

# Designing a metalanguage of translation strategies for translation training: Demystifying the art of translation

Mayuka Yamamoto (Rikko University), Masaru Yamada (Rikkyo University),  
Atsushi Fujita (National Institute of Information and Communications Technology),  
Rei Miyata (Nagoya University), and Kyo Kageura (University of Tokyo)

What is a metalanguage of translation strategies for translation training?

“metalanguage” is “a language used to talk about language” (Merriam-Webster, 2016). Gambier and Doorslaer (2009) use this term in a broader sense.

The aim of developing metalanguages in this study is both

1. to promote our scientific understanding of translation processes, and
2. to facilitate understanding of the process among different actors involved in translation activities

# Translation strategies

Textual manipulations applied to produce translations beyond accuracy.

**ST** There is a boy climbing that tree. He is going to fall if he doesn't take care.

**TT1** あの木に登っている男の子がいます。彼は気をつけないと落ちそうです。  
[That tree DAT climbing boy NOM exist. he TOP attention ACC pay NOT IF fall seem COP.]



Omitting the topicalized nominative (“he-TOP”) to improve the cohesion between two sentences

**TT2** あの木に登っている男の子がいます。彼は気をつけないと落ちそうです。  
[That tree DAT climbing boy NOM exist. ~~he~~-TOP attention ACC pay NOT IF fall seem COP.]

# Past work on translation strategies

- Vinay and Darbelnet (1958) <7 strategies>
  - Borrowing / Calque / Literal Translation / Transposition / Modulation / Equivalence / Adaptation
- Pym (2018) <8 strategies>
  - Copying Words / Copying Structure / Perspective Change / Density Change / Resegmentation / Compensation / Cultural Correspondence / Text Tailoring
- Chesterman (1997/2016) <30 strategies in total>
  - Consisting of three main groups each contains ten strategies
    - Syntactic (G), Semantic (S), and Pragmatic (Pr) strategies
  - Not adaptable to English-to-Japanese translation (Bode 2009)

Just a list! no navigation!  
not operationalizable!

e.g., The typology in Chesterman (1997/2016)

Syntactic strategies (10)		Semantic strategies (10)		Pragmatic strategies (10)	
G1	Literal Translation	S1	Synonymy	Pr1	Cultural filtering
G2	Loan, calque	S2	Antonymy	Pr2	Explicitness change
G3	Transposition	S3	Hyponymy	Pr3	Information change
G4	Unit shift	S4	Converses	Pr4	Interpersonal change
G5	Phrase structure change	S5	Abstraction change	Pr5	Illocutionary change
G6	Clause structure change	S6	Distribution change	Pr6	Coherence change
G7	Sentence structure change	S7	Emphasis change	Pr7	Partial translation
G8	Cohesion change	S8	Paraphrase	Pr8	Visibility change
G9	Level shift	S9	Trope change	Pr9	Transediting
G10	Scheme change	S10	Other semantic changes	Pr10	Other pragmatic changes

- Given a pair of unpolished and polished TTs, it is difficult to consistently determine the strategies applied there
- Consequently, these labels cannot be a useful communication tool
  - e.g., between instructors and learners

# Our work

Developed a *metalanguage* of translation strategies

- Especially aiming at the use in education of English-to-Japanese translation
- Language that talks about translation strategies (manipulation of language)
  - Sufficient coverage
  - Systematic use
  - Tangible and learnable granularity, etc.
- Our approach: Chesterman (1997/2006) as a point of departure
  - Improve the *coverage*
  - Reorganize the structure into decision lists to have the *systematicity*
  - Through applying it to English-to-Japanese translation examples

Used in an actual English-to-Japanese translation training course

# Step 1. Preparation of translation examples

## 1-1. Prepare text triplets: <ST, Unpolished TT, Polished TT>

- Unpolished TT: TT in which the word order of the ST is kept as unchanged as possible, no propositional or grammatical errors are included in the target text, and the information in the source text is conveyed without excess or deficiency.
- Polished TT: TT where some aspects of the Unpolished TT are improved.

<ST>

There is a boy climbing that tree. He is going to fall if he doesn't take care.

