



تحليل الآثار المترتبة على ترجمة الوصفات الطبية الإنجليزية إلى اللغة العربية: التحليل البرجمة الدلالي

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المستخلص: توفر اللغتان الإنجليزية والعربية، مثل جميع اللغات الطبيعية الأخرى، لمتحدثيها مجموعة رائعة من التعبيرات المرجعية التي يمكنهم الاختيار من بينها لاتصالاتهم وتفاعلاتهم اليومية. تتناول هذه الدراسة مبدأ غرايس التعاوني في ترجمة الوصفات الطبية الإنجليزية إلى اللغة العربية. وتمت المقارنة بين الوصفات الطبية الإنجليزية وترجماتها العربية. لتحقيق تحليل متسق للبيانات، استخدمت الدراسة الوصفات الطبية التي صممتها شركات مختلفة تحت مصطلح طبي يسمى التأثير الجانبي (التأثير السلبي). يوضح البحث كيفية تحديد المبادئ المتضمنة في ملصق الدواء الموصوف لكلا اللغتين. علاوة على ذلك، يبحث البحث فيما إذا كان النص العربي يحمل أفعالاً متشابهة في اللغة الإنجليزية تحمل رسائل مماثلة كما في الوصفة الطبية الإنجليزية الأصلية. بشكل عام، تكشف الدراسة أن الوصفة الطبية الإنجليزية المترجمة ونسختها العربية تتبع معظم مبادئ غرايس، كما أن النسخة العربية تحمل رسالة مماثلة للوصفة الطبية الإنجليزية.

الكلمات المفتاحية: الوصفات الطبية الإنجليزية. غرايس. اللغة العربية.

The Implicatures Analysis of Translating English Medical Prescriptions into Arabic: Pragma-Semantic Analysis

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Abstract: English and Arabic languages, like all other natural languages, provide their speakers with an impressive array of referring expressions from which they can choose for their daily communications and interactions. This study examines Grice's cooperative principle in Translating English Medical prescriptions into Arabic. The comparison was made between the English medical prescriptions and their Arabic translations. To achieve consistent data analysis, the study used Medical Prescriptions designed by different companies under a medical term called Side Effect (Adverse Effect). The research demonstrates how the Implicature Maxims are identified in the prescription medicine label for both languages. Moreover, the research investigates whether Arabic text conveys similar Maxims in English carrying similar messages as in the original Medical English prescription. Generally, the study reveals that the Translated English Medical prescription and its Arabic version follow most of Grice's maxims and the Arabic version conveys a similar message as the English prescription.

Keywords: English prescriptions. Grice's. Arabic Language.

1. INTRODUCTION

Semantics (derived from Greek *semantika* or *semantikos*) (Neurath, et al. 1955) is a subfield of linguistics which focuses on the study of meaning of words and the relationship among signifiers, such as words, phrases, signs and symbols, which form the body of a given language. Linguistic semantics deals with the study of meaning employed by human beings to express their thoughts, feelings, ideas, etc., through a natural or artificial language. The main concern of Semantics is a language user's competence to utilize the language system to generate utterances meaningful to other speakers and decoding and comprehending the meaningful utterances encoded by them.

Pragmatics, on the other hand, is a sub-branch of linguistics which is interested to find out how context contributes to meaning in a given language through implicature, among other approaches. (Mey, 1993) Pragmatics studies the ways the meaning is transmitted depending not only on the linguistic knowledge of the users, but also on the speech context and other factors. (Middleton, 2002) It also explains how speakers of a language can overcome the possible ambiguities discernible in communicational contexts and understand the other use's meanings intended in their utterances. Pragmatics concerns with a speaker's ability to decode the meaning from various kinds of meaningful speech situations to comprehend what other speakers refer to and communicate with them relating simultaneously new data to the previous ones gained through social and linguistic experiences. This helps the user of a specific language to be able to interpret and infer more information from the background knowledge about the current discourse topic. Pragmatics and semantics in general linguistics can merge to form a new approach to study the linguistic elements in deeper levels.

Pragma-semantics is an interesting branch of linguistics that studies meaning of a word of which the speakers cannot be sure, and consequently the real message encoded in that word which is read or heard in communicational contexts between at least two users of the same language. Pragma-semantics helps the speakers to convey their messages to others. It is a combination of pragmatics and semantics which carries the tasks and roles of both semantics and pragmatics.

The purpose of pragma-semantic analysis, the main axis around which the current research revolves, is the “identification, differentiation and contextualization of phenomena by analyzing performed as well as potentially possible actions and objectivations” (Austin, 1962). Pragma-semantic analysis attempts to discover the sources from which individual and collective symbols and meanings are provided and how the meanings can be identified as intercultural implicatures.

