

PRAGMATIC LOSS IN AI AND HUMAN TRANSLATION OF FRANKL'S *MAN'S SEARCH FOR MEANING*

Abdali H. Shihan al-Saidi¹  Sahira Mousa Salman²

¹ Department of English/ College of Arts University of Baghdad
abd.a@coart.uobaghdad.edu.iq

² MOHESR Ministry Counsellor Office
sahirasalman@yahoo.com

Abstract: Despite the immense potential of Artificial Intelligence (AI) translation models, they are still inadequate in dealing with culture/domain-specific expressions causing inaccurate translations. The problem addressed in this study is that translating culture/domain-specific expressions by AI translation applications result in pragmatic loss which distorts the intended meaning and function of the source text. The aim of this study is to bridge the gap in the literature concerning the competency of AI translation applications in rendering the said expressions from English into Arabic in Frankl's *Mans's Search for Meaning*, specifically in terms of the pragmatic loss. The researchers utilized a qualitative descriptive approach as well as a quantitative approach to analyse the data by adopting an eclectic approach. For the purpose of evaluation, certain parameters are selected, following Castilho et al. (2018) to evaluate the extent to which the selected AI translation applications have succeeded in rendering the source text to the target text. For the purpose of quantitative analysis, a questionnaire is designed for the translation quality assessment of AI and human translations from English into Arabic. The questionnaire is based on the numeric 5-point scale and error severity levels for statistically measuring failure and success in achieving *Fluency, Adequacy, Acceptance and Readability* adapting Maucés and Donaj (2019) model and Lommel (2018) error severity scale. Further, the researchers will compare the AI application translations with human translation, namely Mansour (2022) and Al-Saidi (2025). The findings of the study indicate that although some of the AI translation applications have succeeded in translating some of the ST expressions, however the rate of failure is still much higher. The AI translation applications have a lot of pragmatic losses and that they cannot replace human translation since human translations have shown a higher degree of success as compared to AI application translations.

Keywords: AI translation, culture/domain-specific expressions, error severity level, Human translation, pragmatic translation strategies, pragmatic loss, translation quality assessment

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¹ Corresponding author: Abdali H. Shihan al-Saidi Authors' ORCID ID: <https://orcid.org/0009-0006-1096-9001> <https://orcid.org/0000-0002-7684-0044>

1. Introduction

Translation is the medium that bridges cultural and linguistic gaps. For a long time, it has depended completely on human linguistic skills and cultural knowledge to effectively transfer the meaning. However, the emergence of AI translation has contributed in the facilitation of exchanging knowledge and the promotion of mutual understanding. AI translation studies the methods of translating a text from one language to another and considered as a branch of computational linguistics which relies on linguistics, artificial intelligence, statistics, computer science, and information theory (Mauces & Donaj, 2019). AI Translations systems have played an important role in translation since the 1950s when the computer system for the first time is used for translation. Such systems include rule-based systems which depend on dictionaries and language rules, Statistical Machine Translation in the (1990s) which depends on statistical models for translating from one language to another, and the recent model, and the Neural Machine Translation, in the mid 2010s, which uses neural networks and deep learning algorithms for processing whole sentences not just individual words (Hutchins, 2000; Gehring et al., 2017). This system is used by Google Translate and it is the best for making the process of translation fluent and accurate by producing context-sensitive translations. Chat GPT-3 and LLMs are capable of producing a text which is similar to that produced by humans (Vashee, 2023). Although ChatGPT produces grammatical sentences, and sometimes even remarkably idiomatic ones, it has no comprehension of the world, and that makes it unreliable and untrustworthy (Vashee, 2023). Actually, AI translation applications have some challenges and limitations specifically when dealing with idioms, culture-specific expressions (CSEs), domain-specific expressions (DSEs), jokes, ambiguity, and in some languages which are sensitive to gender and having a politeness complex system as in Arabic and Japanese. AI translation applications are unable to identify and keep cultural nuances and eventually cause pragmatic loss, highlighting the importance of human translation to account for such types of texts to ensure the quality, cultural sensitivity, and reliability of translation (Shahmerdanova, 2025; Koehn, 2020).

In light of this, the current study attempts to investigate the pragmatic loss of CSEs/DSEs of four AI translation applications and two human translations in rendering Frankl's *Man's Search for Meaning* from English into Arabic, judging and assessing the quality of their translation. To achieve these objectives, the following research questions are addressed:

- What types of pragmatic loss are found in the selected AI translation applications and human translation in rendering the ST?
- Which of the AI translation applications is more competent in rendering the ST?
- Can AI translation application replace human translation?

2. Literature Review

In spite of the continuous progress in the technology of AI translation applications, they still have certain limitations and face challenges in translating certain texts and concepts from one language to another. Many researchers emphasize these limitations and the inaccuracy of the output of these applications. They also address the problem of loss and failure in translation. In addition, many of the previous studies manipulate the techniques used for translation quality assessment (TQA) and suggest techniques to improve the quality of AI translation models.

Laubli et al. (2013) study concentrates on the human parity of machine translation. They study Chinese-English news translation assessing the claim that machine translation can achieve human parity. A contrast was made between the evaluation of one sentence or the

whole text. The study concludes that while evaluating fluency and adequacy, the human raters prefer human translation to machine translation specifically in assessing a whole document rather than isolated sentences.

Another study by Amini et al. (2014) investigates the challenges and trends using AI in translation. It covers four machine translation applications including: statistical machine translation, rule-based machine translation, neural machine translation, and hybrid machine translation. The study surveys the advantages and limitations of each model. It also explores the techniques that can be used in the process of evaluating the accuracy of the AI translation models, in addition to the advantages and limitations in translating idioms, metaphors, etc. as well as cultural nuances. The study employs the TQA parameters like adequacy, fluency, fidelity, and naturalness to assess the AI translation outputs. The findings of the study assure that AI translation models can be of help to human translators although they are not fully accurate but can translate a large number of texts to many languages with a very significant speed.

Contrary to the previous study, Poibeau (2022) reevaluates the beliefs that in machine translation there is human parity and superhuman performance. Human parity refers to the ability of AI translation systems to simulate human translators. It is achieved in only a limited number of languages, very special types of texts, and literal translation. The study concludes that the two terms human parity and super human performance are themselves problematic and do not assist the process of evaluation, and that machine translation cannot replace human translation. The study proposes the integration of humans rather than replacing them by machine.

The next study is that of Barrault et al. (2023) which studies the multilingual and multimodal machine translation. They introduced SeamlessM4T as model for translation. It is concerned with speech to speech, speech to text or text to text translation between any two languages supported by speech recognition which was automatic for about 100 languages. It is supposed to improve the translation quality into English.

In terms of failure in AI translation applications, Tianyao Li (2024) investigates the failure in translating idioms in AI and human translation. The study concentrates on the differences and similarities between the translations of AI and Chinese EFL students when rendering English idioms into Chinese. For analysis, the study uses a questionnaire to check the accuracy of both AI and human translation. The result of the study reveals that the level of accuracy of the Chinese EFL students' translations is lower than that of the AI translation version. While the distribution of the accuracy of AI translation and human translation among the English idioms categories is the same. The AI translation renders the accurate meaning, while the Chinese EFL students keep the form of the proverbs.

