

A Critical Appraisal of Baker's Model of Equivalence with a Special Focus on Machine vs. Human English into Arabic Translation: Harry Potter Extracts Case Study

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Abstract: *In the translation process, there is a relationship between the source text and target text, commonly known among researchers as 'equivalence'. This article critically analyses the concept of equivalence proposed by notable translation theorists, with particular attention paid to the applicability of Baker's¹ model of equivalence to the quality of the Arabic machine translation provided by a web-based platform (i.e. Google Translate) of several Harry Potter² extracts compared to their Arabic human translations. The concept of equivalence between the source and the target texts was a central concept within the discipline of translation in the 1960s and 1970s. An examination of the literature reveals that translation scholars have attempted to differently theorise equivalence, along with its applications within the translation process. An influential model proposed by Baker¹ comprises four different levels: word level, above word level, grammatical level, and register level. This article critically analyses the machine translations of five extracts randomly selected from 'Harry Potter and the Philosopher's Stone'² (i.e. two extracts at the register level, two extracts above word level, and one extract at the grammatical level), and compares them with their counterparts in the human translation. Ultimately, the quality of the machine translation and the human translation are compared and evaluated in accordance with Baker's¹ model.*

Keywords: Equivalence; Machine Translation; Human Translation.

1. Introduction

Literary translators are increasingly faced with differences between the source language (SL) and target language (TL). Since Arabic and English belong to two very distinct cultures, translators working with these two languages inevitably encounter a wide range of linguistic, cultural and pragmatic differences between Arabic and English. In order to be faithful to the intended meaning of the source text (ST), translators usually apply a practical and theoretical model in order to maintain a degree of relationship between the ST and the TL. Notably within translation studies, scholars have engaged in wide-ranging discussions on the concept of equivalence, examining it from a variety of perspectives. According to Palumbo³, equivalence is the central issue in translation although its definition, relevance, and applicability within the field of translation theory has given rise to heated debate. In this paper, the concept of equivalence, presented in the translation studies literature, is investigated, with a particular focus on Baker's¹ model of equivalence and its application with regards to Arabic into English machine vs. human translation of randomly-selected extracts from Rowling's² novel.

2. Methodology

Published materials (articles and books) with a focus on the concept of equivalence were sought in the literature of translation studies. In order to find relevant articles for this critical review, a search was conducted of three main scholarly repositories, namely Oxford Scholarly Editions, Google Scholar, and ProQuest/Literature Online, using

equivalence as the main search enquiry. Ten books and articles were identified and selected for review, in order to extrapolate the concept of equivalence and its applications within translation studies. As the focus of this review was on the application of translational equivalence in terms of the Arabic language, it was necessary to extend the search to include peer-reviewed Arabic social sciences periodical journals and publications. The abstracts and titles guided the selection of appropriate works (Figure 1). Additionally, the selected published materials were uploaded to NVivo, a qualitative software, so as to thoroughly identify emerging themes related to equivalence in translations.

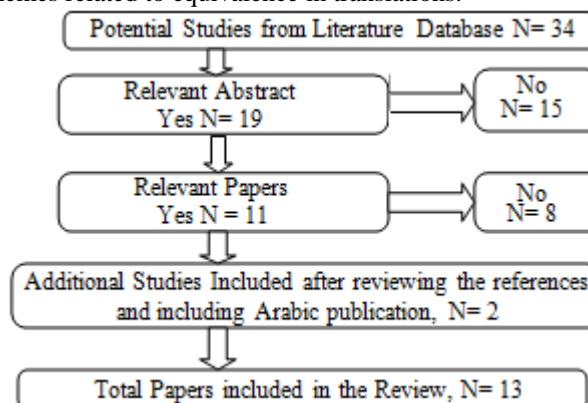


Figure 1: Process of selection of articles to be included in the review

3. Results and Discussions

Translation researchers have been fascinated by the principle of equivalence since it is inextricably linked to core aspects of translation, including definition, theory, and practice. The

literature review revealed that translation scholars have proposed influential theories to define translation based on the concept of equivalence, although some scholars have eschewed the application of equivalence within translation studies. In the following section, the notion of equivalence in relation to notable translation theories, is discussed.

