Graph with similarity values as edge weights. Edges with weight 0 are not shown.

Threshold = .25

Tree constructed from WordNet
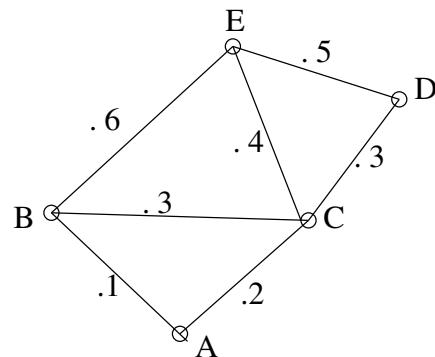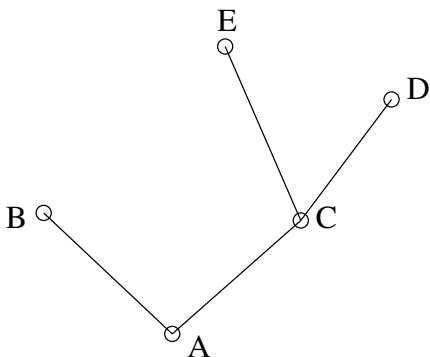
Similarity Graph
Note that:
1. Edge BD is not present because its score is below the threshold
2. Edges AB and AC are present despite being below threshold because they appear in the WordNet tree