Consistent Classification of Translation Revisions: A Case Study of English-Japanese Student Translations

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1. Quality Assessment of Student Translations

Step 1. Identify erroneous or deficient text spans and suggest a revision proposal for reasoning

Step 2. Classify each issue into an abstract issue type

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Should not be shown to students [Klaudy, 96]

Difficult to consistently classify e.g., [Lommele, 14]

2. Development of an Issue Classification Scheme

- Our objective
  - High consistency to guarantee better learning performance
  - Wide applicability for translation studies from various aspects
    - Radically different language pairs, e.g., English & Japanese
    - Different levels of learners: undergrad. vs. graduate students
- Iterative refinement of the MNT-TT typology [Babich+, 12] using the OntoNotes method [Hovy+, 06]

Step 1. Annotate issues in the given 3 SD/TD pairs

Step 2. Terminate the iteration if the agreement ratio >= 90%

Step 3. Discuss the factor of consistent decision making

Step 4. Update the issue typology & decision tree

3. Notably High Inter-assessor Agreement

- Using our carefully designed scheme

- Given faithful & careful annotation

Validation 1: classification of 575 issues in 17 TDs

- A, B: anonymous paid workers (professional translators)
- C, D: identified assessors (two of the authors)

Many careless mistakes

67.7%/σ=0.613

67.1%/σ=0.592

61.4%/σ=0.523

63.3%/σ=0.554

57.9%/σ=0.490

86.6%/σ=0.831

Agr. ratio [%] / σ value

Disagreements were easily solved

Validation 2: assessment of 10 TDs from scratch

- D: same as in validation 1 → 561 issues
- E: undergraduate learner translator → 406 issues
- 340 identical text spans with similar revision proposals

85.0%/σ=0.794

Different levels of sensitivity

Much higher than involving anonymous paid workers

Understandable by an actual learner

4. Application to a Translation Course at a University

- As a means of feedback for assignments
- Useful for finding clusters
- & monitoring their learning patterns

Summary of this work

- Quality assessment of human-produced translations
- Development of issue typology & decision tree
  - For assessing English-Japanese student translations
  - Using the OntoNotes method
- High consistency of issue classification
- Installation into a translation exercise course in a university

Our decision tree

- Given an issue [Yes, No]

Q1a: Is it an unjustified copy of the SD element?
Q1b: Do multiple options remain in the TD?
Q2a: Is all content in the SD translated in proper quantities in a proper way?
Q2b: Is the error related to a term in the given glossary?
Q3a: Is it a grammatical issue?
Q3b: predefined specific type of error?
Q4a: Does it hurt cohesiveness of the TD?
Q4b: Does it hurt fluency?
Q5a: Is it unsuitable for the intended register?
Q6a: Is it anyways problematic?

Level 1

Incompleteness

Q1a: untranslated
Q1b: indecision
Q2a: correct-term
Q2b: omission
Q3a: collocation
Q3b: preposition/particle
Q4a: incohesive
Q4b: too-literal
Q5a: inappropriate-register
Q6a: Other issue

Level 2

Semantic errors

Q1a: incorrect-term
Q1b: omission
Q2a: addition
Q3a: collocation
Q3b: preposition/particle
Q4a: incohesive
Q4b: too-literal
Q5a: inappropriate-register
Q6a: Other issue

Level 3

TD linguistic issues

Q1a: incorrect-term
Q1b: omission
Q2a: addition
Q3a: collocation
Q3b: preposition/particle
Q4a: incohesive
Q4b: too-literal
Q5a: inappropriate-register
Q6a: Other issue

Level 4

TD felicity issues

Q1a: incorrect-term
Q1b: omission
Q2a: addition
Q3a: collocation
Q3b: preposition/particle
Q4a: incohesive
Q4b: too-literal
Q5a: inappropriate-register
Q6a: Other issue

Level 5

TD register issues

Q1a: incorrect-term
Q1b: omission
Q2a: addition
Q3a: collocation
Q3b: preposition/particle
Q4a: incohesive
Q4b: too-literal
Q5a: inappropriate-register
Q6a: Other issue

Not an issue

For 1st SD

More X3

More X7

More X3 & X4b

For 2nd SD

Less X3

Less X3