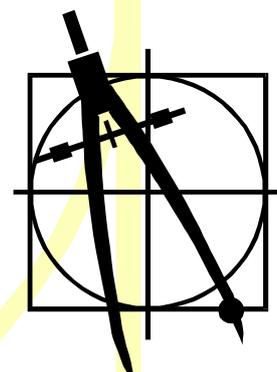


Towards A Theory of Constraints in Translation

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ABSTRACT

Translation is a process that is foiled by many constraints at different levels and various stages. These constraints affect the perceived and desired quality of translation and dictate the choices and decisions the translator makes. The ultimate goal of any translation strategy is to manage and remove these constraints. Understanding how these constraints work within the translation system and how they can be managed and ideally removed within a model or a framework of constraint management certainly benefits both the translator and the translation assessor. A model of translation constraints management is presented in this paper.

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INTRODUCTION

A great deal of literature has been written about the translation process in the last 30 years or so, but little attention has so far been given to the mechanisms and constraints that control the decision making layer of the translation process or to the *translation system* that actually enables the translation process to take place.

The earliest reference to decision making in translation is Jumpelt (1961) who considers translation as a decision process involving choices between variables. The notion is further explored by Levý (1967) who analyzes translation in terms of game theory and later by Holmes (1974) who discusses the concept of a hierarchical system of correspondences in translation decision making¹. More recently, Toury (1985, 1995), Séguinot (1991), Wilss (1994) and Lörcher (1995) tackle aspects of the phenomenon with some incisive insights into the translation process. Data derived from empirical research pioneered by these and other researchers has highlighted the significance of decision making as the backbone of translation. The idea of translation as a norm-governed behaviour and of norms as constraints has been propounded by Toury (1980), in what might be seen as a behavioural, sociocultural approach to translation and has been further explored and debated by various scholars. Yet, the notion of constraints and the conditions under which translation decisions are made within a translation system at the translator level remains poorly understood and largely neglected in translation studies today. Some of the early attempts at explaining the phenomenon are characteristically esoteric and sketchy, giving only glimpses of a phenomenon that has more far-reaching, wider implications for both translation competence and performance. Invariably they come up short. Perhaps the reason is their narrow focus on the parts rather than on the whole translation activity and their preoccupation with literary text and the historicity and reconstruction² of translation from translation *artefacts* in what might be called *translation forensics*.

There is now general agreement among translation researchers, educators and practitioners that decision making plays an important part in both the translator's performance and the quality of translation product. It is both a limiting and delimiting factor in translation: it restricts the choices available to the translator and sets the direction and standard of the translation product, emphasizing certain aspects and properties that are deemed important and deemphasizing other aspects and properties that are considered less important or insurmountable within the economy of the process and vis-à-vis the function, purpose and situationality of the translation product.

Translation decision making is a process that is circumvented by many constraints at various levels and stages. These constraints, which are

external and internal, physical and nonphysical, must be removed in order to generate alternatives that achieve the objectives of the translation process within a defined scope, parameters and strategies.

This paper examines the notion of constraints in translation decision making and develops a preliminary model for understanding the impact of constraints on translation as a precursor for further work towards a theory of constraints in translation.

THE TRANSLATION EVENT

Any serious work in translation must take a holistic approach to translation both as an external phenomenon and as an internal process. As yet, no study has so far attempted to map out the translation process end-to-end. The literature we have about the translation process very rarely goes beyond stating that translation is a process, with very few attempts at explaining and defining what the translation process is or is not.

The entire translation activity, which begins with a decision to translate, may be referred to as the *translation event*. Such event basically consists of four interrelated layers.

- Translation management (business transaction)
- Translation process (external)
- Translation procedures (external)
- Translating (or translation processing)

These layers can be represented hierarchically as follows:

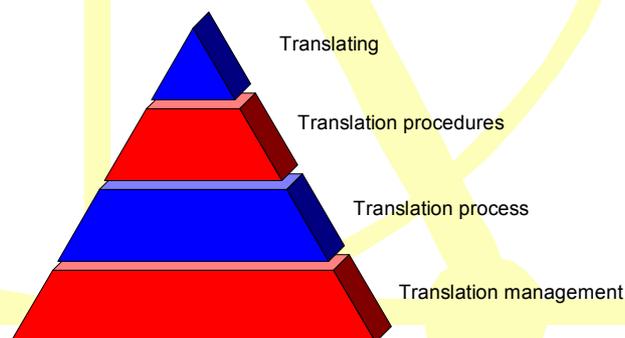


Figure 1 — The four layers of the translation event

First layer — Translation management

The first layer (***Translation Management***) is the business transaction that is concluded between at least two parties: the translation commissioner and the translator. It comprises a set of activities (mostly extraneous to the actual act of translating) that begin with a decision to translate or commission a translator to do a translation job and ends with the translator delivering the completed job. These activities may be divided into three main phases:

- Pre-production phase
- Production phase
- Post-production phase

The ***pre-production phase*** comprises all the preliminary activities and tasks required at the job (or project) planning level. It begins with a contact with the translation commissioner (or client) and ends with a translation plan (or some rough idea of how the translation should be handled).

The ***production phase*** comprises all the activities and tasks required at the translation production level. It begins with text research and information analysis and ends with the final copy of the translation.

The ***post-production phase*** comprises all the activities and tasks required at the job conclusion level. It begins with handing over the translation product and ends with job analysis.

Whether the activities of this layer are performed in such a structured and organized fashion more or less depends on the approach the translator takes and on how professional and organized he or she is. While unfortunately it is true that many translators lunge straight into translating without giving much thought to the management aspects of the translation event, the fact remains that some kind of activity takes place at this level. How efficient and effective such an activity is can only be seen in terms of the type of training translators receive as students and as professionals. Sadly however, many translation educators and scholars still at the turn of the century see the translator as depicted on the front cover of Peter Newmark's book *About Translation* — some lonely, “black and white” figure buried behind stacks of books, burning the midnight oil, seeking the ultimate, absolute truth from a muse, in a time-forgotten backroom.

Second layer — Translation Process

The second layer (***Translation Process***) comprises a set of activities relating to the way the translation job is done. These activities are closely related to the act of translating itself and utilize skills outside the immediate act of translating. The translation process may be broken down into the following major iterative activities:

- 1 Planning translation
- 2 Analyzing information
- 3 Translating
- 4 Revising
- 5 Editing
- 6 Proofreading
- 7 Reviewing
- 8 Completing translation
- 9 Delivering translation

Planning the translation consists of defining and identifying the scope, requirements and standards (including terminology) of the translation task.

Information analysis consists of analyzing the source text and planned translation as well as the appropriate strategies for the translation product. Both source text and target translation are analyzed in terms of text type, purpose, readership, function and environment.

Translating consists of implementing the strategies chosen for the translation product and transforming the source information into a target language text that meets the requirements.

Revising consists of the translator reworking the translation product in progress iteratively and recursively until a draft is achieved.

Editing is an activity that is ideally performed by another person — someone who is skilled as translation editor, not any kind of editor.

Proofreading is an activity that is ideally performed by another person with proofreading skills. However, the translator may also proofread his or her own work if they are trained to do so.

Reviewing is an activity that must be performed by a person other than the translator. It is an external review process to ensure the integrity of information content has not been compromised.

Completing the translation consists of finalizing the translation product and ensuring that major review feedback has been incorporated into the final copy.

This process is illustrated by the following flowchart.