A similar study is conducted by Alfaify (2025) which concentrates on the limitations of machine translations and AI translation specifically in Gaza-Israel conflict. The researcher studies the AI translation limitations in the political field in rendering cultural expressions, preventing errors which are critical in high-stake context, avoiding any prejudice and interference, and rendering cursive hand-writing. The method of analysis is comparative descriptive and experimental. The study concludes that human translators are irreplaceable, specifically when the AI and machine translation models fail to translate the text accurately. It is a risk to depend on such models in translating texts which are concerned with conflict and high-stakes context. These AI translation models demand post-editing by human translators otherwise, they can lead to damage which cannot be repaired.

The literature on AI translation models previously mentioned shows that although there is a lot of work done in the field of AI translation applications and, specifically, the loss and limitations they have, the studies focus is on Hindi to English, Chinese to English, and very few from Arabic to English. In addition, most of the studies compare the outputs of different AI translation applications like statistical machine translation, rule-based machine translation, neural machine translation, and hybrid machine translation, or using just Google translate or just ChatGPT models. Accordingly, the novel contribution of the current study lies in being the first to investigate the pragmatic loss of CSEs/CDEs in the outputs of four AI translation applications, namely: Google Translate (GT), ChatGPT (GPT), Deep L (DL) and Deep Seek (DS) from English into Arabic. In addition, it is the first to compare the aforementioned AI translation applications and human translations statistically to avoid subjectivity and arrive at the conclusions in an objective manner.

2.1. Pragmatic Loss of CSEs/DSEs

In order to avoid pragmatic loss of CSEs, Venuti (1995) suggests two essential strategies of domestication and foreignization which guide the translators culturally and linguistically. Domestication, on the one hand, means “an ethnocentric reduction of the foreign text to target-language cultural values, bring the author back home” (Venuti 1995: 20). It aims at making the ST closer to the readers by using the TT cultural elements. Foreignization, on the other hand, refers to “an ethno-deviant pressure on those (cultural) values to register the linguistic and cultural difference of the foreign text, sending the reader abroad” (Venuti 1995: 20). It aims at preserving the ST uniqueness. However, total foreignization without providing explanations could confuse the TT reader. The translator is obliged to render the ST to the TT with all its cultural elements and emotional effects (Nida, 1964). According to Nida (2001) to achieve a successful translation, it is more important for the translator to be bicultural more than bilingual as the words acquire their meaning from the cultures that they function in. Nida is the representative of the theorists who favour domestication in translation while Venuti is considered the representative of those who follow foreignization.

Different types of strategies for translating CSEs are proposed by Koller (2004) who believes that some languages suffer from shortages and that the said expressions are designations for unique elements which do not have an equivalence in other languages. Koller believes that these shortages are not permanent in the TT language lexicon. The role of the translator is to fill the gaps and eliminate them while rendering the ST. Koller (2004) suggests five techniques for rendering CSEs, namely: loan, calque, analogue, explication, and adaptation. To explain or comment on an expression in the ST language, it must be accompanied with information put in brackets to indicate that it is related to a ST language expression. According to Koller (2004), this is the only key to translate accurately the new expression into the TT.

In spite of the continuous advances of AI and human translation models, there are still some challenges related to cultural differences between source text (ST) and target text (TT). This kind of difference results in an irrelevant translation version of the ST (Amini, et al., 2024). When certain components, which already exist in the ST, are missing in the TT, this is referred to as loss (Larson, 1984). Newmark (1995) states that loss is a scale between “under-translation” and “over-translation”. It is either the result of being more detailed or making more generalizations. According to As-Safi (2011), there are two types of loss: the ‘inevitable’ loss and the ‘avertable’ loss. The inevitable loss occurs because of differences in language and cultures. When equivalence of words, phrases, sentences, certain cultural expressions, or even the syntactic structures are different from those in the TT, there will be an inevitable loss. The result is misunderstanding of the TT because it is not easy to find their

equivalence. While the avertable loss results from the translator's failure or inability to render certain expressions resulting in loss of emotions, excitement, and even the effect of the ST (Larson, 1998). Lack of the knowledge of the culture of the TT language or ST language leads to loss of those elements related to it. Loss can occur at any linguistic level such as semantic, syntactic, or pragmatic.

Those expressions in the ST language which may not have an equivalence in the TT language are called "culture specific" expressions (CSEs) (Baker, 1992, p. 21). They are one of the factors that lead to the loss of meaning (Newmark, 1988). Pragmatic loss occurs because of intercultural differences between the ST and TT which result in miscommunication. If the translator misinterprets CSEs or DSEs due to lacking cultural information, the TT will be distorted and the function will be lost. Wenfen (2010, p. 77) believes that "Cultural gaps between the source language and the target language have always turned to be a hard nut for translators to crack".

2.2. Translation Quality Assessment Methods

Early methods of (TQA) concentrate on criticizing the translation rather than on empirical evaluation (cf. Nida, 1964). Reiss (1971) model for TQA is based on the concept of equivalence. According to Reiss (1971), a translation is evaluated as efficient if it fulfils the optimal equivalence. This approach is considered "stereotyped and oversimplified" (Xiaoyan, 2012, p. 2190). Toury (1995) disagrees with Reiss (1971) and approaches the TQA through considering the TT as the focal point for analysis and rejects the concept of equivalence.

However, there has been a need for a more comprehensive way that includes the evaluation of other aspects. In (1970s) Vermeer puts forward the Skopos theory (SKT) which considers translation as a purposeful action and uses new methods for TQA such as considering the relationship between the ST and the TT, the responsibility of the translator, the notion of translation, the strategies and standards of translation, in addition to the nature of the ST and TT. However, this method is not supported as there is no specific method to decide if the translation has fulfilled its purpose (cf. House, 2015).

House (2018, p. 80) concentrates on "in-depth textual, cultural study and comparison". This approach focusses on the evaluation of the ST and then compares it with the TT. The translator should have the ability to render the ST into the TT with all the semantic, pragmatic, and ideological aspects. Accordingly, to arrive at the equivalent version of the ST, the evaluation of the ST should be both semantic and pragmatic. House (2018) lists seven factors for the quality assessment of translation: typology of the text, formal correspondents, thematic organization, cohesion, pragmatic equivalence, lexical details qualities, and grammatical equivalence.

Many TQA models almost share similar methods using terminology for certain criteria which can be used interchangeably (cf. Nababan et al, 2012; Läubli et al, 2018). Most of the translation theorists use the criteria of adequacy and fluency, accuracy, fidelity and others which seem to be almost similar in their definitions.

2.3. Models for data analysis

Pragmatic loss of CSEs/DSEs has been studied by many translation theorists who propose various strategies that enable the translators to eliminate that loss (Nida, 1964; Florin, 1993; Venuti, 1995; Larson, 1998; Koller, 2004).

