Translation Techniques

Article · April 2015

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Translation Techniques

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(121-144)

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Abstract

In this paper, we discuss three translation techniques: literal, cultural, and artistic. Literal translation is a well-known technique, which means that it is quite easy to find sources on the topic. Cultural and artistic translation may be new terms. Whilst cultural translation focuses on matching contexts, artistic translation focuses on matching reactions. Because literal translation matches only words, it is not hard to find situations in which we should not use this technique. Because artistic translation focuses on reactions, judging the quality of an artistic translation work is one of the most difficult things one can do. We end up having a score of complexity and humanity for each one of the mentioned techniques: Literal translation would be the closest thing we have to the machines world and artistic translation would be the closest thing we have to the purely human world. By creating these classifications and studying the subtleties of each one of them, we are adding degrees of quality to our courses and to translation as a professional field. The main contribution of this paper is then the formalization of such a piece of knowledge. We, however, also lay the foundations for studies of this type.

1. Introduction

What is translating?

> Translating is decoding a written piece of discourse from the source language according to our private language but considering the private language of the original writer and the original context as much as possible, and then coding that piece again according to our corrected-to-an-extreme vision of the target language and context.

> (Pinheiro, 2014)

Communication & Language at Work

What sort of translation techniques have been mentioned in the scientific literature so far?

Quite a few.

Adachi (2012) mentions literary (p. 23), multimodal (p. 34), audiovisual (p. 34), mainstream of written texts (p. 34), multimedial (p. 34), localization[1] (p. 148, mentioned in the book as a process), liberal (p. 182), and possibly others.

Adachi (2012) also gives us a table that illustrates a lot:

Larger Categories	Smaller Categories	Definitions
Liberal	Interpolation	a) Amplification b) Substitution
	Deletion	c) Deletion
	Replacement	d) Adaptation e) Description f) Discursive Creation g) Generalization h) Particularization i) Transposition
Literal	Literal Translation	j) Literal Translation

Figure 1

Dukāte (2009) talks about the main types of translation (and not techniques) being literary, non-literary, and sacred texts (p. 131).

In terms of techniques, Dukāte (2009) mentions the Salami Technique (p. 80) for Interpreting.

Dukāte (2009) also mentions Explicitation (p. 102) and Domestication (p. 79) as techniques for Translation.

Kemppanen et al. (2012) mention Foreignization and Domestication (p. 51) as translation techniques.

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[1] *The process of adapting a product to a particular market, from a linguistic, cultural and technical point of view*. The source states that this definition of Localization is found in (Palumbo, 71)

...domesticating translation is characterized by the dominance of linguistic, ethnic and ideological features of the target culture, as well as by the fluency of the text – naturalness of syntax, unambiguity, modernity of the presentation and linguistic consistency. A typical feature of a domesticating translation is transparency – a tendency to avoid non-idiomatic expressions, archaisms, jargon and repetition. In other words, the translator imitates text features of the target culture.

Foreignization *refers to an opposite strategy of translation. Venuti (1992:11) defines this concept as a translation practice where elements foreign to the target culture are given a special stress. A foreignising translation is dominated by linguistic, ethnic and ideological features from the source culture, resistance to the norms of fluency and by the unmaskedness of the translator.*

Kemppanen et al. (2012) still mention free (p. 56), literal (p. 56), and probably other translation techniques.

Accuracy seems to be a concern of at least three main countries (in Translation): Australia, United States, and Brazil (Pinheiro, 2013).

This way, we cannot think of Free or Liberal Translation as a professional translation technique.

Adaptation, however, might be a term that should not be listed under Free Translation, since it is possible that we adapt and, even so, do professional work.

