceptance and circulation among users of Arabic, in general. Moreover, the ALAs' Arabicized terms are not disseminated among Arab journalists and journalistic translators in the Arab press, who are "the most active social group in introducing coinages into Modern Standard Arabic" (Aal, 1994: 83-88). The pilot study has, in fact, established and substantiated this problem. The results of piloting a number of journalistic translators' feedback on the ALA's terminology work of Arabicization showed that familiarity of Cairo ALA's Arabicized terms, their acceptance and dissemination rates among journalists and translators in the press were generally low. Arab journalistic translators, who are currently working in Arab press agencies, emphasized that Cairo Arabic Language Academy (Cairo ALA) does not have appropriate cooperation and coordination channels with the Arab press to publicize its terms. Journalists pointed out that these terms are not appealing and out of date. Therefore, they usually consult other terminology references and opt for different linguistic resources to look for the most appropriate Arabicized term. Cairo ALA's Arabicized scientific and technical terminologies are not well received by Arab journalistic translators in the Arab press. Translators indicated that the ALA's terms are not popular in the press, because they are not well publicized by the academy. The ALA's Arabicized terms are not familiar to translators, because the academy's terms are not easily accessed in soft copies or online databases. The academy lacks an open access policy so that the widest possible dissemination and visibility of its publications are guaranteed.

A another problem of Arabic terminology, which is tackled and discussed in this study is the direct transference of English terms into Arabic through the direct assimilation of the term via phonetic borrowing, loan translation and literal (word-for-word) translation. The results of the comparative and descriptive analysis have established the problem of this study. In the Arabicization process, Cairo ALA has strived to utilize appropriate translation and Arabicization strategies to coin and propose native scientific and technical Arabicized terms. However, the direct assimilation into Arabic using the strategy of phonetic borrowing via transliteration was considerably implemented by the academy. Arab scholars and linguists explain that the main reason behind lexical borrowing of scientific and technical terms in the field of science and technology is that “Arabic today is a receptor rather than a transmitter language” (Darwish, 2009: 133 & Al-Asal & Samdi, 2012).

In conclusion, the main objective of this study is to analyse the English-Arabic translation procedures and Arabic word-formation methods, which were implemented by Cairo Arabic Language Academy (2002) to transfer English scientific and technical terms into Arabic in the Arabicization process. Based on the analysis, translation procedures and word-formation methods were suggested to be implemented as guideline strategies in the Arabicization process. The suggested Arabicization model can be implemented by all Arabic Language Academies in the context of the term-making methodology of Arabicization. The study aims to investigate Arab journalistic translators’ role in supporting the ALA’s terminology work of Arabicization. The study also aims to suggest the establishment of channels of cooperation and coordination between the academy and the press to improve dissemination of the academy’s Arabicized terms in the Arab press.

1.3 Research Objectives

- RO1. To analyse Cairo Arabic Language Academy's (Cairo ALA) translation strategies and word-formation methods of English scientific and technical terms into Arabic so that a new model for Arabicization is proposed.
- RO2. To examine Arab journalistic translators' acceptance, as well as dissemination of Cairo ALA's Arabicized terms in the Arab press to support the academy's terminology work of Arabicization.
- RO3. To investigate the linguistic and extralinguistic factors that affect dissemination of Cairo ALA's Arabicized terms in the Arab press.

1.4 Research Questions

- RQ1. What are Cairo ALA's translation strategies and word-formation methods of English scientific and technical terms into Arabic?
- RQ2. To what extent do Arab journalistic translators support Cairo ALA's terminology work of arabicization by utilizing and disseminating the terms in the Arab press?
- RQ3. How do the linguistic and extralinguistic factors affect dissemination of Cairo ALA's Arabicized terms in the Arab press?

1.5 Significance of the Study

This study is significant as it investigates strategies of translation and Arabicization, which are employed by Cairo ALA in the translation and Arabicization process of English scientific and technical terms into Arabic. The analysis and identification of

Cairo ALA's translation procedures and Arabic word-formation methods of coining new Arabicized terms have triggered the recommendation of an Arabicization model of guideline strategies to be implemented in the Arabicization process. These strategies involve translation procedures, including borrowing, calque and literal translation. Arabic word-formation methods, including derivation, compounding and composition are involved as the Arabicization strategies. In addition, this study highlights the influential Arab journalistic translators' role in supplementing and supporting the concerted translation and Arabicization efforts of Arabic Language Academies (ALAs) in the dissemination of the proposed Arabicized terminologies in the Arab press. These terms should be made popular among users of Arabic through Arab media outlets such as press agencies and news networks. Furthermore, the study spotlights the linguistic and extralinguistic factors, which affect and at the same time improve the popularity and dissemination of the ALA's Arabicized terms in the Arab press.