More importantly, the TQA of AI translation applications is usually evaluated by expert translators and linguists through comparing the output of the AI translation applications to the ST. Castilho, et al. (2018) also shares some of the aforementioned criteria for AI TQA. They investigate what so called ‘measures’ which are used for assessing AI translation quality by humans. According to them, the human evaluation of the AI translations is done through various measures or criteria, namely: adequacy and Fluency, Readability and Comprehensibility, Acceptability, Ranking, and Usability and Performance.

- Adequacy (fidelity, accuracy) is the extent to which the TT accurately communicates the meaning of the ST.
- Fluency is the extent to which the translation abides to the systems and standards of the TT irrespective of the ST. The factors which affect the fluency are: grammatical errors, unrendered words, and mistranslated items.
- Acceptability is the extent to which the TT is accepted by the target language readers. It is achieved by deciding what the TT readers consider culturally suitable and rendering the ST with its actual tone, context, and intention.
- Ranking is used for evaluating two or more AI translation applications outputs of the same ST in a comparative manner.
- Comprehensibility refers to the degree to which the TT and the ST are understandable to the reader.
- Readability refers to the easiness according to which the text is read by one person or more.
- Usability and Performance refer to the degree according to which the product is used and the way the users use the product in the translated text

Some of the aforementioned criteria are excluded from the analysis like usability and performance as they are commonly used in industry, specifically for websites and online services, video games, and software (Arnold et al., 1994). As for comprehensibility, it is already measured in ‘fluency’. Ranking is measured through comparing the translation applications used in the study and the human translations.

As the criteria of adequacy and fluency are shared by many translation theorists, a special attention is paid to their quality assessment. Maucés and Donaj (2019, p.8) suggest a numeric 5-point scale for measuring fluency and adequacy which helps in evaluating and judging the quality of the AI translation applications. They show the extent to which the AI translation applications succeed in rendering the ST to TT (See table (1) below).

Table 1
Numeric Scale for Judging Adequacy and Fluency.

Adequacy		Fluency	
5	All meaning (completely accurate)	5	Flawless language
4	Most meaning (mostly accurate)	4	Good language
3	Much meaning (somewhat accurate)	3	Non-native language
2	Little meaning (mostly inaccurate)	2	Disfluent language
1	None (completely inaccurate)	1	incomprehensible

3. Methodology

In order to investigate the pragmatic loss of the AI translation applications in translating CSEs/ DSEs from English into Arabic, a qualitative and quantitative analysis is used and an eclectic approach, based on Castilho et al. (2018), Mauces and Donaj (2019) and Chesterman (2016), is adopted. Based on the said models, Castilho, et al. (2018) certain criteria are selected, namely Adequacy, Fluency, Acceptability, and Readability. These criteria, also called error types in this study, along with Mauces and Donaj (2019) numeric 5-point scale and Lommel (2018) error severity scale which are utilized to statistically evaluate the extent to which the selected AI translation applications and human translators have succeeded in rendering the CSEs/ DSEs of the ST to TT. Lommel (2018) categorizes the Error severity scale (ESS) into four levels: Critical, Major, Minor, and Null. For the purpose of analysis, and to serve the study objectives, these levels are customized by adding the Moderate level in order to match the 5-Point scale by Mauces and Donaj (2019) and Castilho et al. (2018) criteria or error types.

3.1. Approach and Data of the Study

The study uses the mixed approach both qualitative and quantitative. For the qualitative analyses, it adopts a descriptive evaluative approach to measure the extent to which the selected AI translation applications and human translations have succeeded in translating the CSEs/DSEs without any pragmatic loss. Frankl's *Mans's Search for Meaning* is selected for analysis specifically, sentences with CSEs/DSEs are copied and pasted on four AI translation applications namely: *Google Translate (GT)*, *ChatGPT (GPT)*, *DeepL (DL)*, and *DeepS (DS)*, in addition, the aforementioned sentences translations are taken from two human translation texts Mansour (2022) and Al-Saidi (2025). Moreover, for the quantitative analysis, a questionnaire of the same sentences which are extracted from Frankl's *Man's Search for Meaning* is given to three professional experts in translation to arrive at objective TQA.

3.2. Data Analysis

The output data of the selected AI translation applications and human translations are copied and analysed in terms of the TQA parameters adopting Castilho et al. (2018) which constitutes four parameters namely: Adequacy, Fluency, Acceptability, and Reading. The selected parameters are used to measure the extent to which the output of the selected AI translation applications and human translations have succeeded in rendering the CSEs/DSEs in the selected text. Comprehensibility is excluded from analysis since it measures how much understandable and comprehensible is the TT, an evaluation which can be measured by the parameter of Fluency. In addition, the study excludes 'Usability and Performance', as they are related to translating video games, software, websites and online services which is out of the scope of the current study.

For the purpose of analysis and to achieve an objective and accurate TQA, the 5-Point scale by Mauces and Donaj (2019) is applied on the four selected parameters, i.e., Fluency, Adequacy, Acceptability, and Readability as in table (2).

Table 2
The TQA Criteria and their Description

	Adequacy	Fluency	Acceptability	Readability
5	All meaning (completely accurate)	Flawless language	completely acceptable	completely readable
4	Most meaning (mostly accurate)	Good language	mostly acceptable	Mostly readable
3	Much meaning (somewhat accurate)	Non-native language	somewhat acceptable	Somewhat readable
2	Little meaning (mostly inaccurate)	Disfluent language	mostly unacceptable	Mostly not easily read
1	None (completely inaccurate)	incomprehensible	None (completely unacceptable)	None (Completely unreadable)

Moreover, the study adopts Lommel (2018) ESS which is used for TQA. Lommel (2018) categorizes the ESS into four levels: Critical, Major, Minor, Null. For the purpose of analysis, and to serve the study objectives, these levels are customized by adding the Moderate level in order to match the 5-Point scale by Mauces and Donaj (2019) and Castilho et al. (2018) criteria or error types. These levels are described in Table (3) below.

Table 3
Error Severity Scales

ESS	Description	Score
Critical	Completely inaccurate, incomprehensible, unacceptable, or unreadable. Translation errors which distort ST meaning.	1
Major	Little meaning, dis-fluent language, mostly unacceptable, or mostly uneasily read. Errors that produce inaccurate TT.	2
moderate	Much meaning, non-native language, somewhat acceptable, or somewhat readable.	3
Minor	Mostly accurate translation, good language, mostly acceptable, or mostly readable	4
None	Completely accurate, flawless language, completely acceptable, or completely readable	5

Further, the AI applications translation is compared with human translation in terms of TQA where Mansour (2022) and AL-Saidi (2025) Arabic versions of the ST are selected for this purpose.