The Logos Group (2014) says the following about Adaptation:

The notion of *adaptation* is traditionally played against the notion of *translation* when commenting on the origin of a text: *Is it a translation? No, it is an adaptation.* In common speech, this answer usually means that the text did not (only) undergo interlingual translation, it was also *willingly and explicitly* manipulated, for example for one of the following reasons:
1) the prototext was long in comparison to the space available for the metatext; the customer therefore has explicitly demanded a foreshortened translation, specifying the length of the desired metatext; one would think that this procedure is limited to technical and informational texts, but I can testify that it is also applied to literary texts;
2) when the metatext target is a school-age public, the publisher takes up a social view (canon) of what is *apt* or *inapt* for a child, and prepares a censored adaptation in many possible ways: censorship of sexual references, censorship of (usually only physical) violence, censorship of words that are *too difficult* (i.e. to pronounce, understand, etc.), political censorship of the current regime, censorship of behaviors considered contrary to public moral, etc.
3) ditto (re. censorship), even if the text is devoted to an adult public;
4) cultural features of the metatext's public differ to the point of demanding a major modification of the text contents so that it is better accepted in the reality in which it will be

used; the latter point refers mainly to text of a practical character, instructions, functioning of machines or programs etc.

All these types of adaptation are comprised justifiably within translations because, as these, they are characterized by the presence of a prototext or original, a metatext or translation, of a model of reader and a dominant with a hierarchy of subdominants. On the other hand, one can also say that any translation is an adaptation as well, although the various translation strategies comprehend adaptation in very different terms. The basis of the need for translation also alludes to the need for adaptation, for exportation-importation of one culture into another. The need can derive from problems of code comprehension, and such difficulty in understanding a code can be attributed to 1) a low or inexistent knowledge of the code (in interlingual translation), 2) to a different cultural placement albeit within the same natural code (for example in the popular version of a scientific text); but, apart from understanding problems, there can be the need to communicate in a different way from the one originally conceived, as in the case of the difference of semiotic code (for example in the film version of a novel), or of the difference in execution (actualization) of a same semiotic code (for example, the guitar transcription of a musical score originally written for harp). A principal difference between *translation* and *adaptation* does not exist. It can be useful to see, if by *translation* we mean an adaptation, in how many ways it is possible to view the adaptation of a written text, what should be adapted to what, who should adapt to whom and why. In the previous part of the course, dedicated to understanding, reading, interpretation, the *adaptive* aspect of translation was premature, because an aware or unaware interpretation by the translator occurs anyway, independent of the model of reader that she has in the drafting stage. Here, in the part of the course on text output, we come to the crux of the matter. Translator is the one that adapts herself in another's place or, if you will, is the one who is hired to adapt herself. A translator is called when, in a cultural mediation process, one of the two parties has not enough energy, interest, or desire to adapt to the other one. In the case of the author of a written verbal text, the personal production of her work in many languages is seldom possible, especially in fiction. One of the best known cases, that of Vladìmir Nabókov, who translated his own works from English into Russian and vice versa, originated in the deep author's dissatisfaction with translations made by others of his works, and in the need to see anyway his works translated.

As a conclusion, not every translation is an adaptation and not every adaptation is a translation but there could be cases of adaptation that we could still include under the title translation. Different from what Logos Group (2014) states, if we chop a text because of a requirement of the assignment provider, say space, we are not necessarily

doing professional translation because we must comply with the principle of accuracy when doing professional translation.

A necessary adaptation, such as the one we discuss inside of the title artistic translation, could be called translation.

Transposition might be another technique that should not be listed under the title Free Translation.

Transposition is defined by Kusfajarini (2013) in the following way:

> It involves a change in the grammar from SL to TL, for instance, change from singular to plural, the change required when a specific SL structure does not exist in the TL, change of an SL verb to a TL word, change of an SL noun group to a TL noun and so forth (Newmark, 1988b:86).

The change required when a specific SL structure does not exist in the TL tells us that the change is mandatory, so that this technique can be told to be a professional technique.

Explicitation cannot be a professional translation technique because it can be used in the form of footnotes, for instance, or even brackets, but not in the main text as if it were part of the original when it is not.

Anything that fundamentally alters the style of the written text is also not acceptable: We must do the impossible to stick to the original text.

We would not like to increase or diminish the value of a writer when translating their work: We would like the target-language readers to have the same impression the source-language readers have.

Sometimes this becomes very messy because it is very hard to draw a line between the grammar of a certain language, especially if that language is not our mother tongue, and the style of a particular author.