Although implicature is considered as related to pragmatic logical entailment rather than semantic, the borderline between the two subfields is usually confused. The implicature of an utterance normally transcends the logical entailment of that utterance. H. P. Grice was the first to study and elaborate implicature as an implication, meaning, or suggestion produced and conveyed by a speaker distinguished from the literal intentions of the speaker. Grice's study was focused on identification and explication of two types of implicatures, namely; Conversational and Conventional. Conversational Implicature is the information conveyed via inference although it is not actually uttered. The general overarching guideline for conversational interactions is usually known as the Cooperative Principle (Brown, Yule). Conventional implicature, on the other hand, is not dependent on the cooperative principle and its maxims. A normal utterance has always its conventional implicature embedded in it.

The Cooperative Principle is the general overarching guideline which underlies the conversational interactions in linguistic contexts making the speaker's contribution suite the conversational situation. More specific Maxims or guidelines regulate usual conversations in certain situations to generate particular impacts of the interacted utterances. For Grice normal conversation is ruled by four Maxims, namely: Manner, Quantity, Quality and Relevance. Grice claims that these maxims contribute to the maxim of "Be helpful" due to the governance of the conversation by these principles. As a result Information can not only be deduced the content of a statement, but from the Conversational Implicature of that statement as well.

1.1 Purpose of the study

Employing Gricean Maxims (1975), the current research intends to study the Translating Medical prescriptions found enclosed as leaflet in medicine boxes originally written in English and their corresponding Arabic translations to find out whether the Arabic version of the prescriptions possess the same Maxims as in English conveying similar implicatures for speakers of Arabic. For the same purpose, the messages reflected in Arabic texts will be investigated and discussed to discover whether they are similar to those conveyed in the original (English version) of the medical text.

1.2 Research questions

In order to carry out the current study and follow the main purpose of the study as stated above, we have molded the main queries into two main questions which will be discussed and answered during this project:

1. How the cooperative principle is identified in Translating English Medical prescriptions (EMP) and their Arabic versions, and is the Arabic versions of the Medical prescriptions convey the similar Maxims as in English texts?

2. Does the Medical Arabic prescription version carry the same meaning (message) as in the original English text?

1.3 Significance of the study

The current study may not look as original and unique comparative investigation of the maxims of English text in its Arabic version. There are many studies focusing on the pragma-semantic analysis of political English texts and their Arabic translations, but none of the studies deal with the pragma-semantic analysis of Translating English medicine labels into Arabic. Therefore, from this aspect, this research can be regarded as unique and first study which concentrates on medical labels English version and their Arabic translations with regard to the maxims and messages conveyed in either hoping this study will contribute to filling the existing gap in the relevant literature.

1.4 Limitation of the study

Considering the limitation of time which can be devoted to the current study, this research is restricted to investigation of the Translating English Medical Prescription into Arabic produced by different medical companies with regard to the maxims and messages available within the both texts. Other aspects of the text or other kinds of contexts are not the concern of the current study.

2. LITERATURE REVIEW

There are myriad number of studies relating implicature and its conveyance in different fields of study in various disciplines, but out of many articles and studies only one thesis deals extensively and specifically with implicature in medicine and medical contexts, i.e., “Pragmatics of Medical Report Writing” by Sinnathuray (2008). The purpose of the mentioned research was to familiarize doctors with the cooperative principle enunciated by Grice (1967) especially when they want to record medical reports since the maxims within the texts enable and ensure successful communication and conveyance of the succinctly

summarized comprehensive accounts of messages. Furthermore, the thesis attempts to get doctors to be familiarized with local law cases at courts where judges have to comment or vote favorably or otherwise in the usual course of their judgment on the sued medical practitioners. For this research, doctors serving in university affiliated educational or medical centers with medical report writing as part of their pragmatics driven necessarily into court cases within the past 15 years was investigated out of which twelve cases in connection with medical records and reports were selected. As the research illustrates, that judges mainly rely on the information they get, and sometimes infer, from the medical reports to evaluate the size and extent of the physical damages patients receive in accidents or disasters. According to the number of the cases and their nature, majority of physicians had taken Grice's four maxims into consideration when they wanted to write the reports, but there were also few cases in which physicians had violated some of the maxims, especially the maxim of Quantity. The present study will, therefore, attempt to fill the gap in the literature by focusing on the Translated Medical prescriptions from English into Arabic with regard to the four Grecian maxims mentioned in the previous section.

In order to provide the reader with sufficient background information required for the discussion and comprehension of the data and analyses, some of the main notions and points which are believed to play significant role in this regard are presented below prior to entering the main discussions in the next section. One of the necessary points needed to be clarified concerns the relationship between language, as a social communicational phenomenon, and Medical prescriptions and instructions as a sub branch of the language applied to medical studies and general social medium of communication.

2.1 Language and Medicine

There are different means through which one can get his/her intended message published or communicated to other speakers and

language is one of the most effective ones. However, all the other means, in themselves, are partly or completely dependent on language and become effective through discourse. This section investigates the role attributed to language in depicting and conveying the Grecian maxims and created messages in regard to the medical instructions and prescriptions. We will discuss its significance in creating intended messages and helping physicians clarify the ambiguities in their reports which maxims contribute to, especially in court cases as mentioned above.