4. Results and Discussion

4.1. Qualitative Analysis

This section is devoted to the qualitative analysis and TQA of the ST data in the four AI translation applications, i.e. *Google Translate*, *ChatGPT*, *Deep L* and *Deep Seek* and *human translations*. The presentation includes the data that comprise (7) examples of English CSEs/DSEs, extracted from *Frankl's Man's Search for Meaning*. The STs are presented together with their AI translation applications and human translations. Based on Maucés and Donaj (2019) numeric 5-point scale together with Lommel (2018) ESS, Castilho et al. (2018) parameters for assessing AI and human translation, an overall account of the data analysis and the assessment of the translations of the ST meanings and pragmatic functions will be provided. As for the data analysis, the ST and its AI translation and human outputs are compared in the light the TQA models, mentioned so far.

Abbreviations used:

AIA (AI application) **CSE** (culture-specific expression), **DSE** (domain-specific expression), **GT** (Google translate), **GPT** (Chat GPT), **DL** (Deep L), **DS** (Deep Seek), **HT** (Human translation), **ST** (Source text), **TQA** (Translation quality assessment, **TT** (Target text).

ST 1

- Miraculously, he survived, in the biblical phrase (*a brand plucked from the fire*) (Frankl, 2014, IX)

AIA	TT
GT	لقد نجا بأعجوبة، كما ورد في العبارة التوراتية (شعلة منتزعة من النار).
GPT	وبشكل معجزي، نجا، كما جاء في العبارة التوراتية: (غصن منتشل من النار)
DL	بأعجوبة، نجا بأعجوبة من الموت، بالعبارة التوراتية (كسمكة انتزعت من النار)
DS	وبمعجزة، نجا، كما يقول التعبير التوراتي: (جمرة انتشلت من النار)

As the translations of the ST (1) show, the Biblical phrase (*a brand plucked from the fire*) refers to man's ability to overcome terribly tough situations, such as prison in a concentration camp, and how he could turn his suffering into a triumph (see Frankl, 2014, IX).

As far as TQA parameters are concerned, it is obvious that GPT and DL translations have failed to transfer the ST accurately. However, they have made many lexical, semantic, coherent and cohesive errors. In more detail, they both have never conveyed the ST intended meaning not even literally since they both translated the key term (brand) into (غصن) and (سمكة) respectively. According to Maucés and Donaj (2019), none of the meaning intended is accurate and as a result, comprehensibility is not possible. Thus, the TTs have not only provided such undesirable consequences, but they also offered exactly the opposite pragmatic function. In more detail, the Biblical phrase intensifies man's exceptional willingness of not being destroyed by unavoidable, unbearable tough conditions, whereas the TT versions indicate exactly the opposite. Thus, these renditions have betrayed the ST adequacy, accuracy, fluency and comprehensibility in that they result in a drastic syntactic, semantic and pragmatic loss.

On a different scale, the other AI applications, i.e. GT and DS, have succeeded in producing adequate renditions, especially that of GT. They have rendered the ST into (شعلة) and (جمرة إنتشلت من النار), respectively. Clearly, both (شعلة) and (جمرة) have considerably expressed the ST meaning and pragmatic function since they both indicate the message intended by the Biblical phrase in question, i.e. unshakable strength in defying terrible conditions. As far as human translations are concerned, Mansour (2022) provides no

translation at all, which may reflect a drastic failure in conveying the ST meaning and function. Al-Saidi (2025) offers the following translation:

- ولقد نجى بما يشبه المعجزة، وهو أكثر قوة بما يحاكي (الشعلة الخارجة من النار) على حد تعبير الكتاب المقدس. (السعيد، 2025، 18)

This last rendition seems to fulfil all the requirements of accuracy, fluency and comprehensibility since the ST meaning and pragmatic functions appear to have been adequately communicated.

ST 2

- I shall leave it to others to distil the contents of this book into *dry theories*. These might become a contribution to the psychology of prison life, which was investigated after the First World War, and which acquainted us with the syndrome of (*barbed wire sickness*.) (Frankl, 2014, p.6)

AIA	TT
GT	سأترك للآخرين مهمة تلخيص محتويات هذا الكتاب إلى نظريات جافة. لعلها تسهم في علم نفس حياة السجن، الذي بُحث بعد الحرب العالمية الأولى، والذي عرّفنا بمتلازمة (مرض الأسلاك الشائكة).
GPT	سأترك لغيري مهمة تقطير محتوى هذا الكتاب في نظريات جافة. فقد أصبح هذه إسهامًا في علم نفس حياة السجن، الذي جرى بحثه بعد الحرب العالمية الأولى، والذي عرّفنا على متلازمة (مرض الأسلاك الشائكة).
DL	سأترك الأمر للآخرين لتقطير محتويات هذا الكتاب إلى نظريات جافة. قد تكون هذه مساهمة في سيكولوجية الحياة في السجن، والتي تم بحثها بعد الحرب العالمية الأولى، والتي عرّفنا بمتلازمة (مرض الأسلاك الشائكة).
DS	سأترك للآخرين مهمة استخلاص محتويات هذا الكتاب في نظريات جافة. قد تصبح هذه مساهمة في علم نفس حياة السجن، الذي تمت دراسته بعد الحرب العالمية الأولى، والذي عرفنا من خلاله بمتلازمة (مرض سلك الشائك).

When examining the translations of the second ST, we realize that all the AIA translations have almost conveyed the meaning of the ST in such a literal and not well-phrased manner. Specifically, the TT renditions seem to reflect the AIA translation inability to grasp the ST indirect meaning, since (*dry theory*) should not be taken literally for it means:

- *Dry theory*: it is typically used to describe a theoretical concept or idea that is boring, dull, or lacking in practical application or relevance. (<https://ludwig.guru/s/dry+theory>).

Additionally, all the selected AIA translations have rendered the CSE (*barbed wire sickness*) into (مرض الأسلاك الشائكة) which looks unclear to the target reader since what it means that (barbed wires) have or cause (sickness). In other words, the AIAs have not offered any reference to the cultural context relevant to the ST implications. The said expression refers to the prisoners in the German concentration camps during WW2 who attempted to commit suicide by touching the barbed wires in those camps (see Frankl, 2014, p.6). In terms of adequacy, the cultural background of the ST expression is quite necessary to provide the reader with the required information to understand the intended meaning, which is more related to suicide syndrome rather than the (barbed wires). Thus, the AIA translation outcome seems to be inadequate and inaccurate and they have not communicated the ST intentionality.

In the light of the TQA models adapted, TT elegance (style) fluency, and comprehensibility are lost in the translation (see Castilho et al., 2018). It is obvious that the output of the AIAs is not only poor but it lacks the flavor and elegance of the ST. In more detail, the TT versions produced by AIAs seem inadequate since they fail to render not only the contextual meaning of the ST but also the cultural connotations of the vocabulary utilized.