Every effort must be made to keep things as they are in the original in any case.

Domestication seems to be a technique that in much matches Cultural Translation.

Notwithstanding,

> *fluency of the text – naturalness of syntax, unambiguity, modernity of the presentation and linguistic consistency. A typical feature of a domesticating translation is transparency – a tendency to avoid non-idiomatic expressions, archaisms, jargon and repetition. In other words, the translator imitates text features of the target culture*

is not accepted in Cultural Translation, since this is supposed to be a professional technique: We do not change the characteristics or the style of the source text. We at most rewrite it trying to pass the same idea in the target language.

We will notice that the foreignization disappears in favor of recreating the same effect, so that we will not be worried about pieces of a work, say a chapter of a book, as if they were isolated from the rest of the work: We make the entire work provoke the same effect on the readers of the other culture instead.

This is to say that if an Australian book mentions an English writer and their writing because the English were their oppressors, a Brazilian book should mention a Portuguese writer and their writing instead, since what we seek is the same effect.

To comply with the Principle of Accuracy in this so special case, we would then create footnotes to let the reader know what appeared in the original language.

The phenomenon Localization, which is so much in fashion these days, should be regarded as a cultural phenomenon, so that it can also be put inside of our Cultural Translation.

Adachi (p. 148, 2012) defines Localisation as

the process of adapting a product to a particular market, from a linguistic, cultural and technical point of view.

We notice that this definition does not mention creativity or creation, but adaptation instead.

Transcreation (Globalization, 2001), which seems to be marketing work over translation work, could be seen as part of the artistic technique of translation, since marketing is an art: The art of persuasion and enchantment.

We find it difficult to defend this technique as a professional technique of translation, however, given the ethical principles for the profession (translator).

We can then say that the professionals who do Transcreation are not really translators: They are transcreators.

Ideally, the translator would do their work and a marketing person who works with the target language would finish the process of transcreation.

(Globalization, 2001) brings the following piece of text:

> **Copy writing or transcreation:** While transcreators strive to actually copy write into a target language, the primary responsibility of a translator is to accurately translate the source content into a target language. In order to stay true to the source content, this can result in translations that are more literal. Multilingual projects that involve marketing or persuasive text may frequently require true copywriting or what is known as *transcreation*. In many cases translated text must be then rewritten to make the message persuasive, as well as accurate and culturally appropriate. In some cases, a target language locale may be so different that a complete rewrite of source marketing text is required.

Transcreation is then excluded from the scope of Translation and is something that certainly goes well beyond Translation.

Internationalization (Globalization, 2001) could not be seen as something that professional translators do, since it has more to do with programming.

Globalization (Globalization, 2001) involves internationalization and therefore could not be seen as something that professional translators do either.

In this paper, we try to expand on these items and explore connections between this topic and, for instance, Bloom's Taxonomy.

2. Our classifications: Literal, cultural, and artistic

2.1 *Literal Translation*

> When we translate things literally, we try to look for a direct correspondence in terms of words between the source and the target languages (Oxford, 2014).

If we have, *I want you,* in English, for instance, in a romantic context, say a man telling that to a woman, and we are willing to translate this sentence literally into French, we would go through the following steps:

1) What is *I* in French?

2) What is *want* in French?

3) What is *you* in French?

4) Put all the answers together and see if it makes sense.

5) Loop if it does not.

We would then end up with *Je te veux* (Google, 2014).

As we browse the Internet in search for a score of naturalness, we find *1,050,000* results for *je te veux* (Google, 2014b).

It then seems that we can consider our work done here, since we got the best results we could possibly get after applying this technique to our situation.

Suppose we now have *You are hot* in English in a sensual context, say a man telling that to a woman.

Following the algorithm we have created, we would end up with *Vous êtes chaud* on the fourth step, first instruction (Google, 2014c).

We could also end up with *Tu es chaud* if we forgot Google and went to the usual dictionary, so that we would have two options, since *you* in English can be a second person plural or a second person singular in French.

2.2 *Cultural Translation*

When we translate things culturally, we try to recreate the impact caused by the expression (as for the original language people) in the target people through their culture.

