Interactively Guiding Semi-Supervised Clustering via Attribute-based Explanations

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1 Additional Results (line 514 in paper)

We present results on other combinations of our datasets and semi-supervised clustering algorithms that we could not include in the main paper due to space limitations.
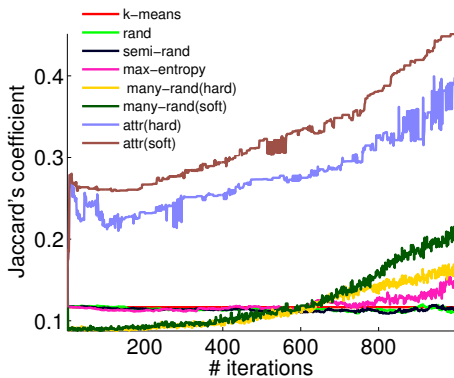

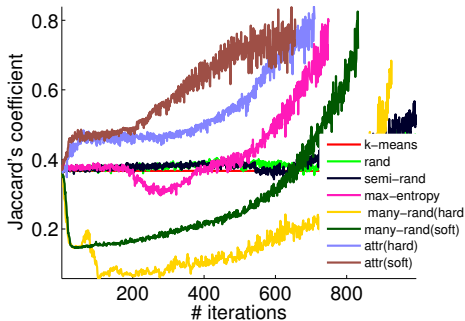**Fig. 1.** Result on SUN600 dataset using MPCK-Means

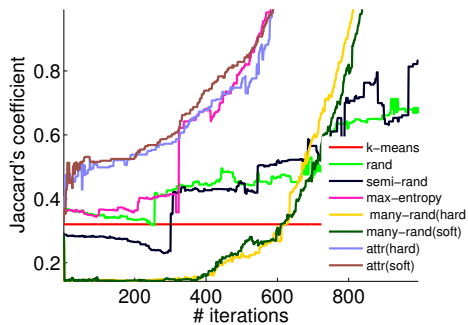**Fig. 2.** Result on Shoes-Personalized dataset using Spectral Clustering

Fig. 3. Result on Shoes-Personalized dataset using COP K-Means

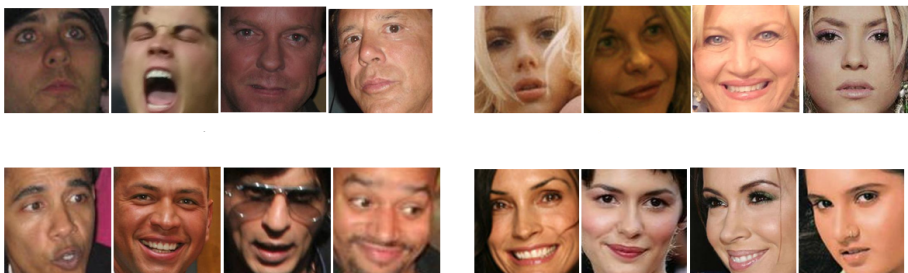## 2   PubFig-Personalized illustration

Fig. 4. These are the four clusters in our PubFig-Personalized dataset. These images were shown to MTurk workers without any other information. The workers visualized the similarity measure and answered pairwise questions.

3   Clustering in Attribute space

We also experimented with clustering in the feature space of attributes. Our attribute-based explanations provide significant gains even while clustering in the attribute space. Figure **??** shows the results on PubFig-Personalized dataset when the 73 attribute predictions are used as features. The attr-soft baseline in pHoG feature space is also plotted in the same graph to compare the two feature spaces. Clustering in attributes space performs better than low level features (pHoG) as the unsupervised K-Means baseline itself is at 25% compared to 15% while using pHoG.
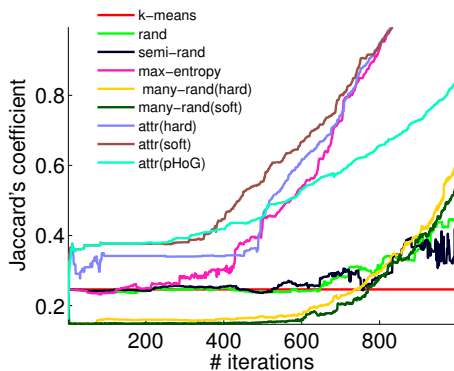

Fig. 5. Result on PubFig-Personalized dataset in the attributes feature space. The clustering algorithm is COP K-Means.