As for human translation, Mansour (2022) has translated (dry theories) into (نظريات), which seems inaccurate since it is out of the ST relevant context. In addition, he has rendered the ST CSE (barbed wires sickness) into (مرض الأسلاك الشائكة), without providing the ST cultural background by utilizing (paraphrasing and/or footnoting...). Thus, the output TT looks largely hard to comprehend. Al-Saidi (2025) seems to provide an adequate translation that meets the requirements of adequacy, accuracy, fluency and comprehensibility, as indicated in the following rendition:

- سأترك الأمر للآخرين أن يحولوا محتويات هذا الكتاب الى نظريات مجردة، يمكن أن تكون مساهمة في مجال تطبيقات علم النفس في حياة السجن والتي بدأ البحث فيها بعد الحرب العالمية الأولى والتي جعلتنا على وعي بمتلازمة (مرض) [الانتحار عبر] الأسلاك الشائكة). (السعيد، 2025، 31)

ST 3

- The blind belief in automatic progress has become a concern only affecting the *self-satisfied stuffed shirts*—today such a belief would be reactionary. (Frankl, 2014, p.22).

AIA	TT
GT	لقد أصبح الاعتقاد الأعمى بالتقدم التلقائي مصدر قلق يؤثر فقط على القمصان المحشوة الراضية عن نفسها - واليوم سيكون مثل هذا الاعتقاد رجعيًا.
GPT	إن الاعتقاد الأعمى بالتقدم التلقائي أصبح هاجساً لا يصيب إلا المتغترسين المليين بالرضا عن النفس — أما اليوم، فإن مثل هذا الاعتقاد سيكون رجعيًا.
DL	إن الإيمان الأعمى بالتقدم التلقائي أصبح شاغلاً لا يؤثر إلا على أصحاب القمصان المحشوة الراضين عن أنفسهم - مثل هذا الإيمان اليوم سيكون رجعيًا.
DS	لقد أصبح الإيمان الأعمى بالتقدم التلقائي قضية لا تهم إلا المغرورين الراضين عن أنفسهم - فاليوم مثل هذا الإيمان سيكون رجعيًا.

- *self-satisfied stuffed shirts* (is a smug, conceited, and usually pompous person often with an inflexibly conservative or reactionary attitude.) (Merriam Webster Dictionary, 1989)

Based on the definition provided above, GT and DL have inaccurately and poorly rendered the ST into (القمصان المحشوة الراضية عن نفسها) and (أصحاب القمصان المحشوة الراضين عن) , respectively. Specifically, the former rendition not only betrays the ST meaning but it also offered a totally odd and irrelevant translation. Similarly, DL translation has failed in conveying the intended meaning since the TT is full of lexical, semantic and pragmatic errors, which result in a drastic loss of the ST message. The two AIAs have come up with inaccurate and poor renditions in terms of naturalness, elegance and fluency since the translation outcome is difficult to understand. More to the point, the TTs indicate syntactic, semantic and pragmatic loss since not only the intended meaning is lost but also the pragmatic function is not conveyed (see Chesterman, 2016). Thus, the meaning communicated is mostly inaccurate and this, according to Maucés and Donaj (2019) leads to a TT disfluent language.

Differently, GPT and DS have transferred the ST into (المتغترسين المليين بالرضا عن النفس) and (المغرورين الراضين عن أنفسهم). These renditions have adequately and successfully transferred the ST meaning and function. The said renditions seem quit fitting and close to the ST in terms of meaning and style, i.e. accuracy, naturalness, elegance and fluency have been adequately communicated.

In this respect, Mansour (2022) offers no translation to the ST in question, while al-Saidi (2025) has provided the following translation that can express the intended meaning in a better manner:

- أصبح الاعتقاد الأعمى بالتقدم التلقائي مصدر قلق لا يؤثر إلا على أولئك المتغترسين المزهوين بأنفسهم، واليوم يُعد هذا (السعيد، 2025، 252). الاعتقاد رجعيًا .

ST 4

- (In the *final analysis* it becomes clear that the sort of person the prisoner became was the result of an inner decision, and not the result of camp influences alone) (Frankl, 2014, p.75).

AIA	TT
GT	في التحليل النهائي، يتضح أنَّ نوع الشخص الذي أصبح عليه السجين كان نتيجة لقرار داخلي، وليس نتيجة لتأثيرات المعسكر وحدها.
GPT	في التحليل النهائي، يتضح أنَّ نوع الشخص الذي أصبح عليه السجين كان نتيجة لقرار داخلي، وليس نتيجة لتأثيرات المعسكر وحدها.
DL	في التحليل النهائي، يتضح في أنَّ نوع الشخص الذي أصبح عليه السجين كان نتيجة لقرار داخلي، وليس نتيجة لتأثيرات المعسكر وحدها.
DS	وفي التحليل النهائي يتضح أنَّ نوع الشخص الذي أصبح عليه السجين كان نتيجة لقرار داخلي، وليس نتيجة لتأثيرات المعسكر وحدها.

According to Merriam Webster (1989), *in the final analysis* means: (after considering everything —used for a final statement or judgment that is based on what is most important in a particular situation). It is obvious that all the four AI translation applications have translated the CBE literally into (التحليل النهائي). Accordingly, the TTs produced show that the four AI translation applications seem to have translated the ST inaccurately, which results in a pragmatic loss since the intended meaning has not been communicated.

Based on the models of TQA, many of the key parameters, namely adequacy, accuracy, fluency and comprehensibility, have not been observed. In the light of Maucés and Donaj (2019), the meaning is mostly inaccurate and thus results in disfluent language since the CSE has been mistranslated. In addition, cultural connotation is not used to domesticate the ST in the TT and therefore the translation product seems unfamiliar to the TR. In terms of human translation, Mansour (2022) has provided exactly the same translation as that of AI application translation, as follows:

- فإنه يصير واضحاً في نهاية التحليل أنَّ نمط الشخص الذي يصير عليه السجين إنما هو نتيجة لقرار داخلي (منصور، 2022، 84).

In the same context, Al-Saidi (2025) has translated the ST expression as follows:

- فإنه من الواضح في المحصلة النهائية أنَّ نوعية الشخص الذي أصبح عليه السجين كانت نتيجة لقرار داخلي، وليس نتيجة لتأثيرات المعسكر فحسب.

Alsaidi's rendition conveys not only the ST meaning but also its pragmatic function since the said rendition seems to reflect the TQA parameters of the model of analysis, namely, adequacy, accuracy, fluency, readability.

ST 5

- For this type of neuroses, logotherapy has coined the term (*noogenic neuroses*) in contrast to neuroses in the traditional sense of the word. (Frankl, 2014, p.94).

AIA	TT
GT	بالنسبة لهذا النوع من العصاب، صاغ العلاج بالمعنى مصطلح (العصاب العقلي) على النقيض من العصاب بالمعنى التقليدي للكلمة.
GPT	لهذا النوع من العصاب، صاغت العلاجية بالمعنى مصطلح (العصاب النوجيني) على النقيض من العصاب بالمعنى التقليدي للكلمة.
DL	بالنسبة لهذا النوع من العصاب، صاغ العلاج المنطقي مصطلح (العصاب العصبي الوراثي) في مقابل العصاب بالمعنى التقليدي للكلمة.
DS	لهذا النوع من العصابات، صاغت العلاج بالمعنى مصطلح (العصابات الوجودية)، وذلك تمييزاً لها عن العصابات بالمفهوم التقليدي للكلمة.