3.1 Equivalence by translation theorists

In his seminal paper titled *On Linguistic Aspects of Translation*, the structuralist theorist, Roman Jakobson⁴, proposes three types of translation: intralingual (i.e. translation within the same language), interlingual (i.e. translation between two languages), and intersemiotic (translation between sign systems). Regarding the overarching concept of equivalence, he emphasises that there can be no absolute equivalence between two words in translation⁴. He supports his argument by providing various instances (lexis or structures) showing the differences between English and Russian. Jakobson⁴ does not suggest that translation is impossible; rather, he demonstrates the linguistic structural and terminological differences between languages involved in translation, suggesting that “translation involves two equivalent messages in two different codes”⁴.

Influenced by Chomsky’s theory of generative-transformational grammar that emerged in the 1960s, Nida⁵ offers new scientific insights on the nature of translation. As a translator of the Bible, Nida⁵ proposes a systematic approach for investigating the concept of equivalence within translation studies, consisting of two popular orientations: formal equivalence and dynamic equivalence. According to Nida⁵, formal equivalence “known also as formal correspondence” is defined as a translation that “focuses attention on the message itself, in both form and content”. Thus, translators are expected to produce a text that is primarily oriented towards the ST structure, where a “gloss translation” can be a notable example of formal equivalence. Conversely, Nida⁵ believes that dynamic equivalence exists where “the relationship between receptor and message should be substantially the same as that which existed between the original receptors and the message”. Therefore, translators are expected to produce the ST message in as natural a manner as possible texts for target readers, favouring the TT structures and norms. As a translator of the Holy Bible, Nida⁵ favours the dynamic equivalence with the aim of producing the same effect of the ST on various target readerships.

Being an influential translation theorist, Newmark⁶ provides

new perspectives on the concept of equivalence with a particular focus on the translators’ professionalism professionalization, thereby replacing Nida’s⁵ orientations of equivalence by proposing two types of translation: communicative and semantic. These are discussed in more detail below.

Communicative translation attempts to have on its readers an effect as close as possible to that produced on the readers of the original. Semantic translation attempts to render, as closely as the semantic and syntactic structures of the second language allow, the exact contextual meaning of the original.

In her seminal book titled *In Other Words*, Baker¹ provides a new perspective on the notion of equivalence by examining it as a relative notion influenced by various factors, and thus proposes this typology: equivalence at word level, equivalence above word level, grammatical equivalence, textual equivalence, and pragmatic equivalence. It can be argued that this model has combined the linguistic and the communicative approaches, thereby making it a popular approach in the field of translation. This model is specifically selected to further investigate the concept of equivalence in machine vs. human translation of literary extracts from *Harry Potter and the Philosopher’s Stone*².

3.2 Equivalence at word level

The focus of this section is on how equivalence is maintained at the word level, with particular emphasis on register along with its variations in language. Hatim and Mason⁷ divide these variations in terms of the language user and use. Further, they⁷ state that the former concerns a variety of dialects such as geographical, temporal, social, standard dialects while the latter mainly focuses on register. Baker¹ defines register as “a variety of language that a language user considers appropriate to specific situation”. Register comprises three elements: field, mode and tenor. Baker¹ states that field indicates “what is going on”; thus, the language use will vary depending on the subject. Mode refers to the medium of communication (writing or speaking) [8]. According to Hatim and Mason⁷, tenor “relays the relationship between the addresser and the addressee” [7]. In order to construe equivalence in the TT, the translator needs to reflect a register similar to that used in the ST.

A number of non-equivalence instances at register level can be found between the ST and the MT. Figure 2 demonstrates non-equivalence at the register level in terms of mode. A gloss and back translation (henceforth BT) have been provided.

Non-equivalence at register level in the machine translation: Mode										
Source Text ST	‘We are pleased to inform you that you have a place at Hogwarts school of witchcraft’ (Rowling, 1997a, pp. 60-61).									
MT - TT	نحن	سعداء	أن	أحيط	كم	علما	بأن	لديك	مكان	في
Gloss	Witchcraft	the	for	Hogwarts	school	at	place	you	that	knowledge
Back Translation	We are happy to tell you that you have place at school of Hogwarts for witchcraft...									