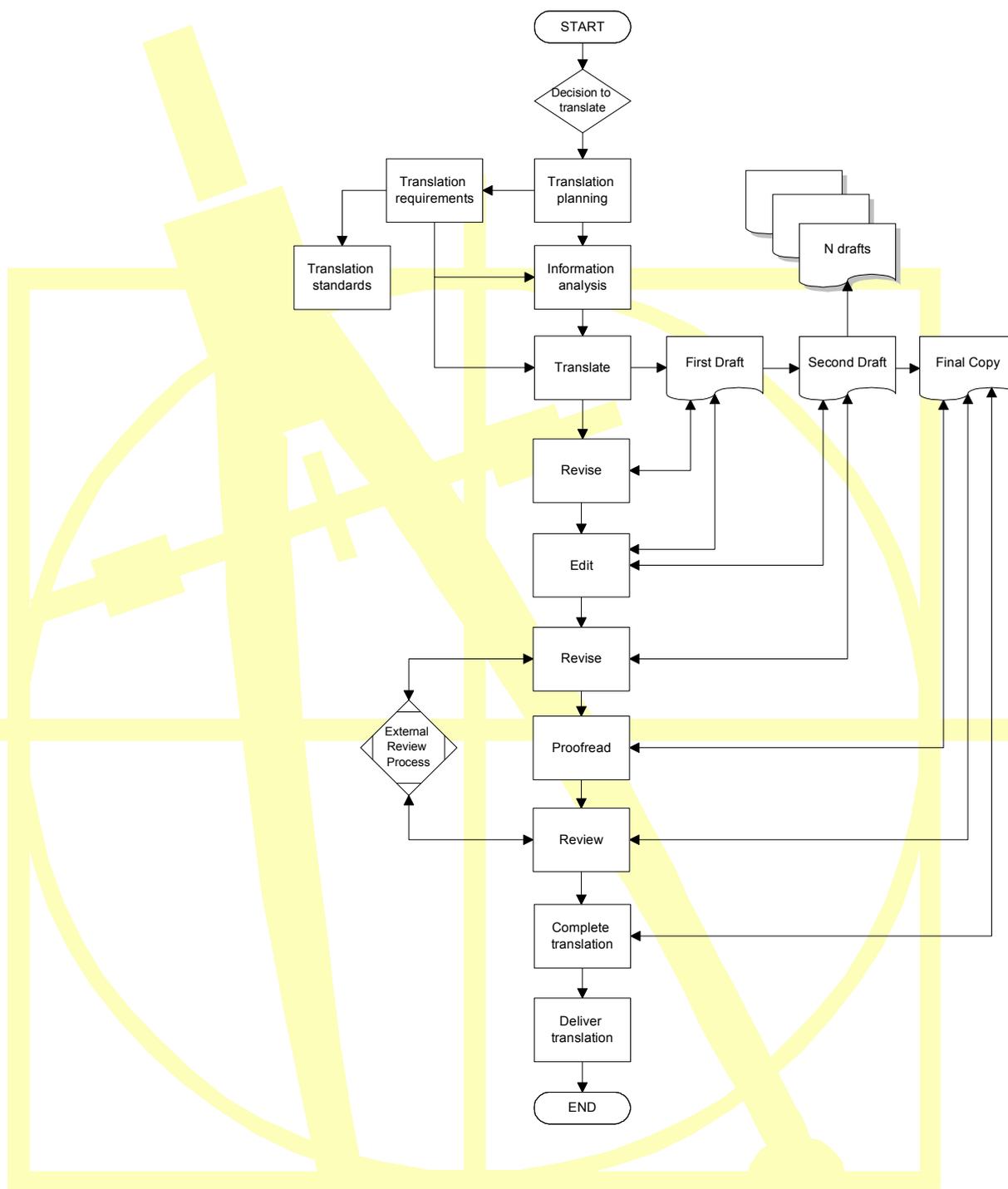


Figure 2 — An iterative model of the translation process (external)

Third layer — Translation procedures

The third layer (*Translation Procedures*) comprises procedures that are employed to ensure that the translation process activities/tasks are carried out in accordance with a pre-defined business methodology or practice. A translation procedure in this sense is “a particular course or mode of action” through which the translation process is implemented.

For example, in the editing stage, what proofreading marks to use, and who does what are defined as part of a specific procedure to ensure that the translation is error free in terms of accuracy of meaning, correct grammar, sound sentence structure, consistent terminology, consistency of style and compatibility of writing style with the subject-matter, completeness of information, cross-references, page numbering and so on. Without procedures defining how these activities should be performed, especially where other people beside the translator are involved, the translation event is reduced to an unprofessional, amateurish activity.

Fourth layer — Translating

The fourth layer (**Translating**) is actually what is usually referred to as the translation process or translation. This layer will be further discussed in this paper.

Certainly, the terms *process* and *procedure* in translation have been used interchangeably and haphazardly by translation theorists and researchers causing confusion and ambiguity. The nature of languages is such that terms are often overloaded with multiple senses. For example, the word **translation** in English may refer to the act of translating or to the translation product. Therefore, in discussing the various aspects of a complex phenomenon such as translation, precise terminology is required.

To distinguish between the three layers in the translation event, the term **translating** is used here to refer to the actual pure act of translating – that is the act of transferring or transforming a source text into a target text. For example, when a translator expresses “*Elle a perdu ses lunettes.*” into “*She’s lost her spectacles.*”, his or her act signifies translating.

Finally, each layer imposes certain constraints on the entire translation event and on the fourth layer. In this paper, we are concerned mainly with the fourth layer — that is **translating**.

The following figure shows the nested layers of the translation event.



Figure 3 — The translation event layers

THE TRANSLATION SYSTEM

The act of translating takes place within a framework that I shall call the *Translation System*. This system, which is real, dynamic and temporary, brings together or couples two separate language systems (SL) and (TL) in a temporary consensual domain of interactions, which I shall call the *translation domain*. To understand how the translation system works, it is useful first of all to explore the general notion of system.

WHAT IS A SYSTEM?

Many definitions of system have been proposed in the literature. For the purposes of this paper, a system is a configuration of interrelated elements that are bound by a common objective. Like any real system, a translation system consists of external and internal states. It has defined boundaries and inputs and outputs. It exists in an environment and comprises subsystems and processes.

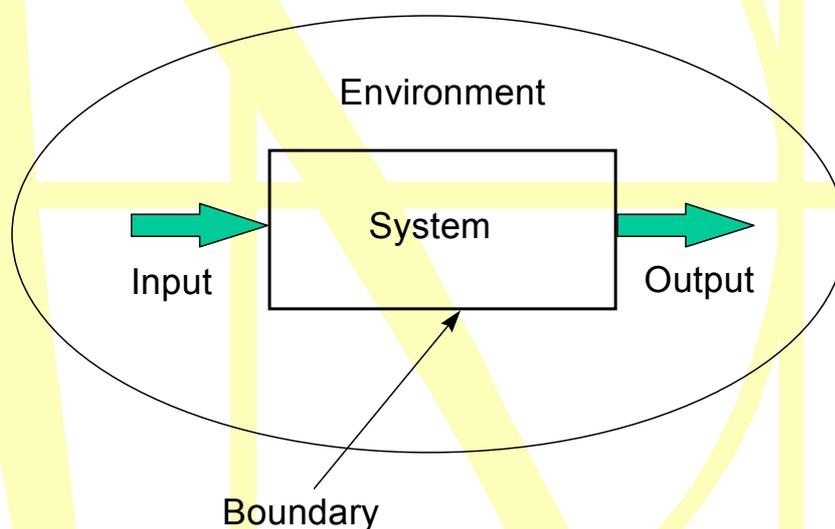


Figure 4 — The translation system

It has been observed by various researchers that virtually all systems are based on the assumption that they exist in one domain and one reality. For two different systems to interact with one another they have to exist in the same domain. Otherwise, the differences between the realities are bound to cause problems. Take for instance the human body — it consists of several systems (the nervous system, the digestive system, etc.) that interact with one another. These systems exist in one physical domain; the body. The human body itself is of course a system that exists in one domain and one reality.

For translation to occur, two discrete language systems, which exist in two discrete domains and two linguistic and cultural realities, have to interact with one another. To do so, these systems become interlocked

or coupled in one consensual domain. According to Maturana (1978), when two or more organisms interact recursively, each becoming a medium for the realization of the autopoiesis of the other, the result is mutual ontogenic structural coupling. The domain of interlocked conducts that results from such ontogenic reciprocal structural coupling between structurally plastic organisms is what Maturana (1975) calls the consensual domain. (For a full discussion of Maturana's work, see *Works Cited* at the end of this paper.)

