

Humans Can Discriminate More than 1 Trillion Olfactory Stimuli

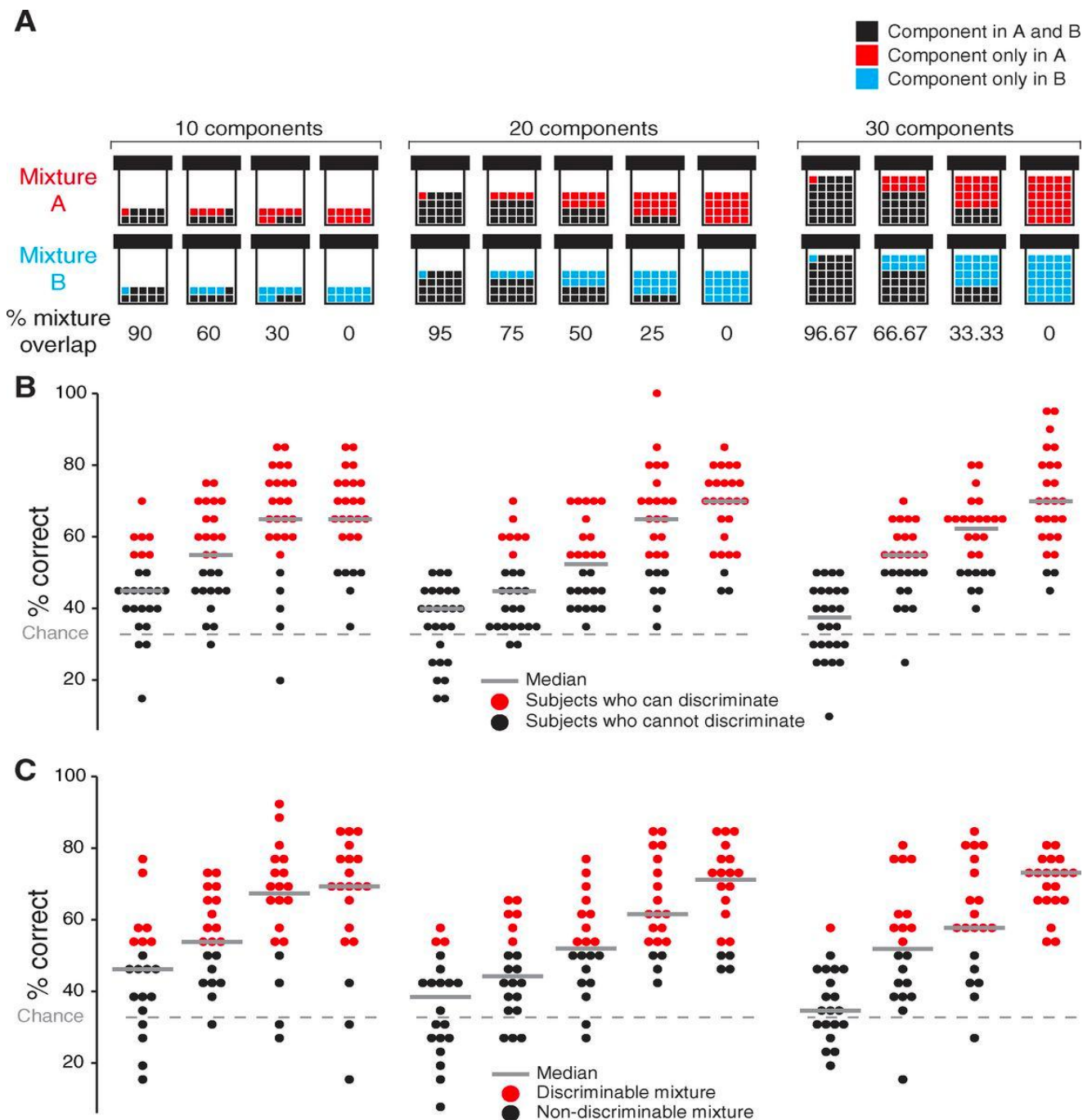


Fig. 2 An empirical investigation of the resolution of the human olfactory system. (A) Schematic of the discrimination tests carried out for mixtures of 10, 20, or 30 odorous molecules. (B and C) Results of discrimination tests with 26 subjects asked to discriminate mixtures of 10 (left), 20 (middle), or 30 (right) components with decreasing overlap from left to right. The dotted line represents the chance detection level (33.3%). For (B), dots represent performance of individual subjects across 20 mixture pairs. For (C), dots represent average performance of all 26 subjects for a given mixture pair. Statistically significant discriminability (red dots) was assessed with a χ^2 test; $P < 0.05$.