According to Brannigan (2000), language is not limited to the oral or verbal systems only, clearly and directly stated in words and phrases, but the signs of any kind embedded within a context that carry a meaning, mostly detected through inferences, can also be classified in this category. Despite all the shortcomings and defects diagnosable in human biological and artificial media of perception, transmission, and interpretation of data, we still rely on these media as the only possible means to interconnect the world within with the world without to create a unified reality. As discussed in the introduction to this study, the perception and the interpretation of the data depends substantially on language which intrudes uninvitedly into our perception and judgments. Hence, language is extremely influential on the mind of its speakers. There is a direct interaction between the language one produces and the thinking process that takes place in his mind. Therefore, the condition of the speaker's mind has a direct impact on the quality and complexity of the produced language. The same is true about the effects that a language has upon the thinking quality of the person. If s/he can manipulate the language freely and easily, s/he can extensively and effectively get involved in the data interaction among the others, and as a result help her/his mind grow freely and maturely. As a result of this, all the thoughts and opinions in all fields of studies come under the influence of language in their formation and transmission. As Bertrans de Jouvenel notes (1957),

The elementary political process is the action of mind upon mind through speech. Communication by speech completely depends upon the exercise in the memories of both parties of a common stock of words to which they attach much the same meanings. Even as people belong to the same culture by the use of the same language, so they belong to the same society by the understanding of the same moral language. As this common moral language extends, so does society; as it breaks up, so does society.

In his “Discourse on Language,” Foucault (1972) classifies the ways of the control of discourse into two main categories, i.e., external systems (Rules of Exclusion) and internal systems. Then he explains the “external delimitations” (221) as prohibition, the opposition of reason and madness, and the opposition between true and false. Prohibition refers to the limitations in the application of language for the expression of any idea or thought since we are not free to say just anything when we like or where we like. In the modern era, the fields that are very closely related to prohibition are “politics, sexuality, mad speech” , and medicine or any sort of speech that may jeopardize the status of the authority, i.e., any action or speech that is considered to have the potential of undermining the domination of the institutionalized niche of those *inauthority*. The prohibition applied to speech and language “reveals its links with power.” Of the internal elements that control language and discourse, which Foucault discusses in his above mentioned article, I can refer to the *commentary* that “averts the chance element of discourse by giving it its due: it gives us the opportunity to say something other than the text itself, but on condition that it is the text itself which is uttered and, in some ways, finalized.” In this case, the author is the unifying principle in a particular group of writings, or statements, and disciplines, which itself “is opposed to both the *commentary-principle* and the *author-principle*.” He (the writer) is “constrained by certain assumptions about a thing, that is, within a certain theoretical field (as medicine cannot talk now about the influence of the stars, etc)” (62). Furthermore, for

Foucault, disciplines themselves constitute a system of control in the “production of discourse, fixing its limits through the action of an identity taking the form of a permanent reactivation of the rules” (75).

Therefore, language is the only determinant factor in producing meaning, shaping the inferences drawn from a text. It is a major element of the culture of an individual and his/her society as well. It is language through which we communicate with the environment, and through which our mind forms its shape. It is language that enables us to have access to any kind of information and knowledge from and about everywhere and everything. Similarly in medical reports, the physician and his readers are able to communicate, as mentioned above, through a language which carries predetermined and common codes. And the tactful and finely measured employment of these codes can convey the desired meaning to the other language users, especially in translation cases. The mastery on the common language, and both source and target language in translation, is an essential requirement for this purpose. Reporting physician, as the unifying element of the text, as author, through proper control of maxims in English and rightly translation of them into Arabic version, utilizes *prohibition* and *commentary* in his reports to register more real and factual version of the accounts.

Since medical text, including prescriptions and medical instructions available in medicine boxes or containers, play essential role in defining and clarifying the effects and objectives of the prescribed medicines, the proper reflection and employment of the maxims identified by Grice as well as the messages intended within the text can be critical factor in fair judgment of the case especially in translated versions of the prescriptions originally issued in another language. The full comprehension and the text required acquaintance with these maxims and their role in conveying the real meaning of the statements which forms the main discussion of this research project.

2.2 Background of Medical Discourse

'Medical' is a Latin word which literally means 'pertaining to healing' and is made up of a root, i.e., 'medic' meaning 'healing', and a suffix, 'al', to build an adjective meaning 'pertaining to', 'referring to' or 'relating to'. Therefore, 'medical' is the 'study of what is pertaining to healing', and in case of this project, study of medical terms. A suitable approach applicable to analysis of medical terminology is dissecting them into their basic component parts, a process which is also known as 'word analysis' (Layman, 1995, p.3).

Medical terminology forms a discourse that can be studied and analyzed like any other discourse or language which sometimes needs to be learned like a new language. Medical terminology, which has a definite logics and structure, encodes and describes medical conditions and procedures relating medical care services. It is also a short-hand writing method the professional medical service people and physicians to communicate their instructions and prescriptions to other colleagues concerning their patients and their conditions and requirements (Fleming 1994, P.13).