This notion can also apply to translation. Languages are living systems — they are dynamic and changing and like organisms, are composed of mutually interdependent parts that function together. When translation takes place, a translation domain is established between two languages L1 and L2, where they both interlock and interact. A translation domain is a consensual domain of communicative interactions in which the coupled languages orient each other with modes of behaviour whose internal determination has become specified during their coupled ontogenies (after Maturana and Varela, 1980: 120).

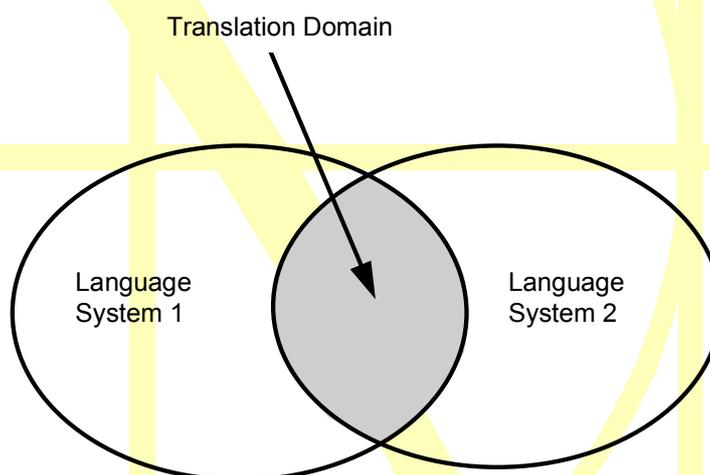


Figure 5 — The translation domain

According to Maturana (1997), when a new system arises, it becomes spontaneously included in a larger system when an operational cleavage occurs within the larger system that constitutes a systemic dynamics that realizes and conserves the organization of the new system. As the new system arises, the larger one becomes the medium of its realization. This process is usually called self-organization. As far as the translation system is concerned, every time an actor (usually a translator) engages in an act of translation, a translation system is established. This system, which consists of two subsystems that are interlocked or coupled within one temporary consensual domain, is included in a larger communication system.

The translation system itself is dynamically organized in terms of hierarchy and subordination of operations. This system is real. As

Noreen, Smith and Mackey (1995) confirm, every real system must have at least one constraint. The translation system has several constraints. These constraints are factors that limit the system from achieving its optimum.

CONSTRAINTS VERSUS NORMS

In trying to understand how constraints affect translation decisions, it is important to understand the differences and the relationship between constraints and norms.

First, the view taken in this paper is that norms and constraints are two different factors that are brought to bear on translation when (at least) two languages are coupled in a consensual translation domain.

The notion of translation norms has been propounded by Gideon Toury (1985, 1995) and championed by Theo Hermans (1991, 1999). The idea has its strong proponents and staunch opponents, with scholars and theorizers offering fluffy or woolly explanations and inconsistent terminology that cause more confusion and intellectual mayhem. For example, in the literature at hand we come across *translational norms*, *translation norms* and *norms in translation*. The term *translational* suggests that the norms are translation-related, yet they are not quite translation-intrinsic (the *-al* suffix has the general sense "of the kind of, pertaining to, having the form or character of"). *Translation norms* on the other hand, suggest that the norms are translation-specific, while *norms in translation* suggests a casual, incidental occurrence. One would wonder whether these inconsistencies are intentional stemming from different notions of norms and theoretical positions or are just *uncareful* articulations of an important concept. There is fluctuation between the lay sense of the term *norm* and the specialized sense, particularly as used in behavioural psychology. Let us examine the meaning of the term. According to *Webster's Dictionary*, the term *norm* means:

1. a standard, model, or pattern.
2. a rule or standard of behaviour expected to be followed by each member of a social group.
3. a behaviour pattern or trait considered to be typical of a particular social group.
4. the general level or average.

It is not quite clear which of these senses translation theorists employ when they discuss translation norms. Peter Newmark for example differentiates between norms and standards, so it could not be sense (1). Gideon Toury talks about behaviour that conforms to community values, which fits senses (2) and (3) with some overlap with (4).

Theorists talk about the existence, importance, historicity and reconstruction of norms, yet they do not seem to agree on what a norm really is.

WHAT ARE TRANSLATION/TRANSLATIONAL/TRANSLATIVE NORMS?

For any real system to be operational it must have standards and rules that govern the behaviour of its actors under specific circumstances. This applies to the translation system where norms, standards and rules are brought to bear on the translation process.

According to Toury and Hermans, *translational norms* are internalized behavioural *constraints* which embody the values shared by a community.

There are at least two problems with this definition. One is that if norms are *internalized* behavioural constraints, how can they be translational, given the above sense of the (*al*) suffix? This might be seen as splitting hairs, but the distinction is fundamental if we are to avoid ambiguity and confusion. The other problem is that the word “constraints” assumes that a better translation would have been possible had it not been for these norms. This assumption is basically wrong because without norms no translation is possible. Norms are not the same as constraints. Norms are in fact one way of removing constraints in order to produce a translation that meets certain standards. So, within the framework of decision making, translation norms should not be seen as constraints, but rather as parameters within which the translator operates to produce a translation that meets certain community standards and requirements. Norms in this sense have a compelling force on actions — they justify a specific rendition of a source text. They license, authorize, empower, and lend credence to certain translation decisions and basically remove constraints — although in removing constraints they might sometimes act as constraints, but when they do these constraints are used to control the process rather than undermine it. By and large however, norms in a way act as a moral rule. They simplify the decision making process by *quasi-satisficing*. According to Janis and Mann’s (1977) conflict model of decision making, when a decision maker cannot decide between two alternatives, he or she invents a hypothetical one. To justify his or her decision, a decision maker sometimes invokes a moral rule. The moral rule is a third alternative (or norm) that removes the constraint.

Unlike norms, constraints are inhibitive. They restrict the choices and block the alternatives and on a higher plane cause confliction between that which is desired and that which is achievable. For translators who see translation as a quest for the ultimate truth, norms are always constrictive and are viewed with suspicion, (ideology, structure and translational idiolect and so on), but for those who seek to

approximate within established norms and conventions, norms come as an aid or relief. Standardized terminology is a perfect example of how norms can facilitate translation decisions. Let us illustrate. At the lexical level, the Arabic term (صانع القرار) “*sani’u al-qarar*” has established itself as a translation norm for the English term “decision maker” despite the fact that it has a collocation problem — *sani’u* and *qarar* (maker + decision [obligatory shift]) do not collocate in Arabic. Yet, the term is widely used in Arabic publications. The term “*sani’u al-qarar*” is a recent addition to the Arabic repertoire and has virtually succeeded in dislodging original, old expressions such as (مقرر) *muqarrir*” (lit. “decider”), (متخذ القرار) “*mutakhiz al-qarar*” (lit. decision taker), and (واضع القرار) “*wadhi’ alqarar*” (lit. decision-layer) at least in politics and mass communication.

The term has gained currency and a foothold in modern Arabic, and although purist linguists and translators cringe at the sound of it, it has become standard. Now, for someone to translate *decision makers* into something else in Arabic he or she would be violating this translation norm.

Norms work in a similar way on the macro level too. For example, in Arabic, foreign fiction is always translated into standard Arabic or the high variety of the language. This register is the norm and for good reasons I might add. Arabic script does not lend itself to the vernacular except in very limited ways. Ideologically, anything that is written in nonstandard Arabic is considered inferior and correspondences between say the Glaswegian dialect and the dialect of any regional enclave will always paint a local picture that does not fit in well with the setting of the foreign fiction — thus detracting from the original intentions of the message by focusing on superficialities and the surface plane of text. Arab publishers and writers wishing to reach a wider audience know very well the pitfalls of writing in regional dialects. So, this norm makes it easy for the translator to choose. In other words, it removes a constraint.

