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Metalinguage for the translation process

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1 Introduction

The expression “translation process” has two major usages. In translation process research (TPR), which “works within a behavioral-cognitive experimental methodological paradigm” (Jakobsen, 2017), “translation process” basically refers to cognitive and related process of individual translators. TPR contributed significantly to our understanding of hitherto underaddressed aspects of translation, i.e., the cognitive process in translation act and factors affecting the process, such as the relation between cognitive effort and specific linguistic features (e.g., Lacruz et al., 2018). On the other hand, in translation industries, “translation process” refers to the “external” process consisting of such modules as a client-TSP contract, brief definition, project management, translation, revision, reviewing, quality assurance, etc. In this presentation, we address the translation process in the latter meaning.

Descriptions of translation processes in the latter sense, as such those most typically given in ISO 17100 (ISO, 2015), generally seem to assume already knowledgeable actors as their target readers and remain coarse. As translation industries are growing and incorporating rapidly changing technologies, we observe a serious issue here, i.e., lack of common understanding of translation processes among different actors. **MT developers and other natural language processing (NLP) researchers and engineers deal with a very limited part of translation processes without so noticing consciously.** Translation learners need to gain competences and norms through practice without being given a scaffold of explicit and detailed knowledge on the processes. We observe a dearth of concrete and systematized terms and expressions in talking about translation processes as one of the main causes of this situation.

Against this backdrop, we set out a project of developing a set of “metalanguages” for facilitating and promoting the level of shared understanding of translation in general and concrete translation processes going on in translation industries. The overview of our metalanguages is given in this presentation. We begin by explaining ISO 17100 as a basis of describing our translation process, and then elucidate issues with these descriptions of operations pertaining to each subprocess. In the following sections, we provide brief descriptions of our proposed metalanguages tailored for talking about translation issues (Section 4), translation process (Section 5), and translation strategies (Section 6). We also touch on how such metalanguage can be used to annotate TPR databases (Section 7).

2 ISO 17100 as a basis of translation process

This section describes translation process and subprocesses for which we are targeting to create metalanguages. We utilize ISO 17100 as a basis for describing details of the translation process. As illustrated in Figure 1, the process is divided into three phases: pre-translation, translation, and post-translation. Translational actions (Holz-Mänttari, 1984), meta-actions taken by translators and actors involved in the processes before and after the translational action may correspond to the pre/post-translation processes in Figure 1. For instance, in “Client-TSP agreement (4.4)”, specifications for the translation task is decided by the project manager through negotiation with the client prior to the beginning of the actual job. The content of the specification or so-called translation brief plays an important role, as it influences the core process of translation or translational action where translation is produced by a translator through

manipulations of semiotics such as the source and the target texts.

Translation processes (“Section 5”) in Figure 1 that follow the pre-translation (“Section 4”) is so-called TEP (translation, editing, and proofreading), which consists of translation, check, revision, review, and proofreading in the ISO 17100. Actors to be involved in the translation phase are: 1) the translator, who is in charge of “Translation (5.3.1)” and “Check (5.3.2)” or self-revision, 2) the reviewer, who is responsible for “Revision (5.3.3)” and “Review (5.3.4)”, and 3) the proofreader, who performs “Proofreading (5.3.5)”.

3 Description of operations

Given the overall flow of processes and subprocesses and operations described above, an issue arises as to the description of the operations for each subprocess in terms of its granularity – as to whether the actor can take actions according to the given description – especially for translation training and establishing a shared understanding of each operation in detail. Let us examine examples of descriptions excerpted from ISO 17100 (ISO, 2015) regarding “Translation 5.3.1” and “Revision 5.3.3”, as follows:

5.3.1 Translation: The translator shall translate in accordance with the purpose of the translation project, including the linguistic conventions of the target language and relevant project specifications. (p. 10)

5.3.3 Revision: The reviser shall examine the target language content against the source language content for any errors and other issues, and its suitability for purpose. (pp. 10-11)

Although the description contains some important keywords such as “project specifications” and “purpose”, it is not sufficiently concrete to be used for translator training or for establishing a common understanding of translation by specifying actions necessary to achieve the translation for people who are not experienced in translation. Once again, ISO 17100 reads, “The translator shall translate in accordance with the purpose”. However, the description with this level of granularity is the same as saying that the translator can translate, unless any further explanations are provided as to what one should do for achieving it. Otherwise, one must acquire or infer the tacit skills through practice or just by guessing, without knowing exactly what to do.