Figure 2: Non-equivalence at register level; mode in the machine translation

The ST sentence above includes the mode variable that refers to the channel used for communication between

addressers and addressees. Hatim and Mason⁷ define mode as “the medium of the language activity”. The ST mode is a

letter written to Harry Potter. The letter can be described as formal, monologic, sophisticated, and well-written in formal lexis and with good grammatical structure. However, the MT of this sentence fails to reflect the mode because it has a less formal structure and a grammatical error. This Arabic translation نحن سعداء أن نحيطكم علماً بأن لديك (BT: we happy that tell you knowledge that you) is considered an informal style because of its inconsistency in using الضمير المتصل (BT: connected pronoun), which is plural in the word نحيطكم (BT: tell you) and singular in the word لديك (BT: you). Further, this phrase بأن لديك مكان (BT: that you place) has a grammatical error regarding declension of مكان (BT: place), which must be مكاناً (BT: place) with two extra (a) vowels at the end of the word. These stylistic and grammatical errors produce an informal text and thus, in terms of mode, there is non-equivalence in the TT. On the other hand, the HT of this mode successfully reflects a similar mode in the TT (see figure 2). The translator employs a suitable and consistent stylistic structure in using الضمير المتصل (BT: connected pronoun), which remains consistent as a singular pronoun in the entire text. Further, the HT has no grammatical errors in terms of declension.

The other example of non-equivalence at register level relates to tenor. The following figure illustrates this example with a gloss and BT.

Non-equivalence at register level in the machine translation: Tenor	
Source Text ST	'Please find enclosed a list of all necessary books and equipment' [2].
MT - TT	تجدون قائمة ب جميع ال كتب و ال معدات ال لازمة
Gloss	Necessary the Equipment all and books the all with list you find
Back Translation	You find a list with all necessary books and equipment

Figure 3: Non-equivalence at register level; tenor in the machine translation.

The ST above demonstrates the use of tenor in this letter to Harry Potter. According to Baker¹, tenor refers to the relationship(s) between the people involved in the discourse. The letter has been written in formal lexis and issues polite commands even though the recipient is a young boy. The MT does not construe the actual tenor used in the ST because it lacks the tone of polite command and the correct grammatical structure. MT does not render the word 'please'. MT fails to add a second object for the verb تجدون (BT: you find) which, according to Daḥdāḥ et al.⁹, requires two objects in Arabic grammar. However, the HT succeeds in producing a moderate degree of tenor because of its formal lexis and correct grammatical structure, particularly with the verb ستجد (BT: you'll find), which requires two objects; داخل و لائحة (BT: inside and list). It can be noted that the translator achieves a satisfactory degree of tenor in the TT. However, he does not translate the word 'please', which can be added to reflect a high degree of similarity between the ST and the TT (see Figure 3).

3.3 Equivalence above word level

Equivalence above word level concerns the sameness between the ST and the TT in terms of lexical patterning. As stated by Baker¹, lexical patterning consists of two main elements: collocation and idiomatic and fixed expressions. Baker¹ defines collocation as "the tendency of certain words

to co-occur regularly in a given language". Nofal¹⁰ points out that "collocation is essentially a lexical relation and not subject to rules but to tendencies". However, Baker¹ believes that flexibility distinguishes collocation from other lexical patterning because "it allows several variations in form". Further, Baker¹ states that the nature of collocation is susceptible to producing an infinite number of collocations because its "collocational ranges are not fixed". Hence, collocations can be classified into two main groups: unmarked and marked. An unmarked collocation can be defined as the usual occurrence of words in a context, and its translations must also be unmarked. In contrast, Baker¹ defines a marked collocation as "an unusual combination of words, one that challenges our expectations as hearers or readers". Such collocations are often used in creative texts, news headlines, as well as advertisements for certain purposes. In order to translate marked collocations correctly, a translator needs to find a way of expressing unusual ones in the ST. The translation process poses a number of difficulties regarding collocation. Five of these are outlined by Baker¹:

- 1) The engrossing effect of the source text patterning.
- 2) Misinterpreting the meaning of a source-language collocation.
- 3) The tension between accuracy and naturalness.
- 4) Culture-specific collocations.
- 5) Marked collocation the source text.

Baker¹ defines idiomatic and fixed expressions as "frozen patterns of language which allow little or no variation in form and, in the case idioms, often carry meanings which cannot be deduced from their individual components". According to Ghazala¹¹, there are a number of characteristics that distinguish idioms from other lexical patterning including unchangeable forms, and indirect and metaphorical meaning. Further, Baker¹ posits that the idiom user cannot its word order, delete and add a word, substitute another word or even change its grammar and, unlike idioms, the meaning of fixed expressions can be identified from their words. Based on this discussion, lexical patterning is one of the common issues encountered by translators. In order to achieve equivalence in the TT, a translator must implement various strategies during the process of rendition.

There are several instances of non-equivalence above word level between the ST and the machine translation (MT) in the [2] extracts. An example of collocation and a fixed expression will be discussed respectively. The first example of non-equivalence above word level relates to collocation. The following figure gives one example of the non-equivalence of collocation between the ST and the MT, including a gloss and (BT).

