Production Report of the TRAD Parallel Corpus Arabic-French – Translation of a subset of GALE Phase 1 Arabic Newsgroup Parallel Text - Part 1 (LDC2009T03)

This corpus has been produced within the framework of the PEA-TRAD project (2011-2014)

Versions of the document :

Version	Date	Author	Status
1.0	22/05/2013	Djamel Mostefa, Priscille Schneller	Internal version (in French)
2.0	25/04/2017	Priscille Schneller	Final version (in English)

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1   Introduction

This document is a report on the production process of the TRAD Parallel corpus Arabic-French (subset of LDC2009T03).

The source texts in Arabic were extracted from the GALE Phase 1 Arabic Newsgroup Parallel Text - Part 1 corpus (LDC2009T03). A subset of about 10,000 words from the Web domain has been translated into French within the PEA TRAD project (*TRADuction pour l'aide à l'analyse documentaire*, Translation as a Support for Document Analysis), supported by the French Ministry of Defence (DGA).

Translation into French has been conducted by ELDA and specific guidelines have been set up following ELDA's experience in similar projects.

This document gives an overview on the source texts, the translation / proofreading and validation process.

2   Description of the corpus

This parallel corpus contains 398 segments (translations units) from 17 documents.
The source file in Arabic contains 10,076 words and the reference translation in French contains 15,843 words.

The Arabic source texts were extracted from the Arabic-to-English corpus GALE Phase 1 Arabic Newsgroup Parallel Text - Part 1 (LDC2009T03), ISLRN: 146-868-323-212-9.

2.1   Data sources

The source texts are documents collected from Arabic newsgroups. Newsgroups consist of posts to electronic bulletin boards, Usenet newsgroups, discussion groups and similar forums.

The identifiers corresponding to the 17 documents extracted from LDC2009T03 are indicated below:

groups.google.com_2rabsoftgroups_0c9c4571d599eca4_ARB_20051128_021300.txt
groups.google.com_islamtoday_1686ae76fdf49a8b_ARB_20050606_024900.txt
groups.google.com_islamtoday_3d3f7867fb84d07d_ARB_20060314_062600.txt
groups.google.com_islamtoday_641382179c90ed3b_ARB_20050719_030100.txt
groups.google.com_women1000_0ace01291953c76f_ARB_20060406_111800.txt
groups.google.com_women1000_0cd80eb66857ff3f_ARB_20051016_154000.txt
groups.google.com_women1000_144d2cdae56596bd_ARB_20051030_040600.txt
groups.google.com_women1000_2096d3ffb351a83e_ARB_20051019_053700.txt
groups.google.com_women1000_312340d481f35290_ARB_20051202_134700.txt
groups.google.com_women1000_33b14897a17c1daa_ARB_20060131_126600.txt
groups.google.com_women1000_3b1788f6967fba53_ARB_20051123_235200.txt
groups.google.com_women1000_48c936ff068f3a37_ARB_20060410_034500.txt
groups.google.com_women1000_4fcdd1e39bb181b0_ARB_20060125_020000.txt
groups.google.com_women1000_5de63771384f2a65_ARB_20051019_054400.txt
groups.google.com_women1000_62ccbe7bef000bd9_ARB_20051114_162400.txt
groups.google.com_women1000_6d1fc1b35b85028a_ARB_20051014_123600.txt
groups.google.com_da3wati_5c655c74663b555b_ARB_20060308_124600.txt

2.2   Data format

The corpus contains 2 XML files:
- cdevaf2_src_v11.xml
- cdevaf2_ref_v11.xml

Files are named according to the following rules:
   <corpus_id>_<id>_<version>.xml

where:
- o   <corpus_id> is the name of the corpus
- o   <id >= src | ref is the identifier of the document ('src' as 'source' and 'ref' as 'reference translation')
- o   <version> = v1 | v2 |… is the number of version.

The files are unicode-encoded XML following the DTD provided in the Appendix p.11.

3   The translation process

The objective of the current work is to produce high-quality bilingual data being the result of the work of translation professionals. The produced corpora are used to train or evaluate machine translation systems.

The composition of the translation team and the specification of translation guidelines are defined by ELDA at the beginning of the project to regulate the translators' work.

3.1   The translation team

A single translation team should translate all of the source language data. This team might be composed of:

- one or several bilingual translator(s), native speaker(s) of the target language of the data.
- a bilingual target language native speaker who proofreads and edits the output of the translators. He is also in charge of the homogenisation of the whole corpus, especially regarding terminology, if required. Notice that the translations must be systematically finalised and checked by a target native speaker.