The oldest medical texts come down from western civilization belong to the Hippocratic writings relating to the 5th and 4th centuries B.C. Including all medical aspects of that period and many of the medical terms which are in use today. This can be considered as the threshold of the Greek era of the medical language, surviving up to the years after the Roman conquest when, due to absence of similar tradition in medical studies in Roman Empire, they borrowed the Greek medical terminology to enrich their language in this regard. Myriad ailment names and their symptoms such as diarrhea (through-flow), melancholic (pertaining to black bile), podagra (a foot trap) and the like have been imported from Greek medical language into Roman and then into other medical languages around the world.

The first medical encyclopedia, called *De Medicina*, was compiled and written by a Roman resident Greek physician named *Aulus Cornelius Celsus* in which he over-viewed the medical knowledge of the time extracted mainly from Greek sources. However, the main problem Celsus encountered in his authoring the book was the difficulty of lack of Latin medical terms equivalents for most Greek ones. In order to solve this problem, Celsus borrowed some terms directly from Greek without any modifications even in their grammatical forms. Then he attempted to latinize the imported Greek terms and translating them into Latin, e.g., *dentescanini* which was translation of the Greek *kynodontes* (dog teeth) or *caecum* which denoted *typhlon* (the blind [gut]) in Greek, terms which are still in use in modern medical terminology. It is because of this compilation that we see some look as Greek terms and some other are Latin terms translated and introduced into Latin by Celsus and his followers in later centuries.

The Middle Ages witnessed flourish of another language from Arabia which spread fast through Middle East and parts of Asia, Africa and Europe necessitating translation and interpretation of classical Greek medical documents for its users. New Arabic, the language of Islam, enabled scholars from the Muslim world to contribute to medical literature, even influencing the Western medicine through introduction of some Arabic medical terms such as *nucha*. Later, during renaissance in Europe, Greek and Arabic texts were translated into Latin enriching and helping development of Latin medical terminology. Vernacular languages in other parts of Europe and the Middle East started gaining significance and independence from the Latin sovereignty.

The appearance of vernacular languages and as a result the medical languages such as Medical Arabic, Medical French, medical English, etc., the necessity of authoring medical texts in the national

language gained further importance. However, such an enterprise required borrowing many terms and expressions from the originally Greek or Latin medical literature. The vernacular medical languages did not limit themselves only to importing medical terms from Latin and Greek, but rather some new concepts were to be developed and labeled or coined by local medical scientists using Latin or Greek suffixes and affixes, Such as **ophthalmoscopy**, **nephrectomy** and **erythrocyte** to ease up their utilization in their national medical languages.

2.3 Medical English and Arabic

Nowadays, English is the only language that most of the significant medical books and articles are written and published. Today, English is in a position similar to what Latin and Greek used to have in earlier era in Europe. Hence, medical terms are not only borrowed from other influential languages, but new terms are also coined and built to name the new diseases, symptoms, medicines, fields, etc. Physicians from other societies where English is not everyday language have the options to choose between importing or translating the required instances into their own language. Arabic is no exception. Naturalization of the English terms or direct use of some English acronyms such as AIDS and MR is very common. However, using such terms generates problems such as impossibility of fitting into the target language structure such as Arabic. This is also another problem in translating medical instructions and prescriptions from English into Arabic in addition to the conveyance of maxims and messages during the translation task.

After a brief introduction of the background of translating medical texts and the status of English and Arabic medical document translation, some key notions and terms which are believed to be important and relevant in the later discussion and analysis of the samples, will be defined and clarified in the following subsections.

2.4 Defining 'Side Effect of Medical Prescription'

Side effect in medicine refers to an adverse, harmful or undesired effect ensuing from consumption or application of a specific medication or surgical methods or tools. Side effect is considered as secondary in comparison with the main effect expected from a medication or method which may also be caused by a medical mistake or error. In order to inform the physicians, health-care service people and patients about the possible side effects of a specific medication or method, the medication plants usually provide the users with an instruction enclosed in the medication box or sticker declaring and describing the possible side effect to avoid or reduce the undesired effects. Since most of such instructions are directly translated from English ones, careful translation these instructions preserving the maxims and messages play vital role in rightly comprehension of the instructions in the translated text.

2.5 Cooperative Principle (Maxims) Frameworks

Language plays an important role in communicating information among its users, and the essential role of pragmatics is helping language users with using language recourses for better comprehension and communication among them. According to Grice, communication is ruled by a Cooperative Principle and four conversation Maxims, i.e., Quantity, Quality, Manner and Relevance.

a) Maxim of Quantity

Maxim of Quantity ensures the length of a conversation to be sufficient to be able to carry the required information and effect. A conversation needs be sufficiently informative to allow a conversation to proceed through proper length of the conversation.

b) Maxim of Quality

This maxim ensures the quality and truthfulness of the conversation. The speakers should not utter what is thought or believed to be untrue or false, in better words, lie or say anything without possibility of evidence or proof.

c) Maxim of Manner

This maxim deals with speaker contributions to the conversation which are needed to be perspicuous, i.e., orderly, brief and clear, without any ambiguity or obscurity.

d) Maxim of Relevance

Maxim of Relevance cares about the relevance of speaker utterances to the purpose of the conversation. Expressing utterances which are not related to the topic of discussion should be avoided.

