Milestone 5

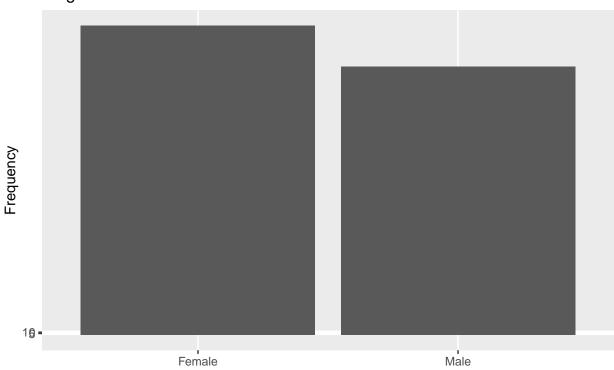
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In this paper, Tingley et al. study how olfactory senses connect to assortive mating by ideology in humans. This explains how liberals tend to mate with other liberals, and conservatives tend to mate with other conservatives. The science behind olfactory sensibility in mates is exhibited best in animals, specifically mammals. As the paper explains, smell can signal mate immunocompetence, social compatibility, and other characteristics associated with mate quality and optimal reproduction. Tingley et al. perform a study where they surveyed 146 people on questions regarding the attractiveness of unknown liberals and conservatives. The models created from the survey outlined the affect that ideology and gender had on predicting someone's attractiveness after smelling their odor. They find that there is a positive coefficient for the targets and evaluators having matching ideologies, and a negative coefficient when the ideologies do not align. The coefficients explain the increase or decrease in attractiveness of the subjects. This further leads to a conclusion that olfactory attractiveness is just one of the many ways to explain attraction in mates. Studies have illustrated that characteristics like waist to hip ratio on women and the ability to provide resources in men, along with several other characteristics can also explain attraction in mates. Tingley et al further explain that olfactory attraction is something that is subconscious. Humans don't necessarily set out to smell each other in order to decide whether they're attracted to one another. Rather, our olfactory senses, connected with the parts of our brain that generate emotions, subconsciously tell us that we are interested in someone, and we tend to make those positive connections with members of the same ideology. The data and code used in this analysis replication is available on my github.¹

¹ ("Mike Silva Replication Project Github," n.d.)

Target Sex



This graph illustrates the targeted sexes of the participants. This is taken from a random sample of 21 participants.

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Table 1: Odor Attraction as a Function of Ideological Similarity

Statistic	Mean	St. Dev.
X.Intercept.	-3.574	0.224
IdeoEvalBinary	-0.005	0.054
IdeoTargetBinary	0.018	0.052
same_genderTRUE	-0.143	0.050
same_ideologyTRUE	0.085	0.052
MaleMale	-0.001	0.052
MaleTargetMale	-0.018	0.054
mn_attractive	0.999	0.040
mn_attractive_eval2	0.999	0.047
sigma	1.177	0.018

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Table 2: Odor Attraction as a Function of Ideological Similarity

Statistic	Mean	St. Dev.
X.Intercept.	-3.505	0.230
politicalIdeo	-0.001	0.014
IdeoTarget	0.005	0.012
ideodiffabs	-0.021	0.014
MaleMale	0.0003	0.051
MaleTargetMale	-0.015	0.053
same_genderTRUE	-0.143	0.051
mn_attractive	1.002	0.042
$mn_attractive_eval2$	0.998	0.045
sigma	1.178	0.018

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Table 3: Odor Attraction as a Function of Ideological Similarity

Statistic	Mean	St. Dev.
X.Intercept.	3.705	0.059
ideodiffabs	0.001	0.017
$same_genderTRUE$	-0.187	0.060
sigma	1.447	0.021

Selected Bibliography + References:

Alford et al. (n.d.) Bereczkei (2004) Blaustein (1981) Byrne (1961) McDermott, Tingley, and Hatemi (2014)

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McDermott, Rose, Dustin Tingley, and Peter K. Hatemi. 2014. "Assortative Mating on Ideology Could Operate Through Olfactory Cues." *American Journal of Political Science* 58 (4): 997–1005. https://doi.org/10.1111/ajps.12133.

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 ${\it ``Mike Silva Replication Project Github." n.d. https://github.com/mikesilva23/replication_1006.}$