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Revision parameters as a learning tool

Abstract

To create alignment with the translation industry, where many translation tasks are aided by technology, translator-training programmes must teach revision of machine-translated texts systematically to foster translation trainees' MT literacy development. On the assumption that classifications of error types can guide students in their revision process, the study reported on in this article examines the operability of one such classification, viz., a revised version of Mossop's (2014) revision parameters, to the purpose of examining students' understanding and application of the classification. In groups, students revised a text translated by Google Translate from Danish into Spanish categorising and motivating their revisions according to the parameters. The analyses relied on dialogue data and text products to shed light on students' reflections, discussions, and decisions. The analyses revealed that the operability of some parameters could benefit from more concrete and univocal descriptions. On this basis, a revised revision classification 2.0. is presented.

1 Introduction

The teaching of translation may serve two (interconnected) main purposes: Language learning and professional translator training with the ensuing research interests into translation as a means to improve language competences and professional translation and interpreting skills (Jiménez Crespo 2017: 182). The integration of translation in language learning may be based on three understandings of the language-learning translation interface (Pym/Malmkjær/Gutiérrez-Colón Plana 2013: 2–3). First, language and translation can be seen as mutually exclusive of each other. This perspective presupposes a situation in which all communication in other languages is translated and thus accessible to the speakers of that language or a situation with perfect language learning. Second, translation and language learning may be regarded as complementary. This understanding applies to a situation in which translation services are necessary because it is not everyone that "learns all languages". Third, translation can be understood as an inherent part of language learning. On this view, translation is added as a fifth skill to the usual four skills of language learning (reading, listening, speaking, and writing) (e. g., Leonardi 2009: 143; Pym/Malmkjær/Gutiérrez-Colón Plana 2013). Translation training is, therefore, not only a matter of preparing students for the translation (and interpreting) profession, but an integrated part of language learning. It is a further

characteristic that this perspective presupposes a bilingual approach to teaching. In line with this view, House (2017: 147) argues that integrating translation in language learning may both serve the purpose of strengthening linguistic proficiency and of increasing confidence in a learning situation, which can be intimidating.

Whether translation is taught as a part of language learning to prepare students for the labour market or not, the fact that many professional translation tasks today are aided by technology should be taken into account and integrated into the curriculum. In this line of argument, various researchers (e. g. Bowker/Barlow 2008; Klimova et al. 2022; Bundgaard/Christensen 2023) have suggested how to include machine translation (MT) literacy, that is “knowing how MT works, how it can be useful in a particular context, and what the implications are of using MT for specific communicative needs” (O’Brien/Ehrensberger-Dow 2020: 146), in foreign language programmes. For example, MT can be used in language teaching to assist writing and reading comprehension (Chang/Hsu 2011 in Jiménez-Crespo 2017: 184), for terminology management and pre-editing of source texts (O’Brien 2012 quoted from Jiménez-Crespo 2017: 184), and for post-editing (Flanagan/Christensen 2014; Jiménez-Crespo 2017: 184). Moreover, the teaching of MT and post-editing can help students acquire critical thinking, a competence which will be more important than ever, given the recent developments in generative AI, which, presumably, will change text production, in general, into text revision. On a similar note, it is well-known from, for instance, peer-feedback studies that the development of evaluation skills improves students’ critical thinking (e. g. Nicol/Thomson/Breslin 2013; Chakarvarti 2022). In extension, a study on psycholinguistic aspects of post-editing shows that combining post-editing with think aloud protocols improves students’ analytical and thinking activity (Chernovaty/Kovalchuk 2021). It is, in fact, post editing which is the centre of interest of this article. For reasons given below, we will, however, use the term *revision*.

Revision requires additional competences to those required for translation from scratch (Hansen 2006: 274). By way of example, Hansen (2006) argues that the revision process is further complicated by the fact that translators have to check (partial) matches and revise the pre-translated segments and their own translation (Hansen 2006: 265). In this context, it is important to take into consideration that, in many cases, revision is defined as ‘other revision’ and therefore requires interpersonal competences (Künzli 2006 and Mossop 2014 in Robert/Remael/Ureel 2017: 11). Robert, Remael and Ureel (2017) note that, together with interpersonal competences, revision competences are, generally, taken to include translation experience and the ability to motivate revisions (Robert/Remael/Ureel 2017: 10). Based on existing models of translation competence, Robert, Remael and Ureel (2017) suggest a model of translation-revision competence. This model assumes that revision competence is “the underlying system of knowledge needed to revise someone else’s translation” (Robert/Remael/Ureel 2017: 12). In the context of this study, ‘someone else’ refers to the software that translates the text.

To create alignment with the translation industry, translator-training programmes must teach revision systematically. The question is, however, how students manoeuvre

in a situation in which they are forced into dealing with translational problems posed by the machine: What choices do they make and how do they motivate their decisions? Thus, the study aims to examine aspects of human behaviour at the interface between situation and cognition. This paper presents the results of an empirical study of the translation process, with the purpose of gaining insights into students' revision processes in the context of teaching Danish-Spanish translation. More specifically, the purpose of this article is to examine students' understanding and application of a revised version of Mossop's (2014)¹ revision parameters when revising a text translated by Google Translate from Danish into Spanish.

2 Research design and methodology

In the following, the study setup and the methodology are presented. For further details on the research design, see Dam-Jensen and Vesterager (2024).

The study was conducted in a naturalistic setting, i. e. the classroom, where students worked in small, self-selected groups. The students are used to working in groups with different types of academic tasks, including translations, which improves the ecological validity of the study.

The results presented in this article are based on the same data as those presented in Dam-Jensen and Vesterager (2024) but are extended with data from MA-students collected in the same experiment. The pool of participants is depicted in Table 1.

BA	BA	MA	
5 th semester	5 th semester	1 st semester	3 rd semester
Group A (BA)	Group E (BA)	Group I (MA-1)	Group K (MA-3)
Group B (BA)	Group F (BA)	Group J (MA-1)	Group L (MA-3)
Group C (BA)	Group G (BA)		
Group D (BA)	Group H (BA)		

Table 1: Overview of participants

In the study, the students worked in groups with the revision of a short company web text that had been translated from Danish into Spanish by Google Translate. Google Translate was chosen for the translation because the students were familiar with this machine-translation tool. In addition to revising the text, the students were instructed to motivate their revisions according to Mossop's first three groups of revision parameters, i. e., *Transfer*, *Content*, and *Language* (leaving out *Presentation*), since the focus of the study was on verbal rather than visual aspects. To this purpose, we used a slightly modified version of Mossop's (2014) revision parameters (Table 2). First, the parameters were presented in the form of a schematic overview that had been elaborated by the authors to the purposes of clarity. Second, based on experience from previous classes,

¹ A revised version of the book was published in 2020, that is, after the time that the data for this study was collected.

where the students found some denominations difficult to understand due to their level of abstraction, the names of some of the parameters had been changed. Third, to avoid including a third language, the parameters had been translated from English into Danish. The revised parameters are presented in English in Table 2.