2.6 Conversational Implicature

The conversational implicature refers to a message that cannot be directly found in the expressions of the uttered or written sentence, but it is rather implied by the speaker or writer. In such cases, it is up to the listener or reader to infer the intended message hidden within the lines in the text through assistance of the regulations ruling successful conversational utterances. This study focuses on the four conversational maxims mentioned above, and the researcher hopes the findings of the research will be of significance contribution to future language studies.

3. METHODOLOGY

3.1 Data collection

A total number of 5 Translated English Medical Prescriptions enclosed as leaflets for detailed instruction of medication designed by different Arab companies was collected. All of the leaflets were

obtained from Al-Afea pharmacy in Al-Marj, Libya. In order to verify data control and decrease the possibility of errors caused by factors other than the intended ones (such as grammatical distractions and other syntactical variables), the collected data were double checked and categorized according to the discussions.

3.2 Data Analysis

In order to analyze the collected data, all the sentences, phrases and word combinations were manually extracted from the texts, including word combinations and fixed expressions such as idioms, catch phrases and metaphors were separated from free word combinations to be able to distinguish the literal and figurative meanings of them and the connotations and meanings they take in the contexts. The same procedure was used to other types of word combinations used in the studied texts. Then the analysis of the collected data and evidences was carried out based on Grice's maxims as elaborated earlier in this project. In addition, Dictionaries in Arabic and English (Oxford Dictionary of English, Collins COBUILD English Dictionary), web search engines like Google were also used to judge about the real meaning of the utterances in English and their equivalents in Arabic and the literal and intended significations of the utterances. Finally, both text were compared and contrasted to find the similarities and differences detectable in both text, English and Arabic to come to right conclusions about the application of maxims and their preservation in translation into Arabic. The identified points are arranged in the form of a chart at the end of this study.

4. DATA ANALYSIS AND DISCUSSION

This section analyzes the presence and role of Grician maxims in the selected medical texts as elaborated in the previous sections to be able to answer the research questions raised in the introductory section of the project. This section presents qualitative analysis of the data in

regard with the maxims implied in the English texts and their Arabic translations. The data comprises of selected sentences extracted from the English version of the instructions as discussed earlier in the previous section. The derived data are grouped into four subsections which represent the four maxims suggested by Grice, each group corresponding with the themes and purposes of data analysis, based on the analyses and theories suggested by Grice. Each Data Analysis presents the English text first which is immediately followed by its Arabic translation and complemented by the analysis and discussion of the extracts.

4.1 Data 1

MEBO Ointment produced by Julphar Gulf Pharmaceutical industries in United Arab Emirate.

MEBO is used to treat different stages of burn and wound of circumcision.

Toxicity and side effect:

MEBO is of pure herbal edible origin; no side effects to the product have been reported so far, except for rare allergic reactions to sesame oil.

مرهم ميبو

السمية والتأثيرات الجانبية:

ان مرهم ميبو عباره عن مستخلص عشبي خالص مكون من اعشاب صالحه للاكل ،حتى الوقت الحالى لم يسجل تاثيرات جانبيه لدى استعماله فيما عدا ظهور بعض التفاعلات الحساسه فى حالات نادره للاشخاص الذين يعانون من الحساسيه لزيت السمسم.

Data 1 analysis:

According to Grice's maxim of Quantity, the writer should make the contribution as informative as possible and should not say more than what is required to convey the required information from the original text. Analysis of the English M. P. shows that the original text contains the main information about the side effects of the medication, i.e., "**herbal, edible origin, and has no side effect**" because the ingredient were already mentioned and only the side effect appears in case patient has allergy to sesame oil. Therefore, the English Text

follows the maxim of Quantity because the writer was just as informative as required. This was similar to the consideration of the maxim of Quantity in the Arabic text but the translator has added extra information regarding the side effects of the medication to provide extra information for some people who are really sensitive to sesame oil.

ظهور بعض التفاعلات الحساسية في حالات نادره للأشخاص الذين يعنون من الحساسيه
"لزيت السمسم"

Considering the above mentioned points, here we can conclude that the Arabic version of the instructions accompanying this medication has been violated the maxim of Quantity because it provided extra unnecessary information.

In terms of Relevance, where the writer should make the contribution relevant, so as both of the texts should reflect the harmful and undesired effects of MEBO, it is noticed that in the English M.P. and its Arabic translation the relevance of the expressions to the main idea of the side effect of the medication was preserved by using words such as "herbal,edible origin" (اعشاب صالحه للاكل. عشبي خالص). All these lexical words reflect the concept of the expected side effect. Both texts properly and sufficiently follow the maxim of Relevance.

