

Figure S1: Generalization experiment - performances during the acquisition phase. The graphs show the percentage of proboscis extension responses (% PER) observed at each conditioning trial. For each mixture, comparisons among the three conditioning groups are shown near the caption (GLMM, *trial* effect, $p < 0.05$). When significant, different letters indicate statistical difference in pairwise comparisons (Tukey contrasts, corrected $p < 0.05$). Comparison of performances at the last (5th) trial are also shown (Fisher's exact test). Individuals that responded to the solvent in the test phase were discarded. Odorant abbreviations: EI: ethyl isobutyrate; EM: ethyl maltol; G: gaïacol; 6-ol: 1-hexanol; 9-ol: 1-nonanol; 8al: octanal; 8one: 2-octanone. NS: non-significant.

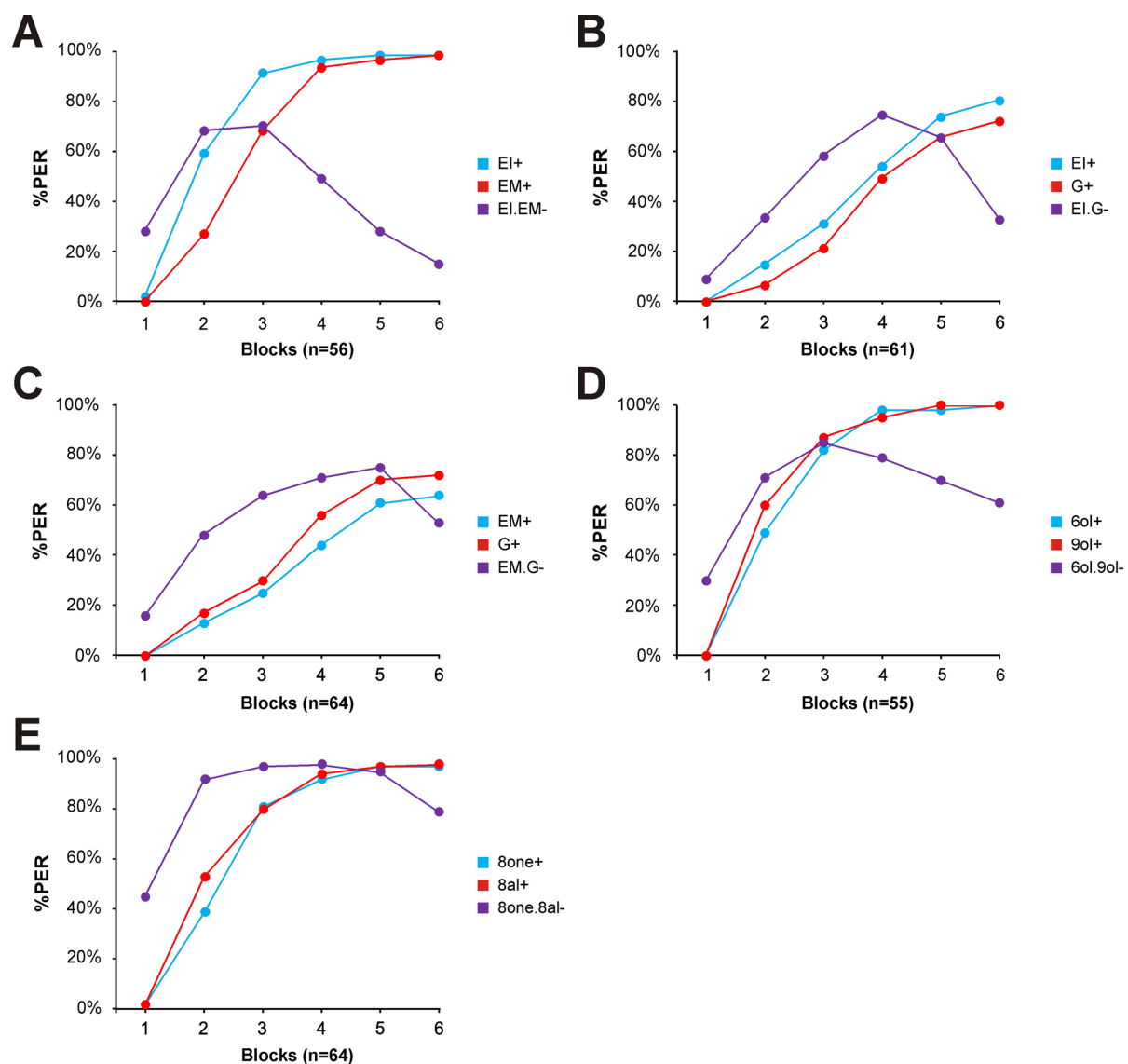


Figure S2: Discrimination (negative patterning) experiment. Bees' performances (%PER) are shown for each of the rewarded elements and for the unrewarded mixture, along 6 blocks of 4 trials (1 with each element, 2 with the mixture, as many rewarded as unrewarded trials). The same data are shown in terms of rewarded (CS+) and unrewarded (CS-) stimuli in Figure 3. Odorant abbreviations: EI: ethyl isobutyrate; EM: ethyl maltol; G: gaïacol; 6-ol: 1-hexanol; 9-ol: 1-nonanol; 8al: octanal; 8one: 2-octanone. NS: non-significant.