The word “purpose” is also vague in the sense that no explanation of the components of purpose is provided in the ISO standard. In the phase of “Client-TSP agreement 4.4”, the TSP is only instructed to retain a record of the agreement in writing. After all, “translating in accordance with the purpose” is just another way of saying “translating as the client wants”,^f and inevitably most parts of the translation job must depend on the person’s perception or tacit skills if he or she happens to have them.

While fully recognizing that ISO 17100 is for TSPs and not for learners or NLP engineers, it is used as an important point of reference for translation practices in translation industries, the aspect that has not been fully explored in translation studies. Enriching the descriptions of translation processes based on ISO 17100 would thus benefit wider range of actors including learners and engineers. Therefore, one aim of this study is to increase the granularity of descriptions pertaining to translation processes in the form of

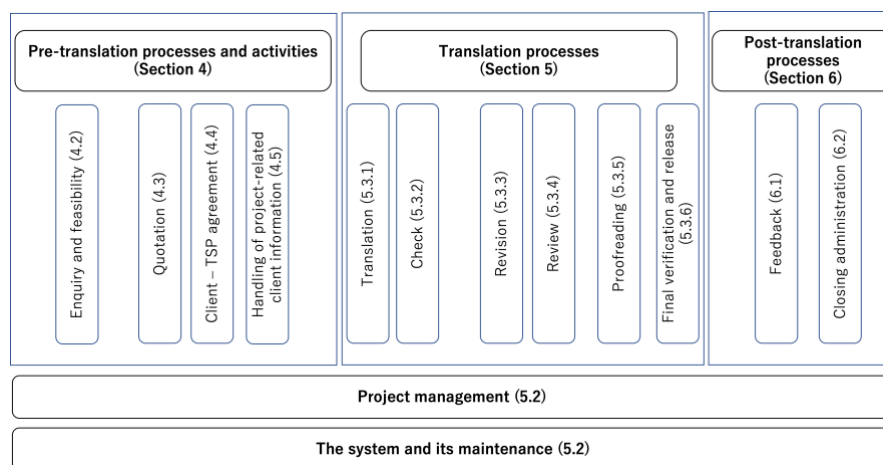


Figure 1. ISO 17100 Translation Process

metalanguages through which learners and different actors will be able to operationalize the tacit knowledge of translation for better practice and communication.

4 Metalanguage of translation issues

Our benchmark for achieving a higher degree of detail is translation quality assurance (QA) scheme, a set of issue categories used by reviewers to check for translation errors in the industries and translation training. The QA scheme can be the criteria for the granularity of descriptions in our metalanguage. One well-known example is MQM, multidimensional quality metrics (Burchardt and Lommel, 2014), which is now the de-facto QA scheme.

The use of such a typology makes the coarse descriptions more operationalizable. For instance, let us see the aforementioned ISO description about “Revision 5.3.3”. The concept of “errors” and “issues” are vague; they can be operationalized in a much higher granularity with consistency in detection when the quality metrics are employed. For these reasons, the error categories are now utilized even by researchers who annotate errors of both human and machine translation for research assessment purposes (e.g., Specia and Shah, 2014).

We have also developed our own issue typology called MNH-TT issue typology specialized for university-level training, based on MeLLANGE issue categories (Castagnoli et al., 2006; Secară, 2005). Issue categories and their structure were systematically fine-tuned to improve usability with learners/instructors. For that we have compiled a list of issue categories in the form of a decision tree, a step-by-step guide to help learners classify issues, as provided in Figure 2 (Fujita et al., 2017).

In order to identify an issue in accordance with the issue typology, a learner first finds the issue and categorizes it to the appropriate category. For instance, if a part of the source text is found to be untranslated and the part that corresponds to the source does not appear in the target text, the learner asks a question about the issue according to the decision tree by answering Yes or No, starting with the Q1a. When she or he finds an answer to be Yes to the question, then the issue will be classified as instructed herein. If not, the learner proceeds with the following question until she or he finds the answer. In this example, Q1a is answered No, Q1b is answered No, Q2a is answered No, and Q2b is answered No. As a result, the issue is classified into X1 omission. In this way, the issue