Parameters	Specific parameters	Errors
A. Transfer	Accuracy	The target text does not reflect the message of the source text. The argument structure is not the same (e. g. wrong connector).
	Completeness	Important information of the source text has been left out and/or important information has been added to the target text.
B. Content	Logic	The target text does logically not make sense and/or it contains contradictory information.
	Facts	The translation of the facts, concepts and/or numbers of the source text are wrong.
C. Language and style	Smoothness	The target text is difficult to read because the cohesion is not optimal (e. g. due to sentence structure, tense, connectors, etc.).
	Tailoring	The target text is not adapted to the receiver (e. g., wrong level of formality, level of knowledge, etc.).
	Genre	The target text does not correspond to the genre characteristics of the target language (e. g. wrong terminology).
	Idiomatcity	The target text is unidiomatic, that is, it does not use the prototypical language of the target language.
	Grammar and form	The target text contains grammatical errors (e. g., with regard to agreement, punctuation, spelling, etc.) or has not been adapted to instructions in a stylesheet if it applies.
D. Presentation	Layout	The layout of the target text is wrong (e. g., with regard to margins, tables, line spacing, etc.).
	Typography	The use of typology is wrong and/or inconsistent (e. g., font, bold, italics).
	Organisation	The organisation of the target text is wrong (e. g., with regard to page numbers, footnotes, headings, etc.).

Table 2: Classification of initially revised parameters

Although Mossop’s revision parameters were developed for the revision of human translations, they were chosen for this study for the following reasons. First, the categorisation is divided into four broad categories that each split into different types, thus avoiding unnecessary complexity, as suggested by Ockham’s razor. For this reason, we assumed that this would improve the operability of the categorisation. Second, the framework is, among others, developed with a didactic purpose (Mossop 2014: 1) as opposed to

guidelines developed for the industry by, for instance, the German Research Centre for Artificial Intelligence (DFKI n.d.), the Multidimensional Quality Metrics (MQM n.d.) and the language data network TAUS (2016), which serve as overall revision principles rather than a framework for analysing and categorising errors. In addition, students may find it difficult to interpret the TAUS guidelines, as evidenced by Flanagan and Christensen (2014). Third, the revision parameters are so general that they can be applied to different language pairs, including Spanish-Danish. In accordance with Mossop (2014), we use the term ‘revision’ rather than ‘post-editing’, which is the term typically used in the context of machine-translated texts. Revision can, however, be considered a broad term of which post-editing is a type (Brunette 2000).

Prior to the study and as a part of their training, the students who participated in the study had been introduced to and worked with Mossop’s revision parameters to increase their awareness of problem types and solutions. As preparation for class, the students were instructed to read Mossop’s (2014) chapter on revision parameters, and the slightly revised version of the parameters (see Table 2) was subsequently presented and explained in a lecture. After presenting the revised parameters, the students worked in groups with the revision of a text translated by Google Translate categorising and motivating their revisions according to the revised parameters. At the end of the class, the teacher (one of the authors) illustrated the use of the revision parameters with examples and the students could ask clarifying questions.

The following week, data were collected for the study. The fact that the study aims to reveal aspects of human behaviour at the interface between situation and cognition imposes requirements on the research design with regard to methods applied. To the purpose of gaining insights into students’ reflections, discussions, and decisions, data were collected from two sources: audio recordings and revised text products (RTs). Dialogue data were gathered using small portable audio recorders, and text-product data were collected using the track changes and commenting functions in Microsoft Word. As for the RTs, the students received oral and written instructions, the latter instructing them to categorise and explain errors according to the initially revised version of the revision parameters. The written instructions also included an exemplary analysis. The dialogue data were the primary data source based on the importance of dialogue and collaborative work, as described below and was supplemented where relevant with data from the RTs produced by the students. In combination, these data sources can give information about how students perceive and operationalise the initially revised version of Mossop’s (2014) revision parameters. The dialogue was in Danish, but the examples have been translated into English to the purposes of this article.

As mentioned above, students worked in collaborative teams, on the assumption that dialogue increases awareness of problems and possible solutions as “dialogue can stimulate understanding” (Vygotsky 1934/1986). From a research perspective, collaborative work produces natural dialogue and thereby data, which, in this study, were collected from audio recordings and text products, as described above. In addition, collaborative work presents advantages for the teacher. As group work implies that students

externalise their thoughts and ideas, teachers can monitor their problem-solving and decision-making processes and, on that basis, target the teaching task accordingly. Although most translation tasks in the industry are carried out individually, there are good arguments for teaching translation through collaborative work. At a general level, dialogue can stimulate understanding, as mentioned above. At a more specific level, working in groups allows the students to engage in meaning negotiation (Storch 2001: 30), to pool their cognitive resources (Storch 2007: 155) and co-construct new knowledge and consolidate existing knowledge (Storch 2007: 144). In addition, group work engages students in an interactive activity, which stimulates the problem-solving and decision-making process (Dam-Jensen 2012: 162). Focusing on problem-solving and decision-making presupposes a focus on the procedural nature of learning. Translation is traditionally taught with a focus on the individual student's writing tasks (Dam-Jensen/Heine 2009: 1). This implies that focus is on the product rather than on the process. It can furthermore be assumed that, by letting students engage in collaborative work, awareness of problems and their solution is increased, and they will learn to conceive of themselves as thinkers and problem solvers (Dam-Jensen/Vesterager 2024: 152) as students working collaboratively "are often able to solve their language-related problems and co-construct a shared language knowledge through scaffolding and collaborative dialogue in their zones of proximal development" (Tajabadi et al. 2023: 691).

The dialogue data were transcribed following orthographic conventions, and subsequently, the transcribed dialogues were analysed. In the analysis process, the data were scrutinized for discussions of Mossop's revision parameters to the purpose of revealing the students' understanding and application of them. The data were analysed, discussed, and interpreted collaboratively among the authors until consensus was reached, on the assumption that more minds bring more perspectives (Saldana 2013: 34).

3 Presentation of results

In the following, the results of the data analysis are presented. The analyses are structured according to the three overall categories of Mossop's (2014) classification, i. e., problems of meaning transfer, problems of content, and problems of language and style. While problems of meaning transfer refer to errors that are caused by a lack of consistency between source and target text, problems of content have to do with errors that disturb the logical structure of the target text or errors in formal facts. Problems of language and style, in turn, is a general category that subsumes all error types that pertain to language and style. In each category, the discussion starts from examples from the dialogue data. Translations of expressions and extra-textual explanations are given in square brackets. In the text examples, the parts of the phrase that are subject to analysis are marked in italics.