Non-equivalence above word level: Collocation				
ST	'Bill was Head Boy...' [2]			
Machine Translation TT	رئيس	فتي	بيل	كان
Gloss	president	boy	Bill	was
Back Translation	Bill was president boy.			

Figure 4: Non-equivalence above word level in the machine translation: Collocation

The ST above contains a culture-specific collocation that means a student selected to represent a school in an event in Britain [12]. As stated by Baker¹, collocations which are used in the source language will be unfamiliar in the target language if their cultural settings are different. This suggests that the rendering of culture-specific collocations is a common difficulty encountered by translators from English into Arabic and vice versa. Therefore, translators are obliged to use translation strategies in order to express equivalence in the target language. As Arabic lacks a direct equivalent for 'Head Boy', the term has been translated into Arabic TT as فتى رئيس (BT: president boy). However, this translation is not acceptable because فتى رئيس (BT: president boy) is not an appropriate collocation in Arabic. According to Baheth¹³, the word 'boy' is commonly used with certain adjectives such as شجاع وكريم (BT: brave and generous) and it does not collocate with the word 'president'. Consequently, the MT fails to express the appropriate collocation in the TT. In the human translation (HT) of this extract, the translator expresses this collocation by implementing one of the useful strategies for translating culture-specific items called 'cultural substitution' (see Figure 4). The translator construes the collocation into Arabic as "كان بيل الطالب المثالي" [2] (BT: Bill was the ideal student) in order to achieve equivalence. Therefore, this HT successfully construes a suitable collocation الطالب المثالي (BT: the ideal student) in the TT, recognizable to Arabic readers.

The second instance to be discussed is non-equivalence above word level in terms of a fixed expression. Figure 5 illustrates non-equivalence between the ST and the MT in the translation of a particular fixed expression. A gloss and BT have also been provided to assist non-Arabic readers to follow the analysis.

Non-equivalence above word level: Fixed Expression				
Source Text ST	'Yours sincerely' [2]			
Machine Translation TT	تفضلوا	بقبول	فاتق	الإحترام
Gloss	respect	the	highest	acceptance please be kind
Back Translation	Please be kind to accept the highest respect.			

Figure 5: Non-equivalence above word level in the machine translation: Fixed Expression.

The meaning of the fixed expression 'yours sincerely' can be easily identified from its individual components; thus, the translation process will be simpler if the TT has a direct equivalent of such expressions. Although the meaning of this expression is quite transparent, Arabic does not have a direct equivalent¹. This is because formal letters and e-mails in Arabic always close with complimentary expressions such as thanks or even a prayer to the recipients. Google Translate paraphrases 'yours sincerely' in Arabic as "تفضلوا بقبول فاتق" (BT: please be kind to accept the highest respect). This translation has been used often in spite of the fact that it does not relate directly to the English expression [1]. On the other hand, the HT of this expression differs noticeably from the MT due to the use of a translation strategy known as a 'loan expression' (see Figure 5). The Arabic translator borrows this expression "المخلص لك" (BT: I am sincere to you) from the literal meaning of this phrase. The HT seems more appropriate than the MT because it conveys the actual

meaning of the expression and thus is considered equivalent to the ST expression.

3.4 Equivalence at grammatical level

Equivalence at grammatical level concerns grammatical categories and how these categories are expressed in the ST and the TT. Baker¹ defines grammar as "the set of rules which determine the way in which units such as words and phrases can be combined in a language and the kind of information which has to be made regularly explicit in utterances". Baker¹ nominates five grammatical categories: number, gender, person, tense and aspect, and voice. These categories differ noticeably from lexical categories in many ways. Furthermore, Baker¹ points out that the system of grammatical categories is closed, encoded in parts of words, obligatory, and more resistant to being changed. If the grammatical structures of ST and the TT are different, the translator will need to deal with a number of issues during the translation process¹. Concerning translation from English into Arabic or vice versa, the translator is likely to encounter many challenges because of the grammatical differences between Arabic and English. Baheth¹³ states that English is a West Germanic language, whereas Arabic is a Semitic language; thus, their grammars are significantly different.

The different grammatical systems of English and Arabic mean that a variety of non-equivalence instances will be found at the grammatical level between STs and their Arabic translations in Google Translate. The example to be discussed here relates to the notion of number, which is handled quite differently in English and Arabic. Figure 6 depicts an example of non-equivalence between the ST and its MT in relation to the dual category that takes place in Arabic but not in English. A gloss and BT have been integrated to make the example readable to the non-Arabic audience.