One more point, a distinction should be made between language-specific norms and translation norms. Language-specific norms regulate language usage. For example, it is a language-specific norm to say *black and white* in English but *blanc et noir* in French and (أبيض وأسود) *abyad wa aswad* (white and black) in Arabic probably for no other reason but rhythm. To reorder these constructions, that is to say *white and black*, *noir et blanc* or (أسود وأبيض) *aswad wa abyad* violates the language norm. But this is not a translation norm.

Language norms are sometimes culturally informed. For example, inclusive writing is a fairly recent phenomenon in English and has become a language norm. Inclusive writing is gender-neutral and bias-free. It is linguistically “unnatural” producing awkward solutions such as the following:

The student should study hard for his/her final exams.

The student should study hard for their final exams.

The students should study hard for their final exams.

The student should study hard for the final exams.

In translating such examples into a gender-sensitive language, such as Arabic, French or Spanish, the gender must be indicated.

Spanish

El estudiante debe estudiar duro para su exámenes finales.

La estudiante debe estudiar duro para su exámenes finales.

Los estudiantes deben estudiar duro para sus exámenes finales.

Las estudiantes deben estudiar duro para sus exámenes finales.

French

L'étudiant devrait étudier dur pour ses examens finals.

L'étudiante devrait étudier dur pour ses examens finals.

Les étudiants devraient étudier dur pour leurs examens finals.

Arabic

على الطالب أن يدرس بكد لامتحاناته النهائية.

'ala at-talibi an yadrusa bi-kaddin li-imtihanatih an-niha'iyya. (masculine, singular)

على الطالبة أن تدرس بكد لامتحاناتها النهائية.

'ala at-talibati an tadrusa bi-kaddin li-imtihanatiha an-niha'iyya. (feminine, singular)

على الطلاب أن يدرسوا لامتحاناتهم النهائية.

'ala at-tullabi an yadrusu bi-kaddin li-imtihanatihim an-niha'iyya. (masculine, plural)

على الطلبة أن يدرسوا بكد لامتحاناتهم النهائية.

'ala at-talabati an yadrusu bi-kaddin li-imtihanatihim an-niha'iyya. (masculine, plural, inclusive)

على الطالبات أن يدرسن بكد لامتحاناتهن النهائية.

'ala at-talibati an yadrusna bi-kaddin li-imtihanatihinna an-niha'iyya. (feminine, plural)

Finally, viewing norms from a historical perspective, since language is dynamic we can say that today's norms are tomorrow's constraints in the sense that what might be regarded as norms that facilitate decisions today will be seen as constraints by future researchers who will have

the advantage of seeing things in hindsight from outside the time circle we live in today. The obverse may also be true.

The ultimate objective of the translation process is not to achieve absolute equivalence, but to achieve optimal approximation between the source and target versions of text in terms of utility and appeal. Norms help the translator achieve that with the limitations and constraints that the translation process imposes.

THE ACT OF TRANSLATING

The act of translating itself is a multi-dimensional and multi-layered process involving in one consensual domain translation, communication and decision making. These layers impose their own constraints on one another interchangeably and interactively and define the direction and production of translation. Communication imposes constraints on decision making and on translation. Translation in turn imposes its own constraints on communication and decision making. Decision making imposes constraints on both communication and translation. Such complexity is constantly undermining the realization of an optimal approximation between the source and the target languages.

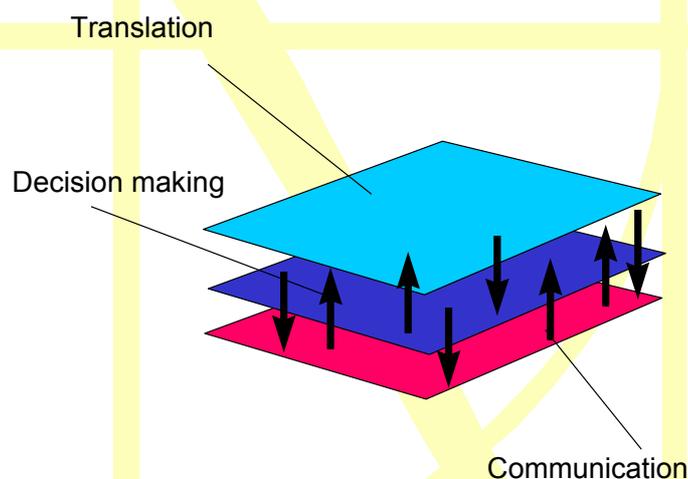


Figure 6 — Translation process layers

Obviously, translation does not happen in a vacuum. It takes place in a larger context. The relationship of the translation process to the translator and to society within the context of the translation event can be understood in terms of the following model (after Kaufman, 1991).

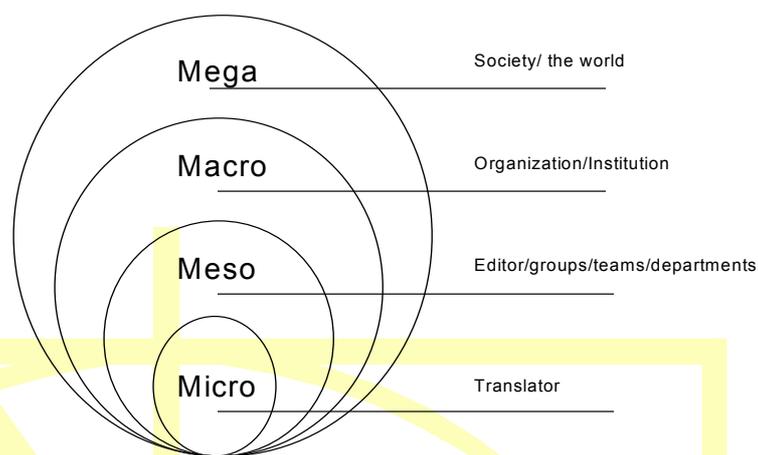


Figure 7 — Contexts of the translation event

The translator’s decisions are dictated and guided by the relationship and interaction between these entities within the translation event and translation system. Each entity within the hierarchy imposes its own constraints and norms on the translation process. On the micro level, the translator has to deal with constraints imposed among other things by the text, his or her aptitude and system of meaning and the idiosyncrasies of matching two distinct linguistic entities. On the meso level, the translator has to deal with external group standards, specifications and values. On the macro level, the translator has to deal with constraints imposed by organizational or institutional values and system of beliefs which are in turn informed or dictated by the mega level. On the mega level, the translator has to deal with constraints imposed by society at large. All of these levels impose immediate constraints on the translation process. Let us trace one concept (single parent) at all four levels in Arabic. On the micro level, the translator has to find an equivalent to the term since it does not exist in Arabic. Both words “single” and “parent” in this context are not so straightforward. The word “single” has the following “equivalents” in Arabic: *wahid*, *mufrad*, *munfarid*, *fardi*, *mustaqil*, *uhadi*, which in this context do not approximate very well. The word “parent” imposes constraints on two levels: traditionally it is juxtaposed with “*abb*” (dad) and “*walid*” (father). While both are masculine and have feminine counterparts, *umm* (mum) and *walida* (mother), they have a collective, inclusive sense. Combined, *single* and *parent* impose constraints that can only be broken by appealing to a translation norm. Such a norm might be found at the meso, macro or mega level. The constraint is this: *parent* in English is gender-neutral while in Arabic it is gender-specific. The linguistic norm is to use the masculine form except where specific reference to the feminine gender is required. The community norm, which informs all levels is that the concept *single parent* is alien to the culture and system of beliefs and must not be entertained — it a value judgment norm. The constraint is that the concept is in a text being translated. The concept is in direct opposition to the norm at all levels. How can the translator resolve this

problem? The translator might opt to translate the concept, but the editor or organization might either find a less provocative way of rendering it or omit it altogether, thus imposing institutional censorship.

