Cultural Differences between English and Persian in Technical Translation

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Abstract
Nowadays, a major amount of translation work being done all over the world is not poetry or novel translation but technical, scientific, and specialized translation. The reason is the fast paced growing of science and technology and the growing need of all nations for information. But technical translation is mostly considered a straightforward process dependent solely on a competent knowledge of subject matter and terminology. Technical texts are referred to as free from cultural embedding. The aim of the present study is to show that cultural embedding does exist in technical texts and needs attention. The focus is on English and Persian and it refers to Stolze (2009) who discusses culture in technical translation under 5 headings: terminology, language form, syntax, text structure and pragmatics plus one additional heading: stylistics. Examples are extracted from various instances of technical texts: a textbook in computer software engineering, legal deeds, user manuals of electronic appliances, etc.

Keywords: Culture, Technical translation, Scientific translation, Terminology, Syntax, Pragmatics

1. Introduction
Technical translation covers the translation of many kinds of specialized texts in science and technology, and also in other disciplines such as economics and medicine (Williams and Chesterman, 2002). Especially compared with literary translation, Aixelá (2004) argues against the view that scientific prose can be perfectly or more easily translated: “The contrary is true: the extremely high requirements set for scientific and technical translation mark it out clearly from other genres, making it into an independent research field in its own right.”

1.1 Culture, language and translation
Language is an expression of culture. On the other hand it affects the way its speakers perceive the world. Language and culture are interdependent. Or: culture is the totality of knowledge in the form of language in mind. Cultural preferences manifest themselves in language. What is specific to each language is its ways of expression of a (general) concept. Deep structures across languages are the same. What is different is surface structure. The cultural implications for translation may take several forms ranging from lexical content and syntax to ideologies and ways of life in a given culture (James, 2005). As a type of translation, this could also be true for technical translation.

1.2 Cultural considerations in technical texts
Where culture is an inseparable part of language, it cannot be separated from any of its instances of use. And technical texts are an instance of language use. It is true that the referential function of language is highlighted in technical and scientific texts; they cannot totally free themselves from culture. Kastberg (2009) explains better:

… we have a basis for arguing against what still seems be to a generally accepted idea, namely the culturelessness of technical culture. Or rather, the notion that technical domains are devoid of cultural influences is due to the fact that the laws of the sciences from which technical domains stem, namely the laws of physical sciences, are above the constraints of any one national culture. That, of course, is true. But this doesn't mean that sciences are acultural, they are artifacts of a professional culture (Kastberg 2009).

It is believed that for a technical translator to be successful, a high level knowledge of subject matter and a mastery of the relevant terminology is enough; but the aim of this article is to show the contrary. Translating technical texts in the professional environment or in scientific communication is more than handling terminology.
What is needed for a technical translator, just like any other translator, is a high level of mastery in the source language in all linguistic levels: morphology, syntax, semantics and pragmatics and also mastery in writing abilities in the target language. The focus of this study is but on the third type: cultural knowledge. Texts, as the means of oral and written communication among persons, are carriers of messages. And any message within a technical or scientific discourse field includes both subject-relevant information and some implicit references to the cultural background of the person speaking (Stolze, 2009). A technical translator needs to be familiar with cultural backgrounds of both the source and target language societies. Discourse, science, genres and writing techniques are formed in a cultural and historical context. World view and background knowledge in different humanistic communities are different and manifest themselves in all human activities. It is noticeable that in different countries based on historical and industrial developments, the readership viewpoint is different. For example background knowledge of people in developed and developing countries are probably different. In a developed country, a concept may have been longed used and have a different underlying implication than in a developing country which the same concept may be a totally new one and even be adapted in that target culture. As an example consider the term “iPod”; this term, a type of device for playing music, videos and images, has a vast scope of usage in American culture. For the Americans, it is not solely a music playing device. It has taken metaphorical meaning or even sometimes used generally to point to such devices. The reason is its long period of being in hands of ordinary people. But in Iran, a majority has only heard its name or it does not more than know what it is. Look at the extract from www.wired.com in figure 1.

