Two-Step Kernel Method Exploration: 20 Cell Types with 4 Rare Cell Types - No Effect Sizes were Added (Null Hypothesis)
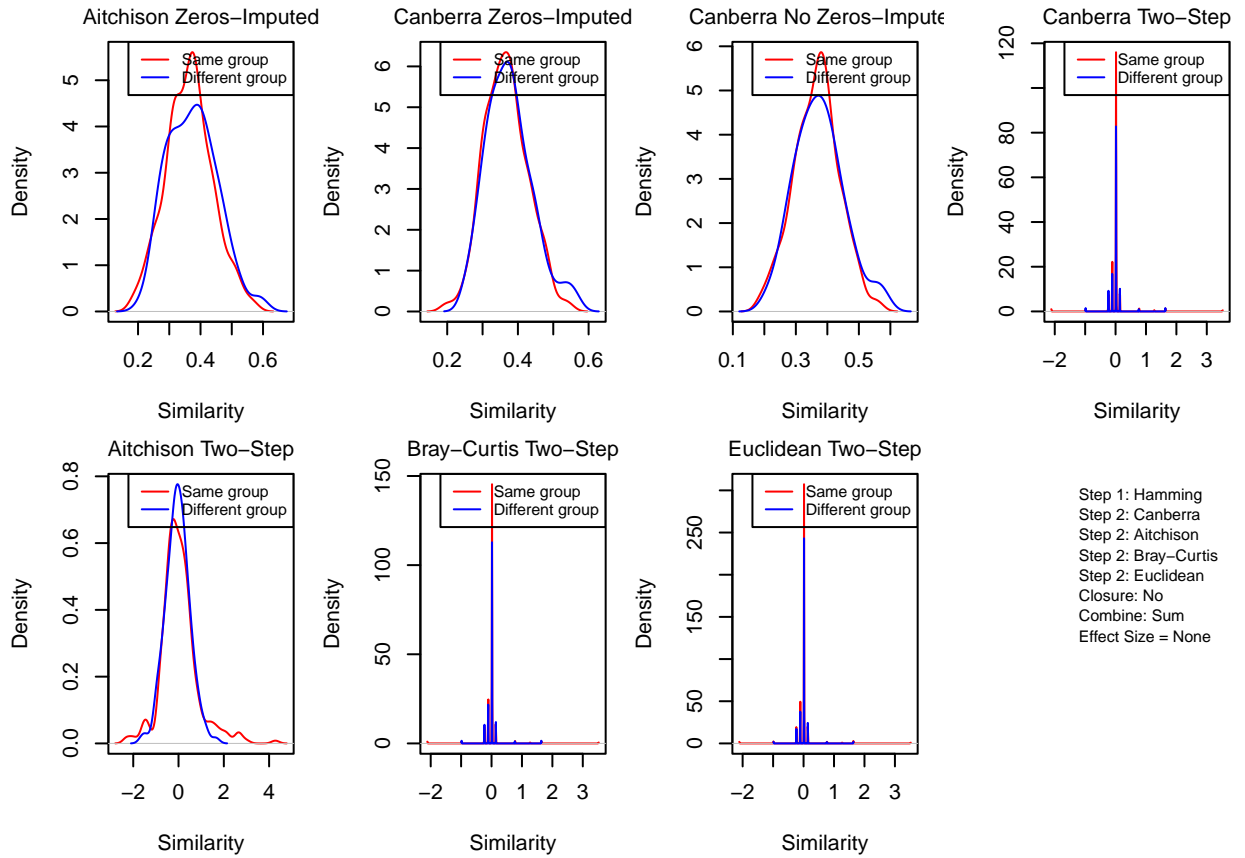
Kelvin Njuki

2024-11-09

Figure 1: In the first row, zeros are replaced by 1. In the second row, we are implementing two step kernel where in step one, Hamming Distance was used; in step two Aitchison, BCD, Canberra & Euclidean were used; Closure was not applied in step two; Kernels (K1 & K2) were combined through Sum.