If we have *Amorzinho, o dólar caiu* in Portuguese from Brazil, and we are willing to translate this sentence in a cultural way into English from Australia, we will go through the following steps:

1) What is the image that we get in our heads in Brazil when someone says *Amorzinho, o dólar caiu*?

2) Think of the same image in Australia.

3) What would the person be saying to get that image in our heads in Australian English?

4) List all possibilities.

5) Choose one.

6) If it is not good enough, then loop from 3.

On the first step, we would have envisaged that someone as someone from our intimacy, someone like a live-in sexual partner or a husband, money, and the value of that money decreasing abruptly. We would also have envisaged a low-income context, where the words *amorzinho* and *caiu* would sound OK in this sort of situation. At the same time, we would have imagined this very sweet man, who cares about perhaps cuddling the woman through his words.

On the second step, we would be recreating those sensations we had from imagining that scene happening with us or someone else in the Australian context through our imagination.

We would then look at the person provoking these sensations in us or in another person in our imagination and basically *read* their Australian words.

In this case, the sentence could be something like *sweetheart, the dollar dropped*.

As we can observe, there is an impressive difference between the literal and the cultural translation steps.

There is also an impressive difference in the results attained.

2.3 *Artistic Translation*

Aiwei (2005) presents a lot of arguments as to why poetry is actually an untranslatable item.

Zhu guangqian (Zhu, 1987: 113) says that the reason why poetry translation poses more difficulty than prose translation lies in that poetry stress more on its musical quality while prose emphasizes more on meaning. Translating meaning is apparently easier than translating the musical quality (my translation). Chinese, unlike English, uses characters which are all single syllables, namely, one character as one syllable. So phrases and clauses are easily arranged into even number phrases and neat even number couplets, if the need arises for comparison or

contrast. However, the western languages have strict grammatical rules, requiring fixed structures that forbid free inversions or disorders. If translating literally according to the Chinese form, confusion emerges. (Ibid: 201) (my translation) Poetry can not only be translated into a foreign language nor can it be translated into another style or another historical period of the same language because the sound and meaning of the language change with the times. Modern syllables and rhythms cannot replace those needed in ancient language and modern associated meaning cannot replace the ancient associated meaning (Ibid: 223) (my translation).

Chen Shuxin (Chen, 2000) proposes that poetic untranslatability mainly lies in the transference of the beauty of the original sound. If put in order, the transference of sound stays at the top of the list, then form and style, lastly meaning (my translation).

Wen Yiduo (Zhu, 1925: 149) exemplifies untranslatability as follows: *Li Bai stands between the ancient style and contemporary style. His wulù , which consists of five characters in each line and eight lines altogether, has the soul of ancient style and the body of the contemporary which is characterized with abundant embellishment. The embellished style may be translatable but not the poetic power. Nevertheless Li Bai without his tremendous power is no longer himself.* (my translation) For example, the lines 人烟寒橘柚 , 秋色老梧桐 was translated as :

(1.1)

The smoke from the cottages curls

Up around the citron trees,

And the hues of late autumn are

On the green paulownias.

What is the matter? Mr Zhu asks, *The glorious beauty of the Chinese poem, once transformed into English should become so barren and mediocre! Such precious lines as these are untranslatable for they are too subtle and too refined. If one has to translate it anyway, it is doomed to be destroyed. Beauty is untouchable. If it is touched, it dies.* (my translation) (Ibid: 150).

But Zhu later has to admit in another book that translation is not intended for the original author or those who understand the source language. It should not intend to compare with the original. It is impossible and unnecessary to please the reader who understands the source language with one's translation (my translation) (Ibid: 154).

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In summary, I find that those who stick to untranslatability are but two kinds of people. Some strictly believe the holiness of the original text and others the absoluteness of the unity of meaning and form in a certain language. And they, idealistically, do not allow any addition or loss of meaning in the transferring process as in translation, which is actually inevitable and is a rule rather than an exception.

