First results of an experimental study on the acquisition of cultural competence in translator training. The use of translation strategies to solve translation problems caused by cultural references

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1. Aims

The main aims of the analysis of the use of strategies when translating cultural references are:

- to identify which variables determine the use of translation strategies when translating cultural references;
- to create a regression model able to predict the use of each translation strategy depending on the variables that influence the use of translation strategies when translating cultural references.
- to measure the prediction capacity of the model;
- to sort the translation strategies from greater to lower likelihood of use for each variable that determines their use.

This analysis is part of the results obtained in the variable "Decision-making", related to the strategic sub-competence, of an experimental study into the acquisition of cultural competence in translator training. The experiment is based on PACTE's design used in the Translation Competence (2008) and Acquisition of Translation Competence experiments (2014).

2. Sample

The sample consists of 38 students of the four years of the Bachelor's degree in Translation and Interpreting at the Universitat Autònoma de Barcelona. The control group is made up of professional translators with at least 10 years of experience. The directionality of the translation task is from German (L3) into Spanish (L1). First-year students do not have previous knowledge of German language.

	n	Age (median)	German (L3) level according to CEFR (mode)	L1 (mode)	Has he/she failed any of the previous courses?	Mean of years of experience as professional translator	Is translation his/her main professional activity?
1st year	12	18	A1	Spanish	No	No experience	-
2nd year	8	19.5	A2	Spanish	No	No experience	-
3rd year	9	20	B1	Spanish	No	No experience	-
4th year	9	22	B2	Spanish	No	No experience	-
Translators	10	36	C1-C2 (bimodal)	Spanish	-	16.4	Yes

3. Data collection instruments

- Text: The article "Lautstark gegen die Ostalgie", written by Hauke Friedrichs and published in 2009 in *Die Zeit Online*, was selected as the source text. This text deals with the victims of the politics in the German Democratic Republic, who protested against the use of German Democratic Republic symbols for commercial and touristic purposes.

- Screen recordings: subjects do not interact with this software, so they can translate in a normal environment as if they were working in a translation course or at their office and use the same software, resources and search engines they use when translating.

- **Rich points (cultural references):** five cultural references were selected according to expert judgement:
  - *Ostalgie* (linguistic culture): part of the article title and reference to the topic based on a culturally marked neologism;
  - *Spreemetropole* (natural environment): reference to Berlin by referring to the river that flows through the city;
  - *Grenzeruniformen* (cultural patrimony): play of contrasts between the reference to the soldiers who guarded the Berlin wall (perceived as very negative by German citizens) and the parody for tourists performed by actors dressed up as Berlin wall soldiers;
  - *Arbeiter- und Bauernstaat* (social culture): reference to communism used as synonym for the former German Democratic Republic;
  - *Unrechtstaat* […] *DDR-Regim* […] *SED-Diktatur* (especially rich point): characterisation of the former German Democratic Republic government and the Socialist Unity Party of Germany by using synonyms with negative connotations.

4. The use of translation strategies

Translation strategies are classified in four categories depending on the actions taken before adopting a translation solution (PACTE, 2009: 223):

- **Internal support** (IS): the solution is based exclusively on internal support, with no consultation prior to the solution;
- **Predominantly internal support** (PIS): the solution is based predominantly on any combination of consultations which does not include bilingual resources;
- **Predominantly external support** (PES): the solution is based predominantly on any combination of consultations that includes consultatios of bilingual resources from which the variant offered is adopted as a solution;
- **External support (ES)**: the solution is based exclusively on consultation of bilingual resources, from which the variant offered is adopted as a solution.

To categorise the strategy used by each subject in each rich point, the screen recordings were viewed and the sequences of actions taken before adopting a solution were described and classified according to the type of support involved and the use of bilingual dictionaries. The following table presents the frequency of use of each sequence of actions for each experimental group.

	IS (%)	PIS (%)	PES (%)	ES (%)
1st year	25.97 3	3.90 4	32.47 2	37.66 1
2nd year	23.21 3	1.79 4	32.14 2	42.86 1
3rd year	28.57 2	3.17 4	44.44 1	23.81 3
4th year	21.43 3	1.79 4	41.07 1	35.71 2
Translators	57.14 1	14.29 3	17.14 2	11.43 4

The use of the sequences of actions does not vary greatly from year to year. Students tend to prefer using sequences based on external support (PES and ES), whilst translators prefer using sequences based on internal support (IS and PIS). In the case of students, this preference shows a clear tendency towards using documentation resources, probably because of a lack of confidence in their internal resources. This is especially relevant at the end of the BA, since the use of the sequences of fourth-year students is very different from translators' distribution.

5. Selecting the predicting variables

Many indicators of the experiment were chosen as possible predicting variables. For the selection of the predicting variables, a forward stepwise technique was used in the regression analysis. After running the analysis and checking the model fitting criteria, the predicting variables were the following:

- **The nature of the rich point according to Molina's cultureme categories** (2001): linguistic culture, natural environment, cultural patrimony, and social culture. (p = 0.000)
- **The degree of expertise**: categories used were "first-year students", "second-year students", "third-year students", "fourth-year students", and "translators". (p = 0.004)
- **The level of acceptability (PACTE, 2009) of each rich point**: three categories were used: "acceptable solution", "semi-acceptable solution", and "non-acceptable solution". (p = 0.015)
- **The identification of rich points as cultural references**: each rich point was categorised as "identified" or "non-identified". (p = 0.042)
- **Level of knowledge of German culture**: this numerical indicator was categorised in three categories: "high level of knowledge", "medium level of knowledge", and "low level of knowledge". (p = 0.035)

6. Predicting sequences of actions. The model

Sequences of actions were modelled using multinomial logistic regression analysis, since the target variable consists of four categories. The calculated model was statistically significant.