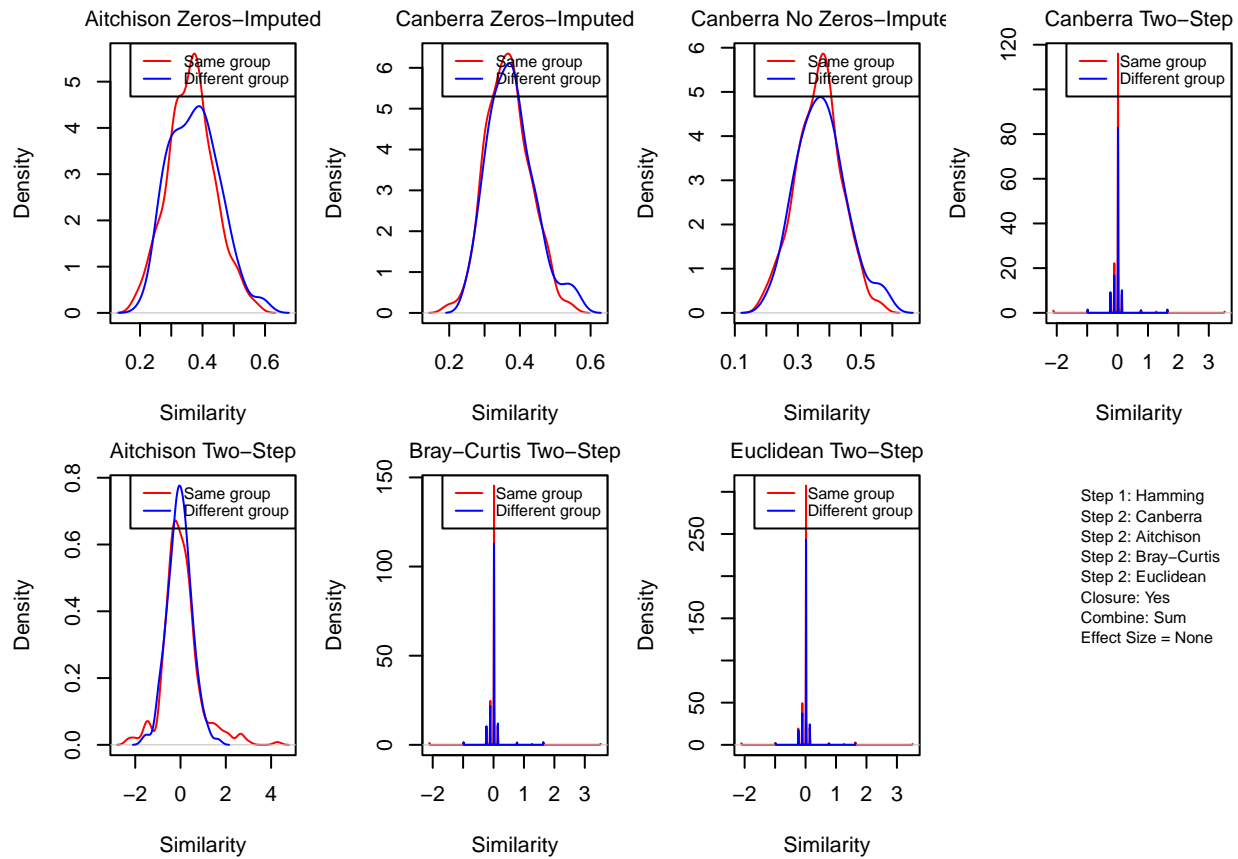
Figure 2: In the first row, zeros are replaced by 1. In the second row, we are implementing two step kernel where in step one, Hamming Distance was used; in step two Aitchison, BCD, Canberra & Euclidean were used; Closure was applied in step two; Kernels (K1 & K2) were combined through Sum.