3.1 Problems of meaning transfer

Mossop's first overall category labelled *Meaning transfer* refers to consistency between the source text (ST) and the target text (TT). It consists of the two subcategories Accuracy and Completeness (Mossop 2014: 125).

3.1.1 Accuracy

Accuracy subsumes translations that do not convey the message of the ST. The dialogue data reveal that 7 of the 12 groups consider Accuracy when categorising potential errors. Of these, four groups (Groups C, F, H, and J) correctly categorise wrong word choices as errors in Accuracy, while the remaining three groups fail to correctly apply the parameter.

This, for example, goes for Group I, who consider Accuracy as a potential revision parameter in connection with word choice, in their discussion of the following Google-translated text (GT).

Text example 1:

ST: Vores handlinger påvirker vores *omgivelser* [...]
['Our actions affect our *surroundings* [...]]

GT: Nuestras acciones afectan a nuestro *medio ambiente* [...]
['Our actions affect our *environment* [...]]

The problem with the GT is that *medio ambiente* ('environment') is not an appropriate word choice for *omgivelser* ('surroundings'), as discussed by Group I. Their dialogue shows that they, on the one hand, correctly classify *medio ambiente* as wrong word choice and therefore as an instance of error in Accuracy, but, on the other hand, that they waver when it comes to Accuracy versus Facts, finding it difficult to justify the classification as one or the other.

Dialogue example 1 (Group I):

A: But I still think it belongs under Accuracy.

B: Yes, but you think everything does.

A: Yes, I think so, because it's the message that doesn't... the message isn't expressed in the words they've chosen. I don't think it's because... logically it makes a lot of sense that it's because it affects their *medio ambiente*, but it's just not what it says [referring to the ST] because they talk about the surroundings, not the environment.

B: Well, I tend to believe that it is Facts.

C: Okay, let's agree on that.

B: Because if it was ... the environment per se, then you could ...well, if *omgivelserne* in Danish meant environment...

A: Well, it does say "Facts, numbers, concepts" [reading from the revision parameters]

B: Exactly

A: One can't say that there is a great difference here.

The students do not understand neither Accuracy nor Facts (see Section 3.2.2), which is why they find it difficult to separate the two, but after some discussion, they end up

classifying this instance of wrong word choice as an error in Facts, which is also evidenced by the group's RT, although it should be classified in Accuracy.

A different problem of the GT relates to the misspelling of the company name JYSK to JYK in the GT. Although misspelling belongs in Grammar and form, Group L classify it as an error in Accuracy.

Dialogue example 2 (Group L):

- A: As for parameter... what do we think?
B: Accuracy?
C: Yes
A: Yes, because it's not the same.
B: There's no consistency between source text and the target text.
A: Yes, so that would be Transfer... and Accuracy.

The remaining Group D merely mention Accuracy in passing when discussing how to structure the revisions made in their RT and do not apply the parameter for error classification.

In sum, of the seven groups that discuss Accuracy, four groups apply the parameter correctly. However, as we will see below, all 12 groups discuss wrong word choice, although in connection with other parameters than Accuracy. On this basis, we suggest that it should be made clearer what Accuracy in meaning means, that is, that errors in Accuracy imply that the meaning of the TT deviates from the meaning of the ST, and that formal errors (such as spelling errors) do not change the meaning. In this connection, we also suggest to avoid using 'information' as a synonym for 'meaning'.

3.1.2 Completeness

Completeness subsumes translations that do not include all parts of the message. The dialogue data show that eight of the groups talk about Completeness. While one group (Group F) merely mention the parameter in passing, the remaining seven groups discuss it, either in connection with their own revisions or in connection with the classification of an error.

Groups C, G, J, and K discuss Completeness when they add or delete a word, thus mixing up their own revision strategies with the parameter.

Of the three groups that consider Completeness for categorising errors in the GT, groups H and I deliberate classifying the missing letter in JYSK (GT: JYK) as an omission, and, therefore, as an error in Completeness. While it is indeed an omission, it is not an omission of relevant meaning (Mossop 2014: 138) and it would more likely be classified as misspelling and, consequently, as an error in Grammar and form, as mentioned above.

Group L, in turn, discuss the translation of *hver eneste dag* ('every day') of the following text example as an addition of information and therefore as Completeness.

Text example 2:

ST: [...] i kontakt med tusindvis af kunder, medarbejdere og samarbejdspartnere hver eneste dag.

[‘[...] in contact with thousands of customers, employees and stakeholders every day.’]

GT: [...] en contacto con miles de clientes, empleados y socios *de* todos los días.

[‘[...] in contact with thousands of customers, employees and stakeholders *of* every day.’]

First, they rightly identify the preposition *de* (‘of’) as an addition. On that basis, they classify it as an error in Completeness. Subsequently, however, one of the students becomes unsure after checking the definition of the parameter.

Dialogue example 3 (Group L):

A: What do we call it? Was it the same as the one up here? Transfer? Something has been added, right?

B: Yes, but it’s the preposition that’s been added. It’s also the same problem ... there.

A: Yes. Completeness again or...?

C: Yes.

[...]

C: But I don’t know. Well, I think... It’s not some crazy error. Here it says “important information” [referring to the revision parameters]. Then you could argue if it is important information here. I’m not really sure if it is.

After discussing other possible error types, student C suggests that the classification may lack a parameter. In the context of the dialogue above, we take it that they mean a category of addition of non-important information.

C: Then maybe you could say that there’s actually a ... parameter missing here. Because this is the second time that we’ve seen this error. That something is missing. That it’s an addition. By adding something but just... adding something that doesn’t have to be important.

According to Mossop’s outline of Completeness, the addition of *de* should not be classified as an error in Completeness, which “[...] applies to relevant meaning” (Mossop 2014: 128), but rather as an error in Grammar and form since the addition leads to an ungrammatical relation because the prepositional phrase connects to the noun phrase instead of the whole sentence.

In sum, according to the dialogue of the three groups that discuss Completeness in connection with error classification, there seems to be a problem in understanding what counts as relevant meaning, that is, meaning that can either be left out or added. It can, therefore, be suggested that it is specified in the classification.

3.2 Problems of content

Mossop’s second overall category is labelled *Content*, referring to problems in the logical structure of the TT or to errors in formal facts. The parameter consequently encompasses two subcategories: Logic and Facts (Mossop 2014: 125).

3.2.1 Logic

Logic subsumes translations that do not render the sequence of ideas in a logical way, for example, with respect to causal and temporal relations. The data show that eight groups discuss Logic, but that they all include error types that belong in other categories.

