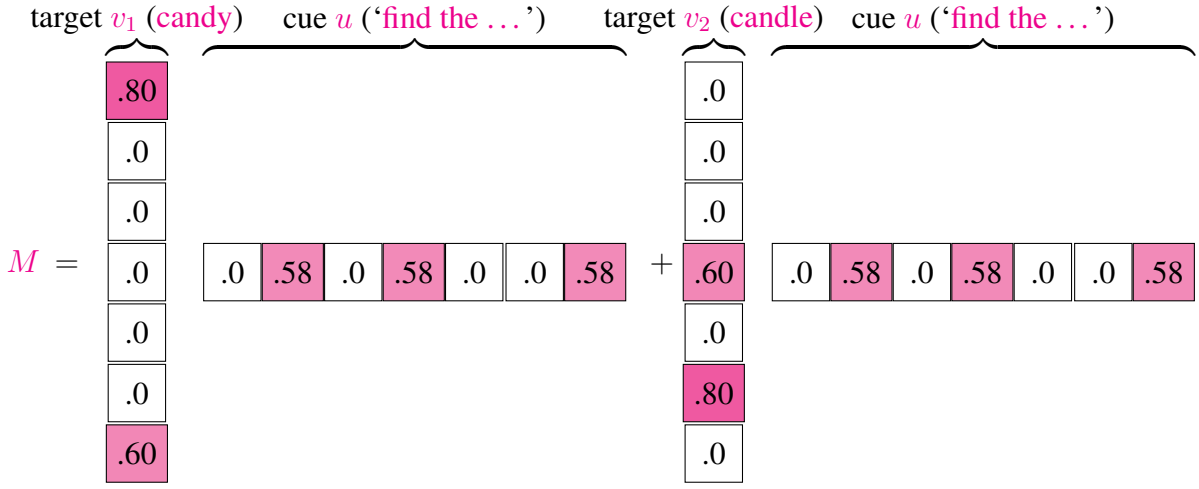
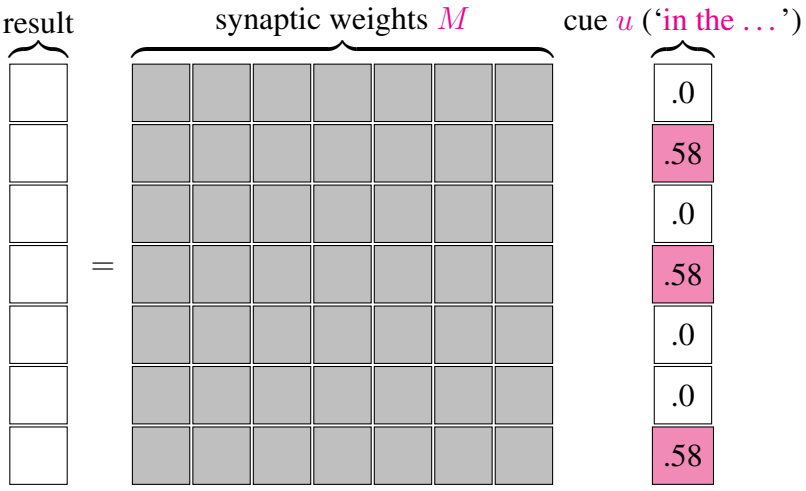
Ling 5701: Problem Set 2

Due via Carmen dropbox at 11:59 PM 2/7.

1. (a) [7 pts.] If associative memory M is made from one cue u and two targets v_1 and v_2:

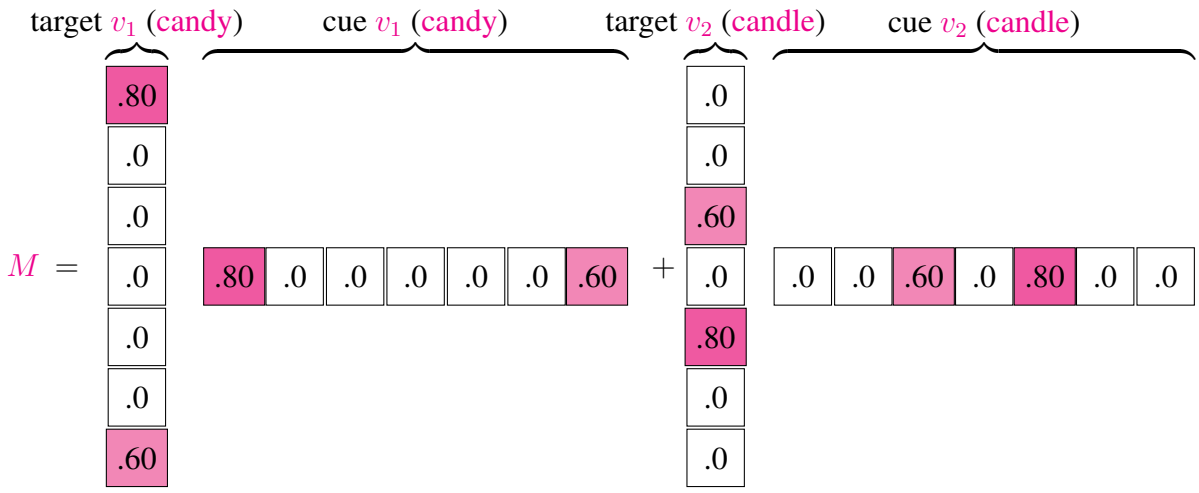


what is the result of cueing M with u? (HINT: You don't need to calculate the matrix!)