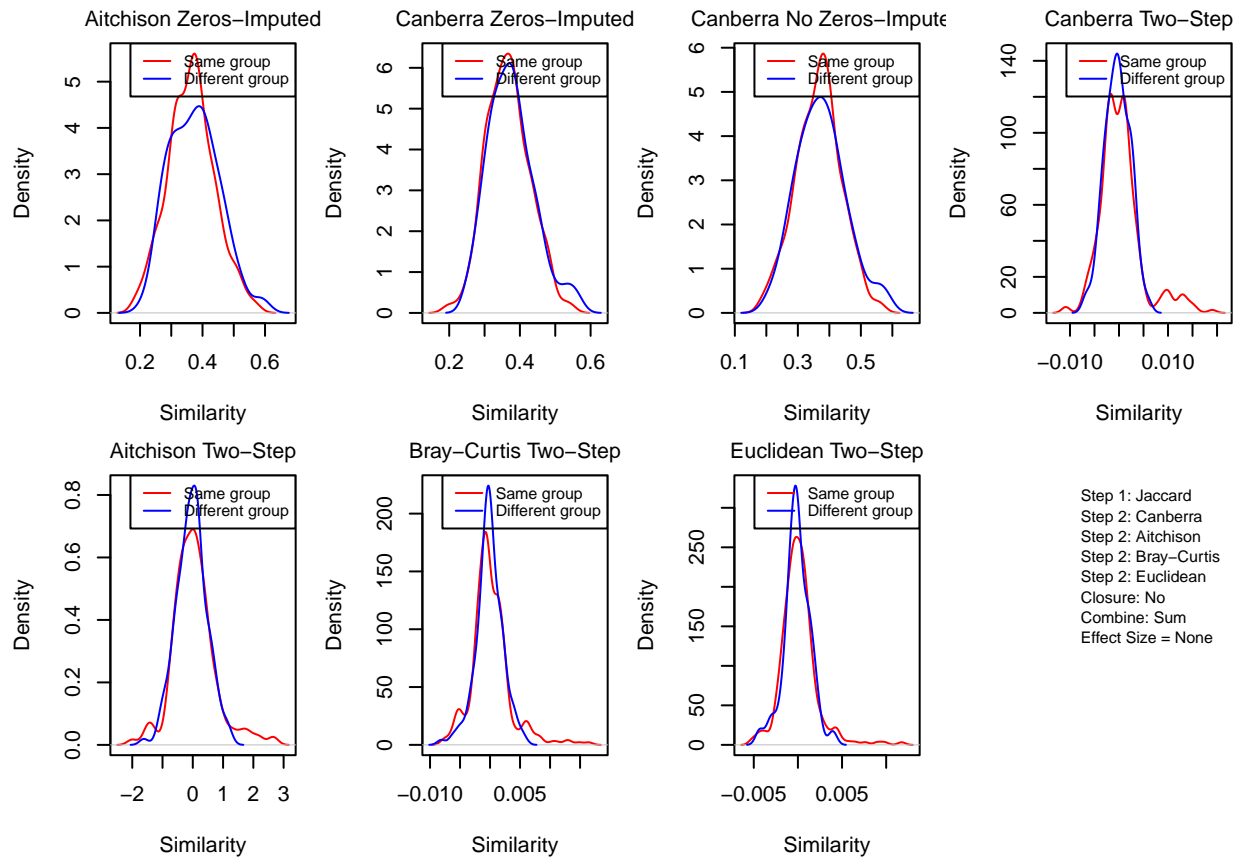
Figure 3: In the first row, zeros are replaced by 1. In the second row, we are implementing two step kernel where in step one, Jaccard Distance was used; in step two Aitchison, BCD, Canberra & Euclidean were used; Closure was not applied in step two; Kernels (K1 & K2) were combined through Sum.
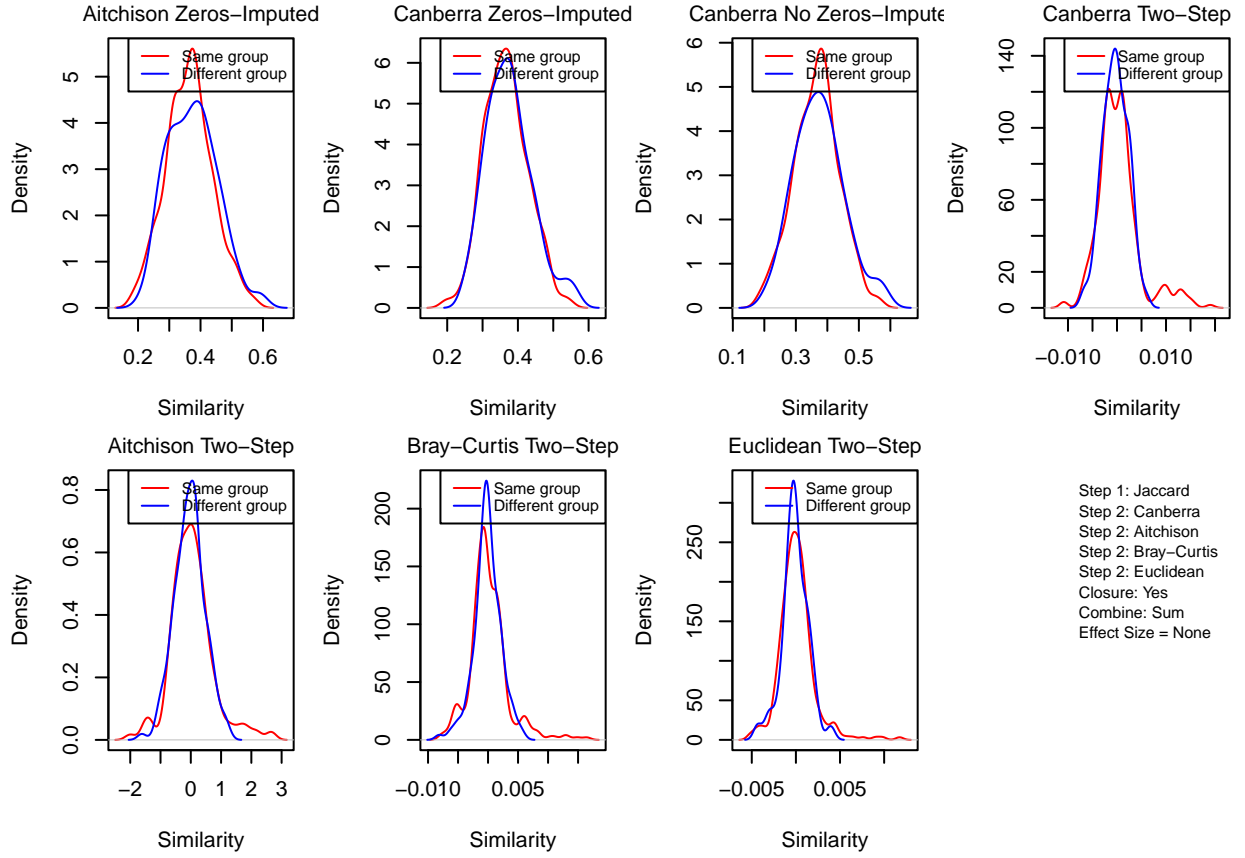
3