Groups H and B wrongly categorise grammatical errors in Logic. Group H discuss Logic in connection with the subordinate clause *y que espera y exige* of the following GT.

Text example 3:

ST: JYSK er sit ansvar bevidst, og *vi forventer og kræver* det samme af vores leverandører.

[‘JYSK is aware of its responsibility, and *we expect and demand* the same from our suppliers.’]

GT: JYK es consciente de sus responsabilidades *y que espera y exige* lo mismo de nuestros proveedores.

[‘JYK is aware of its responsibility, *and that it expects and demands* the same from our suppliers.’]

The GT has two problems. The first one is that the company name is misspelled. The second problem is that the subordinate clause (*y que espera y exige lo mismo de nuestros proveedores*) is not linked correctly to the main clause, which leads to the following discussion.

Dialogue example 4 (Group H)

A: That one... *y que espera y exige*... It doesn't make sense.

B: Yes, we'll go with Logic. All right then.

Group B, in turn, include the ungrammatical addition of *que* of the following text example as an error in Logic.

Text example 4:

ST: Som en global koncern er vi i kontakt med tusindvis af kunder, medarbejdere og samarbejdspartnere [...].

[‘As a global group, we are in contact with thousands of customers, employees and partners [...].’]

GT: Como un grupo global *que* estamos en contacto con miles de clientes, empleados y socios [...].

[‘As a global group *that* we are in contact with thousands of customers, employees and partners [...].’]

The following dialogue shows that Group B understand the appearance of *que* as a repetition of the meaning of *como*. They classify the error as an illogical construction.

Dialogue example 5 (Group B):

- A: So, we delete *que*?
B: Yes
A: And what...? We do that because...? Ah, maybe it's that one... the logical one...
B: Yes, it's because there's a double...
[...]
C: Yes. Repetition of words.
[...]
A: What was the rationale for *que*?
B: Isn't that illogical?
A: Yes, yes, but we have to say why we think it's illogical.
C: It's because there's already ... *como* is there already, so you have a double thing.
D: It doesn't have anything to do there ... *que* means like...
A: "As a social group that we are... in contact" [reading from the GT]
D: "That we are in contact with" [reading from the GT]
A: Yes... so it says *som* ['which'] twice, in principle, just in different ways.

Groups D, K, and L interpret Logic as including incorrect word choice, as shown by Group L's discussion of *realiza* of the following GT.

Text example 5:

- ST: Vores handlinger påvirker vores omgivelser, og det *forpligter*.
['Our actions affect our surroundings and that *requires that we take responsibility*.']
GT: Nuestras acciones afectan a nuestro medio ambiente, y que *realiza*.
['Our actions affect our environment and which *realizes*.']

The GT has two problems. First, the subordinate clause *y que realiza* is not linked correctly to the main clause, and second, *realiza* is not a proper word choice for *forpligter*. In connection with the latter, Group L discuss Logic as a potential revision parameter.

Dialogue example 6 (Group L):

- A: And *y* that's okay ... and *que* that's because this ... "and it obliges" [reading from the GT]. That's sort of right. It's just this one... *realiza* which is definitely wrong.
B: Hmm...
A: And that would be wrong ... um ... word choice.
C: I just think that's ... I just think ... it's just incorrectly translated. It's wrong terminology. Well... isn't there usually ... a ... a parameter called ... terminology, something like that ... incorrect words... words... word choice.
B: what about Logic? But I guess it's not ...
C: Yes... it could be.
A: It doesn't make... when you read it ... it doesn't make logical sense
C: But then let's put it under there, and then we can write that ... there might ... be a parameter missing ... with wrong terminology.
A: Yes

This group agree that *realiza* is a wrong word choice, but they classify it as an error in Logic, failing to see that wrong word choices are included in Accuracy rather than in Logic.

Groups C and F, in turn, incorrectly take Logic to encompass unnecessary repetition of words, that is, redundancy, as shown by Group C's discussion below of *la responsabilidad social de responsabilidad social corporativa* as a translation of *Corporate Social Responsibility (CSR)* of the following GT.

Text example 6:

ST: Arbejdet med social ansvarlighed, Corporate Social Responsibility (CSR), er komplekst.
[‘The work with social responsibility, Corporate Social Responsibility (CSR), is complex.’]

GT: El trabajo sobre *la responsabilidad social de responsabilidad social corporativa (RSC)*, es complejo.
[‘The work on *social responsibility of corporate social responsibility (CSR)* is complex.’]

The GT has two problems. First, the ST includes a translation of the Danish phrase, *social ansvarlighed*, (‘Corporate Social Responsibility’) and the English abbreviation is given in brackets (CSR). The Danish phrase, the English translation, and the abbreviation have been translated into Spanish, which results in two consecutive occurrences of the term *responsabilidad social* in the GT. Second, the two consecutive appearances of *responsabilidad social* are connected by the preposition *de* (‘of’), making the sentence ungrammatical.

Group C discuss the repetition of words as an error in Logic.

Dialogue example 7 (Group C):

A: Idiomatic perhaps, or Logic? Social Responsibility and CSR... it's the same thing we are talking about.

[...]

B: It's the same thing.

C: The same, yes.

A: So, I think we're talking about logic, because it's not an important piece of information that we're leaving out, like when we're talking about Completeness.

From this group's dialogue it is also evident that, in their decision process, they compare the revision parameters to each other as a basis for excluding some parameters (in this case, for instance, Completeness).

In sum, none of the eight groups that discuss Logic seem to understand that for something to be illogical, it should destroy the reasoning of an argument. It is therefore suggested to make this clear in the description of the parameter. It can also be argued that the problem discussed by groups C and F calls for a revision of Completeness allowing it to incorporate instances of unwanted translations.

3.2.2 Facts

Facts subsumes errors in relation to facts, concepts, and numbers. Seven groups consider classifying potential errors in Facts. Two groups (B and D) merely mention Facts in passing, while the remaining five groups discuss using the category for error classification. The analysis shows, however, that neither of them understands it correctly. Groups F, J, and K incorrectly categorise misspelling as an error in Facts, as shown by Group F's dialogue.

Dialogue example 8 (Group F):

A: That thing with JYSK... is it under Facts?

B: That's what I thought it was.

C: [Reads from the revised version of the revision parameters] "The facts and concepts of the target text and/or numbers" and that's a concept, isn't it?

B: Yes, exactly

A: It's their name... and it creates a ...

B: Yes, the company name is translated incorrectly.

Other errors discussed in the context of Facts are wrong word choice and repetition of words. Group I categorise the wrong word choice of *medio ambiente* ('environment') as a translation of *omgivelser* ('surroundings') (see Dialogue example 1 above) as an error in Facts rather than in Accuracy, whereas Group L incorrectly categorise the repetition of *responsabilidad social* ('social responsibility') of Text example 6 as an error in Facts.