In terms of Manner, where the writer has to avoid obscurity and ambiguity, it is noticed that there is no ambiguity in the English M.P, though the Arabic text gives some more details of information, which differs the translated version from the original one. Concerning the obscurity, it is noteworthy to mention that there is no obscurity in the Arabic version of the instruction. Therefore, it can be concluded that both texts follow the maxim of Manner.

Through maxim of Quality the writer should write what s/he knows to be true. It seem in both texts, the writer and the translator reflect the maxim of Quality conveying the information, because both texts are related to and dealing with human health, so they should tell the truth.

4.2 Data 2

RINOFED PLUS TABLT produced by Jazeera Pharmaceutical Industries, Saudi Arabia.

Rinofed plus is indicated for symptomatic relief of common cold.

Side effect:

Reports of side effects are uncommon. However, drowsiness or insomnia may occur occasionally. Skin rashes, tachycardia and dry mouth, nose and throat were also occurred. Urinary retention may occur in males with Prostatic enlargement.

راينوفد بلاس

التأثيرات الجانبية :

بشكل عام تعتبر التأثيرات الجانبية قليلة. قد يسبب هذا المستحضر نعاس او ارق بشكل عرضي. وقد يظهر طفح جلدي وجفاف في الفم والانف والحلق وتسارع في ضربات القلب. وقد يظهر احتباس بولي بشكل عرضي لدى المرضى الذكور المصابين بتضخم البروستاتا

Data 2 analysis:

According to Grice's maxim of Quantity, the English M.P. Seems to be as informative as required, where the pharmacist illustrates the undesired effect of Rinofed Plus by using lexical terms such as “**skin rashes, tachycardia, dry mouth.**” The pharmacist used the phrase “**may occur occasionally**” to explain the possibility of Rinofed’s side effect occurrence which means that the side effect is rarely to happen. There is no extra information in English M.P., therefore it follows the maxim of Quantity. Similarly, in the Arabic translation, the translator follows the same procedure as in English version and conveys the information literally by using Arabic lexical terms such as (**جفاف الفم ،) (طفح جلدي، تسارع في ضربات القلب قد يظهر**). The Arabic M.P. is clear and explains the possibility of occurrence of the side effect by using terms like “**قد يظهر**”. The Arabic version of this medication follows the maxim of Quantity as well.

In terms of Quality, both pharmacist and translator illustrate what they believe is truth about side effect of Rinofed Plus based on the company’s experiments on this medication. There is no false

information in both texts regarding the medication and its relation to human health. Therefore, both texts follow the maxim of Quality.

In terms of Relevance, both texts follow the maxim of Relevance, where English M. P. and its Arabic version explain clearly the purpose of the side effect in Rinofed Plus which indicates undesirable effect of the medication. Besides, both texts provide the required lexical terms to refer to safety of Rinofed Plus such as “**Reports of side effects are uncommon**” and “بشكل عام تعتبر التأثيرات الجانبية قليلة”

Finally, the Eng. M. P. and its corresponding Arabic version are clearly stated without any unnecessary prolixity. Both texts are orderly designed and strictly follow the maxim of Manner.

4.3 Data 3

Profinal Tablet produced by Julphar Gulf Pharmaceutical Industries in the United Arab Emirate.

It is used to treat acute rheumatic disease and musculoskeletal pain.

Side effects:

Ibuprofen is usually well tolerated. Some minor side effects have occasionally been reported such as skin rashes, dizziness, nausea, heartburn, and abdominal discomfort. Rarely, asymptomatic thrombocytopenia and gastrointestinal bleeding and ulceration have been reported.

بروفينال

التأثيرات الجانبية:

يعد ايبوبروفين بصورة عامه جيد التحمل ، ولكن في بعض الاحيان قد تحدث بعض التأثيرات الجانبية الطفيفة كظهور طفح جلدي ، ودوخه ، وغثيان ، وحرقة المعده ، والشعور بعدم الراحة في البطن .نادر ماسجل حدوث نقصا غير مصحوب باعراض في تعدد الصفائح الدمويه وقرحه ونزيف من القناه الهضميه

Data 3 analysis:

Following Grice’s maxim of Quantity, it can be noticed that the E.M.P. has an enlightening medical term such as “**dizziness, abdominal discomfort, gastrointestinal bleeding and ulceration.**” These terms contribute to the meaning as formative as possible to

reveal the effective signification of this medical prescription. E.M.P. follows the maxim of Quantity. However, in the Arabic version, the translator follows similar technique in conveying information and making contribution to the Arabic version of the side effect as factual and informative as required. We find this in such Arabic words as “دوخه، الشعور بعدم الراحة في البطن، قرحه ونزف من القناة الهضمية” The Arabic version of the side effect of Profinal follows the maxim of Quantity without excessive information.

In terms of Quality, both E.M.P. and its Arabic translation follow the maxim of Quality. The analysis of the texts show that both the pharmacist and translator used lexical terms such as “**some minor.....have occasionally been reported, rarely.....have been reported**” and “ولكن في بعض الاحيان قد تحدث..، نادر ماسجل” to provide patients with adequate evidence of truth.