Figure 4: In the first row, zeros are replaced by 1. In the second row, we are implementing two step kernel where in step one, Jaccard Distance was used; in step two Aitchison, BCD, Canberra & Euclidean were used; Closure was applied in step two; Kernels (K1 & K2) were combined through Sum.
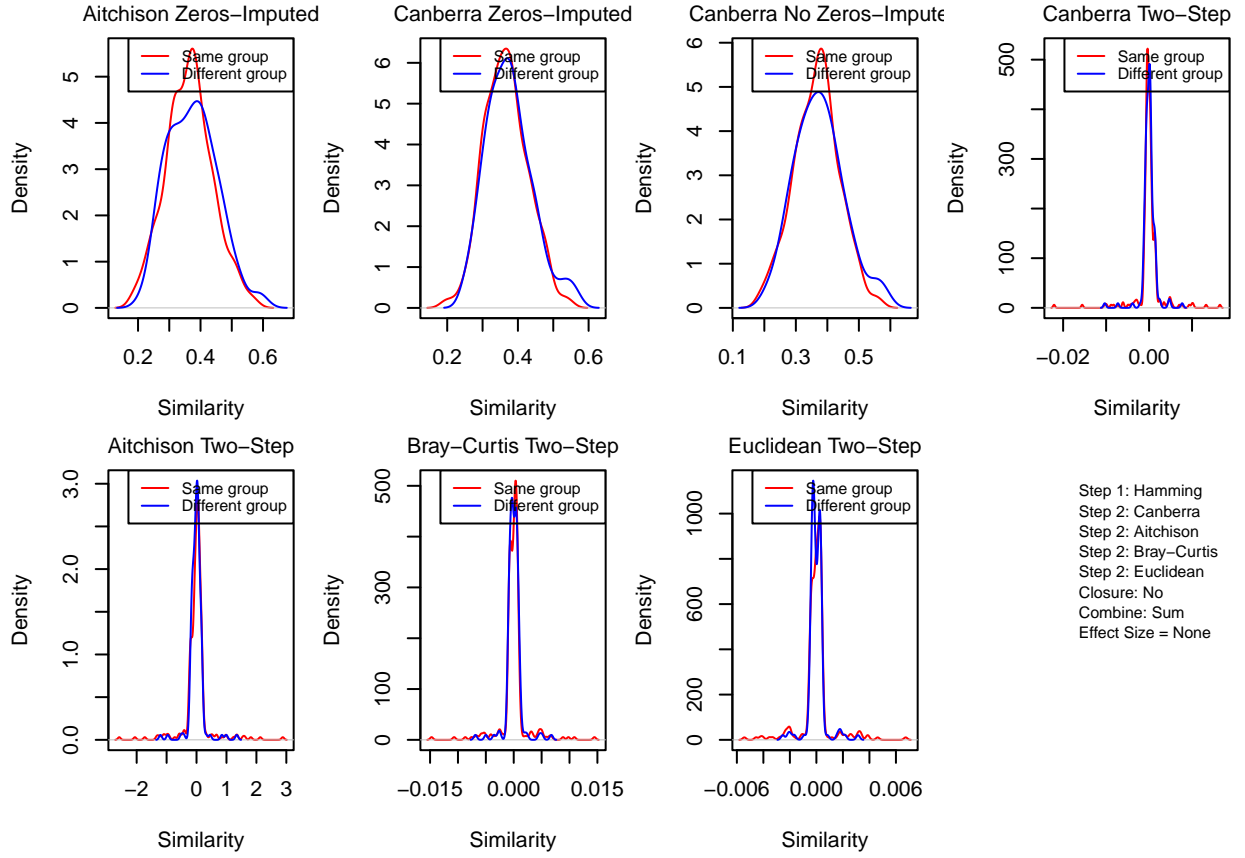
Figure 5: In the first row, zeros are replaced by 1. In the second row, we are implementing two