# **COMPARA Sentence alignment revision and markup**

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1. CRITERIA FOR TEXT ALIGNWENT	2
2. EDITING SENTENCE ALIGNMENT	3
2.1 Preparing	3
2.2 Basic sentence alignment editing	5
2.2.1 Source text alignment	5
2.2.2 Translation alignment revision	6
2.2.3 Authors' and translators' notes alignment	7
2.3 Complicated cases of sentence alignment	8
2.3.1 Alignment with whole sentences and fractions	8
2.3.2. Reorderings	8
2.3.3 Texts by José Saramago	11
4. CONCLUSION	12

## 1. Criteria for text alignment

The basic unit of alignment in COMPARA is the source-text sentence. A sentence is defined as a word or sequence of words beginning with a capital letter and ending with a full-stop, ellipsis, exclamation mark or question mark, followed by a new sequence of words beginning with a capital letter, or by no text at all in the case of the end of a paragraph. The paragraph below illustrates the sentence separation criteria adopted (sentence beginnings are marked <s>):

```
EURZ1 (five sentences)
<s>«You shouldn't listen to me,» Simon suddenly sighs. <s>«I'm an old fool who no longer has any courage. <s>But for Master Abraham's sake I will try to face the truth, if you like. <s>Now tell me, you believe he was murdered by someone who knew him... a New Christian?» <s>His questioning eyes seem almost hopeful, as if death by a Jew's hand is preferable to Uncle having been murdered by a follower of the Nazarene.
```

In cases of direct speech followed or preceded by reporting verbs (such as *say*, *tell*, *whisper*, *suggest* etc.), there can be words beginning with capital letters after the punctuation marks mentioned above without any resulting sentence separation. For example:

```
EBJT1 (one sentence) <s>`You OK?´ Robin's daughter said, standing close to him, but not touching.
```

Note that when direct speech is not followed or preceded by reporting verbs, sentence separation is maintained. In the example below, a new sentence begins after the second question mark because *realise* is not a reporting verb:

```
PBCB2 (three sentences)
<s>Then asks `What happened to Osbenio? <s>And to Clauir?' <s> I
realise he was expecting someone else, a relative, someone or other.
```

The colon is only considered a sentence separator if it marks the end of a paragraph:

```
EBDL3 (two sentences)
<s>From long practice Philip was able to follow his drift pretty
well, and therefore answered confidently:
<s><Oh, no, I couldn't leave Hilary behind to cope on her own.</pre>
```

If there is no end of paragraph, there is no sentence separation, no matter whether or not the word after the colon begins with a capital letter:

```
EBJB1 (one sentence)
<s>Flaubert wanted them to be: few writers believed more in the objectivity of the written text and the insignificance of the writer's personality; yet still we disobediently pursue.

EUHJ1 (one sentence)
<s>But she did not commit herself, and in a moment she asked: «Now that he has come back, will he stay here always?»
```

Source-text sentences are sometimes divided into two or more sentences in the process of translation. Translators may also join source-text sentences together, rendering them as a single translation sentence, or they may leave things out and insert elements that were not present in

the source text. In addition to this, translators sometimes reorder elements so that the order in which they appear in the translation differs from that in which they appear in the source text.

In COMPARA, whenever there is not a one-to-one sentence correspondence between source-text and translation sentences, it is the translation sentences that are split or joined up to conform to the way sentences were originally divided in the source text. Thus an alignment unit is always one orthographic sentence<sup>1</sup> in the source text and the corresponding text in the translation, whether it is one, more than one or even only part of a sentence.

Source-text sentences that have been left out of the translation are aligned with blank units. Sentences that have been added to the translation with no corresponding text in the original are fitted into the nearest preceding alignment unit.<sup>2</sup> Sentences that have been reordered in the translation are "unreordered" in the alignment. So if source-text sentences ABC are translated into ACB, in the alignment procedure the translation sentences ACB change places so that they become ABC again. Figure 1 summarizes these alignment criteria.