<Unpolished TT>

あの木に登っている男の子がいます。彼は気をつけないと落ちてしまいそうです。

[That tree DAT climbing boy NOM exist. he TOP attention ACC pay NOT IF fall seem COP.]

<Polished TT>

あの木に登っている男の子がいます。彼は気をつけないと落ちてしまいそうです。

[That tree DAT climbing boy NOM exist. ~~he~~ TOP attention ACC pay NOT IF fall seem COP.]

# Step 1. Preparation of translation examples

1-1. Prepare text triplets: <ST, Unpolished TT, Polished TT>

- Extract the triplets from two translation training handbooks
  - (Tanabe and Mitsufuji 2008; Mitsufuji 2016)
- Newly create Unpolished TT if missing

1-2. Decompose triplets into examples (249 examples)

- Each focus on independent pairs of text spans.

<ST>

Mr. Koizumi angered the Chinese government with his visits to Tokyo's Yasukuni Shrine.

<Unpolished TT>

小泉首相は東京の靖国神社への訪問を行い、中国政府の怒りを買った。

Tokyo's

visits

<Polished TT>

小泉首相は靖国神社への参拝を行い、中国政府の怒りを買った。

worship

Example 1

Example 2



## Step 2. Development of metalanguage

2-1. For each example, assign a strategy triplet <G, S, Pr> from Chesterman's typology

- All the possible strategies if applicable
- "Unknown" if nothing is applicable

<ST>

Mr. Koizumi angered the Chinese government with his visits to Tokyo's Yasukuni Shrine.

<Unpolished TT>

小泉首相は東京の靖国神社への訪問を行い、中国政府の怒りを買った。

Tokyo's

visits

<Polished TT>

小泉首相は靖国神社への参拝を行い、中国政府の怒りを買った。

worship

Example 1

Example 2

(G??) Unknown  
(S1) No change  
(Pr3) Information change

(G1) Literal translation  
(S5) Abstraction change / (S8) Paraphrase  
(Pr10) Other pragmatic changes

# Step 2. Development of metalanguage

Our metalanguage consists of a typology and decision lists

2-2. Add new strategies explaining “Unknown” phenomena to the tail of typology

- For improved *coverage*

2-3. Refine both the typology and the decision lists

- For improved *systematicity*
- Refinement include reordering, merging, and adjusting the scope
  - For strategies that may be applied more than one to a single phenomenon, we prioritize those with smaller translation units.
    - e.g., (G3) word structure change > (G5) phrase structure change > (G6) clause structure change > (G7) sentence structure change
  - For strategies that describe only specific cases of another one, we first pick those specific ones rather than the general one.
    - e.g., (S2) Antonymy > (S8) Paraphrase
  - Refine the scope (narrow/widen)

# Step 2. Development of metalanguage

<ST>

Mr. Koizumi angered the Chinese government with his visits to Tokyo's Yasukuni Shrine.

<Unpolished TT>

小泉首相は東京の靖国神社への訪問を行い、中国政府の怒りを買った。

Tokyo's

visits

<Polished TT>

小泉首相は靖国神社への参拝を行い、中国政府の怒りを買った。

worship

Example 1

(G??) Unknown  
(S1) No change  
(Pr3) Information change

↓ Step 2-2

(G12) Omission  
(S1) No change  
(Pr3) Information change

Example 2

(G1) Literal translation  
(S5) Abstraction change / (S8) Paraphrase  
(Pr10) Other pragmatic changes

↓ Step 2-3

(G1) Literal translation  
(S5) Abstraction change  
(Pr11) Pragmatically equivalent

# Our metalanguage of translation strategies

Syntactic strategies (13)		Semantic strategies (9)		Pragmatic strategies (10)	
G1	Literal Translation	S2	Antonymy	Pr9	Transediting
G13	Punctuation change	S4	Converses	Pr1	Cultural filtering
G9	Modality shift	S3	Hyponymy	Pr2	Explicitness change
G8	Cohesion change	S5	Abstraction change	Pr3	Information change
G11	Addition	S7	Emphasis change	Pr4	Interpersonal change
G12	Omission	S6	Distribution change	Pr5	Illocutionary change
G3	Word structure change	S9	Trope change	Pr13	External Information adaptation
G5	Phrase structure change	S8	Paraphrase	Pr12	Domain adaptation
G6	Clause structure change	S1	Semantically equivalent	Pr6	Coherence change
G7	Sentence structure change			Pr11	Pragmatically equivalent
G4	Unit shift				
G2	Loan				
G10	Scheme change				

## Features

- 4 categories merged into other ones: S10, Pr7-8, Pr10
- Newly introduced 6 strategies: G11-13, Pr11-13
- A decision list (linear order of priority) for each group

# Decision making using a decision list

<ST>

Mr. Koizumi angered the Chinese government with his visits to Tokyo's Yasukuni Shrine.

