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# Yours and Ours: Individual and Group Differences in Semantic Organization from Triplet Judgements of Faces

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## Abstract

How are our conceptual representations organized, and how does this semantic structure differ in individuals or groups? We included 36 faces from the Chicago Face Database (Ma et al., 2015) varying in race, gender, and facial expression in a triplet judgement task, where participants were showed a target face and asked which of two other faces is most similar to the target face expression. Each of our 71 participants completed 1,012 triplet judgements. Using their judgements, we fit individualized embeddings capturing distances between faces in semantic space, resulting in 71 embeddings. We calculated the Procrustes similarity between all pairs of embeddings and clustered similarities, revealing four clusters of respondents. Each cluster organized faces differently, indicating group-wide differences in semantic organization of expression. At the individual level, we find that each participant's responses for held-out items are better predicted by their own embedding than by other participants' embeddings,  $p < .00001$ .