step kernel where in step one, Hamming Distance was used; in step two Aitchison, BCD, Canberra & Euclidean were used; Closure was not applied in step two; Kernels (K1 & K2) were combined through Product.
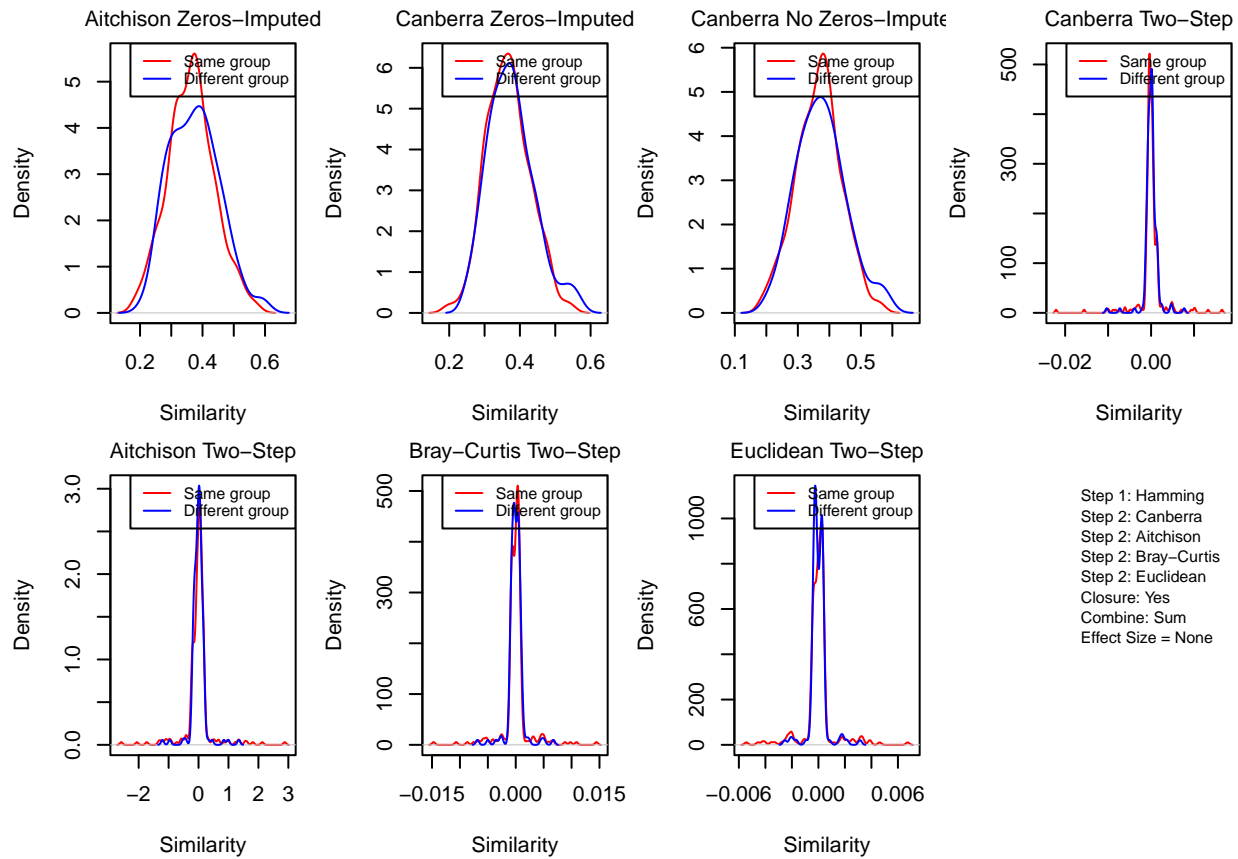
Figure 6: In the first row, zeros are replaced by 1. In the second row, we are implementing two step kernel where in step one, Hamming Distance was used; in step