In short, the groups generally find it difficult to understand what counts as an error in Facts. On this basis, we suggest outlining a list of examples of phenomena that count as facts.

3.3 Problems of language and style

Mossop's third overall category is labelled *Language and style*. In the revised classification, it splits into five subcategories: Smoothness, Tailoring, Genre, Idiomaticity, and Grammar and form (Smoothness, Tailoring, Sub-language, Idiom, and Mechanics with Mossop 2014: 125).

3.3.1 Smoothness

Smoothness subsumes translations that disrupt the cohesion of the text. Nine groups consider categorising potential errors in Smoothness. One of them (Group L) merely mention the category in passing, while the other eight groups discuss it when categorising errors.

Three groups (B, D, and I) discuss the fact that the GT switches between the first and the third person in connection with the company name JYSK ('JYSK works with [...]. We believe [...]'). Their discussions are prompted by the fact that the ST switches between the first and the third person, which is transferred to the GT. The groups consider categorising this mixing of person and number as an error in Smoothness, as it

seems to disrupt the readability of the text. This, however, is not an error, but had it been, it should be classified as an error in Grammar and form.

Five groups (C, F, H, J, and K) also discuss Smoothness in the context of the readability of the text, but in connection with the unnecessary repetition of *responsabilidad social* ('social responsibility') of Text example 6. This goes, for example, for Group F, who classify it as an error in Smoothness.

Dialogue example 9 (Group F):

A: It says the same thing twice. Could it be...?

B: It doesn't say it twice... it's just because it has been directly translated from the text... it's because the text... it's because Spanish has their own version of CSR.

C: What about this one... Smoothness [reads from the parameters] couldn't it be that one?

B: Yes, that one... because the reading flow is kind of disrupted when...

C: Yes, exactly.

Group I, in turn, discuss the first problem of Text example 5 (that the subordinate clause *y que realiza* is not linked correctly to the main clause) as an error in Smoothness.

Dialogue example 10 (Group I):

A: Okay, and then we have *y que realiza* ... it just doesn't make any sense. Um... so I don't know which... maybe Smoothness. It's just not... it's..., well. I don't know.

B: I think it's Smoothness... there is... something wrong with smoothness.

C: Yes.

After discussing various error types, student A suggests that *y que realiza* may be an error in Smoothness, arguing that the GT does not make sense, to which the other two group members agree. Thus, this group incorrectly classify the grammatical error in Smoothness rather than in Grammar and form. In addition, by arguing that the sentence does not make sense, this group use the argument of the revision parameter of Logic, which shows that they find it difficult to distinguish between Smoothness and Logic.

The analysis shows that the students use 'readability' as a criterion in their discussions, but that they mistakenly take other errors to interfere with the readability of the text, the result being that anything could count as an error in Smoothness. This may suggest that the concept of 'readability' is too abstract. None of the groups that include Smoothness in their discussions understand its meaning. They mix it up with Logic and Grammar and form, which shows that it should be spelled out with more precision. On that assumption, we will use 'cohesion' as a key word, as we will see in Section 4.

3.3.2 Tailoring

Tailoring subsumes translations that are not adapted to the receiver. Seven groups discuss Tailoring. Of these, three groups (D, F, and K) merely mention the category in passing, while three groups (C, I, and J) mix it up with their own revisions (see Section 3.1.2). This leaves one group (Group H) that take Tailoring into consideration when

discussing the repetition of *responsabilidad social* of text example 6. As illustrated below, this group takes Tailoring to include lack of adaptation of the TT to the receiver.

Dialogue example 11 (Group H):

C: Or perhaps Adaptation

B: “The target text has not been adapted” [reads from the description of the parameters]

C: Because when you write it in Spanish, then it will probably reach some Spaniards and then you don’t have to Or what? What would you say?

B: Mm, or Smoothness

C: Smoothness, yes

While it is not altogether clear from the dialogue what student B means by “reach some Spaniards”, it seems plausible that they refer to whether or not the TT is adapted to the receiver.

As three groups only mention the parameter without discussing it and other three mix it up with their own actions, the analysis does not give us much information about the students’ understanding of the parameter.

3.3.3 Genre

Genre subsumes translations that do not comply with genre conventions. Six groups (Group B, C, D, F, I, and J) consider Genre. One of these (Group F) only mentions it in passing. The remaining five groups incorrectly take Genre to include wrong word choice, as exemplified by Group J’s discussion of the following GT.

Text example 7:

ST: Ansvarlighed
[‘Responsibility’]

GT: Contabilidad del
[‘Accounting of the’]

There are two problems with the GT. First, the term *ansvarlighed* (‘responsibility’) has been incorrectly translated into *contabilidad*. Second, the GT is incomplete since *del* (a contraction of *de + el*: ‘of the’) should be followed by a noun.

In their discussion of the former, the students consider Genre as a possible revision category.

Dialogue example 12 (Group J):

A: Maybe it’s Genre. When you write for example *responsabilidad*, you use the word *responsabilidad* instead of *contabilidad*.

B: Yes, and then we delete *contabilidad* and replace it with *responsabilidad*

A: Yes. Because it needs to be adapted to the genre.

In their RT, they argue that this error may be subsumed under the category of Genre, thus failing to see that wrong word choice is not due to the genre, but to the lexicality of the words.

Genre: Inden for genren CSR bruger man altid *responsabilidad* til at gengive meningen af det danske *ansvarlighed*.
[‘Genre: Within the genre of CSR, *responsabilidad* is always used to convey the meaning of the Danish *ansvarlighed*.’]

In short, the students correctly identify *contabilidad* as a wrong word choice, but they are unable to distinguish wrong word choices that are due to genre conventions from those that have to do with lexicality.

3.3.4 Idiomaticity

Idiomaticity subsumes translations that do not use prototypical language of the target language. Ten groups consider Idiomaticity, but two of those (Groups B and F) only mention the parameter in passing. In the case of the remaining eight groups (C, D, E, H, I, J, K, and L), one of these (Group L) correctly classify an error in Idiomaticity, while the remaining seven erroneously equate it with wrong word choice, as illustrated by Group E’s discussion of *contabilidad* (‘accounting’) as a translation of *ansvarlighed* (‘responsibility’) in Text example 7 above.

Dialogue example 13 (Group E):

A: Yes, well, the translation of *ansvarlighed*. *Contabilidad*... What the hell is that?!

B: I totally agree.

A: Should we just write *responsabilidad*?

C: Yes, I think so.

B: Yes. Maybe we should comment on what type it is in relation to this theory.

