

We use a function to compute the distance between the factual sequence and the counterfactual candidates. Here, a low distance corresponds to a small change. For reasons explained earlier (??), we want to take the structural distance and the feature distance into account. Henceforth, we use the previously established Semi-structured Damerau-Levenshtein distance (SS-DLD). The similarity distance uses a cost function as specified in Equation 1.

$$\begin{aligned} cost(a_i, b_j) &= L2(a_i, b_j) \\ a_i, b_j &\in \mathbb{R}^d \end{aligned} \tag{1}$$

Here, $dist(x, y)$ is an arbitrary distance metric. i and j are the indices of the sequence elements a and b , respectively. $L2$ denotes the euclidean distance.

Let us consider an example: Let's say we have two sequences as shown in ??