Journalistic translators are considered as the most active social group in introducing new coinages into Modern Standard Arabic, because they use journalistic language, which people understand and may imitate when they write or speak. The style of journalism has made its way throughout the whole of the Arab World (Aal, 1994). Therefore, journalistic translators can surely help disseminate new Arabic terms so that they become current in usage and wide in circulation among users of Arabic. In this respect, this study is significant research as it recommends various channels of cooperation and coordination between the academy and the press to support and improve the ALA's work of translation and Arabicization through important media platforms like the Arab press. The study differs from earlier Arabicization studies as it carries out a comprehensive linguistic analysis of Cairo

ALA's Arabicized technical and scientific terms. It also proposes an Arabicization model, which involves the implementation of translation procedures, as well as Arabic word-formation methods to Arabicize the English term in the Arabicization process. The proposed model can be developed to a new Arabicization theory in Arabicization studies. Moreover, the model proposes guidelines of dissemination of Arabicized terms in the Arab press. This study is a noteworthy research as it recommends fruitful channels of disseminating the ALA's Arabicized term in the Arab press, which is an important aspect in the acceptance and circulation of the academy's Arabicized terms.

Last but not not least, this study adds significance to earlier studies in the field of Arabicization as it endeavours to fill in the gap regarding the absence of a unified, clear methodology towards Arabicizing English scientific and technical terms among Arabic Language Academies. Therefore, the proposed Arabicization and dissemination model (Figure 5.1) can be used as a guideline framework, which can be applied as a unified methodology for Arabicization by all Arabic Language Academies in the Arab region. This study adds further significant contribution to the body of the Arabicization knowledge in researching the causes of the problematic aspects of Arabicicization in the Arab World.

1.6 Scope of the Study

The scope of this study covers a corpus of English scientific and technical terms alongside their Arabicized equivalents. These terms were proposed and published by Cairo Arabic Language Academy in its glossary, which is entitled 'the Collection of Scientific and Technical Terms, Volume 42, Cairo 2002'. The total number of the examined sample is 340 Arabicized technical and scientific terms classified

according to 11 categories of knowledge. This study is also confined to the seven translation procedures of Vinay and Darbelnet's (1995) taxonomy of direct (literal) versus oblique (free) translation strategies. The direct translation strategy covers borrowing, calque and literal translation. The oblique translation strategy includes transposition, modulation, equivalence, and adaptation. With regard to the Arabic word-formation methods, the study limits its scope to Darwish's (2009) linguistic classification of word-formation methods in Arabic, which include derivation, composition, analogy, metaphor, and compounding. Compounding has three sub-classifications. They are compounding via blending, compounding via merging and compounding via affixation. Regarding the survey and the interviews' respondents, the study is confined to Arab journalistic translators and interpreters, who are currently working in a number of Arab news agencies and networks. In the semi-structured interviews of the study, three Arab journalistic translators were included (2 translators from Al-Jazeera Media Network and 1 translator from the Ministry of Higher Education - Media Office/Qatar). The survey included 28 (from a total of 89) Arab journalistic translators and interpreters from various Arab media agencies (refer to Appendix C). Among the 12 Arabic Language Academies in the Arab region, this study is confined to one Arabic Language Academy, which is Cairo ALA. The researcher selected only one glossary (Volume 42, Cairo 2002) for the descriptive and comparative analysis of Cairo academy's translation strategies and word-formation methods of the English scientific and technical terms into Arabic. Cairo ALA's glossary was selected to conduct the linguistic analysis due to the appreciation and recognition that has already been made for Cairo ALA's Arabicization efforts in the Arab region. The glossary includes various branches of scientific and technical knowledge, which are classified into 11 categories. For the

justification behind selecting the Cairo Arabic Language Academy in this study, refer to (section 2.8, p.71).

1.7 Definitions of Key Terms

Neologisms: They are newly coined lexical units or existing lexical units that acquire a new sense (Newmark, 1988). In the context of this study, neologisms are new translational equivalents in Arabicized forms for the English scientific and technical terms, which are proposed by Cairo Arabic Language Academy (2002) in its terminology work of translation and Arabicization.

The Arabic Language Academy (ALA): The Arabic Language Academy is regarded as the official institution of Arabicization, which regulates and modernizes Arabic. The academy's tasks include translation and Arabicization of English scientific and technical terms into Arabic. Many specialized dictionaries, periodical journals, and terminology glossaries have been so far published by the ALA. The academy is located in different Arab countries including Syria, Cairo, Iraq, Jordan, Morocco, Sudan, Tunisia, Algeria, Lebanon, Palestine, Libya, and the latest in Sharjah in the United Arab Emirates.

