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Computable Difference Matrix for Synonyms in the Holy Quran

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Abstract: In the field of Quran Studies known as Ghareeb A Quran (the study of the meanings of strange words and structures in Holy Quran), it is difficult to distinguish some pragmatic meanings from conceptual meanings. One who wants to study this subject may need to look for a common usage between any two words or more; to understand general meaning, and sometimes may need to look for common differences between them, even if there are synonyms (word sisters). Some of the distinguished scholars of Arabic linguistics believe that there are no synonym words, they believe in varieties of meaning and multi-context usage. Based on this viewpoint, our method was designed to look for synonyms of a word, then the differences that distinct the word and their synonyms. There are many available books that use such a method e.g. synonyms books, dictionaries, glossaries, and some books on the interpretations of strange vocabulary of the Holy Quran, but it is difficult to look up words in these written works. For that reason, we proposed a logical entity, which we called Differences Matrix (DM). DM groups the synonyms words to extract the relations between them and to know the general meaning, which defines the skeleton of all word synonyms; this meaning is expressed by a word of its sisters. In Differences Matrix, we used the sisters(words) as titles for rows and columns, and in the obtained cells we tried to define the row title (word) by using column title (her sister), so the relations between sisters appear, the expected result is well defined groups of sisters for each word. We represented the obtained results formally, and used the defined groups as a base for building the ontology of the Holy Quran synonyms.

Keywords: Quran, synonyms, differences matrix, ontology

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