Aiwei (2005) also tells us that

Jacobson (1966: 238) (quoted in Wolfram Wilss, 2001) comes to the conclusion that poetry by definition is untranslatable. Only creative transposition is possible. With this as a prerequisite, translation of poetry should and must be translatable.

If we had *Et si tu n'existais pas* in French, for instance, a piece of the song *Et si tu n'existais pas* (Lyrics, 2013), and we were willing to translate this sentence in an artistic way into English from Australia, we would go through the following steps:

1) Imagine the mood of the person saying this. Feel their voice in the ear, heart, and soul.
2) Now concentrate on the message. What is being communicated to the other?
3) What sort of feeling the other would see appearing in their heart and soul as they listen to that?
4) Translate the sentence literally.
5) Now refine to find the same impact in the other language and culture.
6) Stop when you do, otherwise loop on step five, and close the loop here, at this step.
7) Now pay attention to the lyrics and song at the same time. We must try to copy the metrics, rhymes, and all else involved to best that we can when coding things in the target language.

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The number of steps we have gone through now, and the fact that we actually used one of the methods we had presented before this one, tell us that the complexity of this modality of translation is extraordinary when compared to the complexity of the other modalities.

We understand, also because of Jacobson's words, told to us by Aiwei (2005), that only creative transposition is possible in the cases involving poetry.

Rigorously, we cannot include artistic translation inside of the set of professional translation techniques, therefore.

We will be changing contexts, perhaps even names, and we will be trying to reproduce the emotions more than anything else.

Accuracy could, however, be redefined in the case of artistic translation in order to allow us to state that our professional actions respect the ethical code.

Thomson (2014) defines accuracy like this:

> Accuracy means that our images and stories must reflect reality. It can be tempting for journalists to *hype* or sensationalise material, skewing the reality of the situation or misleading the reader or viewer into assumptions and impressions that are wrong and potentially harmful. A *flood* of immigrants, for example, may in reality be a relatively small number of people just as a *surge* in a stock price may be a quite modest rise. Stopping to think, and to discuss, how we use words leads to more precise journalism and also minimises the potential for harm. Similarly, no actions in visual journalism should be taken that add to or detract from the reality of images. In some circumstances, this may constitute fabrication and can cause serious damage to our reputation. Such actions may lead to disciplinary measures, including dismissal.

Thomson's definition is highly useful because it is about images and sensations as well.

We notice that we would not be respecting the principle of accuracy, if things depended on Thomson's view, unless we reproduced precisely the sensation provoked in us by the *source-language image* when converting it all into the target language.

Friedman-Rhodes (2010) says that

> The authors' working definition of *accuracy* refers to a pragmatic rendition of the message which takes into account the whole speech and reproduces the intention and the impact of the original (Alcaraz, 1996; House, 1977; Hale, 2004).

In this way, we would not be respecting the principle of accuracy, if things depended on the view presented by Friedman-Rhodes, unless we reproduced precisely the sensation, as well as the intention, of the source-language image in the target language.

According to Friedman-Rhodes (2010), Figure 7, medical students who are bilingual would expect the sensation of the whole to be reproduced, not necessarily of the parts.

As a conclusion, it is apparently the case that accuracy of the translation of a piece of writing x is seen as a measurement of the compatibility of the perception of the receiver with the perception of the emitter in what regards x. The intention of the emitter with x is already included in the concept of perception of the emitter of x, so that it looks as if we can close the deal here.

We observe, however, that the emitter may fail in converting their intentions into text, image or others, so that we must say that the just-mentioned definition of accuracy assumes that there was no mistake in the conversion of the intentions into text, image or others from the part of the emitter.

If we translate *I want you* into *Je te veux* or *Amorzinho, o dólar caiu* into *Sweetheart, the dollar has dropped*, or even *Pour traîner dans un monde sans toi* into *Dragging myself in this world without you* together with *Comme un peintre qui voit sous ses doigts*[2] into *As a painter who sees under his hues* (to rhyme with you and be a plural), we may still be respecting the principle of accuracy according to our conclusion.

We are then induced to think that we can only measure accuracy in artistic translation by means of comparison.

With the cultural and the literal techniques, however, it should be possible to measure accuracy in isolation, like considering the work on its own.