Stolze (2009) considers this by pointing to hermeneutic considerations as: “one must always ask oneself whether sufficient knowledge is given for understanding, translating and entering into a debate, or whether some learning strategies are still needed.”

When we accept that texts function within cultures, there must also be some cultural features discernable in those texts ... That means that understanding can be put down to linguistic structures on the text level that first triggered the respective cognitive reaction. Culture will be present in texts, even in technical ones. And culturally based conventions of text construction may even constitute a major translation problem for scientific communication. Detecting cultural elements in texts therefore is decisive for translation. (Stolze, 2009)

Kastberg (2009) adds a fifth competence to the previously proposed competences for a skilled technical translator: cultural competence. According to Kastberg, therefore, the five competences required for a technical translator can be listed as follows:

1. General language competence L1 + L2
2. LSP competence L1 + L2
3. Knowledge of the relevant domain
4. LSP translation competence L1 <--> L2
5. Cultural competence L1 + L2

The purpose of translating is one of the most important considerations in translation. It may be acceptable to claim that the purpose of translating a technical text is in most cases to inform a certain readership of some scientific advances or ideas occurred in a foreign linguistic community in order for them to understand and make use of such information or to instruct the public to follow a certain set of steps to gain some desired results. In this respect, for the target readership to understand so that they can make use of the material, it is necessary to consider cultural differences between source and target languages. An adaptation to cultural norms of the target language, the particular ways of expression might be needed.

Despite the importance of technical translation, a little attention has been paid to such translations in Iran. Working on cultural considerations in such translations has been even less. Such ignorance of a type of translation which occupies an important part in science development was the major reason for doing a study by examining technical texts translated from English to Persian to see to what extent does cultural differences show themselves in such texts and to draw the readers’ attention to its importance. In addition, the researcher intended to see that to what extent does Stolze’s categories do apply to the special pair of English-Persian and if there is any additional type of cultural difference between the two in technical prose. The answer was yes; there is another type of cultural difference and that could be put under the title of stylistics.
2. Cultural Elements in technical texts
Following Stolze (2009), the present study aims at examining Persian technical texts translated from English in order to find elements of culture in different levels of text. Stolze claims that:

Culture determines how people speak and write and perceive each other. Consequently, cultural elements, therefore, must be present implicitly in texts, but as a background feature they are implicit. This becomes crucial in translation, when a translator from a different culture may not be able to adequately interpret the implicit cultural traces, or even misinterprets them. (Stolze, 2009)

According to him, therefore, the purpose is to extract instances of such cultural elements between English (the lingua franca of science today) and Persian. And to follow his categories considering manifestations of culture in texts which range from the word level and syntactic structures to the style on the text level and its pragmatic social function. During the study, one other type of cultural difference was observed between English and Persian, difference in using personal pronouns or the way the author prefers to talk to his or her readers and that was presented as an additional title - stylistics. This last category is different from that of style on the text level since it is not related to the overall organization of a text. The material examined here is a major textbook of computer named software engineering: a practitioner’s approach and two of its translations used widely in universities. Alongside this, other instances of technical and scientific texts are also used.

2.1 Culture in terminology or the level of single words
One might say that since in the realm of science and technology, a set of standard terminology with predefined equivalents exist, there is no problem at the terminological level in translating technical texts. However, International standardized terminology is very much in the minority (Stolze, 2009). The reason is that new technical concepts are being made every day. Many dictionaries suggested meanings for technical concepts are not equivalent to the original because of different cultural implications and backgrounds.