C: But isn’t that what you call idiomatic?

B: Yes, I think so. [Reading from the revision parameters] “The target text is not idiomatic. It does not use the prototypical language of the target language.”

A: That’s the wrong word, isn’t it? Find the dictionary and search for *contabilidad*... what it actually means.

[...]

B: Accounting. Bookkeeping. It’s definitely a completely different word.

A: Super. That’s the wrong word.

C: Well done.

B: So, it’s simply incorrect word usage. Idiomatic.

Lastly, it should be mentioned that Group I also consider categorising the misspelling of JYSK as an error in Idiomaticity, though this is an error in Grammar and form.

To sum up, the groups are unsure how they should understand the category of Idiomaticity, finding it difficult to distinguish between word choices that do not fit into idiomatic expressions and those that are simply wrong lexical words.

3.3.5 Grammar and form

Grammar and form subsumes, on the one hand, grammatical errors, including, e. g., errors in punctuation, spelling and agreement, and, on the other, lack of compliance with stylesheets. Since no stylesheet was provided for the task, only errors in Grammar and

form were to be considered. Ten groups discuss grammatical errors. Two of those (C and E), though, only mention the parameter in passing.

Eight groups (Groups B, D, F, H, I, J, K, and L) apply the parameter correctly, classifying the ungrammatical clauses and relations of Text examples 2, 3, 4, 5, and 7 above as grammatical errors without further explanation or justification for their revisions.

One of these groups (Group B) also classify the misspelling of the company name (i. e., JYK) in Grammar and form, while Group J are unsure whether it is in fact an error in this parameter or an error in Facts. As evidenced by their RT, they do not resolve how to classify this error.

Fakta/grammatik: JYSK er blevet oversat til JYK af en eller anden grund.
[‘Facts/grammar: JYSK has been translated to JYK for some reason.’]

In addition, Group B discuss whether to capitalize *responsabilidad social corporativa* of Text example 5. In their RT, they decide to revise arguing that the non-capitalisation of the term is an error in Grammar and form.

Groups B, F, I, J, and L also discuss the lack of consistency of person and number in verb phrases (see Section 3.3.1) as an error in Grammar and form. This is, however, not an error, but had it been, the students would have been right to classify it as an error in Grammar and form. The fact that the students make unnecessary revisions to the GT tells us more about their language competences than about their abilities to apply the revision parameters correctly.

Group J, in turn, discuss and classify a word-choice error due to idiomaticity as a grammatical error.

In sum, on the one hand, the students generally seem to understand the revision parameter of Grammar and form, but, on the other, they also classify errors which belong in Grammar and form in other categories (Accuracy, Completeness, Facts, Smoothness, and Idiomaticity), as we have seen above. This may be explained by the fact that the revision parameter of Grammar and form is more concrete compared to other more abstract parameters such as Accuracy and Logic that may be more difficult to understand and consequently apply.

4 Reassessment of the revision parameters – version 2.0

The analysis presented above shows that working with an MT input serves as a productive initiator for discussions and that the inclusion of revision parameters contributes constructively to discussions. The analysis also shows, though, that the operability of some parameters could benefit from more concrete descriptions.

As illustrated in Section 2, the revised version of Mossop’s (2014) revision parameters takes the form of a schematic overview, which was presented to the students along with the chapter in Mossop (2014) that explains the parameters. However, the results of the analysis presented above suggests that a further revision of the parameters is needed. Apart from unclarities revealed directly by the analysis, we would like to point

out five additional potential problems, which the revised classification should take into account. First, it may be difficult for students to understand the difference between Group A (*Meaning transfer*) and Group B (*Content*) of the initially revised version (and of Mossop's classification), due to overlap in meaning. A new revised version of the revision parameters must address this problem. Second, on the one hand, the analysis suggests that students classify the same error type in different parameters (for example, wrong word choice), which suggests that they do not have a clear understanding of the meaning of the parameters. On the other hand, although students seem to understand the nature of the Grammar and form parameter, some of them classify grammatical errors in, for example, Accuracy. We will therefore argue that the description of each parameter must be restrictive and clearly delimited to improve univocality. Third, the analysis shows that some students do not notice the examples provided in the explanation of the parameters, as they are all given in continuous text. Some mistakes could have been avoided had the students studied the overview carefully. In order to increase the operability of the parameters, examples must be featured more prominently. Fourth, it may be difficult to distinguish Accuracy from Logic when it comes to cohesiveness, as Mossop (2014: 136–137) states that “the most important aspect of Accuracy is the correct rendering of the overall structure of the message: the sequencing of events or arguments must be the one in the source text”, while, at the same time, with regard to Logic, stating that there should not be any “impossible temporal or causal sequences” (Mossop 2014: 140). In this sense, both parameters include errors in cohesiveness, making it potentially challenging to students to decide which cohesive errors should be classified in Accuracy and which in Logic. To improve univocality, these two parameters must be clearly distinguishable. Fifth, according to Mossop's (2014: 134–149) description of the parameters, ‘wrong word choice’ is included in various parameters depending on what has caused it (Accuracy, Genre, Idiomaticity, and Facts²). It goes without saying that a word choice may be incorrect due to, for example, genre conventions or requirements of an idiom. This should be clear in the description of the parameters.

On this basis, we have revised our initially revised version of Mossop's (2014) classification of parameters both at the level of the general groups (A, B, C, and D) and with regard to the twelve parameters included in these. Instead of four overall groups, we suggest three. As shown in the classification below, we have included Mossop's Group D without any changes. In the case of the former three (*A – Meaning transfer*, *B – Content*, *C – Language and style*), we have suggested changes both with regard to denominations and content. In the revised version 2.0., Group A is called Information transfer rather than Meaning transfer. While ‘meaning’ usually refers to the content of words, ‘information’ also applies to textual elements such as numbers and facts (Collins dictionary), and, in this sense, the scope of ‘information’ can be said to be more general. This allows us, on the one hand, to encompass parameters that to our mind can be subsumed under the same heading and, on the other, to eliminate overlaps in parameters. Thus, in the revised version 2.0., Logic and Facts are subsumed under Group A

² Accuracy, Sub-language, Idiom, and Fact with Mossop (2014).

(Information transfer), which eliminates what to us is a problem of overlap in meaning, as mentioned above. In turn, Group C (Language and style) of the initially revised version (Group B in our revised version 2.0.) has been renamed Adjustment, which, in our view, better reflects the common denominator of the parameters included, namely, that they are all errors that interfere with the way the target text fits “with something else” (see the description of each parameter below).