In a migrant situation, norms and constraints interact differently. For example in translating for the Arab community in Australia, the translation of the same concept (single parent), whatever it might be, has to be juxtaposed with the English term, especially in documents dealing with community welfare. In this case, while migrants of limited host-language skills rely on translations as their primary source of information, they encounter specialized terminology relating to welfare, health care, and so on in the language of the host country. Without juxtaposing these terms with their translated counterparts, communication is bound to suffer when back translations are attempted by such migrants or their interpreters. As such, the juxtaposition of terms in translation is a translation norm in this instance, but it is not a constraint. In fact, its absence imposes a constraint.

TRANSLATION STRATEGY

Translation strategy has been recently examined by translation researchers such as Lörcher (1995). However, these studies focused on the micro level of the translation event.

Underlying the translation process is a translation strategy or a configuration of strategies that provide the framework within which translation decisions are made. Each translation situation calls for a different translation strategy and each translator has his or her own translation strategy or set of strategies. Although these strategies constitute the backbone of the translation process, the literature on translation rarely discusses them. Translators talk about their plans, approaches and strategies for producing translations, but the topic has not enjoyed a great deal of attention in translation studies until recently. And although translation scholars now speak about translation strategies, they never really define them, with one or two exceptions (Lörcher, 1991). In addition, there seems to be some confusion over the definition of the term “strategy”. In the literature, translation strategies are often referred and equated to methods, techniques, procedures and types.

Contrary to the common belief, translation types are not production strategies. They are the outcomes of a strategy that begins with a decision to take a certain approach to translation and to choose a certain type of translation (literal, semantic, communicative and so on).

WHAT IS STRATEGY?

Before any serious attempt is made to define translation strategies, it is important to define the term *strategy* itself since it seems that different translation researchers and practitioners use it in somewhat different senses. The Webster's Dictionary defines *strategy* as:

1. the science or art of planning and directing large-scale military movements and operations.
2. the use of or an instance of using this science or art.
3. the use of a stratagem.
4. a plan or method for achieving a specific goal.

Of relevance to our discussion of translation strategies is definition (4). A strategy is a plan or method for achieving a specific goal. In this sense, we can define a translation strategy as the overall plan or blueprint employed by the translator to achieve a specific translation goal. A strategy consists of techniques, procedures, and methods that bear on the translation product as it develops.

Lörscher (1991) correctly observes that the notion of translation strategy has not been seriously considered in translation theory. He argues that with the exception of Königs (1987) and Wilss (1983), no definition of translation strategy is offered. He defines translation strategy as a global procedure that consists of a series of minimal problem-solving steps which the translator employs in making certain considerations about the text. These steps are combined in specific ways to build up structures which partly determine and partly delimit the decisions which are to be made on the hierarchically lower levels, such as syntax and lexis.

Viewing strategies as problem-solving mechanisms, Lörscher (1991) argues that translation strategies have their starting point in the realization of a problem by the translator who employs these strategies to solve the problem. However, a problem is first recognized and identified, then a solution is devised, implemented, monitored and controlled. Thus, within a framework of decision making, it can be argued that the starting point of a translation strategy is in the solution phase since selecting a strategy involves a decision to choose a solution from among alternatives.

Lörscher (1991) defines translation strategy as a global procedure that consists of a series of minimal problem-solving steps which the translator employs in making certain considerations about the text. These steps are combined in specific ways to build up structures which partly determine and partly delimit the decisions which must be made on the hierarchically lower levels, such as syntax and lexis.

Séguinot (1991) views strategies as both the conscious and the unconscious procedures and to both overt tactics and mental process. Snell-Hornby (1988) on the other hand, believes that translation strategies consist of identifying and creating multiple relationships in

both cultural association and language at the semantic and phonological levels.

The ultimate goal of any translation strategy is to solve the underlying problem of translation-mediated communication and to remove the external and internal constraints imposed on the translation process in order to unlock potential alternatives.

TRANSLATION AS A DECISION MAKING PROCESS UNDER CONSTRAINTS

Translation is basically a decision making process under constraints such as space, time, quality of information, problem-solving aptitude and so on. These constraints affect the quality of performance and the quality of the translation product and always circumvent the realization of an optimal translation.

THE NATURE OF TRANSLATION CONSTRAINTS

A translation constraint is any factor in the translation process that limits the realization of an optimally approximated translation – be it at the micro level or macro level or internal or external. The concept of optimally approximated translation is a goal defined by the translator in response to a set of requirements, which for all intents and purposes may in turn act as constraints on the translation process.

There are two types of translation constraints: external and internal. External constraints can be further broken down into extrinsic and intrinsic. Extrinsic constraints are those physical variables that are extraneous to the act of translating, yet form an integral part of the translation event. Extrinsic constraints include: the environment, time and space, standards, norms, protocols, tools, technology, systems, machines. Intrinsic constraints are those constraints that belong to the act of translating and are a manifestation of the translation act. Intrinsic constraints include: information medium, readability, legibility and audibility of discourse.

Internal constraints are those non-physical variables that constitute the core cognitive activities of the act of translating. These include the cognitive, textual, interlingual and attitudinal variables that impact the act of translating. Internal constraints can be further classified into two overlapping domains: comprehension and production.

Translation Constraints

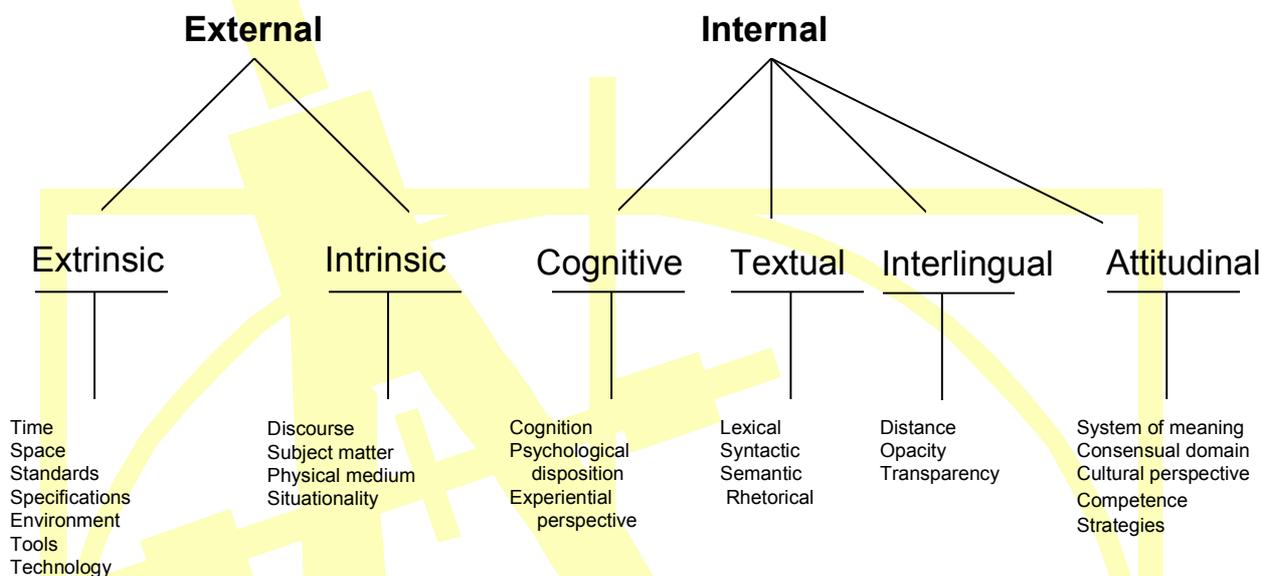


Figure 8 — Inventory of Translation Constraints

THE TRANSLATION PROCESS

It is now well established and widely accepted that translation is a process. Several researchers and theorists have directly and indirectly discussed the translation process since the early eighties. But although some important work has been done to define translation as a process, a delineation of the translation process is not found. This can be explained in terms of the confusion and disagreement among translation researchers as to what constitutes a translation process.