two Aitchison, BCD, Canberra & Euclidean were used; Closure was applied in step two; Kernels (K1 & K2) were combined through Product
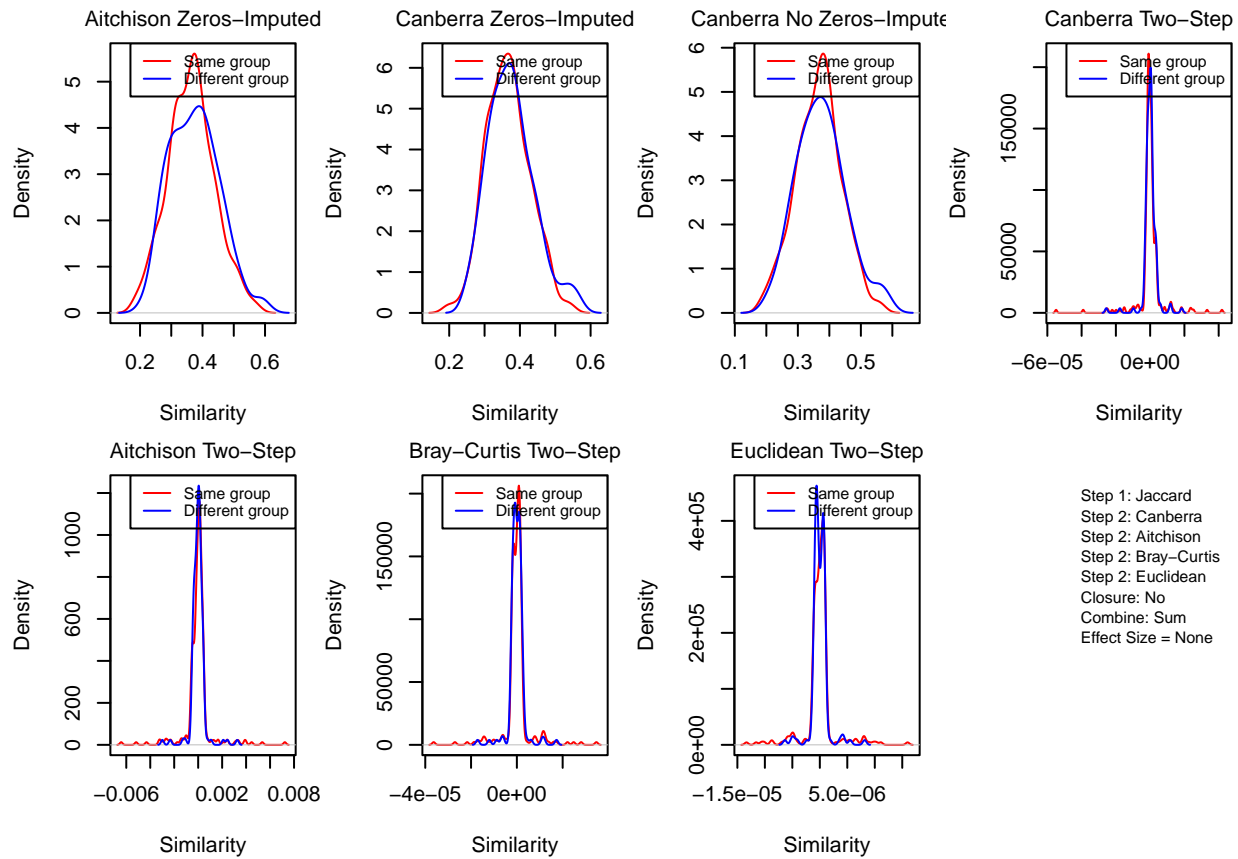
Figure 7: In the first row, zeros are replaced by 1. In the second row, we are implementing two step kernel where in step one, Jaccard Distance was used; in step two Aitchison, BCD, Canberra & Euclidean were used; Closure was not