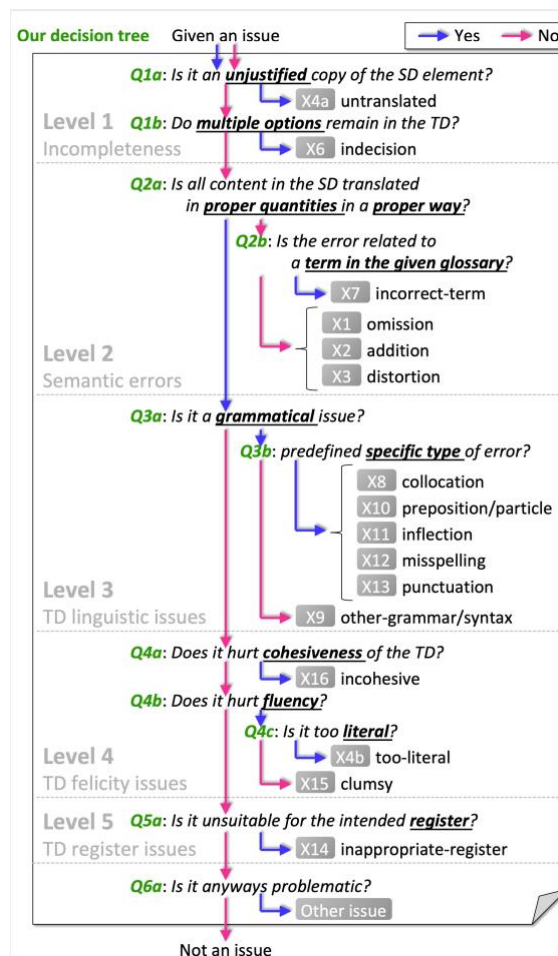


Figure 2. Decision tree for classifying a given issue (Fujita et al., 2017)

typology will help equip learners with common knowledge to talk about translation issues with peers and the instructor.

Of greater importance is that the set of issue categories will serve as a metalanguage for the learners (Piao et al., 2019). Learners who could not distinctly recognize errors will be able to identify 16 types of errors after having learnt with the issue typology. That is to say, meta-recognition is made possible with metalanguage. The expected acquired skill is not only the improved ability to check errors during revision but also the improved translation competence of students having become conscious of making such errors during translation.

A benefit in consistency of classification is also expected in terms of both intra-reviser agreement (within the learner revising multiple issues) and inter-reviser agreement (among multiple learners revising the same issue). The advantage is expected not only for training but also for enhancing shared communication

among actors in interdisciplinary fields. For instance, when MT developers and translation practitioners talk about translation issues produced by an MT engine, the level of each participant's understanding about issue categories should improve with the use of shared metalanguage. These show that the level of concreteness of descriptions represented by QA scheme and MNH-TT issue typology facilitates understanding and communications among different actors with different backgrounds or with different degree of experiences.

5 Metalanguages of translation process

Here we introduce modules of translation processes for each of which a subset of metalanguages is developed. Based on the framework of translation process provided in ISO 17100, we divided the translation process into the five sub-phases as shown in Figure 3, then design a set of metalanguages each of which corresponds to a specific sub-phase. A brief explanation of the metalanguage for each sub-phase is as follows:

(1) Translation project management process: Based on descriptions provided in ISO 17100 illustrating subprocesses, we break them down into finer-grained and operationalizable items which a person in training can complete as answering a questionnaire. For instance, it is not clear as to what kind of information one needs to obtain in order to determine the purpose of translation during the Client-TSP agreement phase. More specifically, if information such as the target audience is required for determining the purpose, the item should be broken down into the variables that

define the target audience, such as gender, age, interests, and community membership, which are easily identified even by learners of translation. In order to accomplish this degree of detail, we consulted the literature on translation project management, and also obtained authentic documents used in the actual industry with interview data from two of the ISO-certified TSPs in Japan.

(2) Source document property and element: "Translation process (5.3.1)" is divided into "understanding source document" and "semiotic transferring". Given that, it is important to understand the source document (SD) before semiotic transferring, but operations required for SD understanding have not sufficiently been clarified. For this purpose, we divided the task of SD understanding into two phases: SD profiling to identify the properties of the SD that are important for translation and SD analysis to identify the elements within the SD to be properly translated. As metalanguages, we are developing fine-grained comprehensive typologies of SD properties and elements.

(3) Translation strategies: Given that translation or textual transformation requires semiotic manipulations of source and target languages, good translation results from the translator's skilled manipulation. In order to describe the manipulations, we have drawn on translation strategy categories proposed by Chesterman (2016). Detailed explanations are given in the next section.