<Unpolished TT>

小泉首相は東京の靖国神社への訪問を行い、中国政府の怒りを買った。

Tokyo's

<Polished TT>

小泉首相は靖国神社への参拝を行い、中国政府の怒りを買った。

Check whether the condition is satisfied (Yes →, No →) from top of the list

Pragmatic strategies (10)		
Is the ambiguity resolved?	Pr9	Transediting
Is the culture-related aspects in the ST adapted to, or retained in, the target culture?	Pr1	Cultural filtering
Is the implicit content in ST explicitated in TT, or vice versa?	Pr2	Explicitness change
Is the non-existent information in ST added in TT to compensate for the readers knowledge, or is existing information in ST deleted in TT as it is unnecessary?	Pr3	Information change
Is the formality/sentimate changed according to the relation between authors and readers?	Pr4	Interpersonal change
Is the speech type changed?	Pr5	Illocutionary change
Is the TT adapted for external information, such as terminology, style, and related docs?	Pr12	External information adaptation

# Evaluating the metalanguage in translation learning

Is the metalanguage usable to acquire translation strategies?

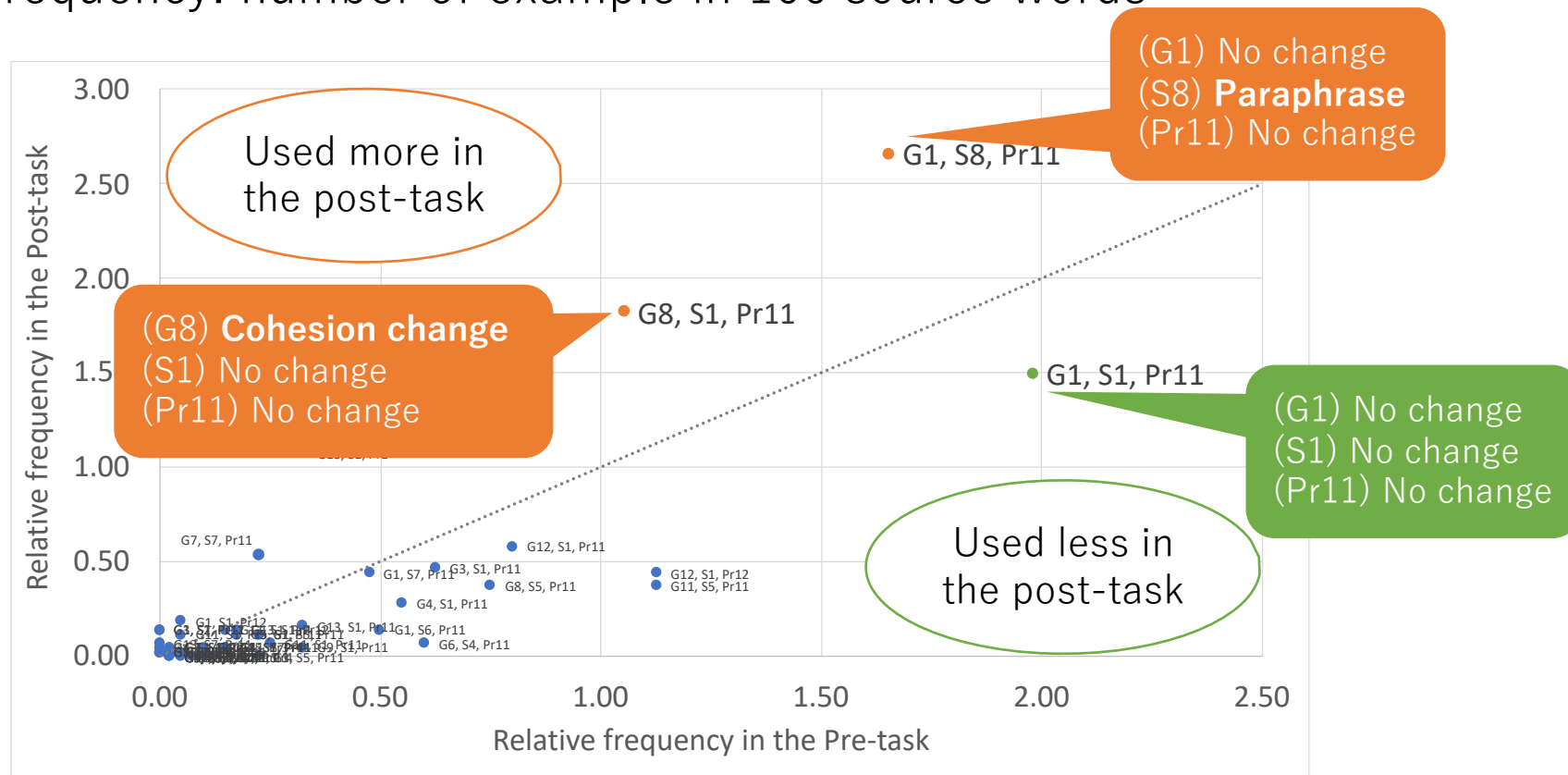
We evaluated it through using it in an actual translation learning course