Moreover, following Grice's maxim of Relevance, it was found that both texts are relevant to the main purpose of the side effect of the medication with clear contribution. Both texts follow the maxim of Relevance.

However, according to Grice's system of maxims, this example violates the maxim of Manner in both texts. Both the EMP and its Arabic version have ambiguity of expression through using some misunderstood lexical terms like “**Well tolerated**” and “جيد التحمل، سجل” “حدوث نقصا غير مصحوب”

4.4 Date 4

Riabal Compound Tablet, produced by HIKMA Pharmaceutical Industries, Amman- Jordan.

It is used to treat pain due to spasm and hyper motility of the gastro-intestinal tract.

Side effect:

Side effects are rare and include, dry mouth, constipation and disturbances of ocular accommodation. These symptoms, however, disappear by decreasing the dosage or discontinuing the medication.

ريابال مركب

التأثيرات الجانبية:

التأثيرات الجانبية نادره الحدوث وتشمل جفاف الفم ، الامساك، واضطراب تكييف العين ، وتزول هذه الاعراض اما بانقاص الجرعه او بعد وقف استعمال الدواء

Data 4 analysis:

By applying the maxim of Quantity on Riabal's side effect, it was found that E.M.P. follows the maxim of Quantity, where the pharmacist used lexical terms related to undesirable effect of the medication such as **“dry mouth, constipation and disturbances of ocular accommodation.”** In respect of the main idea about the side effect, the same components are used by the translator in the Arabic medical prescription. The translator illuminated the Arabic version of E.M.P. using terms like **“جفاف الفم، الامساك، اضطراب تكييف العين”** following the maxim of Quantity in the original text.

In terms of Quality, it was found that both texts follow the maxim of Quality, where the pharmacist and translator truthfully illustrated the unwanted symptoms of medication usage that may occur in the patients during the period of taking this medication. This is visible in these terms in E.M.P. **“these symptoms.....disappearing by decreasing the dosage or discontinuing**” and in Arabic text **“وتزول هذه ”** **“الاعراض اما بانقاص الجرعه او بعد وقف استعمال الدواء** which indicate to patient that these symptoms are discovered by testing of the medication.

In terms of Relevance, both English and Arabic medical prescriptions follow the maxim of Relevance, which can easily touch the purpose of side effect within both texts. The contribution of both texts is obvious for patients.

Finally, in terms of Manner, the pharmacist and translator were brief in describing the side effect for Riabal Compound avoiding the obscurity of expression. Therefore, both prescriptions follow the maxim of Manner.

4.5 Data 5

Myogestic Tablet, manufactured by Dar Al Dawa, Na'ur-Jorden.

It is used to treat chronic low back pain and relieve mild to moderate pain of acute musculo-skeletal disorders.

Side effects:

Side effect is usually mild and disappears rapidly following reduction of dosage or withdrawal of therapy. The most common side effects reported are those resulting from orphenadrine such as dry mouth, blurred vision, increased intraocular pressure.

ميوجيسيك

التأثيرات الجانبية:

التأثيرات الجانبية التي تحدث عادة تكون خفيفه وسريعه الزوال بعد تخفيض الجرعه او ايقاف العلاج، واكثر التأثيرات جدوثا بوجه عام هي التي تكون بسبب اورفينارين مثل جفاف الفم، واضطراب النظر، وارتفاع الضغط داخل العين.

Data 5 analysis:

According to Grice's maxim of Quantity, the E.M.P. and its Arabic version contain neither too little nor too much detail of information. Both pharmacist and translator make their contribution as informative as required by using lexical terms such as "**blurred vision, increased intraocular pressure.**" and "**اضطراب النظر وارتفاع ضغط العين**". These terms sufficiently report the undesired side effects of Myogestic. Therefore, both texts properly follow the maxim of Quantity. In terms of Quality, the E.M.P. and its Arabic version follow the maxim of Quality suggested by Grice. The pharmacist and translator used lexical terms like "the most...reported are those resulting..." and "...واكثر التأثيرات بوجه عام هي" respectively to indicate that this medication has undergone experiments and patients can trust the results and the instructions.

Regarding the Relevance, both texts are relevant to the purpose of the side effect. Both texts clearly mentioned the undesired effects of Myogestic. So, both texts follow the maxim of Relevance. Concerning the maxim of Manner, which suggest the contribution to be brief, orderly and avoid obscurity, it was noticed that neither E.M.P. nor its Arabic translation contain any ambiguity blurring the meaning

for patients. Besides, both texts are brief and orderly. Therefore, it can be claimed that both E.M.P. and its Arabic version follow the maxim of Manner.

4.6 Semantic Analysis

The Arabic versions of the five data convey similar messages from the English medical prescription. There is similar content of side effect inside all the five samples of the Arabic version. The meaning of the side effect is clearly mentioned like in E.M.P. even though Arabic version provides more detailed information in some texts but the meaning of the message remains same as in English text. Therefore, it can be concluded that semantically both text have similar medical messages.