Figure 1. COMPARA criteria for text alignment

Source Text		Translation text
S	$\rightarrow$	S
S	$\rightarrow$	S,S
S	$\rightarrow$	½ S
S	$\rightarrow$	Ø
S	$\rightarrow$	S(+S)
Sa	$\rightarrow$	∼ Sa ]
∤ Sb	$\rightarrow$	⟨✓ Sc ⟩
Sc	$\rightarrow$	Sb <sup>→</sup>

# 2. Editing sentence alignment

After you've aligned a pair of texts by paragraph, the texts are automatically aligned at the level of the sentence by EasyAlign. The *par* endings of the files that have been submitted to this procedure are renamed *easy* at this phase. (e.g. PBMA3easy.pt & PBMA3easy.en).

The automatic alignment obtained through Easyalign does not follow COMPARA's alignment criteria to the letter, and your job is to edit the results so that they match the criteria in figure 1. Here is how:

#### 2.1 Preparing

a. Open source text "easy" file in Word.

b. Open translation "easy" file in Word.

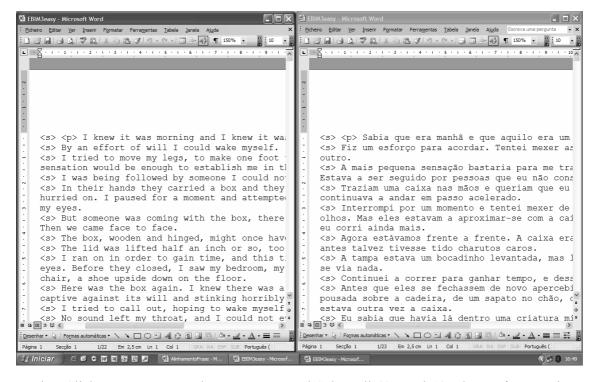
Note that the divisions made by EasyAlign are marked <s> and that each <s> segment begins on a new line. If the sentence also represents the beginning of a paragraph, then it is marked <s>.

<sup>&</sup>lt;sup>1</sup> Except in texts by José Saramago, as explained further on in 2.3.3.

<sup>&</sup>lt;sup>2</sup> Except when the added sentence is the first one of a paragraph, in which case the extra sentence should come before.

- c. Go to Window and select Arrange all. You should be able to see both source and translation, one on top of the other.
- d. Drag the right margin of the source text to the centre of the screen.
- e. Drag the left margin of the translation to the centre of the screen.
- f. Drag the top margin of the bottom text to the top, so that it occupies half the screen.
- g. Drag the bottom margin of the top text to the bottom, so that it occupies the other half of the screen. You should now be able to see the source text occupying the whole left-hand side of your screen and the translation occupying the whole right-hand side, as shown in fugure 2.

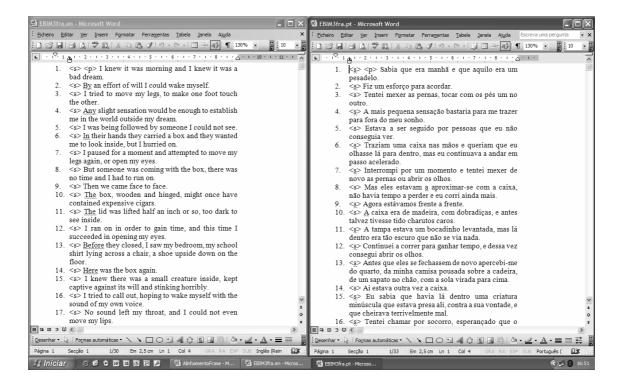
Figura 2. Preparing your computer screen for alignment revision



- h. Click your mouse on the source text and Select all (Control A), change font to Times New Roman, and change font size to 10.
- i. Go to View and select Normal.
- j. Go to File and Page setup. Set left margin at 0.5 cm and right margin at 13.5 cm and apply to Whole document. The source text should now be thin enough so that you can see a full line on only the left half the screen.
- k. Select all (control A) again. Go to Format, Bullets and numbering and then Numbered. Select the "1. 2. 3." format. All the sentences in the source text should now be numbered.
- 1. Save the source text in Word format (at this stage, it is important not to save it in text format) and then click the mouse on the translation text.

- m. Select all (control A), change font to Times New Roman, and change font size to 10.
- Go to View and select Normal.
- o. Go to File and Page setup. Set left margin at 13.5 cm and right margin at 0.5 cm and apply to Whole document. The translation text should now be thin enough so that you can see a full line on only the right half the screen.
- p. Select all (control A) again. Go to Format, Bullets and numbering and then Numbered. Select the "1. 2. 3." format. All the sentences in the translation should now be numbered too as shown in figure 3. Save the file in Word format (again, remember not to save it in text format at this phase).