(4) Effect of refinement: "Check (5.3.2)" is a self-revision, carried out by the translator before submitting

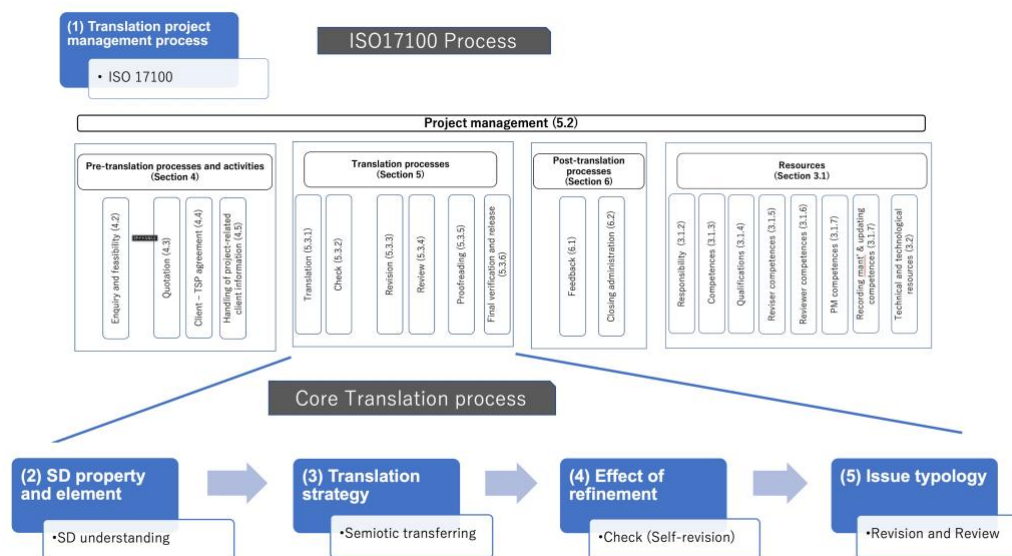


Figure 3. Five sets of metalanguages in the translation process

the translation to the reviser. Metalanguage we designed to talk about this phase is a set of categories to describe the effect of refinements added by the translator over the course of self-revising.

(5) Issue typology: As discussed, MNH-TT issue typology is available for “Revision (5.3.2)” and “Review (5.3.4)” phases where a reviewer will check the translation for any issues.

Each type of metalanguage is designed so that it can be used in both classroom settings and translation industries to describe and explain in detail the translation subprocesses for better practice and communication. For training purposes, we are planning to implement these metalanguages as an independent module in MNH-TT, a browser-based learning platform for translation training, so that learners using this platform can operationalize the explicit knowledge for every process by either filling out the template format or annotating texts according to the metalanguages.

6 Metalanguage of translation strategies

This section gives explanations in more detail about the description of translation strategy by providing a specific example to explain what it can provide and how it is operationalized.

Amongst translation strategies proposed in previous literature (Lörscher, 1991; Newmark, 1988; Vinay and Darbelnet, 1958/2000), we have selected the list of translation strategies presented by Chesterman (2016) as a point of departure. Most proposals consist of one group of categories which makes it difficult for translation learners to distinguish, for example, between semantic and pragmatic shifts, both of which involve message-related manipulations of target text. Chesterman’s set of translation strategies (2016) helps to disambiguate the aspect with granular sets of categories which comprise three pillars – syntax, semantics, and pragmatics – each of which branches into approximately ten subcategories. This would be advantageous for learners and researchers to dissect translation shifts or strategies.

The categories were originally designed for translation between English and German. We recompiled them so that they are applicable to English-Japanese translation. Nearly 300 translation samples extracted from translation instruction books (Okada, 2013; Tanabe and Mitsufuji, 2008) were used to verify the categories.

Our rearranged list of translation categories will serve as a decision list to help translation learners to identify an appropriate strategy from the top of the list, as provided in Figure 4.

Syntactic strategies	Semantic strategies	Pragmatic strategies
G13 Punctuation change	S2 Antonymy	Pr9 Transediting
G9 Modality shift	S4 Converses	Pr1a Domestication
G11 Addition	S3 Hyponymy	Pr1b Foreignization
G12 Omission	S10 Cohesion change	Pr2a Explication
G3 Word structure change	S5 Abstraction change	Pr2b Implication
G5 Phrase structure change	S7 Emphasis change	Pr3a Information addition
G6a Clause structure change	S6 Distribution change	Pr3b Information omission
G6b Clause structure change	S8 Paraphrase	Pr4 Interpersonal change
G7 Sentence structure change	S9 Trope change	Pr5 Illocutionary change
G4 Unit shift	S1 Semantically Equivalent	Pr13 External Information adaptation
G2 Loan		Pr12 Domain adaptation
G10 Scheme change		Pr6 Coherence change
G1 Literal Translation		Pr11 No change

Figure 4: Decision list of translation strategies

Referring to one category for each of the three pillars in the decision list, we can describe a given translation shift. An example is below.

Source text: CNN reported on (a)Thursday that a giant tornado and hailstorm had killed 51 people in China.