It seems no study to date has really tackled the issue of process in a more pragmatic fashion or has benefited from an adjacent discipline known as Process Innovation or Engineering. The literature we have about the translation process very rarely goes beyond stating that translation is a process, with very few serious attempts at explaining and defining what a translation process is or mapping it out. Confusion and overlap between two aspects or dimensions of the translation process still exist among both researchers and practitioners alike, and one cannot help but have the impression that these perspectives are amateurish and far-removed offering no immediate practical applications.

In *The Translation Process*, Séguinot (1989) confidently declares that “*process* part is relatively easy to explain because it has to do with making activities-in-progress the object of scientific enquiry...”(1) However, she does not offer a definition of the process.

Attempting to present a professional and industrial perspective of the translation process, Sager (1994) defines translation ...as a range of deliberate human activities, which are carried out as a result of instructions received from a third party, and which consist of text production in a target language...” (116)

In his *Methodological Aspects of the Translation Process*, Wilss (1982) defines the translation as “a psycholinguistic formulation process, in the course of which, the translator, by a sequence of textually concatenated code-switching operations, reproduces an SL message in a TL in order to enable the TL native speaker, who has no knowledge of the respective SL, to understand this particular message and to act, or to be more precise to react, according to his own discretion.”(Eppert, 1982:177) Yet, Wilss does not attempt to define, delimit or map out the translation process.

TRANSLATION PROCESS ENGINEERING

Let us go back to the basic notion of process. What is a process? In its unspecialized sense, a process, according to *Webster's Dictionary* is:

1. A systematic series of actions directed to some end.
2. A continuous action, operation, or series of changes taking place in a definite manner.

Let us roll these definitions into one:

A process is a systematic series of actions, operations, or changes taking place in a definite manner directed to some end.

Two key aspects of this definition of process are: systematic and end. A process is a system-related, methodical, structured activity that terminates with a result.

PROCESS ATTRIBUTES

The moment we accept that translation is a process, we immediately concede that it has a start and an end, triggers, input and output, boundaries, dependencies, tasks and enablers, drivers, constraints and exceptions, an environment and above all a direction of flow. Let us examine these more closely.

Start and end

The translation process begins with a decision to translate and ends with a completed translation.

Triggers

The translation process is initially triggered by a decision to translate. Each phase within the process is triggered by the completion or near completion of the previous phase at an appropriate juncture in the process.

Input and output

The input and output of the translation process are: source text and translation. Each phase within the process has its own input and output. See the following section *Translation Process Analysis*.

Boundaries

The translation process is bounded by the parameters of the source text and the requirements of the target language.

Dependencies

The translation process is first and foremost dependent on the availability of a source text. Without a source text, there can be no translation. It is also dependent on the extent of translatability between the source and target languages at all levels of transfer.

Tasks

The translation process consists of the following major tasks:

- Information analysis
- Translation
- Revision
- Editing
- Proofreading

Enablers

The translation process is enabled by the availability of a translator, and production systems such as pen and paper, typewriters, computers, voice recording facilities etc.

Drivers

The translation process is driven by at least two drivers: the translator and the party commissioning the translation.

Constraints

The translation process is constrained by many factors, both external and internal. These are discussed in this paper.

Exceptions

For the translation process to be effective and efficient, it must accommodate exceptions. These exceptions function as constraint removers and controllers and include norms, standards and other conventions.

Environment

The translation process takes place in a temporal-spatial environment, that is within a specific timeframe in a specific period of time and in a physical location, which may be an office or a home and so on.

TRANSLATION PROCESS ANALYSIS

A translation is a twofold process: external and internal. The external aspect of the process manifests itself physically at two levels: mechanical and procedural. The internal aspect consists of the cognitive processing of information that manifests itself physically as a translation product on paper.

The external process begins when a translator is commissioned to translate and usually ends when the translation product is delivered.

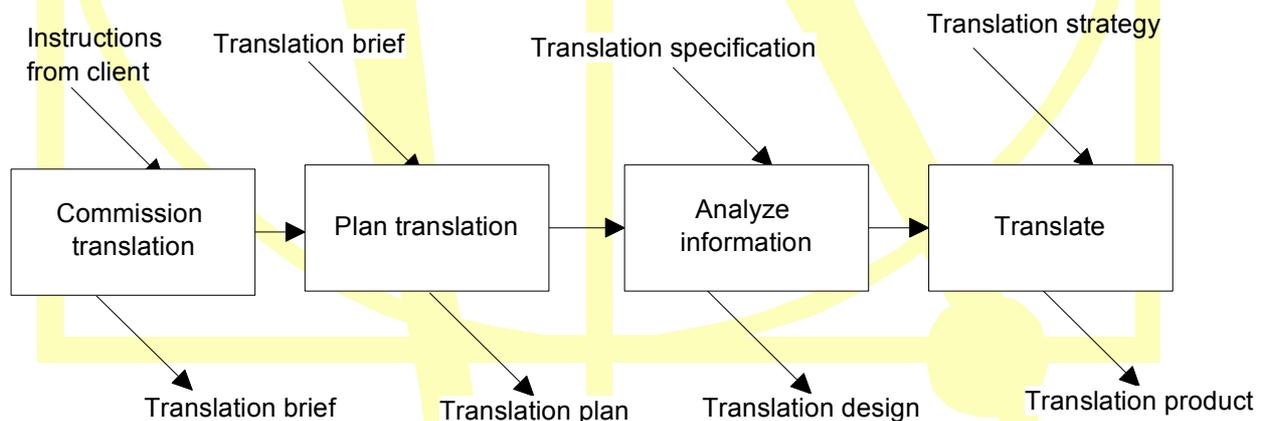


Figure 9 — Inputs and outputs of the external translation process

The internal process is triggered by the external process at an appropriate juncture and is terminated on completion of the translation product. The external manifestations of this process can be divided into the following tasks:

- Translating
- Revising
- Editing
- Revising
- Proofreading

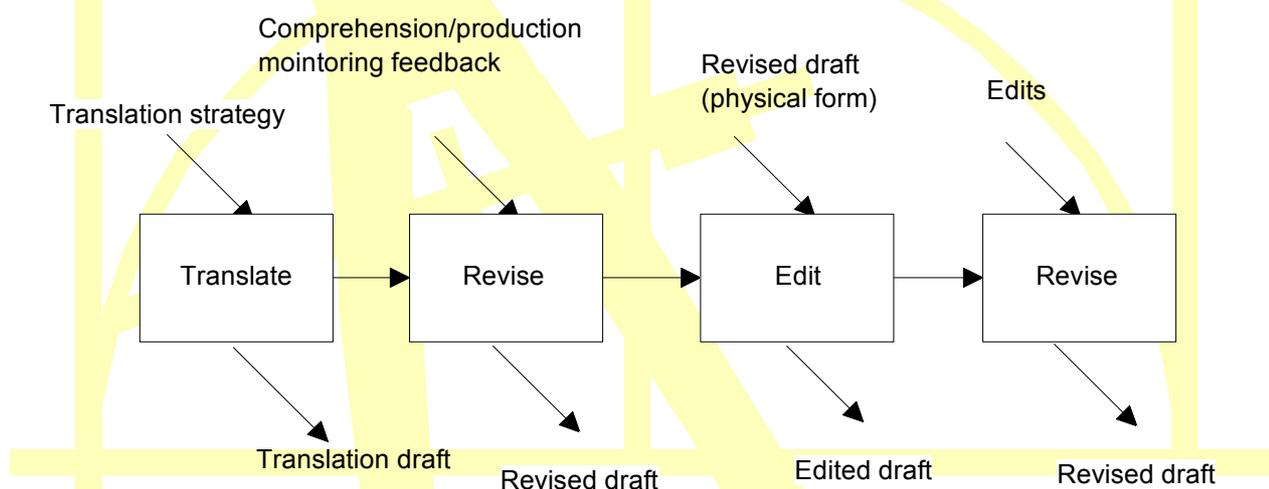


Figure 10 — Inputs and outputs of the internal translation process

EXTERNAL VERSUS INTERNAL

A distinction must be made between two parallel processes within the overall translation process: an external process consisting of a series of activities and tasks and an internal cognitive process that takes place in the translator's mind. The external process begins with the decision to translate. Without it, no translation takes place. Such decision usually involves more than just the translator. A person or an organization may commission the translator to translate a certain text, or the translator may decide to do the translation off his or her own bat — although this is somewhat rare. Moreover, the translation activity might also be part of a larger activity or process. Now, once a decision has been made, the translator follows a sequence of steps to implement the translation decision.