Each file is encoded in XML and identified with a series of information that does not need to be translated: document version, encoding, DTD, source of the data as well as language and system ID.

Each document contains one or several main fields with text to translate: these are contained within XML tags and are referred to as segments (e.g., <seg id="1" >).

The file is to be rendered as XML format, UTF-8 encoded, so as to preserve the original structure.

3.2   Translation quality

Translation agencies follow their best practices to produce translations. While we trust that each translation agency has its own mechanisms of quality control, we have specific guidelines so that all translations share a common ground. These are:

1. The target translation must be faithful to the original source text in terms of meaning and style. When the source text is a press dispatch, the translation should be written in a journalistic style, thus respecting the document style. When the source text is taken from blogs or mailing lists, unusual syntactic structures may be used. The translation should reflect this phenomenon. The translation should mirror the original meaning as much as possible without compromising grammaticality, fluency and naturalness.

2. The tone and register of the language should be respected. For instance, if the text shows an angry or uneasy speaker in the source language, this state of mind should be also expressed in the target language, conveying the same tone.

3. The same applies for the general "politeness" and "formality" register of the source text. Both translators and proofreaders should bear in mind the "politeness" standards of the target language, such as the use of pronouns "vous" and "tu" in French when translating from English.

4. The translation should be as factual as possible, trying to keep the exact information conveyed by the source text, without changing the meaning or without adding/removing information. For example, if the original text uses "Obama" to refer to the U.S.A. President, the translation should not be rendered as "President Obama", "Mister Obama", etc.

5. No bracketed words, phrases or other annotation should be added to the translation as an explanation or aid to understanding.

6. The translation should entail the same cultural assumptions as the original text, and no implicit reference should be made explicit by the translator.

7. The order of consecutive segments must not be altered, not even for stylistic reasons, i.e. the contents of segments N and N+1 must not be swapped in the translation.

8. Should a sentence to be translated prove to be incomplete (due to formatting problems, etc.) and pose problems for its translation, it should be reported to ELDA immediately. Then it will be decided whether such sentence must be corrected or deleted.

9. Capitalisation and punctuation are language dependent. This means that translators should follow the standards from the target language and apply their rules even if these may not coincide with those of the source document. This may imply, for instance, changing or adding either upper/lower case letters or punctuation marks.

10. Regarding neologisms and unknown words: if it is possible to understand the intention/gist of the source text, then the translation should be either the correct form of the word (for unknown words) or a new word corresponding to the source derivation (for neologisms). If the translator has no preexisting knowledge on how to translate a word, (s)he is expected to consult standard sources, such as dictionaries, translation forums, etc.

11. Regarding proper names, whenever possible, these should be translated following conventional practices in the target language. However, it may be necessary not to follows instructions, as for instance concerning the order of first names and last names, which must be translated according to source language's standards. As with neologisms, when lacking knowledge on the word to translate, translators are expected to consult standard resources.

12. Regarding titles (movies titles, series, books), their translation must follow the standards of the works' translations in the target language. If these standards don't exist, titles must be left untranslated in the form that can be found in source language. For instance, "Voice of America" should be translated into French by "La voix de l'Amérique", which is the standard translation.

13. Translators are requested to list all cases (proper names, neologisms, etc., as indicated in points 10 and 12) where such standard resources have been used. This will help to assure the consistency of the translation of the completed document.

14. The format of entities like dates and numbers in general must remain the same in the translated document. For instance, when translating from English into French, "January 27, 1999" must be translated into "27 janvier 1999", while "January twenty-seventh nineteen ninety nine" must be translated into "vingt-sept janvier mille neuf cent quatre-vingt-dix-neuf"

15. Idioms and colloquial expressions are particularly hard to translate. If a similar expression exists in the target language, it should be used. However, if there is no direct translation into the target language, try to preserve the meaning of the source-language expression but convey it in as natural and fluent a target-language expression as possible.

16. If spelling errors are to be found in the source text, they must be ignored and must not be reproduced in the translation.

17. The normalisation and revision of the whole corpus will be done in terms of terminology used, as well as orthographic consistency, style and register. For consistency purposes, the proofreading of the full corpus will be done by a target language native speaker. A report should be produced by the proofreader to make explicit the improvements introduced during the process.

4 Validation

4.1 Validation protocol

To assure the quality of the translations, ELDA enforced the following policies:

1. Hire fluent bilingual experts to control the translation quality level.

2. For each delivery of translated texts, a subset of 5% of the documents is randomly selected and the selected sample translation is graded.