Figure 3. Numbered texts for alignment revision



#### 2.2 Basic sentence alignment editing

According to COMPARA's alignment criteria, each <s> or <s> segment of the source text should consist of just one sentence. Therefore:

#### 2.2.1 Source text alignment

Detect all the <s> or <s> segments in the source text that contain more than one sentence and all the ones which are empty. For example:

- 1. <s> I was bewildered, utterly lost in amazement -- but I could not forget the peculiar whine of my Newfoundland dog Tiger, and the odd manner of his caresses I well knew. It was he.

  2. <s>
- 3. <s> I experienced a sudden rush of blood to my temples -- a giddy and overpowering sense of deliverance and reanimation.

To detect empty  $\langle s \rangle$  or  $\langle s \rangle \langle p \rangle$  segments or ones which have more than one sentence in the source text in a semi-automatic way, without having to read through the text all over again, press *Control F* and search first for all fullstops (.), then all question marks (?), and then all exclamation marks (!).

Note that the colon (:) is *not* considered to be a sentence separator, unless it is followed by a paragraph break. This means you do not have to worry about them now, because they have already been dealt with in the paragraph alignment phase.

Whenever you find segments with more than one sentence in the source text, press *Enter* to separate them and insert a new <s> mark at the beginning of the sentence you have separated. Word will renumber the new <s> segments accordingly. For example:

#### Change

```
1. <s> Did you know about the time he had the ass keel-hauled? Is that in your archives?
```

Into

- 1. <s> Did you know about the time he had the ass keel-hauled?
- 2. <s> Is that in your archives?

Don't worry about <s> tags, for all necessary for paragraph marks have been dealt with in the paragraph alignment phase

Whenever you find an empty segments, remove the empty line and the <s> or <s> mark completely with the *Backspace* key (Word will renumber the remaining source text segments accordingly). For example:

#### Change

```
    <s> It was he.
    <s>
    <s> I experienced a sudden rush of blood to my temples -- a giddy
```

and overpowering sense of deliverance and reanimation.

Into

```
    <s> It was he.
    <s> I experienced a sudden rush of blood to my temples -- a giddy and overpowering sense of deliverance and reanimation.
```

Once you have finished the source text alignment revision, save the file and don't change anything else in it.

#### 2.2.2 Translation alignment revision

Scroll down the translation text side by side with the source text. You will notice the text and the numbered segments of the translation do not always match the ones in the source text. In this part of the alignment revision, you have to make them match again, changing only the translation text.

When you come across unaligned segments, you are to join or separate any extra or missing segments in the translation in order to realign them with those of the source text.

To join <s> segments of the translation, press *Backspace* to erase line breaks until the numbers of the segments match the ones on the source text. The new translation segment should now

contain more than one sentence and more than one <s> mark. Leave only the first <s> or <s> mark (the one immediately next to the number) and delete the other(s).

When joining <s> segments in the translation, you may notice that the translator added one or more than one whole sentence to the translated text without there being any equivalent text in the original source text. If this is the case, surround the additional sentence(s) with <add> in the beginning and </add> at the end. For example:

```
1. <s> What would God
1. <s> Que pensará Deus think?
disto? <add>Que pensará
Deus daquilo? Que pensará
Deus de tudo?</add>
```

In order to split <s> segments of the translation into two (or three, etc.), press *Enter* so that you split a translation sentence into two (or three, etc.) and insert a new <s> mark at the beginning of each new segment. If you split a sentence into two, change the <s> mark of each half into <s2>. If you split a sentence in three, change the <s> mark at the beginning of each third into <s3>, etc. You must be careful to make sure you split the translation segment at the point of closest correspondence to the source text<sup>3</sup>. For example:

```
88. <s> - Pois devias

rir, meu querido.

88. <s2> " Well, you
should be laughing, my
dear fellow,

89. <s> Porque a
imortalidade é o meu lote
ou o meu dote, ou como
melhor nome haja.

88. <s2> " Well, you
dear fellow,

89. <s2> because
immortality is my lot or
my spot or whatever name
you can come up with for
it.
```

