An Arabic-English alignment is even worse. Lee (2004) presents a novel technique to enhance the quality of SMT between English and Arabic through morphological analysis. This analysis is done for the reason that the two mentioned languages have different morphological structures. She states that "so called a word (separated by a white space) in Arabic often corresponds to more than one independent word in English, posing a technical problem to the source channel models. In the English-Arabic sentence alignment shown in Figure 3, Arabic word *AlAHmr* (written in Buckwalter transliteration.[1]) is aligned to two English words 'the red', and *llmEArDp* to three English words 'of the opposition'. The research opts for transliteration in the following figure to show how alignment is executed on morphemes in Arabic. Figure 3 shows the two aligned sentences in English and Arabic before the morphological processing.

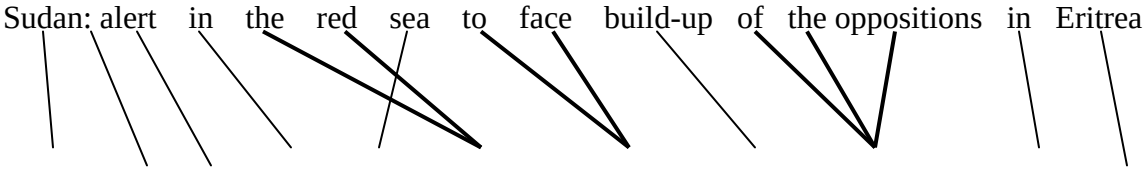

Figure 3

Technically, there are many methods to align sentences from parallel corpora. Each method has its distinctive features. The following are the different alignment methods suggested by Manning and Shutze (2002):

2.8.1.1. Length-Based methods: As its name suggests, the method aligns sentences depending on the length of the sentence in the parallel corpora. The salient feature of such method is its efficiency in rapid alignment of large

[1] A table of bukwalter transliteration is furnished in Appendix 2.