applied in step two; Kernels (K1 & K2) were combined through Product
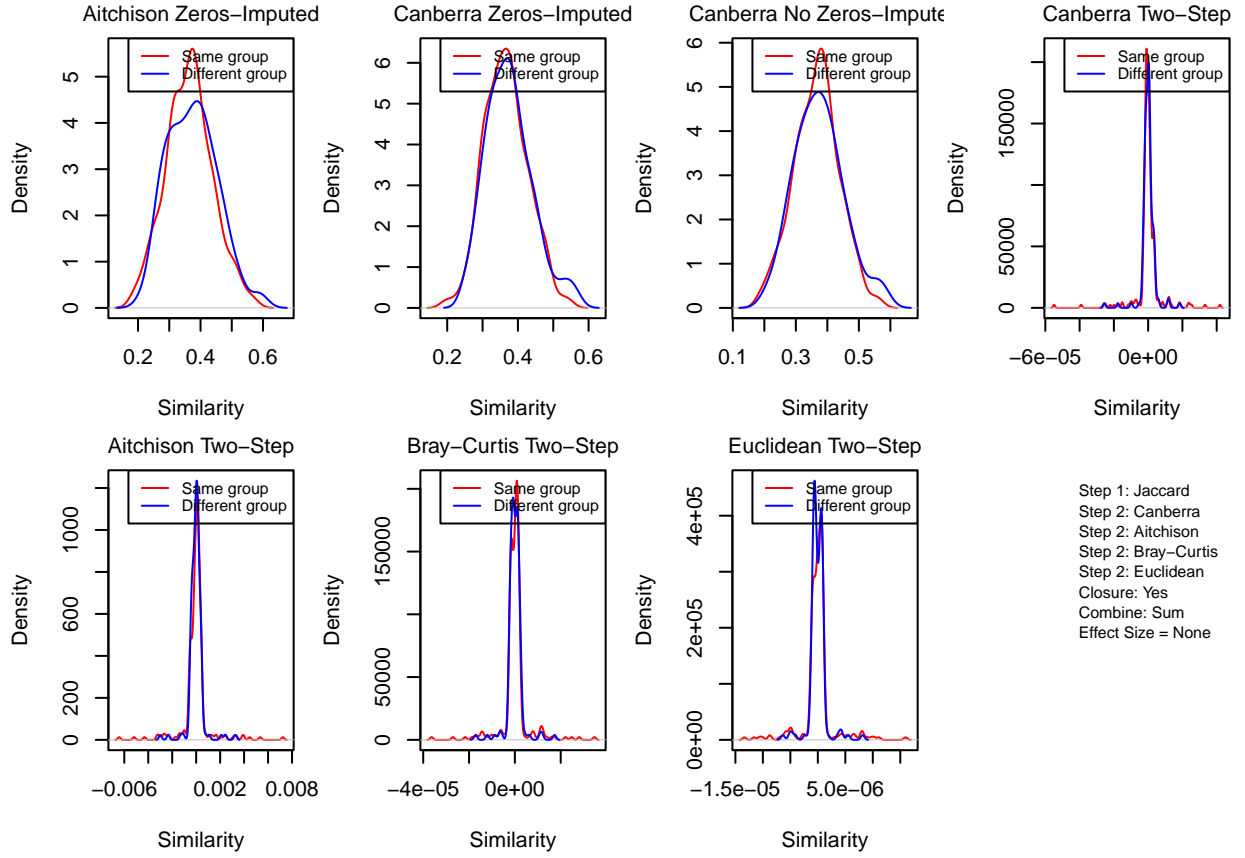
Figure 8: In the first row, zeros are replaced by 1. In the second row, we are implementing two step kernel where in step one, Jaccard Distance was used; in step two Aitchison, BCD, Canberra & Euclidean were used; Closure was applied in step two; Kernels (K1 & K2) were combined through Product