THE TRANSLATION COGNITIVE PROCESS

The internal translation process is in fact the cognitive process that takes place during the act of translating. This process consists of several activities taking place more or less at the same time, involving

visual sensory perception, comprehension, analysis, processing, monitoring and production. All of these activities are constrained by many factors, some of which will be discussed in the following chapters. The cognitive process can be depicted graphically as follows.

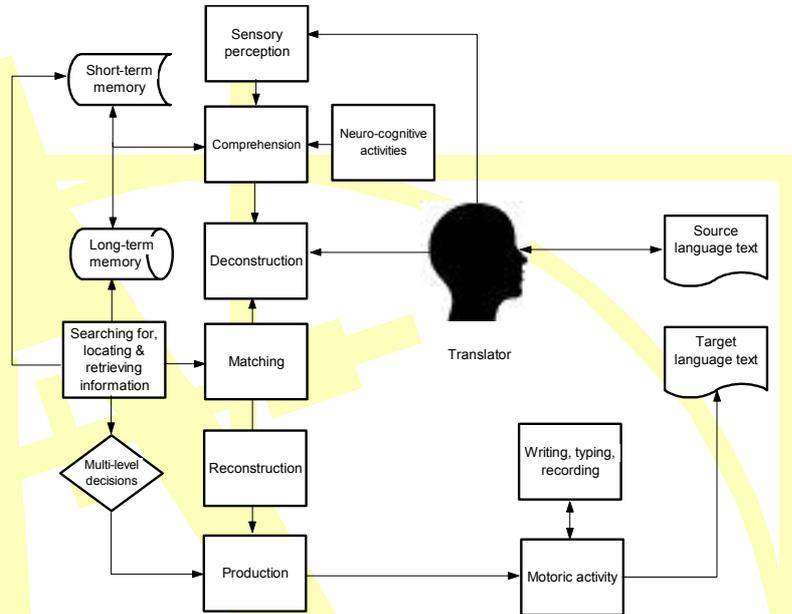


Figure 11 — A cognitive model of translation

This process comprises (1) visual sensory perception, which involves active reading, (2) comprehension and (3) production.

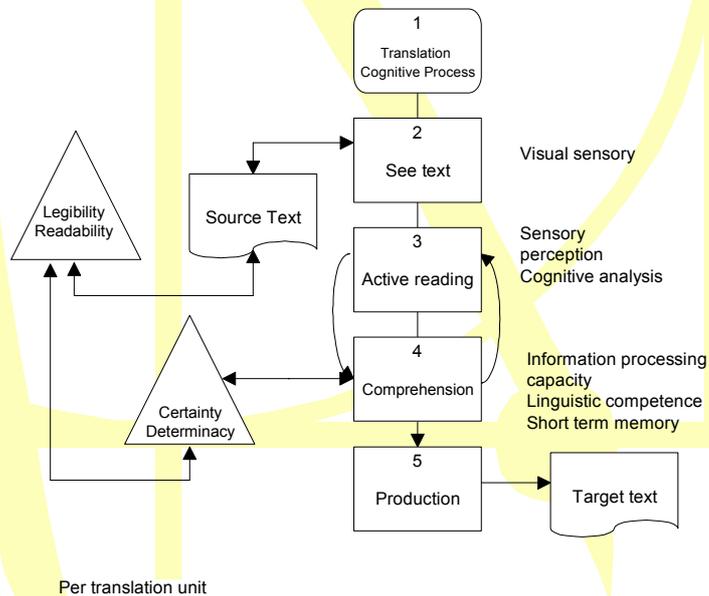


Figure 12 — Perception, comprehension and production at the translation unit level

In reading for comprehension, the reader sees the text, reads it, and comprehends it. In reading for production (in this case, translation), the reader (translator) sees the text, reads it, comprehends its content, then produces a new version of the text in another language.

Ideally, the translator reads the text and translates at the same time. The time lag between comprehension and production is determined by the translator's proficiency and also the efficiency of his or her mental processes as well as the degree of translatability of source language text. At the comprehension level, these processes are however constrained by two major factors: legibility and readability. Legibility refers to the clarity of form, to the way the text is presented physically on paper, and affects all readers regardless of the purpose of reading. It determines the degree of accessibility to the information contained in the text. For example, typographical features such as typefaces, point sizes, margin widths, text width, line spacing, letter spacing (kerning), paper size and so on can facilitate or hamper information retrieval.

Readability on the other hand refers to the clarity of content. It includes features such as the number of syllables per word, sentence length, sentence complexity, paragraph differentiation and so on. The distinction is important.

THE TRANSLATION UNIT

Surprisingly, a large area of translation discussion seems to have been dedicated to what constitutes a translation unit. Barkhudarov (1993) observes that "Much has been written on the "problem" of the unit of translation, probably because the concept of such a unit is potentially interesting for translation pedagogy. If students of translation could be told how to cut up texts and which pieces to replace with which other pieces, they could once again, be programmed in such a way that they would produce "good" translations." (39)

Apart from the dangerous notion of programming translators, which Barkhudarov suggests, such preoccupation with the translation unit is futile and sometimes verges on the nonsensical. Since translation is chiefly concerned with the rendition of meaning in the target language, a common sense definition of the translation unit would be:

"A translation unit is any manageable, short-term memory retainable stretch of text or utterance that yields meaning on the syntactic, semantic and pragmatic levels." (Darwish, 1998)

TRANSPARENCY AND OPACITY IN TRANSLATION³

Source text and target text are said to be transparent or opaque. A source text is transparent to target text if it has more or less a similar micro and macro structures and is lexically transparent.

A source text is opaque to target text if it has more or less a different micro and macro structures and is lexically opaque.

Transparency and opacity in translation determine the degree of translatability. Consider the following examples.

Source Text (Spanish)

El 23 de abril se celebró el Día de la Lengua Española. Presentamos aquí diversos artículos sobre Orígenes e Historia del Idioma Español.

Translation (French)

Le 23ème avril a célébré le jour espagnol de langage. Nous présentons ici de divers articles concernant les origines et l'histoire de la langue espagnole.

Translation (English)

On the 23 of April the Day of the Spanish Language was celebrated. We presented here diverse articles on Origins and History of the Spanish Language.

The 23rd of April marked the Day of the Spanish Language. We present here various articles about the origins and history of the Spanish language.

On the 23rd of April, the Spanish Language Day was celebrated. We present here various articles about the origins and history of the Spanish language.

In the above example, there is almost one-to-one correspondence between the Spanish and English texts. This is said to be transparent.

Translation (German)

Der 23 April war der Tag der spanischen Sprache. Wir stellen hier verschiedene Artikel über den Ursprung und die Geschichte der spanischen Sprache dar.

Translation (Arabic)

في اليوم الثاني والعشرين من نيسان / أبريل ، احتفل بيوم اللغة الإسبانية. نقدم هنا مقالات متفرقة عن أصل وتاريخ اللغة الإسبانية.

fi alyum ath-thalith wa al-ishrin min nisan/abril, ihtufila bi yawm allugha al-isbaniyyah. nuqaddimu huna maqalatin mutafarriqa 'an asli wa tarikh al-lugha al-isbaniyyah.

In the above examples, there is an obligatory shift from the structure of the original to conform to the target language syntactic norms. Spanish and German and Spanish and Arabic are said to be opaque. However, the relationship between opacity and transparency is not

always constant between a particular language pair. It varies by text and context. Let us consider another example.

Source text (Spanish)

La confianza colocada mal es valor de un tonto.

Translation (English)

Confidence misplaced is the courage of a fool.