Modern Standard Arabic: It is the only official form of Arabic, which is currently used. It is the language that is used in most written documents, as well as in formal spoken occasions such as lectures and news broadcasts. "This variety of Arabic is neither fully classical nor fully colloquial: it is used in the press, on the radio and television, and orally in formal speeches and scholarly debates" (Bahumaid, 1994:134).

Arabicization: Generally speaking, Arabicization is the task of developing and institutionalizing Arabic in all walks of life. Arabicization of foreign terms, mainly from English into Arabic is one task, among others, which is shouldered by the Arabic Language Academy (ALA) in its efforts to introduce and assimilate new Arabicized equivalents for the English terms into the Arabic language (Sallo, 1994). Arabicization, in the context of this study, refers to the implementation of Vinay and Darbelnet's (1995) direct and oblique translation strategies in the process of translating the examined English scientific and technical terms into Arabic. Arabicization in this study also refers to the implementation of Darwish's (2009) Arabic word-formation methods of coining the examined Arabicized scientific and technical terms in the Arabicization process.

Journalistic Translation: Translation is an integral part of journalism. The public should be made aware of influential events happening in the world. For example, during World War I and II, journalistic translation was the way in which people were informed about the battles taking place in Europe and the Middle East. Journalistic translation is a special field of expertise, which includes translation for public print and electronic media. Journalistic translation is the type of translation used notably in newspapers. It has become an important area of research in translation studies. First research on journalistic translation was conducted in the mid-2000s. However, journalistic translations started appearing in newspapers as early as the 17th century. Journalistic translation is the translation of the news media, which is considered as a means of knowledge transfer that is becoming increasingly important in the world of global interdependencies (Darwish, 2006).

Journalistic Translators: They translate news articles and entertainment content for the print and the electronic media. These include print media (newspapers and newsmagazines), broadcast news (radio and television), and more recently the Internet (online newspapers, news blogs, etc.). Mass media outlets disseminate news to readers and audience. Journalistic translators, who translate for the public, are influential players in the introduction, acceptance, and dissemination of novel terms. Arab journalistic translators can, therefore, support the ALA's Arabicization efforts by disseminating the academy's Arabicized terms through media platforms like the Arab press (Sozonova, 2014).

Direct vs Oblique Procedures: The direct and oblique translation strategies are presented by Vinay and Darbelnet (1995) in their classical taxonomy of translation. The direct and oblique translation strategies are synonymous to literal and free translation. The given translation strategies are categorized into seven translation procedures. The direct translation strategy covers the three procedures of borrowing, calque and literal translation. The oblique translation strategy comprises the four procedures of transposition, modulation, equivalence, and adaptation.

Morphology: It is the study of the internal structure of words and word-formation processes. It is regarded as a distinct sub-branch of linguistics. The units, which are studied in morphology, are words and morphemes (Katamba, 1993).

Word-formation Methods: They are different devices, which are employed in a given language to create and build new words from existing ones. Each word-formation process results in the production of a specific type of word (Jackson & Amvela, 2004). Word-formation methods, in the context of this study, refer to

Darwish's (2009) Arabic word-formation methods that are used in the process of coining new Arabicized scientific and technical terms.

Terminology: Terminology is defined as the processes, methodologies, and activities, which produce or standardize terms. The actual outcome of these activities is the terms themselves (Darwish, 2009).

Scientific and Technical Texts: These texts are written in the context of natural-scientific or technological disciplines (Dickens, Hervey & Higgins, 2002).

Borrowing: It is direct transference of the source language (SL) word/term to the target language (TL). Borrowing is often employed to overcome lexical gaps that must be filled with corresponding elements (Vinay & Darbelnet, 1995).

Calque or Loan Translation: This translation procedure is a special type of borrowing. Based on this procedure, the form of the SL expression or structure is literally translated into the TL form or structure, whereas the concept is borrowed from the SL into the TL (Munday, 2001).

Literal Translation: Literal translation is the same as word-for-word translation, which represents the direct transference of the SL text into a grammatically and idiomatically TL text (Vinay & Darbelnet, 1995: 34).

Dissemination: It is generally defined as the spreading of information, especially news to a lot of people. In the context of this study, dissemination of the ALA's Arabicized scientific and technical terms in the Arab press is the wide circulation of these terms via one Arab media means, which is the Arab press media.