Two things stand in the way of total uniformity, or total cultural oneness. First of all, the number of technical concepts seems to grow exponentially. Secondly, the number of technical (sub)disciplines seems to be ever increasing. (Kastberg, 2009)

In addition, as a computer software engineer, I must mention that in most cases no fixed equivalent for specialized terminology exists. For a key word such as ‘procedure’ many equivalents are used by different translators: "روند", "زیرترانه", "زورال", "روند". In software engineering, there is an expression “component-based assembly”. This means different software components assemble together to make a software application. It is translated as “منطق پیمانه‌ای مولفه”, “مینی مولفه" and "مولفه". “Component” is defined in Longman Exams Dictionary as: “one of several parts that together make up a whole machine, system, etc.” not only the meaning of "مولفه" is totally different from “component” but other nearest equivalents do not have such implication: "کیف", "دستگاه", "شاسی", "افزونه"."، "مازن", "خازن", "قطعه", "کیف", "دستگاه", "شاسی", "افزونه". On the other hand, because of the longer history of machinery industry than software developing in Iran, “مولفه" is bound in minds of Iranians to industrial factories, different types of machines and hardware. “Assembly” is “the process of putting the parts of something together”. The meanings of “component” and “assembly” very much match together and make a meaningful expression in English whereas "مولفه" is somehow meaningless in Persian. A better example here is the word “business”. Persian equivalents are mostly "کسب و کار", "تجاری", and "تجارت". But all the three have different cultural implications. What Iranians have in mind of "business" and "کسب و کار" is much more restricted in scope than "business". The word “library” is generally used in technical context to show a reservoir of anything like “DLL library” in computer science or “DNA library” in biology. Immediately, it is translated as "کتابخانه" in most texts whereas in Persian culture it is only related to "کتابخانه" and "DLL" sounds somehow paradoxical. One reason may be that where “library” is a simple word, "کتابخانه" is a compound noun. “Compact disc” is translated as "لوح فشرده" whereas the concept of disc is totally different from the concept of "لوح". Disc in essence is something circular but "لوح" culturally is something rectangular. In English there are "screws" and "bolts" whereas in Persian there is only "بچه".

Some words need to be omitted because of cultural considerations. For example “during thunderstorms, disconnect the AC main plug from the wall outlet.” Must not be translated as "در طوفان و رعد و برق، دو شاخه" "لحظه " ولی "در طوفان و رعد و برق" (during). The word "during" (duriing), must be eliminated in Persian translation “because culturally it is not needed. In Persian it is enough to say: "بچه " "در طوفان و رعد و برق" (literally “in thunderstorms”) or at least using the nearest cultural equivalent: "خود " (your) is better to be considered:

Connecting the video out to your TV.
Back translation when omitting ‘your’: Connecting the video out to the TV

Sometimes two words cannot come together. In English, “defect amplification” is quite acceptable whereas “تقضیه اکتشاف” is not, simply because in Persian a positive verb is not used with a negative noun.

Sometimes, new technical terms are created by means of metaphorical terminology referring to similarities in the function, form, or position of an object (Stolze, 2009). This can be seen in example “disc tray” which is translated literally as “سینی دیسک”.

2.2 Culture in the language form

Terminology in nouns and adjectives combined with a few tenses are characteristics of the functional style of communication for specific purposes (Stolze, 2009). In English, it is natural to use two adjectives before a noun whereas in Persian using more than one adjective although not wrong linguistically, is not preferred. And because “preferring” has got to do with culture, the trace of culture is clearly seen in technical texts. For example, again in the field of software engineering there is “common process framework” which is translated as “چارچوب فرآیند مشترک” and “کاری مشترک فرآیند”. Where the English phrase sounds natural, the Persian ones sound so much unusual. They simply do not look beautiful and more importantly even not meaningful. The Persian phrases are not wrong according to linguistic rules. Other examples are “defect removal efficiency” and its translation: “زیبایی رفع نقص” and “wireless Receiving Amplifier” translated as “امپلیفایر گیرنده بیسیم”.

2.3 Culture in the syntax

Out of the author’s experience with technical texts and technical translation, syntax could be called the most deceiving part a text for translation. You start translating without even knowing that you are talking the target language (Persian in this case) with another language’s rules and regulations (English). The relationship between syntax of a language and culture notice the following:

Syntactic forms concern the way in which the elements in a sentence are combined idiomatically…

If the target language structure is different, the translator will have to apply shifts in order to enhance intelligibility… We call these phenomena cultural aspects because they are inherent to the idiomatic usage of language, and this should not be omitted in technical communication (Stolze, 2009)

Which is missed most of the time are those shifts that are to be made. For example, English language has a tendency to express detailed semantic variations with more words. Look at the following:

Costs, charges or expenses
Executor & administrator of estate
In force & effect
To alter or modify

In other languages like German and Persian they can be expressed by means of one term. To provide examples we return to a software engineering textbook:

Software is (1) instructions (computer programs) that when executed provide desired function and performance ...