In the ST (4), the DSE (*noögenic neurosis*) is a disorder that originates in the *nöös*, which is the part of us that questions the meaning of our existence. Thus, a *nöological* neurosis is not physical, emotional, or social. Rather, **it comes from a loss of meaning and purpose**. (Frankl, 2014, p.94).

In terms of TQA, GPT and DL have translated the DSE into (عصاب نوجيني) and (العصاب العصبي الوراثي) where the former version is a combination of transliteration and translation while the latter is a completely inaccurate translation. In more detail, the kind of (عصاب) in GPT is still unclear to the target reader who is almost unfamiliar with the meaning (نوجيني). Similarly, the DL translation seems quite far from the ST intentionality since it has nothing to do with (عصبي وراثي) as the definition of the ST indicates. Accordingly, most of the translated text is inaccurate and then the language is disfluent (see Mauces and Donaj (2019, p.8).

Concerning the translations produced by GT and DS, the former has conveyed the ST into (العصاب العقلي), which is a relatively approximate equivalent though the meaning intended has not been adequately communicated as the ST definition shows. As for DS, the translation offered is considerably close to the ST intentionality since the TT (العصاب الوجودي) has successfully conveyed the DSE intentionality and pragmatic function, i.e. this kind of neurosis is resulted from loss of meaning in life (existence).

On a different scale, the following human translations can express the ST more adequately and accurately:

- ولوصف هذا النوع من العصاب، صاغ العلاج بالمعنى مصطلح (العصاب المعنوي) على النقيض من العصاب بالمعنى التقليدي للكلمة، أي العصاب ذي المنشأ النفسي. (السعيد، 2025، 140)
- ولهذا النمط من المرض النفسي يبتكر العلاج بالمعنى مصطلح (العصاب المعنوي المنشأ، خلافاً للعصاب بمعناه الشائع لهذه الكلمة) (منصور، 2022، 123)

ST 6

- Dr. Kurt Kocourek invited her to join a therapeutic group, and it happened that I stepped into the room where he was conducting a *logodrama* (Frankl, 2014, p.108-109).

AIA	TT
GT	لقد دعاها الدكتور كورت كوكوريك للانضمام إلى مجموعة علاجية، وحدث أنني دخلت إلى الغرفة التي كان يجري فيها عرضاً مسرحياً.
GPT	دعاها الدكتور كورت كوكورك للانضمام إلى مجموعة علاجية، وحدث أن دخلت الغرفة التي كان يدير فيها (دراما المعنى).
DL	دعاها الدكتور كورت كوكوريك للانضمام إلى مجموعة علاجية، وحدث أن دخلت إلى الغرفة التي كان يدير فيها مسرحية لوجودراما.
DS	دعا الدكتور كورت كوكوركها للانضمام إلى مجموعة علاجية، وقد صادفت أن دخلت الغرفة التي كان يجري فيها تمثيلاً علاجياً بالمعنى (لوجودراما).

The DSE 'Logodrama' (is a technique, based on logotherapy for discovering meaning and responding meaningfully to a life situation. Whenever you talk about what's going on in your life, your report is always a bit disconnected from the actual experience. Dramatically demonstrating the experience in the here-and-now brings it to life and makes it real). (Frankl, 2014, p. 108-109)

In the light of the definition above, GT and DL have almost translated the ST general meaning similarly. In more detail, they have relatively communicated the intended meaning approximately. GT has used (عرضاً مسرحياً) as a counterpart to (logodrama) but the DSE is not just any kind of drama but, as the definition suggests, a special kind of drama used for special purpose, i.e. as a logotherapeutic technique. As for DL, the ST has been rendered into (مسرحية) where transliteration is utilized, but the intended meaning is still unclear to the unspecialized reader who has no idea of what this term means. In terms of TQA, AI applications haven't provided any translation strategies, namely footnoting, paraphrasing, to highlight the ST cultural implications and therefore pragmatic loss occurs. Consequently, the meaning transferred is mostly inaccurate and this results in TT disfluent language (Mauces and Donaj (2019).

In contrast, GPT and DS seem to have remarkably grasped the ST intentionality since they both have translated it into somewhat acceptable counterparts, namely (دراما المعنى) and (تمثيلاً علاجياً بالمعنى). These TT renditions are quite close to the ST and the parameter of adequacy is good but they need to be better rephrased stylistically.

On the other hand, Mansour (2022) has translated the ST in such a reasonably acceptable manner, as follows:

- دعاها الدكتور كورت كوكوريك لكي تنضم إلى مجموعة علاجية، وحدث أن دخلت إلى حجرة العيادة التي يجري فيها علاج بالمسرحيات النفسية. (منصور، 2022، 142)

This translation has communicated the intended meaning and function partially and thus the TT produced is somehow inadequate and broad. AlSaidi (2025) has offered the following adequate, accurate and fluent translation:

- دعاها الدكتور كورت كوكوريك للانضمام إلى مجموعة علاجية، وحدث أن دخلت الغرفة التي كانت تعرض فيها مسرحية نفسية قائمة على العلاج بالمعنى. (السعيد، 2025، 157)

ST 7

- However, the rabbi evaluated hid plight as an orthodox Jew in terms of despair that there was no son of his own who would ever say *kaddish* for him after his death. (Frankl, 2014, p.111).

AIA	TT
GT	ومع ذلك، فقد قِيمَ الحاخام محنته باعتباره يهوديًا أرثوذكسيًا من حيث اليأس لأنه لم يكن هناك ابن له يقول له الكاديش بعد وفاته.
GPT	ومع ذلك، فقد قِيمَ الحاخام وضعه كيهودي أرثوذكسي من منظور اليأس، إذ لم يكن لديه ابن يقرأ له صلاة (قَدِيش) بعد وفاته.
DL	غير أن الحاخام قِيمَ محنته كيهودي أرثوذكسي من حيث أنه لم يكن هناك ابن له سيقول له قدش بعد موته.
DS	ومع ذلك، قِيمَ الحاخام محنته كيهودي أرثوذكسي من منظور اليأس من عدم وجود ابن له ليقرأ (قدش) عليه بعد موته.

Kaddish is (a praise to God said in the presence of a *minyan* (quorum of 10 men), is traditionally chanted by those mourning the loss of a close relative). (See Merriam Webster, 1989).

As far as translation is concerned, the four AIAs have resorted to transliteration strategy in rendering the ST into (كاديش), (قَدِيش) and (قدش) and such a translation strategy does not work well in this context since the target reader is not quite familiarized with this religious term. Thus, the translator needs to clarify the meaning by footnoting or any other means of explanation such as bracketing and paraphrasing, among others. More importantly, cultural implications should be highlighted since through which the meaning of the CSE, i.e. *Kaddish*, can be communicated adequately. Resultantly, pragmatic meaning is lost since any of Castilho et al. (2018) parameters, namely, adequacy, fluency and comprehensibility has not been observed in all the translations of AIAs.