- 51 undergraduate students (analyzed 15 out of them)
- Protocol
  - 1. Refinement pre-task:** Given pairs of <ST, Unpolished TT> for two SDs (A and B), produce Polished TT by editing Unpolished TT
    - Reference: <ST, Polished TT> for other two SDs (M1 and M2)
  - 2. Learning the metalanguage**
    - Typology, decision list, examples, etc.
  - 3. Refinement post-task:** Same as pre-task, but for two new SDs (C and D)
    - Reference: <ST, Unpolished, Polished TT> for M1 and M2 annotated with the strategy triplets <G, S, Pr>
- Done within one week during April 28 to June 15, 2021

# How differently were the strategies used?

Comparison of relative frequencies of each strategy triplet <G, S, Pr>

- Relative frequency: number of example in 100 source words



(G1, S8, Pr11) were used more

(G1) No change  
(S8) **Paraphrase**  
(Pr11) No change

<ST>

Hundreds of thousands of civilians were killed—many instantly, and many more slowly from severe burns and what would come to be understood as radiation sickness.

<Unpolished TT>

何十万もの市民が死亡した—多くが即時に、さらに多くが重症熱傷や、後に放射線疾患と理解されることになるもので徐々に死亡した。

<Polished TT>

何十万もの市民が死亡した—多くが即時に、さらに多くが重症熱傷や、後に放射線疾患と理解されることになるものでゆっくりと死亡した。



(G8, S1, Pr11) were used more

(G8) Cohesion change  
(S1) No change  
(Pr11) No change

<ST>

Real Trump speaks, and tweets, his mind. Teleprompter Trump reads speeches prepared for him, delivered in a strained manner that has been likened to a hostage video.

<Unpolished TT>

本物のトランプは、自分の心の中を話し、ツイートする。テレプロンプター・トランプは、彼のために用意されたスピーチを読み上げ、人質のビデオに例えられるような緊張した様子で発信する。