We should avoid creating to maximum degree as we perform artistic translation because what is intended is not recreating what is already created but reflecting, with as much perfection as possible, whatever is originally going on in the target-language context in order for the public of the target-language context to experience the same sensations, and have contact with the same archetypical products, and, if possible, reach the same understanding as the public of the source language.

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[2] (Lyrics, 2013)

3. Development

We then have five steps to go through when doing a literal translation, but the truth is that three of them can be combined into just one (seek the meaning in the dictionary for each word that forms the expression you want to translate), what then gives us three steps.

We have six steps to go through when doing cultural translation.

In principle, we have seven when doing artistic translation.

Notwithstanding, literal translation, which explodes into three steps, is one of the steps listed for artistic translation, so that we actually have nine steps for artistic translation.

The distance between the artistic and the literal translation work is then extraordinary in terms of complexity (nine to three).

That does match our intuition; since when we imagine a lyric of the same size as a standard text, we imagine that translating the lyric has to take much longer than translating the text. The lyric is connected to at least singing and music.

The distance between literal and cultural translation is definitely not negligible (six to three).

It must be because we are required to make use of our imagination when it comes to cultural translation, but we can simply go to the books when we are doing literal translation.

The distance between cultural and artistic translation seems to be negligible upon superficial examination (six to seven), but if we faced the sequence of steps as we would face a DFD (Visual Paradigm, 2014) in Systems Analysis, we would have to explode step seven, for instance, into several others (copy metrics, copy rhymes, and etc.), and this on top of exploding the item literal translation into three others.

So, what levels of human reasoning, in terms of complexity, would be involved in all?

To answer this question, we will make use of Bloom's Taxonomy.

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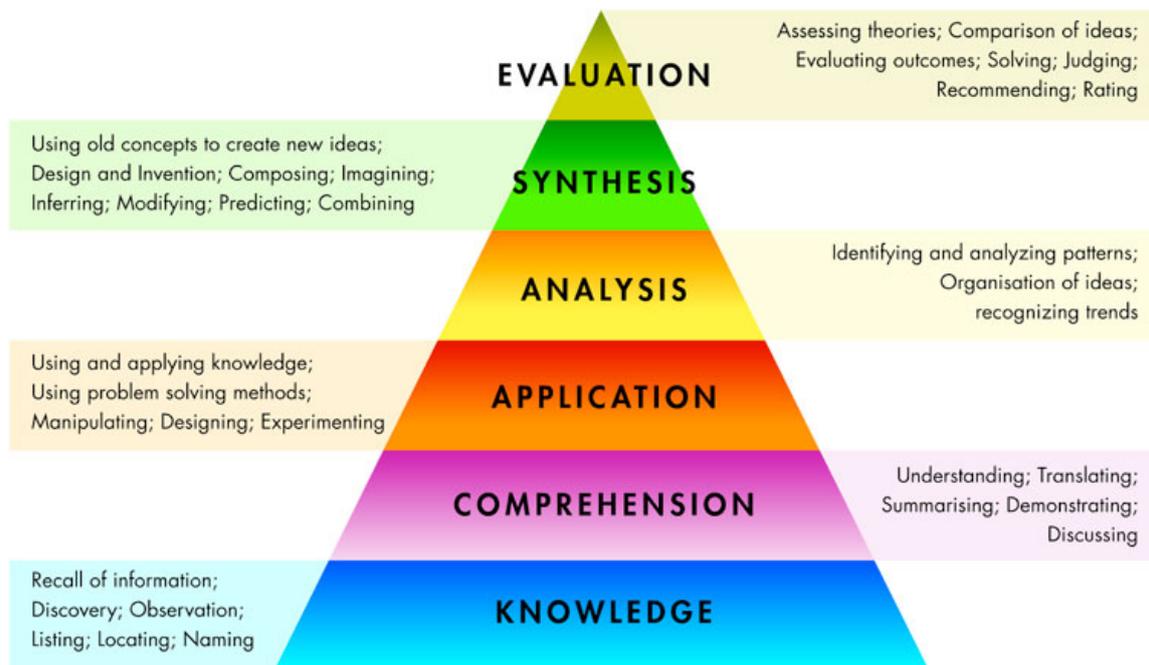
BLOOMS TAXONOMY

Figure 2   (Cornwell, 2011)

We notice that we probably would have to have a graph for each modality of translation in order to address this issue, since we seem to make use of more than one level to get to the final form of our document when translating a token of text, not mattering the size of the text or the modality of translation involved.