When it comes to the parameters themselves, some descriptions have been clarified, while others have been merged under new headings. The description of Accuracy focuses on the fact that errors of this type imply a deviation in meaning and that this is typically due to wrong word choice. Conversely, ‘error in word choice’ does not figure in other parameters in the revised version 2.0. In Completeness, in turn, the meaning of ‘relevant meaning’ has been highlighted. The analysis above shows that there is no obvious category that allows classification of the translation of expressions that should not be translated. The definition of completeness has been revised so that it encompasses this error type. As explained above, we argue that Information transfer allows for more parameters than those applying to lexical meaning. On this assumption, Logic as well as Facts are transferred to Group A. As noted in the analysis, the students failed to understand that errors in Logic destroy an argument. To this we will add that there are overlaps in the description of Logic and Accuracy, as indicated above. Moreover, the fact that Smoothness includes ‘connections between sentences’ may also cause confusion. To avoid these ambiguities, we have left out ‘sequencing of events and arguments’ in Accuracy and extended the description of Logic to encompass errors in cohesion in general, spelling out the meaning of cohesion. The analysis of Facts shows that it is unclear to the students what counts as facts, and, consequently, we have listed examples of phenomena that may be classified as facts.

In the revised classification 2.0. below, the renamed Group B (Adjustment) includes four parameters, that is, one less than its counterpart in Mossop’s classification (Group C – Language and style). As well as Mossop (2014), we include a parameter that has to do with the translation’s suitability vis-à-vis the user and use of the translation. While Mossop uses the term Tailoring, we call it Register and style, which, in our conception, seems more precise. Moreover, in our classification, though, we have extended the parameter to include suitability in general. It should be mentioned that the analysis does not give much input as to the operationality of the parameter, so the change is brought about by the general goal of making the parameters more precise. Mossop’s parameter Sub-language concerns errors related to genre characteristics. To make this absolutely clear, we renamed the parameter as such in our initially revised version. This, however, did not seem to improve understanding, as the students mistook it for ‘wrong word choice’. In the revised version 2.0., we have aimed at clarifying the description leaving out ‘wrong terminology’, as this seems to cause the misunderstanding. We have also extended the name of the parameter by including ‘text type’. In the case of Idiomaticity, students also mix it up with other error types. What is meant by ‘prototypical language’ does not seem to be clear to the students. We have therefore spelled out the meaning

of 'idiom'. We have also extended the parameter to include idioms as well as collocations, naming the category 'fixed expressions'. The last parameter in this group is Grammar and form. While Mossop names this parameter Mechanics, we called it Grammar and form in our initially revised version to increase precision. In the new version 2.0., we have made some adjustments in the description, clarifying that spelling mistakes are not grammatical errors, and that grammar also applies at the level of the sentence. We have also eliminated adaption to stylesheet, which we interpret as an instance of Presentation.

The classification below is our suggestion for a revised version 2.0 of the revision parameters, which also includes examples of some of the error types included in each parameter.³ As a general comment, it should be mentioned that our revised version 2.0. has been developed for MT, but can also be applied to human translation, although the nature of errors and their frequency typically vary between the two. This especially goes for Facts, which presumably is not a frequent error type in MT. The classification is developed for Danish and Spanish, but it can be adapted to other language pairs.

³ The examples of Genre and Text type are from Asunto (2019). The examples of Logic and the first of Accuracy are adapted sentences from: Geo Mundo España (n. d.).

Group A: Information transfer	Group B: Adjustment	Group C: Presentation
<p>Accuracy: The meaning of the target text deviates from the meaning of the source text, typically due to the use of a wrong lexical word or a cultural expression, which changes the message.</p>	<p>Register and style: The target text does not comply with conventions with regard to register and style dictated by the skopos, thus distorting the message.</p>	<p>Layout: The layout of the target text is wrong, e.g., with regard to margins, tables, line spacing, etc.</p>
<p>Completeness: The target text either adds or omits relevant meaning, or words from the source text have been transferred directly to the target text, or elements that should not have been translated have been so. 'Relevant meaning' is constitutive to the content of the source text. The consequence of errors in completeness is, therefore, that the message is incomplete or extended, vis-à-vis the skopos, or it contains redundant elements.</p>	<p>Genre and text type: The target text does not meet the conventional requirements of the genre or text type. This may impede the recognition of the text as an instance of a genre or text type, thus interfering with the message.</p>	<p>Typography: The use of typography is wrong and/or inconsistent, e.g., font, bold, italics.</p>
<p>Logic: The target text does not render the sequence of ideas of the source text correctly, thus destroying or altering the message of the source text. This concerns, for instance, the temporal or the argumentative structure or other types of cohesion. The latter may apply to the use of connectors, that is, linguistic elements that makes explicit how the various parts of a text are connected, or inferred relations, that is, relations that are not marked linguistically.</p>	<p>Fixed expressions: The target text does not render idioms, conventional expressions, metaphors, collocations, and slang correctly. An idiom is a figure of speech. Errors in idioms occur when they are not translated with expressions which are commonly used to render the intended meaning. Errors in conventional expressions sound unnatural (unidiomatic) in the target language. This</p>	<p>Organization: The organisation of the target text is wrong, e.g., with regard to page numbers, footnotes, headings, etc.</p>

may prevent the message from coming across altogether. A collocation is a conventional combination of words. Errors in collocations occur when other words than those that prototypically make up the collocation are used. This does not necessarily disturb the message, which may just come across as strange.

Facts: The target text renders facts from the source text incorrectly, for example numbers, decimal points, percentages, references, or web addresses. Such errors interrupt the message because “the code” is wrong, and the information cannot be accessed.

Grammar and form: The target text is incorrect with regard to grammar at the level of the words or the sentence, a wrong preposition has been used, punctuation is incorrect, or words are misspelled. Such errors do not necessarily interfere with the message, but they can make the target text less convincing.

Group A: Information transfer

Accuracy

Source text: Cruzamos un espectacular puente y varios atrevidos túneles.

Target text: Vi krydsede en fantastisk bro og flere vovede tunneller.

- *vovede*: wrong lexical word (→ *udfordrende*)

Source text: Venden churros en el mercado.

Target text: De sælger klejner på markedet.

- *klejner*: wrong cultural expression (→ *spanskrør*)

Logic

Source text: A los diez kilómetros se alcanza el cruce con Caranga de Abajo. En este lugar se bifurca un ramal que nos llevará al valle de Quirós.

Continuando la Vía Verde y alcanzamos el desfiladero de Peñas Xuntas de Teverga.

Target text: Efter 10 km kommer man til Caranga de Abajo. Her deler stien sig i to, som fører os til Quirós-dalen. Vía Verde fører os videre, og vi kommer til Peñas Xuntas de Teverga.

- *Quirós-dalen. Via Verde fører (...)*: The sequence of ideas is imprecise, as it is not made clear that one has to make a left where the path splits into two. (→ *For at fortsætte ad La senda del oso skal man tage stien til højre*).