As for TQA, the TTs provided do not only fail in communicating the ST meaning actively but they also unsuccessful in indicating its pragmatic function. In terms of style, the TT seems unnatural, inelegant, and disfluent. Taking into account the above-mentioned definition of *Kaddish*, the following human translation can be a very adequate equivalence:

- مع ذلك، فقد عبّر هذا الحاخام عن محنته كونه يهوديًا عبر الشعور باليأس حيث لن يكن هناك أحد من أبنائه يصلي عليه صلاة الموتى بعد وفاته. (السعيد، 2025، 161)
- إلا أن رجل الدين هذا قد قِيمَ ورطته كشخص متزمت على أساس من اليأس، فقد سيطر عليه وراعه أن لا يوجد ابن له يتلو عليه صلاة الموتى بعد موته. (منصور، 2022، 146)

4.2. Quantitative Analysis

For the purpose of quantitative analysis, a questionnaire is designed for the TQA of Frankl's *Man's Search for Meaning* of AIAs and HT into Arabic. The questionnaire is given to (3) professional translators who hold Ph.D. in translation and are translation instructors and translation experts at University of Baghdad, Al-Mustansryia University, and Al-Faraheedy University. To calculate the results, numbers and percentages are utilized. The study customizes Lommel (2018) ESS to match the 5-Point scale by Mauces and Donaj (2019) and Castilho et al. (2018) criteria or error types. The ESCs are categorized into Five levels: Critical, Major, Moderate, Minor, and Null.

4.2.1. GT model

The analysis of GT output in Table (4) below has shown that the highest percentage of the severity scale is that of the (Moderate errors) which scores (64%) out of the total number of the selected data. While the None level scores (10.5%), indicating that GT model has extremely failed in rendering the CSEs/DSEs into Arabic. As for the error types, GT model scores the highest percentages of failure (57%) in Adequacy while the lowest percentage of success is (0%), meaning that GT translation is inaccurate, communicates little meaning, is incomprehensible, and that the extent to which it communicates the meaning of the ST is very low. Concerning Fluency, the percentage of ESS (the Critical, Moderate, and Minor Severity) are (42%, 71%, 85%) respectively, indicating that the language of the TT sounds as non-native, disfluent, and incomprehensible. While the percentage of success is (14%) which is very low. The Acceptability error type has scored (57%,2%,57%) respectively out of the total data for Critical, Moderate, and Minor ones showing that the TT is mostly unacceptable. In addition, the percentage of success is (14%) meaning that GT has somewhat failed in making the TT acceptable. However, GT has succeeded in scoring (42%, 42%, 71%) for the readability error type which indicates that the TT generated by GT is not completely readable. While the Minor ESS of readability has scored the highest (71%) which indicates that the TT is mostly readable. To sum up, the scores show that GT model is unsuccessful in making the TT completely readable.

Table 4

<i>Results of GT Model</i>										
GT	1	%	2	%	3	%	4	%	5	%
Adequacy	4	57%	4	57%	4	57%	1	14%	0	0%
Fluency	3	42%	5	71%	6	85%	4	57%	1	14%
Acceptability	4	57%	2	28%	4	57%	4	57%	1	14%
Readability	3	42%	3	42%	4	57%	5	71%	1	14%
total	12	49%	14	49%	18	64%	10	49.75%	4	10.5%

4.2.2. GPT model

The result of analysis of GPT model at error severity scores in Table (5) below shows that the critical score has the highest rate (10%) compared to the other scores (6%, 3%) while the success rate is just (3%). This means that GPT model has failed in translating the CSEs/DSEs into Arabic. As for the adequacy error type, it scores (71%) at the major severity level and (0%) at the level of success which indicate that GPT model has failed in rendering the selected data and is completely inaccurate. Moreover, Fluency scores of failures are very close to that of adequacy as it scores (42%, 57%, 71%) while its success scores are a little bit higher than that of Adequacy (42%,14%). The scores of the Moderate severity level of Acceptability and Fluency are very high (71%) for each which indicates that the output of GPT model is a non-native language and somewhat acceptable. However, the success level score is very low (14%) for each referring to the failure of GPT model output as being mostly unacceptable and incomprehensible. The Readability error type scores are almost close to Acceptability and Fluency scoring (42% and 57%) for failure to render the CSEs/DSEs. While the success rate is (28%) which means that the severity level of readability is low being critical and including major errors.

Table 5
Results of GPT Model

Results of GPT Product											
GPT	1		2		3		4		5		Total%
Adequacy	3	42%	5	71%	4	57%	1	14%	0	0%	17%
Fluency	3	42%	4	57%	5	71%	3	42%	1	14%	21%
Acceptability	1	14%	4	57%	5	71%	2	28%	1	14%	9%
Readability	3	42%	4	57%	3	42%	3	42%	2	28%	18%
Total		10%		6%		6%		3%		3%	

4.2.3. DL model

Table (6) below shows that the DL model of translation seems to have a very high rate of failure in Adequacy and Readability scoring (71%) for each in making critical errors and very low score of success (14%, 0%, 28%) making the TT mostly inaccurate and not easily read. However, the scores of successes in Fluency and Acceptability are (0%) which indicate that the DL model has completely failed in rendering the CSEs/DSEs into Arabic producing incomprehensible and completely unacceptable TT.

Table 6
Result of DL Model

DL	1	%	2	%	3	%	4	%	5	%
Adequacy	5	71%	5	71%	4	57%	0	0%	0	0%
Fluency	3	42%	6	85%	6	85%	1	14%	0	0%
Acceptability	4	57%	3	42%	4	57%	3	42%	0	0%
Readability	5	71%	1	14%	5	71%	2	28%	1	14%

4.2.4. DS model

The last adopted AIA translation model result of analysis is the DS model. The analysis of the data in Table (7) below, indicates that the highest rate of failure in critical errors is Adequacy which is (42%). While the rest of error types; i.e., Fluency, Acceptability, and Readability have scored (28%) for each. This score reveals that DS model inaccuracy level is very low. In addition, the Adequacy, Fluency, and Acceptability rate of success is (0%) which entails that the output of the DS model is completely inaccurate, incomprehensible, and completely unacceptable. However, Readability has scored the highest rate (28%) at the level of success implying that the DS model has a better performance in readability than the rest of the error types. The next high rate of failure is that of Fluency. It scores (85%), compared to Acceptability and readability which is (71%) for each which designates that the DS output language is disfluent, in addition to carrying little meaning.