The Arab Press: It is an Arab media outlet, which involves news agencies and networks, editors and sub-editors, journalists, journalistic translators, and interpreters. Media is the main means of mass communication. The Arab media outlets include the press media (printing press such as newspapers and magazines), the broadcasting media (radio and TV), and the internet as a mass media organization.

Linguistic and extralinguistic factors: The linguistic factors entail the involvement of traits relating to language or linguistics. In this study, the linguistic aspects of the data include the linguistic analysis of the English-Arabicized term's inner structure syntactically, etymologically, morphologically, and semantically. The extralinguistic factors are the traits that are not involving or beyond the bounds of language, whereby the Arabicized term is used by Arab journalistic translators in the actual situation of journalistic translation in the press. The extralinguistic aspects of the data, on the other hand, include Arab journalistic translators' awareness of the ALA's terminology work of Arabicization, their use/adoption of the Arabicized terms in translation, and their perceptions/attitudes towards the academy's Arabicization work. The extralinguistic motives also discuss the establishment of cooperation and coordination channels between the academy and the press to guarantee term acceptance and dissemination in the Arab press.

1.8 Chapter Summary

Chapter one introduced this study. It presented and discussed the background of the study, and elaborated on the statement of the problem. The chapter laid out the research objectives and questions of this study. Moreover, this chapter highlighted the significance of the study. It included the scope and limitation of the study. The operational definitions of the key terms concluded the chapter.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter critically reviews and evaluates the previous literature, which is related to Arabicization studies. Studies on Arabic neologisms and terminological work in the Arab World are also presented and discussed in the chapter. The chapter also presents the translation and Arabicization theories, which are included in the theoretical framework of this study. Moreover, the chapter discusses the role of Arabic Language Academies (ALAs) in translation and Arabicization of foreign scientific and technical terms, as well as dissemination of these terms in the Arab press. In addition, the key role played by Arab journalistic translators in the Arab press regarding the dissemination of the ALA's Arabicized terms is highlighted in this chapter.

2.2 Arabic Neologisms

Neologisms are “newly coined, lexical units or existing lexical units that acquire a new sense” (Ahmed, 2011: 492). Despite the fact that neologisms constitute major obstacles to translators, they are commonly used by writers. With respect to Arabic technical neologisms, Ahmed (2011: 492) mentions that it is not easy to find appropriate Arabicized equivalents for the foreign scientific and technical terminology. He believes:

Finding equivalents in Arabic for technical English terms causes many problems owing to the different nature of both languages. These problems are likely to be manifested in the continuous development in the field of science and technology as well as the effect of mass media on people who almost, every day, receive new ideas and innovations.

Research on Arabicization, terminology and neologisms in Arabic has repeatedly been advocated by Arab linguists and scholars (Abu Absi, 1986 & Saraireh, 1994) and documentation has been available for many years (El-Mouloudi, 1986 & Ali, 1987). However, studies reviewed were typically devoted to Arabic conventional resources of lexical creation to respond to challenges posed by the increasing number of foreign concepts and terms that Arabic receives due to the accelerated process of scientific and technological innovations. Similarly, related literature discussed the unclear existing methodology for Arabicization, which is subject to personal preferences (Yousif, 2010; Al-Asal & Smadi, 2012). In this respect, Arab linguists have highlighted the key role played by Arabic Language Academies in Arabicizing foreign terms to preserve the integrity of Arabic and to devise a standard method for coining scientific and technical terminologies. Nonetheless, such huge terminological efforts are disconnected and uncoordinated, and Arabicized terms are not widely accepted and effectively circulated among Arab specialists and non-specialist users of Arabic (Sayadi, 1985 & Darwish, 2009). This suggests that research is scarce and limited regarding acceptance and dissemination of these new, Arabicized creations among users of Arabic. In other words, the review of the related literature has shown that there is very little data available that is substantially close to, if not directly related to the issue of dissemination of terminology that is proposed by Arabic Language Academies, which is being investigated in this study.