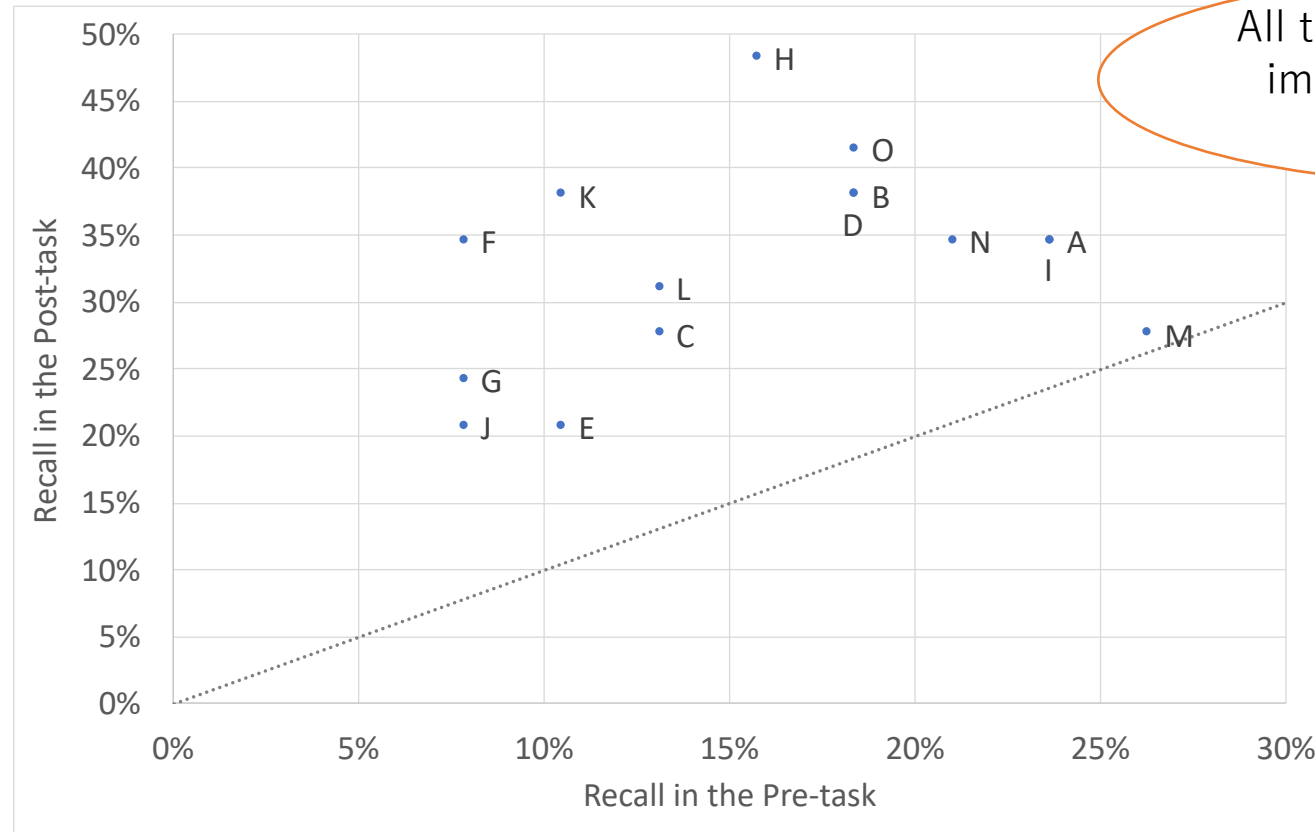
<Polished TT>

本物のトランプは、自分の心の中を話し、ツイートする。それに対しテレプロンプター・トランプは、彼のために用意されたスピーチを読み上げ、人質のビデオに例えられるような緊張した様子で発信する。

# Can students make revisions like professional?

Asked a professional translator to produce Polished TT for documents A to D.

Computed recall: identical revisions / revisions done by the professional translator



All the (analyzed) students improved recall through learning strategies

# Conclusion

- Developed a metalanguage of translation strategies
  - Especially aiming at the use for English-to-Japanese translation training
  - Methodology
    - Starting from Chesterman (1997/2006)
    - Metalanguage = typology + decision list
  - Result: Structured list of 13 Syntactic, 9 Semantic, and 10 Pragmatic strategies
- Used in an actual English-to-Japanese translation training course
  - Comparison of 2 docs in pre-task and 2 docs in post-task
  - Observations from the partial results
    - There are several strategy triplets that are more/less used
    - Student made more professional-like revisions after learning

# Ongoing and future work

- (Rigorous) intrinsic validation
  - (We have conducted preliminary validation before using it in the classroom)
  - *Coverage*: whether it sufficiently covers wide range of translation strategies
    - using unseen SDs of diverse text types
  - *Systematicity*: whether it helps different annotators assign strategies consistently
    - using wide range of examples and diverse levels of annotators
- Deployment and extrinsic validation
  - *Learnability*: whether the students can understand and use the strategies
    - through a more controlled protocol
  - *Effectiveness*: whether the students can produce translations of better quality