Table 7
Results of DS Model

DS	1	%	2	%	3	%	4	%	5	%
Adequacy	3	42%	4	42%	4	42%	2	28%	0	0%
Fluency	2	28%	6	85%	5	71%	1	14%	0	0%
Acceptability	2	28%	5	71%	5	71%	3	42%	0	0%
Readability	2	28%	5	71%	4	42%	2	28%	2	28%

4.3. Mansour (2022)

The analysis of Mansour (2022) translation shows that the success rate is (0%) for all error types which indicates that the output at the level of accuracy, comprehension, acceptability and readability is none, see Table (8) below. While at the severity level, his translation scores for Fluency and Acceptability are (57%, 42%) respectively which indicate that the human translation output has failed to a great extent to render CSEs/DSEs into Arabic. While the readability score is (28%) which is lower than the other error types meaning that the translator has succeeded somewhat in producing a TT with little meaning. All the four error types have scored the same rate (57%) denoting that the translator has produced a TT loaded with much meaning, but non-native language, somewhat acceptable, and somewhat readable.

Table 8
Results of Mansour (2022) Translation

Mansour (2022)	1	%	2	%	3	%	4	%	5	%
Adequacy	4	57%	3	42%	5	57%	6	85%	0	0%
Fluency	4	57%	3	42%	5	57%	1	14%	0	0%
Acceptability	3	42%	1	14%	4	57%	2	28%	0	0%
Readability	2	28%	1	14%	4	57%	4	57%	0	0%

4.4. Al-Saidi (2025)

The last human translation model is that of Al-Saidi (2025). The analysis of the result, as shown in Table (9) below, has shown that at the level of failure, Al-Saidi (2025) has not failed at all in rendering the CSEs/DSEs into Arabic scoring (0%) for all error types. On the other hand, the highest rate of success is on the minor rate of severity level is (100%) for all, indicating that the TT he has produced is mostly acceptable, with most meaning, good language which is mostly readable. However, at the none-mistake severity level, readability has scored the highest (85%).

Table 9*Results of Al-Saidi (2025) Translation*

Al-Saidi (2025)	1	%	2	%	3	%	4	%	5	%
Adequacy	0	0%	0	0%	4	57%	7	100%	4	57%
Fluency	0	0%	0	0%	2	28%	7	100%	4	57%
Acceptability	0	0%	0	0%	2	28%	7	100%	4	57%
Readability	0	0%	0	0%	0	0%	7	100%	6	85%

4.5. Comparison between the Scores of AIA Translation and human translation at the Error Severity Scale

A comparison is made between the scores of AI translation models and human translation models at the ESS, see Table (10) below. The percentages have shown that the highest rates of critical and moderate errors are made by DL translation model (18%, 21.6%) respectively. The next highest rates of critical errors are GT (16%) and DS (10%). While the lowest percentage of critical errors is scored by GPT (3.5%) which entails that its performance is better than the rest of the AIAs on this level. At the major and moderate error severity levels, the scores of failures for Ds, DL, GPT are almost close to each other (21.5%, 20.15%, 19%) and (19.45%, 21.6%, 21%, 20%). This indicates that these AIAs have approximate levels of failure in rendering CSEs/DSEs. However, the lowest rate of major errors is done by GT which entails that it is better than the rest of AIAs in this respect. As for the minor error severity level, the lowest scales entail better performance with very little errors or failure. The lowest rate is given to DL model (6.3) implying that it succeeds in rendering most meaning, with good language which is mostly acceptable and mostly readable. While the rest of the AIAs have scored (14%, 9.45%, 9.10%) for GT, GPT, DL, DS respectively. In addition, the level of none error mistakes, the GT and DL models have scored the lowest rates of success (3.1%3.5%) respectively, implying that their failure level is the highest among the AIAs. As for GPT and DS models, they scored the highest rates (6.3, 7.0%) respectively which is an indication that these two models have succeeded in rendering CSEs/DSEs in very few sentences.

The analysis of the data of human translations of CSEs/DSEs has shown that Al-Saidi performance is highly better than the AIAs and human translation (Mansour) models. At the level of critical and major error severity scales, Mansour has scored (16.30%, 10.15%) respectively, while Al-Saidi has outperforms these levels by scoring (0%) for each one entailing that he has not failed in rendering these expressions. While at the moderate level, Mansour has scored (18.52%) and Al-Saidi (9.20%) which is higher than Mansour. As for the minor severity level, Mansour has scored (13.40%) but Al-Saidi has scored (100%). This means that Mansour has failed in some sentences to render the ST correctly while Al-Saidi has fully succeeded in transforming the ST to TT without mistakes. But at the non-error severity level, Mansour has not produced all the sentences without errors scoring (0%), while AL-Saidi has scored (22.2%) which the highest rate among the AI models and human translation model.

Table 10

Results of the Comparison between the Scores of AI Translation and human translation at the Error Severity Scale

Models		Error Severity Levels				
		Critical	Major	Moderate	Minor	None
AI Translation	G T	16.65 %	16.65%	21%	14%	3.15%
	G PT	3.5%	19%	20.9%	9.45%	6.3%
	D L	18.7%	20.15%	21.6%	6.3%	3.5%
	D S	10.5%	21.5%	19.45%	9.10%	7.0%
Human Translation	M ansour (2022)	16.30 %	10.15%	18.52%	13.40%	0%
	Al-Saidi (2025)	0%	0%	9.20%	100%	22.2%

5. Conclusion

Based on the qualitative and quantitative data analysis conducted, this paper arrives at the following findings concerning both AIAs and human translations as:

Firstly, on average, the selected AIAs have often failed to communicate the CSEs and the DSEs adequately. In more detail, the said applications seem to fail in not only communicating the intended meaning but also the elevated style. In other words, these AI applications have often not observed the requirements of adequacy, fluency, acceptability, and readability. However, some of the selected AIAs sometimes work well in providing good translations in terms of the TQA parameters, referred to so far.

More specifically, DS seems the best since it has performed considerably adequately in four, out of seven, of the sample examples selected for analysis. It has somehow communicated the ST meaning and function approximately where fluency, accuracy, acceptability, and readability are mostly provided.

Secondly, to a large extent, GT and GPT have succeeded in rendering two of the sample examples, out of seven, approximately though the pragmatic meaning is partially communicated and sometimes even lexical, syntactic and semantic meaning is lost. The translated texts are often not fluent since they largely lack the features of the native language.

Thirdly and most remarkably, DL has shown utter failure since it has never rendered any of the selected STs accurately at all. All DL versions lack all the requirements of TQA since they all fail to communicate not only the culture-dependent pragmatic meaning but it also does not transfer the lexical, syntactic and semantic meaning. The output versions often include lexical errors such as errors in terminology and improper use of words and incorrect collocations.

Fourthly, almost all the TTs produced by AI translation applications, even at their best form, require human interference in the form of addition, modification, reedition...etc. Thus, AI applications, regardless of their performance, cannot spare human assistance and can never replace human translation.

Finally, all the finding arrived at so far qualitatively have been confirmed by the quantitative analysis. More specifically, most of the AIAs translations have failed not only in rendering the intended meaning of CSEs/DSEs but also its pragmatic functions as well. However, some of the AIAs have succeeded to a small degree in conveying the ST meaning and function. The quantitative analysis has also revealed that the human translation has exceeded the AIAs translations to a large extent in reflecting the TAQ parameters, namely adequacy, fluency, acceptability, and readability.

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