Target text: CNN が (a)23
日、中国で巨大竜巻と雹で 51 人が死
亡したと報じた。

[Back translation: CNN reported on (a) the 23rd that 51 people had been killed in a giant tornado and hailstorm in China.]

In this example, the underlined unit (a) “Thursday” in the source text is translated into “23 日” (the 23rd) in the target text. This translation shift is annotated with three categories given from each pillar: G1, S1, Pr12 in Figure 4. This means that no specific strategies are taken in terms of syntactic and semantic strategies: G1 (Literal Translation) and S1 (Semantically Equivalent), but a pragmatic strategy, Pr12 (the domain adaption), applies to this case.

7 Application to TPR and the future

Our metalanguage of translation strategies could potentially be used for deeper analysis in TPR. Translation strategy is concerned with a process normally attributed to individual translators and thus can correspond to the translation process as defined in TPR. In the existing CRITT TPR-DB (Carl, 2012), the relationship between the source and target texts is represented only by annotations on alignments on a formal linguistic unit (at the word or phrase level). If we also annotate the process data with our strategies, it may increase granularity of data analysis as well. For example, we can investigate the relationship between each translation strategy and the translator’s cognitive effort required for the manipulation.

8 Conclusion

Fine-grained metalanguages are expected to make it possible to externalize the tacit knowledge of skilled translators for use in translator training and in communication among different actors. By operationalizing this knowledge through metalanguages, translation learners can consciously practice the behaviors of professionals and different actors can accurately talk about translation.

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References

- Burchardt, B. and A. Lommel (2014) *QT-LaunchPad supplement 1: Practical guidelines for the Use of MQM in Scientific Research on Translation Quality*. <http://www.qt21.eu/downloads/MQM-usage-guidelines.pdf>.
- Carl, M. (2012) 'The CRITT TPR-DB 1.0: A database for empirical human translation process research', *Proceedings of the AMTA 2012 Workshop on Post-Editing Technology and Practice (WPTP 2012) Association for Machine Translation in the Americas (AMTA)*, pp. 9-18.
- Castagnoli, S., D. Ciobanu, N. Kübler, K. Kunz and A. Volanschi (2006) 'Designing a learner translator corpus for training purposes', *Teaching and Language Corpora Conference (TALC) 2006*.
- Chesterman, A. (2016) *Memes of translation: The spread of ideas in translation theory*. Amsterdam: John Benjamins.
- Fujita, A., K. Tanabe, C. Toyoshima, M. Yamamoto, K. Kageura and A. Hartley (2017) 'Consistent classification of translation revisions: A case study of English-Japanese student translations', *Proceedings of the 11th Linguistic Annotation Workshop (LAW)*, pp. 57-66.
- Holz-Mänttari, J (1984) *Translatorisches handeln: Theorie und methode*. Helsinki: Suomalainen Tiedeakatemia.
- International Standard Organization (ISO). (2015). ISO 17100. 2015. *Translation services – Requirements for translation services*. First edition.
- Jakobsen, A. (2017) 'Translation process research', in J. Schwieter and A. Ferreira (eds) *Handbook of translation and cognition* (pp. 386–401). Blackwell Handbooks in Linguistics. Malden, MA: John Wiley & Sons.
- Lacruz, I., M. Carl and M. Yamada (2018) 'Literality and cognitive effort: Japanese and Spanish', *Proceedings from 11th Edition of the Language Resources and Evaluation Conference (LREC 2018)*.
- Lörscher, W. (1991) *Translation performance, translation process and translation strategies: A psycholinguistics investigation*. Tübingen: Gunter Narr.
- Newmark, P. (1988) *A textbook of translation*. New York: Prentice Hall.
- Okada, N. (2013) *Honyaku no fuseki to jouseki* [Strategy and tactics of translation]. Sanseido.
- Piao, H., S. Han and K. Kageura (2019) 'The use of meta-language in translation revision', *2019 International Conference on Translation Education: Computer-Aided Translator Training (CATT) of Machines and Man*.
- Secară, A. (2005) 'Translation evaluation: A state of the art survey', *Proceedings of the eCoLoRe/MeLLANGE Workshop*, pp. 39-44.
- Specia, L. and K. Shah (2014) 'Predicting human translation quality', *Proceedings of the 11th Conference of the Association for Machine Translation in the Americas (AMTA)*, pp. 288–300.
- Tanabe, K. and K. Mitsufuji (2008) *Puro ga oshieru kiso karano honyaku sukiru* [Buidling translation skills]. Tokyo: Sanshusha.
- Vinay, J.-P. and J. Darbelnet (1958/2000) 'A methodology for translation', in L. Venuti (ed.) *The Translation Studies Reader* (pp. 84-95). London: Routledge.