We find the verb *to translate* on the comprehension level of the pyramid.

We must notice, however, that the pyramid is largely used in education as a tool by the moment of writing exams.

This verb is then put there because one is thinking of translating tokens of text without any commitment to the principles of the profession of translator.

Translating something, in the broad sense, is simply decoding that something into whatever we can immediately understand.

In this case, we are perhaps not thinking of competing versions of the same token in the language we have, but of simply telling, as a student, what we understand from reading that token.

We do know that professional translators would always have a few options in their minds when working on a text.

In this case, they would always reach the highest level of the taxonomy, that is, the evaluation level.

With the literal translation, the translator first locates the word, for instance in a dictionary. Their mind is then initially working at the knowledge level.

After that, they have a few options for each word and they have to choose the best option, so that they are already at the evaluation level.

If none of the options they have is deemed suitable, they restart the process.

With the cultural translation, the translator first understands the message in full (the token), that is, their mind first visits the comprehension level of our pyramid.

They then have to change contexts and travel from one culture to another to search for the same situation, but they will not necessarily find that situation in their *memory box*. They will probably have to create the scene inside of their *thinking box* and then imagine all based on what they know about the target culture.

As they search for the possible record, they are obviously at the knowledge level. Not mattering whether they find it or not, they have to then visit the synthesis level. When they reach the synthesis level and succeed in imagining all in the context of the target culture, they have to go back to the knowledge level.

After they go down, to the knowledge level, they will still have to make a list with all the options of codification of the message (in the target language) that they can think of and then choose the best one, what means that they will be finishing all by the evaluation level.

With the artistic translation, the translator first reads the message in full (the token), feels the beat/listens to the song, assuming that we have a lyric here, and then observes the expression/attitude/moves of the singer as they sing, since we can say that singing is *interpreting a song*.

They go at least through these levels: knowledge, comprehension, and analysis.

What follows is either recollection or imagination, just like it was with the cultural translation.

After going through the same evaluative processes that they went through when doing cultural translation, however, they will have to go through the process of literal

translation to then refine everything based on the poetic elements used in the lyric as well as the musical elements used in the song as a whole.

This way, they will be visiting the application, analysis, synthesis, and evaluation levels of the pyramid.

It is also because graphs explain better and are more attractive than the usual texts that we now present one.