When dividing <s> segments in the translation, you may find the translator has left out a whole sentence. If this happens, mark the translation segment just with <s>, leaving the rest blank. For example:

```
1. <s> A cara
impenetrável, os olhos
inscrutable, his eyes
não diziam nada.
said nothing.
2. <s> Não estava mais
2. <s>
ali quem falou.
3. <s> Ele agora atendia
uma freguesa que queria
três metros de morim.

1. <s> Zito's face was
inscrutable, his eyes
said nothing.
2. <s>
ali quem falou.
4. <s> Now he was serving
a customer who wanted
three metres of cambric.
```

Correctly aligned source text and translation text segments (i.e., one sentence in the source text and the corresponding text in the translation both of which identified by the same number) are called *alignment units*.

#### 2.2.3 Authors' and translators' notes alignment

Authors' notes <anote> should be placed in separate alignment units. If the note is made up of more than one sentence, each sentence must be on a separate alignment unit.

Translators' notes <tnote> should remain inside the alignment unit where the note belongs (immediately after the note mark) even when the note contains more than one sentence.

3

<sup>&</sup>lt;sup>3</sup> It is not always possible to achieve 100% correspondence.

#### 2.3 Complicated cases of sentence alignment

#### 2.3.1 Alignment with whole sentences and fractions

If you come across a source text sentence that matches  $1\frac{1}{2}$  translation sentences, align them normally, as described earlier. The only thing that changes are the alignment tags used on the translation text. Normally, <s> is used for full sentences (no matter how many) and <s2> for half a sentence, <s3> for one third of a sentence, an so on. When there is a combination of a whole sentence with a fraction of a sentence, our programs cannot make automatic counts, so we must use explicit tags:

- a. Instead of identifying half sentences with  $\langle s2 \rangle$ , use  $\langle s1/2 \rangle$ . Similarly, instead of using  $\langle s3 \rangle$  for a third of a sentence, use  $\langle s1/3 \rangle$ , an so on.
- b. Instead of identifying whole sentences just with <s>, count exactly how many whole sentences there are and write it down: <s1> = one whole sentence, <s2> = two whole sentences, etc.
- c. Use a plus sign (+) to indicate that there is a comination of a whole sentence with a fraction. Thus  $\langle s1/2+1 \rangle =$  one and a half sentences,  $\langle s1/3+2 \rangle =$  two and a third sentences,  $\langle s1/2+3 \rangle =$  three and a half sentences, etc.
- d. The fraction must always come before the whole number within the tag, even if in the actual text the whole sentence appears first. For example:

```
347. <s> Augustus called to me at first in a low voice and without closing the trap -- but I made him no reply.

348. <s> He then shut the trap, and spoke to me in a louder, and finally in a very loud tone -- still I continued to snore.
```

347. <s1/2+1> Augusto chamou-me. Primeiro, em voz baixa e sem fechar o alçapão, mas eu não dei qualquer resposta;
348. <s2> fechou então o alçapão e falou-me num tom de voz mais alto; depois aos berros, mas eu continuava a ressonar.

So in the above example, alignment unit 347 contains one full source text sentence and  $1\frac{1}{2}$  translation sentences; alignment unit 348 contains one full source text sentence and  $\frac{1}{2}$  a translation sentence.

Note that this rule also applies when the alignment unit includes sentences that have been added to the translation. For example:

```
611. <s> Parece até que 611. <s1/2+1> there were chorou. even tears...» <add><Who cried?</add>
```

Alignment unit 611 contains one full source-text sentence and 1½ translation sentences.

#### 2.3.2. Reorderings

You may also come across source-text sentences that have been reordered in the translation. In the alignment you have to change the place of the corresponding text in the translation (which can be a full sentence or half a sentence, etc.) so that it follows the order of the source text. Whenever you do that, you have to surround the parts you are moving with <reord 1>bla, bla,

bla </reord>. After you've done that, you have to insert <place 1> in the place where the bit you've moved used to be, i.e., the place of the published order. If there is a second reordering in the translation, you should mark it <reord 2> bla, bla, bla </reord>, and then mark the place where the translator originally put the bit you've moved with <place 2>. If there is a third one, use <reord 3> bla, bla, bla </reord> and <place 3>, and so on, until the end of the translation text.