3. To ensure consistency from one review to another, a system has been adopted for grading translations:

Error	Penalty
Syntactic	3 points
Lexical	3 points
Poor usage of target language	1 point
Capitalisation / Spelling error	1 point
Punctuation	0.5 points (max 10 points)

- **Syntactic errors** are those found in grammatical categories. These comprise errors such as problems with verb tense, coreference and inflection. Furthermore, syntactic errors are also those where there has been a misinterpretation of the grammatical relationships between the words of the original text. Examples of syntactic errors are, for instance, translating an object as a subject, making an adjective modify a verb, attaching a relative pronoun or prepositional phrase to the wrong noun.
- **Lexical errors** comprise omitted words or wrong choice of lexical item (word), due to misinterpretation or mistranslation.
- **Poor usage** of target language means awkward, unidiomatic usage of the target language and failure to use commonly recognised titles and terms.
- **Capitalisation errors** refer to the initial character of a sentence, as well as any words which do not respect the capitalisation conventions in the target language. For instance, proper names should start with upper-case in certain languages and this should be taken into account when translating into such target languages.
- **Punctuation errors:** punctuation should also follow the standards/conventions of the target language, even if the source language is not correctly punctuated.

4. Over a defined level of penalty points, the translation is rejected and the whole delivery sent back to the translation team for improvement. Once the translation is corrected, a new sample is extracted and validated under the same protocol.

The total of penalty points in the sample must be lower to the defined threshold for the translation to be accepted. The hierarchy of errors shows errors' gravity and applies penalties commonly used in the domain and in similar machine translation projects such as CESTA, TC-STAR, QUAERO, MEDAR.

The acceptance threshold here is 3 points for 100 words.

4.2   Validation results

The sample extracted for validation contains 824 words.
Our acceptance threshold here is 24 points.

The table below shows the validation results:

Error	Number of errors	Penalty points
Syntactic	3	9
Lexical	2	6
Poor usage of target language	2	2
Capitalisation / Spelling error	1	1
Punctuation	1	0.5
TOTAL		18.5

The validation results above are related to the last version of the translation.

4.3   Revision

When the translation is rejected, the translation team is asked to revise it in its entirety. Comments from the validation team must be taken into account and the improved translation completed within an agreed time-frame.

Before final delivery, validation tools are used to check format and detect remaining spelling errors on the whole translation.

Appendix: XML format DTD

```
<!--
 History:
 version 1.4: adaptation to PEA TRAD languages
 version 1.3: added English and Urdu as srclang values
     added Chinese as trglang values
     added poster element
     made the sysid attribute required

 version 1.2: converted from a SGML DTD to an XML DTD,
     added new attribute genre to the doc element

 version 1.1:  the NIST DTD for evaluation of language translation
     adapted from LDC DTD for Multiple-Translation Chinese Corpus,
     version 1.0
-->

<!ENTITY lt     "&#38;#60;">
<!ENTITY gt     "&#62;">
<!ENTITY amp    "&#38;#38;">
<!ENTITY apos   "&#39;">
<!ENTITY quot   "&#34;">

<!ELEMENT mteval (srcset | refset+ | tstset+)>
<!ELEMENT srcset (doc+)>
<!ATTLIST srcset setid CDATA #REQUIRED>
<!ATTLIST srcset srclang (Arabic | Chinese | English | French | Pashto)
#REQUIRED>
<!ATTLIST srcset trglang (English | French |Pashto) #REQUIRED>

<!ELEMENT refset (doc+)>
<!ATTLIST refset setid CDATA #REQUIRED>
<!ATTLIST refset srclang (Arabic | Chinese | English | French | Pashto)
#REQUIRED>
<!ATTLIST refset trglang (English | French |Pashto) #REQUIRED>

<!ELEMENT tstset (doc+)>
<!ATTLIST tstset setid CDATA #REQUIRED>
<!ATTLIST tstset srclang (Arabic | Chinese | English | French | Pashto)
#REQUIRED>
<!ATTLIST tstset trglang (English | French |Pashto) #REQUIRED>
<!ELEMENT doc (hl | p | poster | seg)*>
<!ATTLIST doc docid CDATA #REQUIRED>
<!ATTLIST doc genre (news | speech | editorial | text) #REQUIRED>
<!ATTLIST doc sysid CDATA #REQUIRED>

<!ELEMENT hl (seg*)>

<!ELEMENT p (seg*)>

<!ELEMENT poster (seg*)>

<!ELEMENT seg (#PCDATA)>
<!ATTLIST seg id CDATA #REQUIRED>
```