	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood	Chi-square	D. F.	Sig.
Intercept Only	354.720			
Final	154.779	199.940	36	0.000

7. Reliability of the model

Spearman's correlation coefficient between the likelihood of use of the predicted sequence and the likelihood of use of the actual sequence was 0.887 (p = 0,000) The association between the two is very strong. The Kappa index between the predicted sequence and the actual sequence is 0.626 (p < 0.000). The correlation coefficient and the Kappa index show that the model's prediction capacity is high and therefore it is reliable when predicting the sequences of actions subjects would use with regard to the predicting variables.

Pseudo-R-Square values also reported a high level of reliability: Cox & Snell = 0.663; Nagelkerke = 0.754; McFadden = 0,515.

8. Likelihood of use of each sequence. Method

The multinomial logistic regression provides information of the likekihood (odds ratio - OR) of using a specific sequence of actions rather than another sequence when having a specific level of a predicting variable rather than another level. In the three following examples, IS is the target sequence of actions:

- Subjects who **do not identify** RPs compared to those who do identify them are **less likely** to solve RPs with **PIS rather than IS** (OR = 0.062; 95% CI = 0.005-0.724; p = 0.027). = **PIS < IS**
- Subjects who **do not identify** RPs compared to those who do identify them are **less likely** to solve RPs with **PES rather than IS** (OR = 0.374; 95% CI = 0.091-1.534; p = 0.172). = **PES < IS**
- Subjects who **do not identify** RPs compared to those who do identify them are **less likely** to solve RPs with **ES rather than IS** (OR = 0.383; 95% CI = 0.061-2.412; p = 0.307). = **ES < IS**

Once the likelihood is explained for all sequences of actions, we were able to detect the likelihood of use of each sequence for each level of the predicting variables. The following table presents the likelihood of use of the sequences of actions for subjects who do not identify rich points as cultural references.

Predicting variable: identification of rich points as cultural references | Level described: Non-identified rich points | Baseline level: Identified rich points					
Likelihood	Sorting sequences according to their likelihood of use				Order
PIS < IS	IS			PIS	IS > ES > PES > PIS
PES < IS	IS		PES		
ES < IS	**IS**	**ES**			
PES > PIS			**PES**	**PIS**	
ES > PIS		ES		PIS	
ES > PES		**ES**	**PES**		

We sorted all sequences of actions for each level of each predicting variable. The results are presented in the following section.

9. Conclusions

Likelihood of use of each sequence of actions	
Internal support	Subjects use this sequence • if they belong either to the third-year group or to the group of translators, • or if they are translating the reference to linguistic culture, • or if their acceptability level is high, • or if they do not identify rich points as cultural references, • or if their level of cultural knowledge is either high or low.
Predominantly internal support	Subjects use this sequence • if they belong to the first-year group, • or if they are translating the reference to natural environment, • or if their acceptability level is either medium or low, • or if they identify rich points as cultural references, • or if their level of cultural knowledge is either medium or low.
Predominantly external support	Subjects use this sequence • if they belong to the fourth-year group, • or if they are translating the reference to cultural patrimony, • or if they tend to have a medium or low level of acceptability, • or if they tend to identify rich points as cultural references, • or if their level of cultural knowledge is medium.
External support	Subjects use this sequence • if they belong to the second-year group, • or if they are translating the reference to social culture, • or if they tend to have a medium or low level of acceptability, • or if there is no clear tendency regarding the identification of rich points as cultural references, • or if they tend to have a low level of cultural knowledge.

- Internal support and predominantly external support are characteristic of higher levels of expertise, whilst predominantly internal support and external support are characteristic of lower levels of expertise.
- Subjects tend to use different strategies depending on the nature of the cultural reference being translated. This means that each cultural reference has some specific difficulties which are linked to its nature and to the translation's function.
- Internal support is characteristic of subjects whose acceptability level is high, whilst the use of the remaining sequences is not clearly linked to the different levels of acceptability.
- Different types of strategies are used depending on the identification of rich points as cultural references. On one side, subjects who do not identify rich points as cultural references use internal support, whilst subjects who identify them use predominantly internal support. On the other side, subjects who tend to identify them use predominantly external support, whilst subjects with no clear tendency use external support.
- Internal support is characteristic for subjects whose level of cultural knowledge is both high and low. However, internal support is only used by subjects whose level of cultural knowledge is high.
- By using logistic regression analysis, we have determined the relationship between some indicators of the experiment and the sequences of actions. This proves the relationship between the strategic sub-competence, which is represented here by measuring the use of sequences of actions, with other sub-competences of Translation Competence, especially with the extra-linguistic sub-competence and cultural competence.

References

Molina, L. (2001). *Análisis descriptivo de la traducción de los culturemas árabe-español*. (Ph.D. dissertation, Universitat Autònoma de Barcelona, Bellaterra).

PACTE. (2008). First results of a translation competence experiment: "Knowledge of translation" and "efficacy of the translation process." In J. Kearns (Ed.), *Translator and interpreter training. Issues, methods and debates* (pp. 104–126). London: Continuum Intl Pub Group.

PACTE. (2014). First results of PACTE Group's experimental research on translation competence acquisition: The acquisition of declarative knowledge of translation. *MonTI: Monografías de traducción e interpretación*, special issue 1, 85-115.