In a study on Arabic terminology in English-Arabic translations, Saraireh (1994: 79-81) tackles what he calls harmful, serious and rife inconsistencies when Arabic translational equivalents are chosen for a new or borrowed foreign term. He explains that the established Standard Arabic neologism would be “later used

interchangeably with one or more synonyms”. This would, according to the author, result in wrong assumptions that each synonym suggests a different meaning, especially when technical and scientific terms are involved. For example, the native Arabic term هاتف [haatif, lit. ‘telephone’], which has been adopted as a standard Arabicized form for the English ‘telephone’, has another borrowed form. It is تلفون [tilifon, lit. ‘telephone’], which is widely accepted and used in Arabic although it is not native. Another example is the English term ‘serum’ that has two synonymous forms in Arabic. The first Arabicized form is لقااح [liqaah, lit. ‘serum’]. The second is مصل [masl, lit. ‘serum’], which is the standardized Arabic equivalent for ‘serum’. However, both Arabicized terms are accepted and interchangeably used in the Arabic language. Saraireh (1994) adds that “some coinages adapt Arabic expressions in altered meanings”. As an example, he refers to the Arabic term موجة [mawja, lit. ‘wave’], which was coined to signify electromagnetic transmission wave. It is interchangeably used with another meaning signifying a raised line of water on the surface of the water, especially the sea (Collins Cobuild Essential English Dictionary, 1988). Hence, as Saraireh (1994) emphasizes, recommendations were made towards maintaining full consistency in the Arabicization process. He adds that this is a duty that should be laboriously shouldered by Arab linguists and intellectuals in Arabic Language Academies, as well as the Arabicization Bureau in Rabat/Morocco, on one hand, and lexicographers, dictionary compilers, and publishers, on the other hand. The author goes further to say that producing reliable and unambiguous target-language terminology is an essential part of the Arab translator’s task, especially when specialized knowledge is sought for and novel and technical terms are concerned.

In the same vein, Aal (1994) stresses that journalists and journalistic translators in the Arab press play a key role in introducing standardized, stable and unified Arabicized coinages into Modern Standard Arabic. The author gives several Arabicized phrases of some political coinages that are recurrently used in the Arab press such as *جولة مكوكية* [jawla makkuukiyya, lit. ‘shuttle tour’] for the English ‘shuttle tour’, *سفيرمتجول* [safiir mutajawwil, lit. ‘roving ambassador’] for the English ‘roving ambassador’, *كتلة شرقية* [kutla sharqiyya, lit. ‘eastern bloc’] for ‘eastern bloc’. These phrases are loan translations in the form of calques. In other words, the concepts of these English expressions were literally assimilated into Arabic and, therefore, remain foreign in the Arabic language. Bader (1994: 97) also mentions that it is highly probable that modern terminology undergo loan translations through calquing in order to assimilate terms for new concepts from the donor language into the receptor language such as the case with English and Arabic. Examples of loan coinages include the Arabicized political term *حرب باردة* [harbun baaridah, lit. ‘cold war’] for the English phrase ‘cold war’, *بلد مضيف* [baladun mudhif, lit. ‘a host country’] for ‘a host country’, *مبادرة سلام* [mubaadaratu salaam, lit. ‘a peace initiative’] for ‘a peace initiative’, and last but not least *جمهوريات الموز* [jumhuriyyaatu almawz, lit. ‘banana republics’], which is equivalent to ‘banana republics’ in English.

With respect to journalistic translation, Arab journalistic translators in the Arab press should be more careful when they introduce new Arabicized forms into Arabic as they should consider protecting the Arabic language from the influence of foreignization, which is mainly brought by journalistic translation (Aal, 1994). Bahumaid (1994) suggests that translators can either coin or borrow terms if they encounter source-language lexical items that have neither straightforward nor partial equivalents in the target language. To guarantee using native Arabicized structures

and forms in journalistic translation, Aal (1989) suggests that linguistic revisers should take part in reviewing the final drafting of the translated and Arabicized terms to ensure acceptance of Arabic usage and to guarantee that foreign structures are included only because they have no Arabic equivalents. More crucially, Aal (1994) encourages the foundation of what he calls an “information exchange of technical terms,” which includes the translation and transliteration of foreign terms throughout the Arab countries. The author adds that this task can also be shouldered by the Bureau of Co-ordination of Arabicization in Rabat/Morocco. Furthermore, Aal (1994) recommends that journalistic translators should receive specialized training in journalistic translation. Orientation courses should be also organized for both translators and subeditors entering jobs in the press. Another perspective comes from Heliel (1991), who addresses challenges that Arab translators face in scientific and technical fields, in particular. He emphasizes that the shortage of bilingual specialist dictionaries is a key reason behind the difficulty of finding the appropriate Arabicized equivalent for the foreign scientific term. In his significant study on adaptation and innovation of Arabic terminology, Yousif (2010) attempts to demonstrate the response of the Arabic language towards specific challenges posed by modern scientific and technical knowledge transference. He clarifies that a huge number of terms have already been created in various disciplines and branches of knowledge, which refutes claims that Arabic has fallen short of expressing modern knowledge. He emphasizes that proof to the contrary is clearly provided by the huge number of terms that are constantly created through various representatives in all scientific and technical fields.