In the example that follows, the translator split the first source-text sentence into two, and moved the second half of it to the sentence immediately after: But there was still another and very different source of disquietude, and one, indeed, whose harassing terrors had been the chief means of arousing me to exertion from my stupor on the mattress. It arose from the demeanor of the dog. → Mas, havia ainda uma outra razão completamente diferente para me inquietar. Esta inquietação, em consequência da qual os extenuantes terrores me tinham arrancado ao torpor e me haviam obrigado a soerguer-me do colchão, provinha do comportamento do cão. This should be marked as follows:

> 286. <s> But there was still another and very different source of disquietude, and one, indeed, whose harassing terrors had because terrors had been the chief means of arousing me to exertion from my stupor on the mattress.

287. <s> It arose from the demeanor of the dog.

286. <s1/2+1> Mas, havia ainda uma outra razão completamente diferente para me inquietar. <reord 1> em consequência da qual os extenuantes terrores me tinham arrancado ao torpor e me haviam obrigado a soerguer-me do colchão, </reord> </reord> 287. <s2> Esta inquietação, <place 1> provinha do comportamento do cão.

You should only mark <reord> when translators change the order of whole sentences or of sentences that they themselves decided to split. In other words, you needn't bother with <reord> when translators change the order of words or of clauses within the same sentence.

It is important that <reord> and <place> tags always appear in this order, first <reord>, and then <place>, no matter in what direction you've interpreted the reordering. This means that the following encoding is wrong because the <place> tag was inserted before the <reord> tag:

```
14. <s> There was a pause, and
then Judy said, 'Mum liked it,
though. '
```

15. <s> Her voice shook.

14. <s2> Houve uma pausa e depois Judy disse <place 1> : -- No entanto, a mãe gostava disto. 15. <s2> <reord 1> em voz trémula </reord>

The right way to do it, or rather, the way to make it work in our system, is:

```
<s> There was a pause, and
then Judy said, 'Mum liked it, depois Judy disse <reord 1>:
though. '
```

15. <s> Her voice shook.

14. <s2> Houve uma pausa e -- No entanto, a mãe gostava disto. </reord> 15. <s2> em voz trémula <place 1>

Note that <reord> and <place> tags needn't be in adjacent alignment units as long as the number that identifies them is the same. For example, take Robin said sharply, 'Caro was Judy's mother. And my wife. Not Joe's.'  $\rightarrow$  -- A Caro era mãe de Judy. E minha mulher. Não era nada ao Joe -- disse Robin com brusquidão. This should be encoded as follows:

```
<s> Robin said sharply, 'Caro
was Judy's mother.
```

73.  $\langle s \rangle$  And my wife. 74. <s> Not Joe's.

72. <s1/2+1> -- A Caro era mãe de Judy. <reord 3> -- disse Robin com brusquidão. </reord> 73. <s> E minha mulher. 74. <s2> Não era nada ao Joe <place 3>

Last of all, it is important to note that it is *not* possible to (a) have one reordering within another neither (b) open a <reord> tag in one alignment unit and close it </reord> in another one. The example below is therefore wrong, because the <reord> tag opens in alignment unit 97 and closes in alignment unit 98.

There was a sundial in the centre of the sweep, with an engraved metal plate bolted to its surface. 'Onlie count,' the engraving ran, 'the sunny houres.' Caro had put it there. It had been her first Christmas present to Robin.→ No centro do terreiro, Caro pusera um relógio de sol, o primeiro presente de Natal que dera a Robin, com uma placa de metal gravado aparafusada à superficie que dizia "Conta apenas as horas de sol".

97. <s> There was a sundial in the centre of the sweep, with an engraved metal plate bolted placa de metal gravado aparafusado à superfície 98. <s4> que dizia "Conta apenas as horas de sol". houres.'

99. <s> Caro had put it there.

100. <s> It had been her first Christmas present to Robin.

terreiro, <reord 4> com uma </reord> 99. <s4> Caro pusera um relógio de sol, 100. <s4> o primeiro presente de Natal que dera a Robin <place 4>

#### The way to go about it is to mark <reord> twice:

to its surface.

98. <s> 'Onlie count,' the engraving ran, 'the sunny houres.'

99. <s> Caro had put it there.