Completeness

Source text: ISR. La inversión socialmente responsable o ISR tiene que ver con las inversiones financieras que tienen en cuenta los criterios medio ambientales, sociales y de gobierno corporativo.

Target text: ISR. Social ansvarlig investering eller SRI angår finansielle investeringer der tager miljømæssig, sociale og ledelsesmæssige hensyn.

- *ISR*: direct transfer (→ *SRI*)

Source text: Otro usuario puede averiguar tu nombre de usuario y contraseña si has elegido la opción de autorrelleno en el formulario.

Target text: en anden bruger kan finde dit brugernavn og måske dit password hvis du har valgt muligheden for autofill i formularen.

- *Autofill*: translation into a different language than the target language (→ *muligheden for at udfylde automatisk*)

Facts

Source text: El 55% de los españoles dicen sentirse europeo y español al mismo tiempo.

Target text: 45% af spanierne siger, at de føler sig både europæiske og spanske på samme tid.

- *45%*: wrong percentage (→ *55%*)

Group B: Adjustment

Register and style

Source text: Las enfermedades hematológicas pueden afectarnos a cualquier edad [as a part of a text aimed at laypersons].

Target text: Hæmatologiske sygdomme kan ramme os i en hvilken som helst alder.

- *Hæmatologisk*: register (→ *blod*)

Genre and text type

Source text: Resumen de la petición de decisión prejudicial con arreglo al artículo 98, apartado 1, del Reglamento de Procedimiento del Tribunal de Justicia.

Target text: Sammenfatning af anmodningen om præjudiciel afgørelse i henhold til artikel 98, stk. 1, i Domstolens procesreglement.

- *Sammenfatning*: genre (→ *sammendrag*)

Grammar and form

Source text: El camino prosigue sobre el valle entre hórreos, construcción típica de Asturias, y altas montañas verdes.

Target tekst: Stien fortsætter gennem dalen mellem kornmagasiner, en typisk konstruktion af Asturien, og høj grønne bjerge.

- *Af*: wrong preposition (→ *i*)
- *Høj*: wrong agreement (→ *høje*)

Fixed expressions

Source text: No veas cómo ha metido la pata.

Target text: kan ikke se hvordan han har lavet det.

- *kan ikke se*: slang (→ *du drømmer ikke om*)
- *hvordan han har lavet det*: idiom (→ *har dummet sig*)

Source text: Es un buen amigo y siempre sabe llevar una conversación interesante.

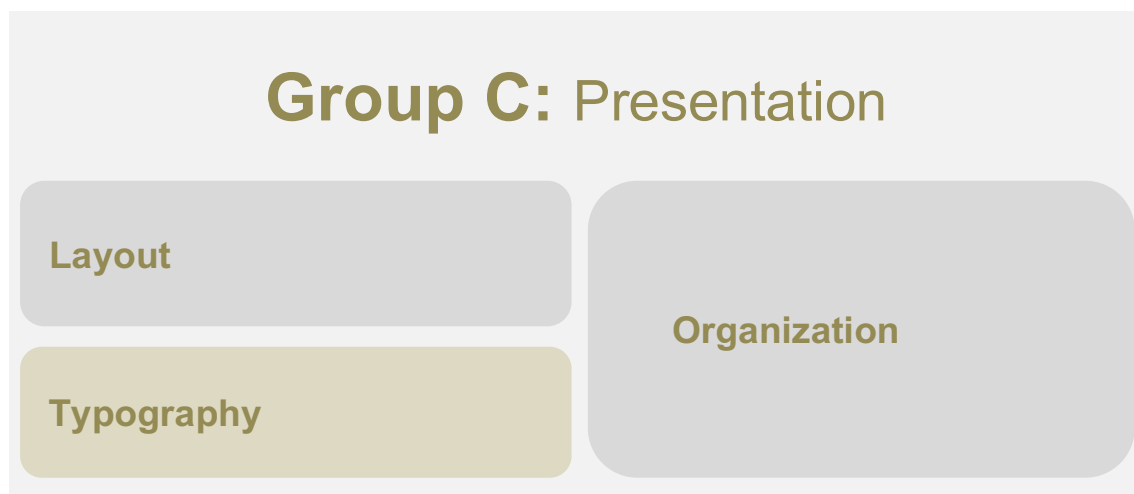
Target text: Han er en god ven, og han ved altid, hvordan man har en interessant samtale.

- *Har en samtale*: collocation (→ *fører en samtale*)

Source text: Esta iniciativa reúne a las diferentes partes interesadas en torno a un diálogo sobre los enfoques del capital natural.

Target text: Dette tiltag samler de forskellige stakeholders i en dialog om naturkapitaltilgange.

- *Naturkapitaltilgange*: unnatural expression (→ *tilgange til naturkapital*)



5 Concluding remarks

The study reported on in this article set out to examine students' understanding and application of a revised version of Mossop's (2014) revision parameters. It did so by means of an experiment with a reduced number of students working in groups with the revision of a translation by Google Translate. Sceptics may object to the scope of the results of a study with a small population, such as the present study. To this we will say with Flyvbjerg (2006: 227–228) that "The case study is well suited for identifying "black swans" because of its in-depth approach: What appears to be 'white' often turns out on closer examination to be 'black.'" The idea that a proposition is rejected if it is contrasted by an inconsistent observation is the backbone of falsification. Although this may be the inevitable consequence in some kinds of studies, in others, the consequence may rather be development and discussions of the proposition. In the present case, this amounts to suggesting a reorganisation of the classification of parameters and reformulation of the description of some of them. While assuming that this reassessment leads to an improvement in operability, reservations should be made with regard to the inherent problem with classifications, viz., that not all instances of a phenomenon lend themselves to a straightforward classification. In the case of the topic at hand, errors may fall between categories, or multiple errors may be entangled, making it difficult to separate them into categories. Although we believe that the classification of parameters can be used both for human translation and MT, it can be hypothesised that some categories are rarer than others in MT. This goes, in particular, for the parameter of Facts. It is indeed easy to think of a situation in which a human translator may get a number wrong, but it is not very likely that this would happen with the same frequency when the machine carries out the translation.

The analysis showed that having to classify errors helped students to focus on the nature of the errors in their discussions. In this sense, the inclusion of revision parameters in the learning process is a constructive input to the discussion of the quality of

MT outputs, in students' development of MT literacy, and, not least in their development of critical thinking in connection with digital tools.

Examples

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- Geo Mundo España (n. d.) – <http://www.mundo-geo.es/viajes-y-expediciones/viajes/via-verde-de-la-senda-del-oso-en-asturias> (at the time of publication, the link is dead)

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