نرم افزار عبارت است از 1. دستورات (برنامه های کامپیوتری) که در صورت اجرای آنها نتایج عمل و کارآمدی خواهند شد منشأ شدند.

“function and performance” can adequately be expressed in one term: “عمال“

Furthermore, if you look at the translation more closely, you will possibly observe that it is very much following the English syntax. An adaptation of the sentence to Persian syntax will make it more natural and understandable:

نرم افزار عبارت است از 1. دستور العمل ها (برنامه های کامپیوتری) که در صورت اجرای آنها نتایج مطلوب را به بار می آورند.

Back translation: software is: 1. Instructions (computer programs) that when executed, provide desired results.

Persian culture and syntax makes it possible for the reader to get the message. This shows that when translating a technical text it is sometimes necessary to look above word level.

To gain an understanding of software, it is important to examine the characteristics of software that make it different from other things that human beings build.
To translate the bold part, a single word in Persian is adequate: فهم

The source texts paragraph continues as follows:

(2) data structures that enable the programs to adequately manipulate information, and (3) documents that describe the operation and use of the programs.

Another difference between English and Persian is that while English uses many verbs in a single sentence, Persian prefers to use abstract nouns especially instead of compound verbs (the bold words above).

A more natural translation could be as follows:

ساخت‌های داده‌ای که بر اساس تشکیل برنامه‌ها به شکل مناسبی اطلاعات را دستکاری کنند و

Back translation: Data structures that give programs the power of information manipulation…

In addition, in the above translation the adverb “adequately” is omitted, because its translation, "به طور مناسب", is not natural and even meaningful. Instead of "ساخت‌های داده‌ای که بر اساس تشکیل برنامه‌ها به شکل مناسبی اطلاعات را دستکاری کنند و"، using "ساخت‌های داده که محدود و سرویس‌های مدرن را ممکن‌سازی می‌سازند"، in which the head noun of the noun phrase accepts the plural marker, is preferred.

Original: “It is a key factor that differentiates modern products and services.”

Translation 1: فاکتوری کلیدی است که محصولات و سرویس‌های مدرن را ممکن‌سازی می‌سازند.

The sentence could simply be stated as:

عامل اصلی تفاوت محصولات و خدمات جدید (از محصولات و خدمات سنتی) است.

Back translation: It is the main factor of differentiation of modern products and services (from old products and services).

2.4 Culture in the text structure

Different cultural norms rule the structure of certain texts in different countries. Different text types and genres are the product of cultural historical situations. These lead to different types of writing. Let’s Borrow an example from Stolze (2009) to make the point more clear:

Court sentences in Germany show first the substance of the judgment in a sentence followed by a statement of facts and the presentation of the reasons for the decision, quasi as a justification of the sentence.

Court sentences in France begin with the statement of facts followed by the reasons for the decision based on a listing of relevant articles from the code, which finally leads to the substance of the sentence.

In British or American court sentences we find the accumulation of relative sentences as a typical feature of this text genre. Example: The court finds that… and that… - In German texts such long lists are unusual.

Unfortunately, the researcher had no access to court sentences in Iran to make a comparison. This shall be regarded in further research.

Reports in technical and academic fields undergo different cultural and situational norms. There exist many types of reports based on the subject matter, the form of the report or the application and place of use. Here, we consider two types of report used in work places: formal report and letter report. Formal report is type of report which is very formal and very long. It usually consists of ten pages or more. The conventions for writing a formal report in English are as figure 2. A formal report in Persian has the parts presented in figure 3.

The above formats are more or less the same. It is notable that the researcher could not know whether the Persian source had been an exact translation or had it been with modifications but it seems that expressing gratitude and dedication parts are mostly found in Iranian culture. In addition, when introducing different parts of a letter report, Roohani Rankooohi (2003), considers a part for “a statement of respect” which he mentions optional but he adds that it is almost always found in Iranian context.