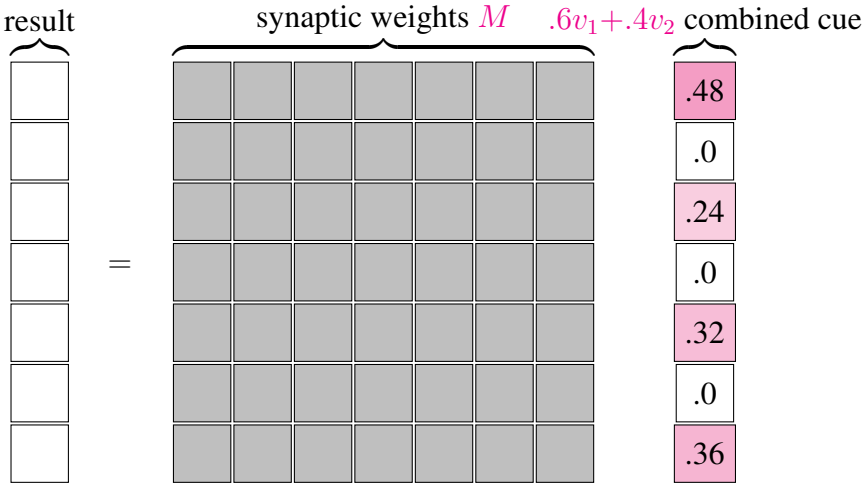


(b) [3 pts.] Describe the result in terms of v_1 and v_2.

2. (a) [7 pts.] If a filter F is made from auto-associated vectors v_1 and v_2 (from sound /kæn/):

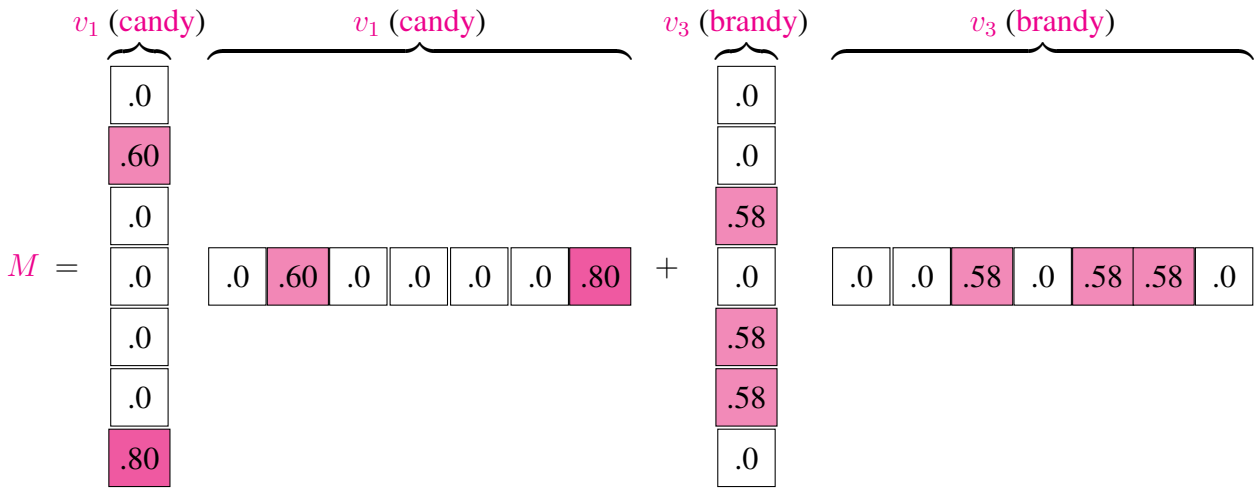


what results from cueing M with a mixture of $.6v_1 + .4v_2$? (You needn't calculate the matrix!)

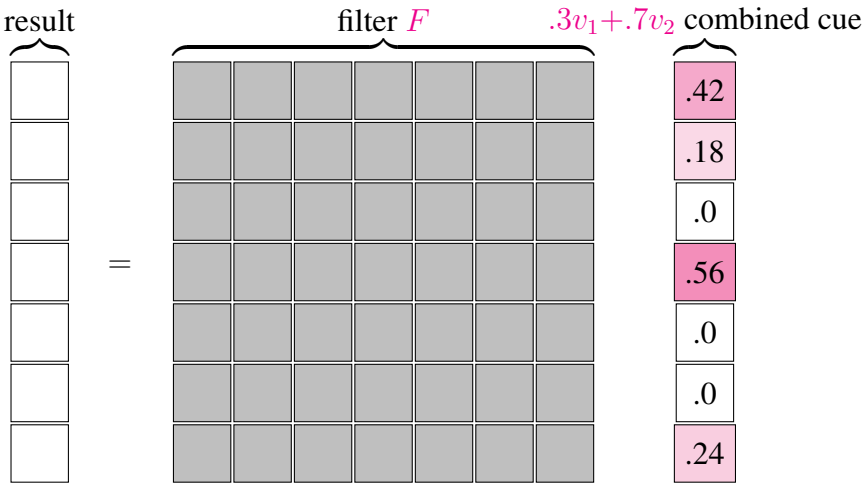


(b) [3 pts.] Describe the result in terms of v_1 and v_2.

3. (a) [7 pts.] If a filter F is made from auto-associated vectors v_1 and v_3 (from sound /di/):



what results from cueing F with a mixture of $.3v_1 + .7v_2$? (You needn't calculate the matrix!)



(b) [3 pts.] Describe the result in terms of v_1, v_2 and v_2.