Misplaced confidence is the courage of a fool.

Misplaced trust is a fool's courage.

TOWARDS A THEORY OF CONSTRAINTS IN TRANSLATION

In light of the preceding discussion, a theory of constraints in translation is needed to enable both the translation educator and practitioner to understand, manage and remove the constraints imposed upon the translation process by the very nature of the act of translating. Such a theory must provide an efficient framework for explaining the phenomenon of constraints and for ensuring better management of the translation process.

The following model is based on Goldratt's Theory of Constraints.

- 1 Identify the translation constraint.
- 2 Decide how to exploit the constraint.
- 3 Select translation strategy to exploit constraint.
- 4 Explore alternative.
- 5 Choose alternative
- 6 Subordinate everything else to this alternative.
- 7 Elevate or break the constraint.
- 8 Repeat.

Let us briefly apply this model to the previous example in translating into English.

El 23 de abril se celebró el Día de la Lengua Española. Presentamos aquí diversos artículos sobre Orígenes e Historia del Idioma Español.

Identify the constraint(s)

This includes prioritization of constraints into critical, major and minor so that only those ones that really limit the realization of optimal translation are considered.

level	Constraint	Explanation	Category
Lexical	la lengua Española Idioma Español	Both lengua and idioma translate into “language”. However, Spanish distinguishes between “language” and “tongue”.	Minor
Syntactic	El 23 de abril se celebró	Passive voice construction utilizing the past tense and shifting to the present in the second sentence.	Minor
Contextual	Presentamos aquí diversos artículos sobre Orígenes e Historia del Idioma Español.	Contextual reference is not clear. The referential integrity of “here” is weak.	Minor

Decide how to exploit the constraint

Based on your prioritization of the constraints, decide how you want to manage the constraints. For example, if you decide that the difference between (la Lengua Española) and (Idioma Español) is inconsequential for the purposes of your translation, you may choose to render both as (language).

Subordinate everything else to this alternative

Using a translation strategy that suits your decision on how to exploit the constraints, subordinate everything else to achieve the goal within the priority parameters.

El 23 de abril se celebró el Día de la Lengua Española.
Presentamos aquí diversos artículos sobre Orígenes e Historia del Idioma Español.

Elevate or break the constraint

Having subordinated all the translation process resources, elevate or break the constraint by producing a translation based on the above.

The 23rd of April marked the Day of the Spanish Language.
We present here various articles about the origins and history of the Spanish language.

The 23rd of April marked the Spanish Language Day celebration.
We present here various articles about the origins and history of the Spanish language.

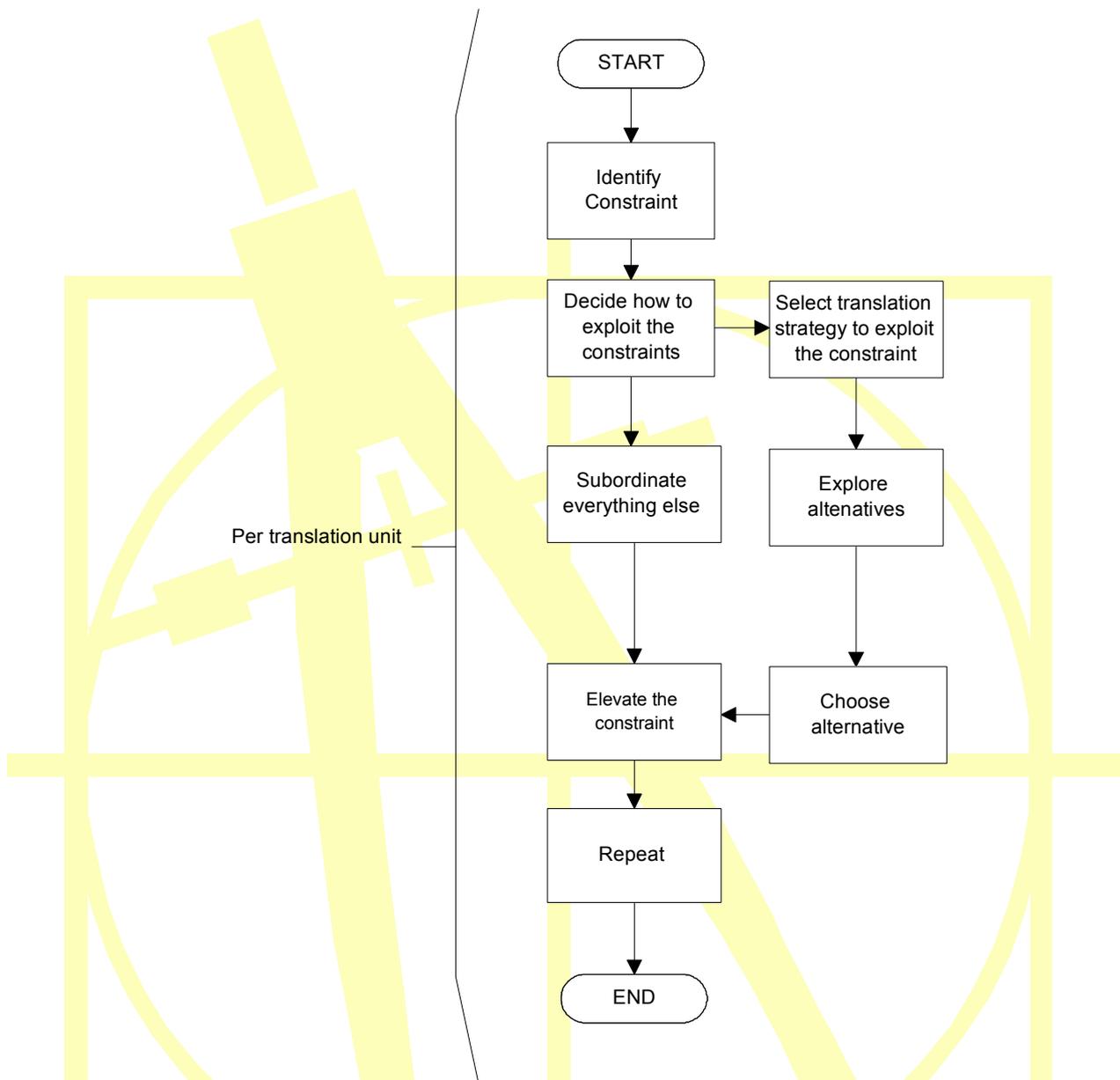


Figure 13 — A Model of Translation Constraints

Within this model, a hierarchy of constraints can be constructed and the interrelationships between categories, classes and levels of constraints can be ordered and defined. According to Ahl and Allen (1996:101), one source of system integrity is that higher levels within the hierarchy are the contexts for the lower levels. A constraint can be used to control certain outcomes within the system.

CONCLUSION

As evidenced in this paper, the phenomenon of constraints in translation is a complex one and without a doubt plays a critical role in translation processing and production. Understanding how constraints affect translation decisions and problem-solving strategies within a translation consensual domain enables us to manage these constraints more effectively to produce translations that are closer to the “ideal” blueprint we set out to realize.

To this end, the distinction made in this paper between constraints and norms is an important one and helps towards a better understanding of how constraints and norms interact. Norms are often discussed in the absence of constraints or as constraints causing this distinction to blur and the phenomenon of constraints to be ignored.

Despite the complexity of constraints in translation, translation research should further explore this aspect of translation. This paper develops the premise that we need to construct a theory of constraints in translation in order to understand such complexity.

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¹ Holmes, J S (1994), *Translated!*, *Papers on Literary Translation and Translation Studies*, Rodopi, Amsterdam, p86. See also Gentzler, E (1993), *Contemporary Translation Theories*, London: Routledge.

² Some researchers attempt to reconstruct translation norms through the analysis of translations and translation *artefacts*. It is doubtful however whether such reconstruction can yield accurate data without *reenacting* the translation process.

³ Based on *A Guide to the Translation Engineering Process* by the author, Fujitsu Australia Limited, 1991. Internal document.