'And in their opinion there was no finer boy anywhere' [2]										
Source Text ST	Non-equivalence at the grammatical level in the machine translation									
Machine Translation TT	و	في	رأي	هم	لم	يكن	هناك	صبي	أحسن	في
Gloss	Place	any	in	Finer	boy	there	was	no	their	opinion in And
Back Translation	And in their opinion there was no finer boy in any place.									

Figure 6: Non-equivalence at the grammatical level in the machine translation

According to Baker¹, "the idea of countability is probably universal in the sense that it is readily accessible to all human beings and is expressed in the lexical structure of all languages". English distinguishes between one and more than one¹. Unlike English, the Arabic system of denoting number is quite complex because of its numerous categories and declensions, which change the endings of nouns depending on their contexts. Arabic recognises a distinction between one, two, and more than two. In their Arabic grammar dictionary, Daħdāh et al.⁹ point out that Arabic has three categories of number; singular, dual and plural. The dual categories are explained as "two units of the singular noun". Moreover, the plural category can be divided into

three groups: masculine, feminine, and broken (takseer) plurals. The MT above fails to produce the dual category of 'their opinion' because it has been translated into TT as رأيهـم (BT: their opinion). This translation is not acceptable because it is clear from the context that the possessive pronoun (their) refers to Dudley's parents and thus the correct translation would be في رأيهـما (BT: dual opinion). In contrast, the HT remains faithful to Arabic grammar, changing the category from plural (in the ST) to a dual form (in the TT). Hence, "their opinion" has been translated as رأيهـما (dual opinion) (see Figure 6). Consequently, the HT is more accurate than the MT.

4. Conclusion

From the discussion above, it is evident that equivalence has been a crucial concept adopted by translation theorists, suggesting various theoretical orientations on how it can be manifested in the translation process. Furthermore, these analyses demonstrate that non-equivalence in translation between English and Arabic is found on many levels, such as the word level (register), above word level, and the grammatical level. They also reveal that the HT is more accurate and consistent than MT in construing equivalence in the TT. This is because HT can deal more effectively with problems arising during the translation process than can MT, through the implementation of various strategies such as cultural substitution and loan expressions with the aim of achieving high degrees of equivalence between the ST and TT. These analyses indicate that MT is likely to be imperfect in rendering word-register variables such as mode and tenor, above-word-level expressions such as culture-specific items, fixed expressions, and grammatical categories (e.g. dual category) in Arabic. This work is significant because it alerts translators to the importance of using MT software carefully, and demonstrates that human intervention is indispensable to the translation process.

References

- [1] Baker M. *In Other Words: A Coursebook on Translation*. Routledge; 2018 Apr 9.
- [2] Rowling JK. *Harry Potter and the Philosopher's Stone*. Bloomsbury Publishing; 2015 Aug 13.
- [3] Palumbo G. *Key Terms in Translation Studies*. Bloomsbury Publishing; 2009 Jun 8.
- [4] Jakobson R. *On Linguistic Aspects of Translation*. On Translation. 1959 Nov 18.
- [5] Nida EA. *Toward a science of translating: with special reference to principles and procedures involved in Bible translating*. Brill Archive; 1964.
- [6] Newmark P. *Approaches to Translation (Language Teaching Methodology Series)*. Oxford: Pergamon Press. <https://doi.org/10.1017/1981>.
- [7] Hatim B, Mason I. *Discourse and the Translator*. Routledge; 2014 Jun 17.
- [8] House J. *Translation: The Basics*. Routledge; 2017 Sep 13.
- [9] Daḥdāḥ, A, Maṭar, I, 'Abd al-Masīḥ, JM & McDermott, MJ. *Mu'jam qawā'id al- 'Arabīyah al-'ālamīyah: 'Arabī-Inklizī, Maktabat Lubnān, Bayrūt. 1992.*

- [10] Nofal KH. *Collocations in English and Arabic: A comparative study*. *English Language and Literature Studies*. 2012 Sep 1;2(3):75.
- [11] Ghazala HS. *Translation as Problems and Solutions: A Textbook for University Students and Trainee Translators*. Konooz Al-Marefa; 2012.
- [12] Mayor M, editor. *Longman Dictionary of Contemporary English*. Pearson Education India; 2009.
- [13] Baheth online Arabic dictionary, viewed 04 Nov 2019, <http://www.baheth.info/>