

Reply to the Report of Alexander Meduna

First of all, I would like to thank Professor Meduna for the detailed and positive evaluation of my dissertation.

Considering his remarks on some inconsistencies of the presentation of the definitions and the interchangeable use of certain terms, I admit that putting even more effort into avoiding these would have improved the readability of the text, and also, having more examples and graphical representations would have been helpful for easier understanding. I would also like to thank for pointing out some typographical mistakes and typing errors.

Concerning his specific observations, I would like to thank for the correction of the mistakes on pages 22, 106, 108, and 115, and also for the observation that the explanation of the notation on page 26 for the set of substrings of a given string is missing. It is also true that Figure 5.1 overflows, I should have at least removed the page number from this page.

The definition of the non-homogeneous query on page 52 is indeed a little confusing. It should simply mean that the sentential form contains at least two query symbols which refer to different components. This could have been written as, for example:

A *non-homogeneous query* is of the form $\alpha_1 Q_{i_1} \alpha_2 Q_{i_2} \dots \alpha_{t-1} Q_{i_{t-1}} \alpha_t$ where $1 \leq i_j \leq n$, $1 \leq j \leq t$, $3 \leq t$, and there exists k, l for $1 \leq k, l \leq t$, such that $Q_{i_l} \neq Q_{i_k}$, that is, at least two query symbols are different.

Or even more simply, I could have been gotten rid of the redundancy by stating that a non-homogeneous query is a query which is not homogeneous.

I also have to admit that the choice of the notation for the set of all finite multisets over an alphabet of symbols to be the same as the notation for the set of all strings could be confusing, but I choose to follow this convention because it is customary in the area of membrane computing. The reason for this custom is probably the fact that finite multisets are in a way identified with the sets of their string representations, so the set of all strings which denotes the set of all string representations, is also used for denoting the set of all finite multisets. I agree that it might be better not to follow this custom, but use another notation for the set of multisets (for example, V^\diamond instead of V^* , as we have also done in some papers).

April 27, 2014

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