You can see two types of associate degrees, one in the United States of America in figure 4 and one in Iran in figure 5.
Cultural differences are obvious in the two certificates. It seems that types of information obligatory in the two cultures are totally different. The English one is restricted to person’s name and degrees and the name of the university while in Iran mentioning the grades is not considered necessary but an amount of additional information about personal specifications of the person, rules and regulation, justification on issuing the degree, etc. In addition, it is necessary to mention the name of the country, then the name of the due ministry. Therefore, the Iranian degree has the following format: preliminary information, specifications of the holder, additional information and instructions.

This is one example that shows different types of information are considered obligatory in different countries. Generally speaking, in Iran, Qoranic verses, Hadith, aphorisms, respectful sentences, etc. are regularly used in official deeds and papers.

2.5 Culture in pragmatics

Pragmatics is where culture has the most important role. A marriage contract is an indicator of the culture and social procedures. In Iran, a marriage contract includes presuppositions such as the religion of the country is Islam, in Islam there are two types of marriage: temporary and permanent. The contract is actually a permanent one because the other is not considered official. In other countries it might be obligatory to mention the type of marriage in the marriage contract (a catholic marriage, a civil marriage, etc.). Therefore, in translating between legal deeds one must pay enough attention to such differences and presuppositions and offer extra information in translation if necessary.

2.6 Culture in stylistics

This part is additional to Stolze (2009) and intends to introduce one other case of cultural difference. It is observed that in English technical prose, using the personal pronouns such ad "we" is acceptable. For example: "we define a computer-based system as: …" While this is accepted in English, using its equivalent "گروه" in Persian is not acceptable in scientific texts. Using personal pronouns like "we", "you" etc is prohibited in Persian scientific and academic texts though it is not violating any grammatical rules or is not related to any misleading terminology. This is just a matter of preference and has to be observed in translation.

Further research would show whether differences of this kind exist in other language pairs. At least this is one other type of cultural difference between English and Persian in scientific prose.

3. Summary, conclusion and implications

As instances of human activities and language use, technical texts are not culture free. The presence of culture must be traceable in the elements of the texts. In this article actual instances of culture in textual elements between English and Persian were presented. For a technical translator to be successful it is better to pay enough attention to cultural differences between languages and make shifts where necessary. Cultural differences in technical prose may be found in technical terminology where the meaning dimensions and sociological as well as technical implications may be distant from one society to another. At the level of grammatical structures, cultural differences show themselves in preferences between different structures although not word for word translations may not be wrong. More importantly overall text structure is different in different countries the ignorance of which would at least reduce the effectiveness of translation or have negative side-effects. Misunderstanding would be the first negative result of such ignorance and this is dangerous since the intention of scientific and technical prose is mainly informing the audience about facts. In addition to the proposed headings of Stolze (2009), another place where cultural difference can be traced is differences in ways of offering the information: personal pronouns are avoided in Persian scientific prose.

Technical translation, like any other type of translation, requires a high level of competence of both languages (SL and TL) and knowing the differences which may be cultural or non-cultural. Certainly, Statistical research is needed to support this study. Further examination of differences between original texts and their translations as well as comparing original technical texts in different languages would shed more light on cultural differences in technical translation.

References


These days, the trendy way to refer to the iPod is to call it the iPizzle -- or iPizz for short. At least, that's what it says at the Urban Dictionary website, a dictionary of slang compiled by its readers. Whether true or not (I've never actually heard it uttered myself), the Urban Dictionary is full of fascinating iPod slang.

An iPodyssey, for example, is supposedly the lengthy and arduous quest some people undertake to acquire an iPod. "his iPodyssey would see him through many Apple Stores and $400 dollars before it was all through," the site says.

After buying an iPod, the new owner has become iPod'd -- he or she has joined the iPod craze. Walking down the street, the iPod owner -- now known as a podestrian -- spots another iPod listener on the sidewalk. As they pass, they give each other the iPod nod, a tilt of the head in recognition that they're both iPodophiles.

