

Perceptual grouping of social interactions is sensitive to group size



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SSHRC



INTRODUCTION

We are inclined to socialize in small groups of four or fewer individuals.

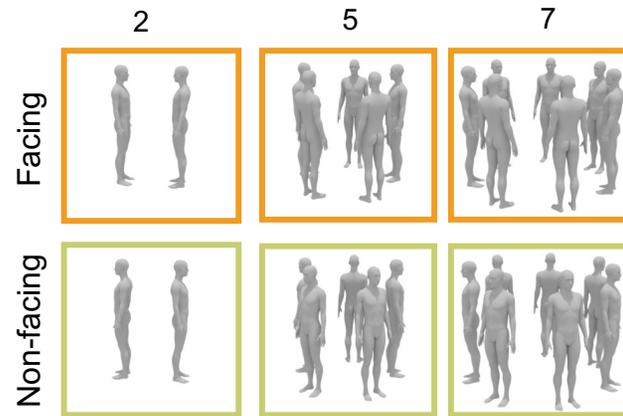
While past research shows that we are better at detecting two individuals when they are facing towards each other compared when they are facing away, the socialization work predicts that this search advantage should be modulated by group size.

Q1: Does the search advantage in groups vary based on group size? (Peperkoorn et al., 2020)

Q2: If so, is this search advantage affected by the total number of people present in the search display?

METHODS

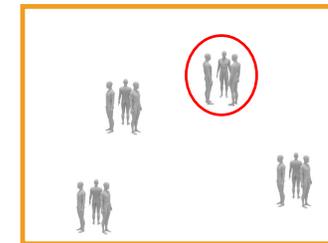
Group Size (2, 3, 4, 5, 6, 7, 8)



Search Displays

Experiment 1

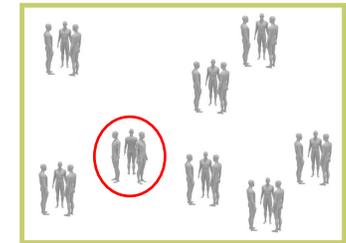
Is search affected by **group size**?



Set Size: 4
Group Size: 2, 3, 4, 5, 6, 7

Experiment 2

Is search affected by the **number of individuals** present in the display?

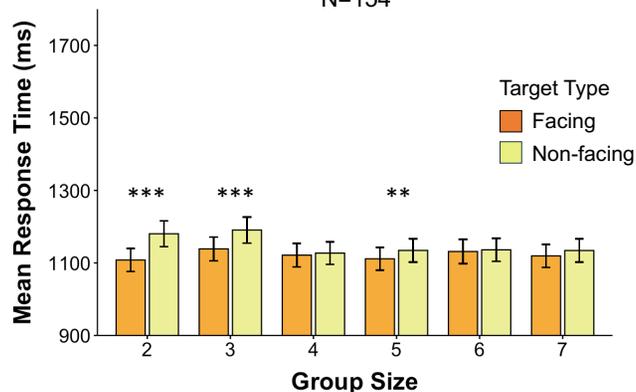


Set Size: 12 - 3
Group Size: 2, 3, 4, 6, 8

RESULTS

Experiment 1

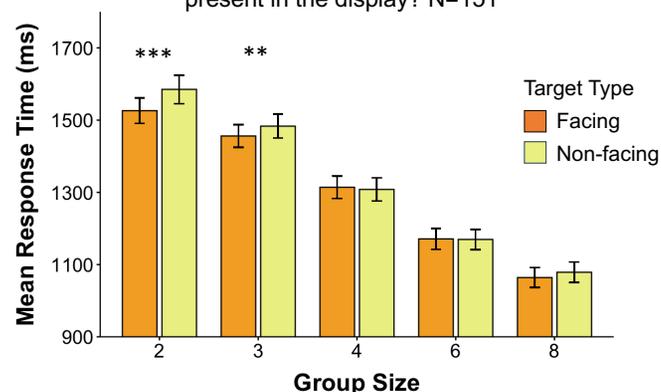
Is search affected by **group size**?
N=154



Yes! The search effect magnitude diminishes with increasing group size.

Experiment 2

Is search affected by the **number of individuals** present in the display? N=151



No! The search effect is modulated by group size instead of the number of individuals.

CONCLUSIONS

Overall, we found that facing groups were detected faster than non-facing groups.

This search effect was modulated by group size such that the largest advantage was found in smaller groups of 2-5 individuals. This effect did not depend on the total number of individuals present in the search display.

Thus, human perception appears to reflect our real-life social interactive preferences.

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Dunbar, R. I. M., Duncan, N. D. C., & Nettle, D. (1995). Size and structure of freely forming conversational groups. *Human Nature*, 6(1), 67-78.
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 Papeo, L., Goupil, N., & Soto-Faraco, S. (2019). Visual search for people among people. *Psychological Science*, 30(10), 1483-1496.