100. <s> It had been her first Christmas present to Robin.

97. <s> There was a sundial in 97. <s4> No centro do the centre of the sweep, with terreiro, <reord 4> com uma an engraved metal plate bolted placa de metal gravado aparafusado à superfície </reord> 98. <s4> <reord 5> que dizia "Conta apenas as horas de sol". </reord> 99. <s4> Caro pusera um relógio de sol, 100. <s4> o primeiro presente de Natal que dera a Robin

<place 4> <place 5>

Another possible option, that would cut down on the number of reorderings, is:

97. <s> There was a sundial in the centre of the sweep, with an engraved metal plate bolted to its surface.

98. <s> 'Onlie count,' the engraving ran, 'the sunny houres.'

99. <s> Caro had put it there. 100. <s> It had been her first Christmas present to Robin.

97. <s3> No centro do terreiro, Caro pusera um relógio de sol, <reord 4> com uma placa de metal gravado aparafusado à superfície 98. <s3> que dizia "Conta apenas as horas de sol". </reord>
99. <s> 100. <s3> o primeiro presente de Natal que dera a Robin <place 4>

This example illustrates the subjectiveness underlying part of the markup process and the need for non-trivial decisions when complicated cases arise. In the present case, there is a choice between a 4-1 and a 3-1 plus 1-0 alignment. Fortunately, however, reorderings are not very

#### 2.3.3 Texts by José Saramago

The texts by the Portuguese author José Saramago are considered a special case and therefore COMPARA treats them differently from other texts. We chose to consider as separate sentences, i.e. independent alignment units, the parts of text where the author uses commas followed by direct speech beginning with a capital letter. For example:

231. <s> O cego não o

231. <s> 0 cego não o
ouviu, já iam a entrar no
gabinete do médico, e a
mulher dizia,

231. <s> 110. 211. SI 110. 211. SI 110. 231. <s> The blind man the doctor's consulting room, and the wife was saying,

232. <s> Muito obrigada
 pela sua bondade, senhor
 doutor, é que o meu
 marido, e tendo dito
 interrompeu-se, em
 verdade ela não sabia o
 que realmente sucedera,
 sabia apenas que o marido
 estava cego e lhes tinham
 roubado o carro.

the doctor's consulting
 room, and the wife was
 saying,

232. <s> Many thanks for
 being so kind, doctor,
 it's just that my
 husband, and that said,
 she paused, because
 frankly she did not know
 what had really happened,
 sabia apenas que o marido
 estava cego e lhes tinham
 husband was blind and
 that their car had been stolen.

In these cases, the <s> or <s> tags do not contain any special indication, for we have already stated that these texts are a special case. However, it is possible that the translator has split, joined, etc. sentences within the scope of the criteria that COMPARA established for the alignment units of José Saramago's texts. For example, below is a case in which the translator joined two sentences of the original text (according to Saramago's writing criteria):

537. <s> Sim, sou eu, disse, ouviu com atenção o que estava a ser lhe comunicado e só acenou ligeiramente a cabeça antes de desligar. Sas. <s> Quem era, perguntou a mulher, souviu com atenção he said, listened attentively to what he was being told and merely nodded his head slightly before ringing off, sas. <s> Quem era, his wife asked,

And a case in which the translator split a sentence of the original (according to Saramago's writing criteria):

> 1251. <s> O estrondear
> sacudido das detonações
> fez surgir quase
> imediatamente de dentro
> das tendas, meio
> vestidos, os soldados que
> compunham o piquete
> encarregado da guarda do
> manicómio e de quem lá
> fora posto dentro.
>
> 1251. <s2> The noise of
> the blast immediately
> brought the soldiers,
> half dressed, from their
> tents. These were the
> soldiers from the
> detachment entrusted with
> guarding the mental
> asylum and its inmates. fora posto dentro.

### 4. Conclusion

When you've finished, save the source text and the translation file in text format (now that the numbers of the alignment units have been fully revised, we do not need to use Word anymore). The files should be renamed with a *fra* for "frase" ending (instead of *easy*) and extension *pt* for texts in Portuguese and *en* for texts in English. For example:

PBMA3fra.pt (for a text in Portuguese)

PBMA3fra.en (for the same text in English)

Send your text in this format to Ana Frankenberg.