New iPod listeners may soon become podaholics, such that their entire waking existence is devoted to listening to, downloading songs for, or accessorizing their precious new iPod. A state also known as iPodolatry. According to the dictionary's definition of a podaholic: "(They) measure time not by a clock, but by battery life or amount of 'juice' left. Their most comfortable environment is the subway, but also may enjoy busy sidewalks or any place else they can ignore a crowd of people that has enveloped them. The rest of the time is spent hidden in their lair using every last penny of their rent, alimony, child support payments and drug money on 'ear candy' from iTunes, Napster and other purveyors of aural delights."

The definition concludes with an example of how the term podaholic might be used in real life: "Excuse me. Excuse ME. EXCUSE ME. I'm trying to get off here. Goddamned podaholic!"

"I missed my stop on the subway. I couldn't get off the train because some podaholic was blocking the way and couldn't hear me when I asked him to move."

Of course, the podaholic may be using the iPod to avoid contact with other people on purpose. If so, that person is more properly known as a Pod snob -- someone who plugs into their iPod to tune out others. Other iPod slang includes iPlode (blowing your eardrums by having the volume too high); and iPod A.D.D. (the inability to choose the right song or listen to it all the way through); and iPod spamming (downloading way more songs from file-sharing services than you'll ever listen to. "This is usually done by people wishing to raise the number of songs on their iPod in an attempt to seem cooler than they actually are," the definition says.)

The word iPod is even used to refer to old-style boomboxes, which are now known as iPod Megas, the dictionary says.
There's a few sex-related terms. To say someone is an *iPod in the pants* means that person is under endowed, he is "small and white."

*Podfapping* is watching pornography on a video iPod, or masturbating while doing so. "Podfapping is also known as iFapping or iFap, or podsterbating," the site says.

And *Podcasterbation* is the act of discussing podcasts or podcasting in a given podcast.

"My ears can't handle all this podcasterbation, I'm going back to FM," the site says.

Some of these words strike me as untrue; slang made up just for the dictionary. But one term I know is true is *playlistism* -- the act of judging others by their taste in music as revealed by the contents of their iPod or iTunes playlists -- because I wrote a story about it.

http://www.wired.com/gadgets/mac/commentary/cultofmac/2006/06/71247
The associated Examining Board  
General Certificate of Education  

This is to certify that  

…………

Born on 19 January 1960  

Sat for the General Certificate of Education at  
NORWICH CITY COLLEGE OF FURTHER AND HIGHER EDUCATION  

And reached pass standard in the following subject(s) in  
June 1982  

Advanced level  
In two subjects  

Mathematics (applied)  
Mathematics (Pure)  

Alternative award  

*mathematics (pure and applied)  

* * * * *  

Centre No. / Candidate No.  
Certificate No.  
The department of education and science accepts the examination as reaching the approved standard  

Signed on behalf of the department of education and science  
Signed on behalf of the associated examining board  

Under-secretary  
Secretary general to the board  

Figure 4. Certificate of education in America (Aslanzadeh, 2005)

Emblem of the IRI  
Sealed photo of the holder  

Ministry of science, research and technology  
University of teacher education  
Completion certificate of associate degree  

By virtue of the enactment of the supreme council of education approved on …… and the approval of the cabinet, whereas Mr. /Ms. …… Son/daughter of ……, holder of the national ID card no. ……. Issued in …… born on …… has successfully completed the junior course in …… at this university, this (junior) Degree in the field of …… is/conferred upon/granted to/awarded to/him/her.  
The aforesaid must serve as a teacher at one of the [educational] centers as determined by/at the discretion of the ministry of education for a period of …… years. The original degree will certainly be awarded to the forenamed once due service term has been passed and related arrangements have been reimbursed.  
The Chancellor – University of ……. name & last name: ……. SGD & SED …….  
You are to preserve this document as no copy or duplicate shall be issued.  
Registered under the entry no. …… in the public book of degrees of the registrar’s office at the university of teacher education.  

Figure 5. A certificate of education in Iran (Raee Sharif, 2007)