1. Literal Translation – green

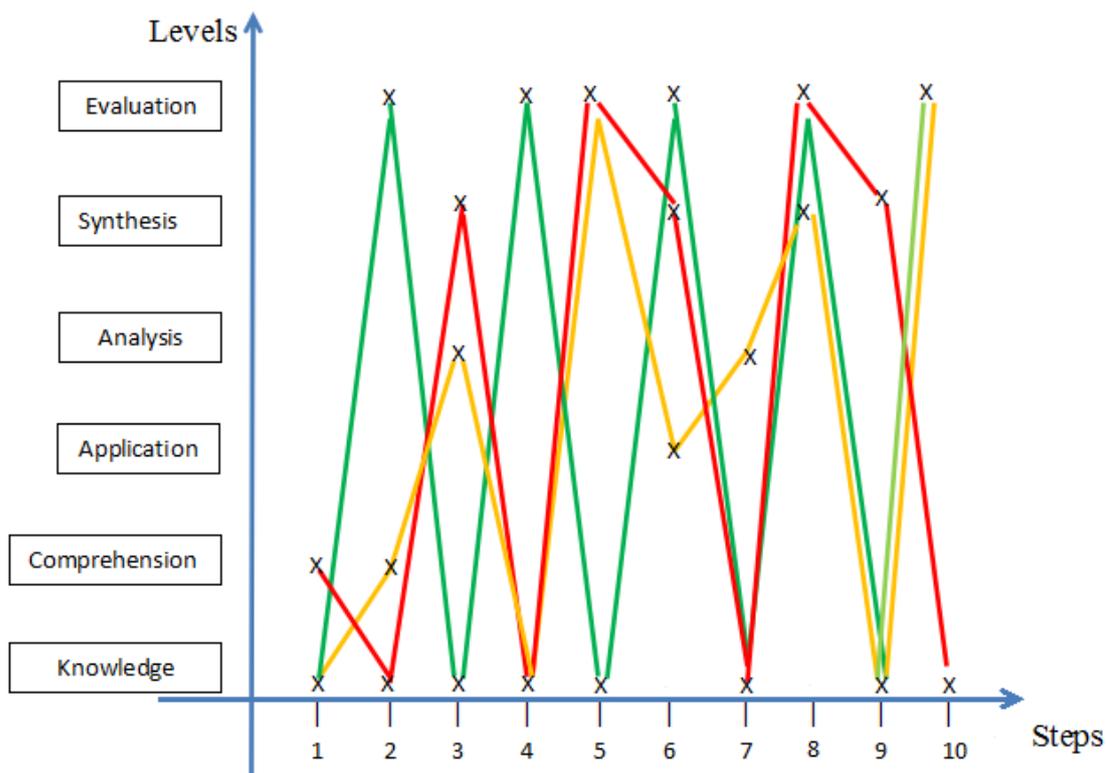2. Cultural Translation – red

3. Artistic Translation – yellow

Figure 3

4. Conclusion

We then notice, from observing the graphs, that what can tell us the complexity of the tasks involved is the number of points that lie above the application level, in what we shall call period, taking advantage of the mathematical theories (period, 2003).

The period of the green line is three points.

There is one peak inside of this period.

There are two visits to the lowest value (on the axis) inside of it.

The period of the red line appears after two points. It is obviously a more complex shape than that of the green line.

We notice one peak and one visit to the lowest value within the period, which has four points.

The yellow line is an even more complex shape, with ten points and no period.

Amongst these ten points, we notice two peaks and three visits to the lowest value in the scale.

We notice that cultural translation is not exactly in between the literal and the artistic translation: Sometimes its processes are above the artistic line and sometimes they are below it.

Notice that there is more beauty in the path of the yellow line, since it seems to be softer somehow.

We can then say that the more beautiful the graph of the mental usage, the more complete the processes involved, like they will consider more of what is in between the levels that are being used.

That makes sense also in what comes to Mathematics: The softer a curve is, the more analysis it will allow for.

Superior analytical power obviously means more information and/or more range.

That just makes sense, since we definitely check more points when we are doing an artistic translation than when we are doing a literal or cultural translation.

We could then tell, from reading the graph, that literal translation is something unnatural to human beings because it does not consider the level of complexity that is usually present in their actions.

The more peaks, and the more abruptness we find in those, the less human the translation processes will be.

Notice that, on a basic *time interval* (a unit containing all steps), we find one peak on both the green and the red lines and two on the yellow line.

The translator will then spend much more energy to perform artistic translation than they would spend performing cultural or literal translation: Not only the process is much longer on each step, but they have to visit the highest point in the spectrum of mental usage twice more.

Even though both literal and cultural translation go through one peak in a basic time interval, the red line will visit more points in the in-between, clearly showing us that it is the graph of a more complex process.

We can then safely declare that Bloom's Taxonomy is a tool that can be used to almost mathematically measure the complexity of each modality of translation.

For instance, through this, we can calculate a fair price by comparison in a more scientific way.

We can also calculate the stress applied to the body (that includes the brain) of the translator whilst they are doing their duty in a more accurate way, being then able to better estimate how much the profession brings in terms of depreciation to their organisms.

We can also prove, in a more scientific way, that the effort we make to teach artistic translation is way superior to the effort we make to teach cultural translation, which is way superior to the effort we make to teach literal translation.

It seems then that we are now better equipped to judge the quality of the teaching in this area than we were before our study.

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