5.FINDINGS AND CONCLUSION

As introduced in the first section of this research project, the current study was intended to lead a comparative analysis of English and Arabic medical prescription and instructions issued by pharmaceutical companies and plants in terms of Gricean (1975) four Maxims, namely: Quantity, Quality, Relevance and Manner. In line with the referred theories and the data analysis carried out in the previous section, the current part presents a summary of the conclusions and findings regarding the preservation of the maxims in the Arabic versions translated from English, implications of the current study, some suggestions for future researches based on the current findings.

5.1 FINDINGS

1. Data 1: the analyzed Arabic translation violates the maxim of Quantity.
2. Data 2: both English and Arabic translation follow Grice's maxims.
2. Data 3: both English and Arabic versions violate the maxim of Manner.
3. Data 4: both English and Arabic texts follow Grice's maxims.

4. Data 5: both English and Arabic texts follow Grice's maxims.

Table 5.1: Violations of Gricean maxims in English and Arabic texts

Data number	Type of language	Gricean Maxims			
		Quantity	Quality	Reference	Manner
Data 1	English	follow	Follow	Follow	Follow
	Arabic	Violate	Follow	Follow	Follow
Data 2	English	Follow	Follow	Follow	Follow
	Arabic	Follow	Follow	Follow	Follow
Data 3	English	Follow	Follow	Follow	Violate
	Arabic	Follow	Follow	Follow	Violate
Data 4	English	follow	follow	follow	follow
	Arabic	follow	follow	follow	follow
Data 5	English	follow	follow	follow	follow
	Arabic	follow	follow	follow	follow

Table 5.1 summarizes all the violations by either language relating any of the maxims

5.2 Conclusion

The most important function of language is conveyance and communication of information among its speakers and pragmatics is about practical application of the recourse of language for better mutual understanding and intercommunication. The conversational implicature refers to a message which is absent from the direct and literal signification of an utterance or sentence and is, instead, implied by the speaker or writer to be inferred by the hearer or reader through reading between the lines.

The current research attempted to see how Grice's cooperative principle works in translated English Medical Prescriptions (EMP) and their corresponding Arabic translations. This study was limited, however, to investigation of only five prescriptions focusing on the conversational maxims available in both texts of prescription. It was found that even though data 1 violated maxim of Quantity in Arabic text and data 3 violated maxim of Manner in both English and Arabic texts, the translated English Medical Prescription and its Arabic version follow the Conversational Implicature of Grice (1975) in most cases, and the Arabic text conveys similar messages as in the English text provided by the pharmacist.

As a final word, we hope that the current study and its findings can contribute to the linguistic studies, especially in the domain of translation and linguistic maxims in comparative study of English and Arabic texts. It is also hoped the findings can contribute to further researches in the same area, as well as language and translation courses in English and Arabic speaking communities. Further studies can be carried out on wider areas including more translated texts in medical contexts or other fields of studies or activities.

References

1. Austin, J. L. (1962). *How to Do Things with Words*. Oxford University Press.
2. Brannigan, John. *New Historicism and Cultural Materialism*. New York: St. Martin's Press Inc., 1998.
3. De Jouvenel, Bertrand (1957). *Sovereignty: An Inquiry into the Political Good*. London: The Syndicate of the Cambridge University Press.
4. Foucault, Michel (1972). *Archaeology of Knowledge and the Discourse on Language, The*. A. M. Sheridan Smith (trans.). New York: Pantheon.
5. Brown, Gillian, Yule, George (1983). *Discourse Analysis*. Cambridge university press.
6. Grice, H.P. (1975). "Logic and Conversation." In P. Cole and J. Morgan, eds., *Syntax and Semantics, Volume 3: Speech Acts*. New York: Academic Press.
7. Gundel, J.K., N. Hedberg, and R. Zacharski (1993). "Cognitive Status and the Form of Referring Expressions in Discourse." *Language* 69:274-307.
8. Layman, Dale Pierre (1995). *The Medical Language - A Programmed Body-Systems Approach*, New York: Delmar Publications Inc.
9. Leech, G. (1983) "The Principles of Pragmatics." London: Longman Group.
10. Josephine Sinnathuray (2008). *Pragmatics of Medical Report Writing* (thesis).
11. O'Grady, Archibald (2008). "Semantics: the Analysis of Meaning." *An Introduction Contemporary Linguistic Analysis*. Longman Publishing Group.
12. Mey, Jacob L. (1993) *Pragmatics: An Introduction*. Oxford: Blackwel.

13. Middleton, Richard (2002). *Studying Popular Music*. Philadelphia: Open University Press.
14. Neurath, Otto; *et al.* (1955). *International Encyclopedia of Unified Science*. Chicago. IL: University of Chicago Press.
15. Prince, E.F. (1981). "Toward a Taxonomy of Given-new Information." In P. Cole, ed., *Radical Pragmatics*. New York: Academic Press.
16. Simpsons, *et.al.* (2009). *The Oxford English Dictionary*. Oxford University Press.