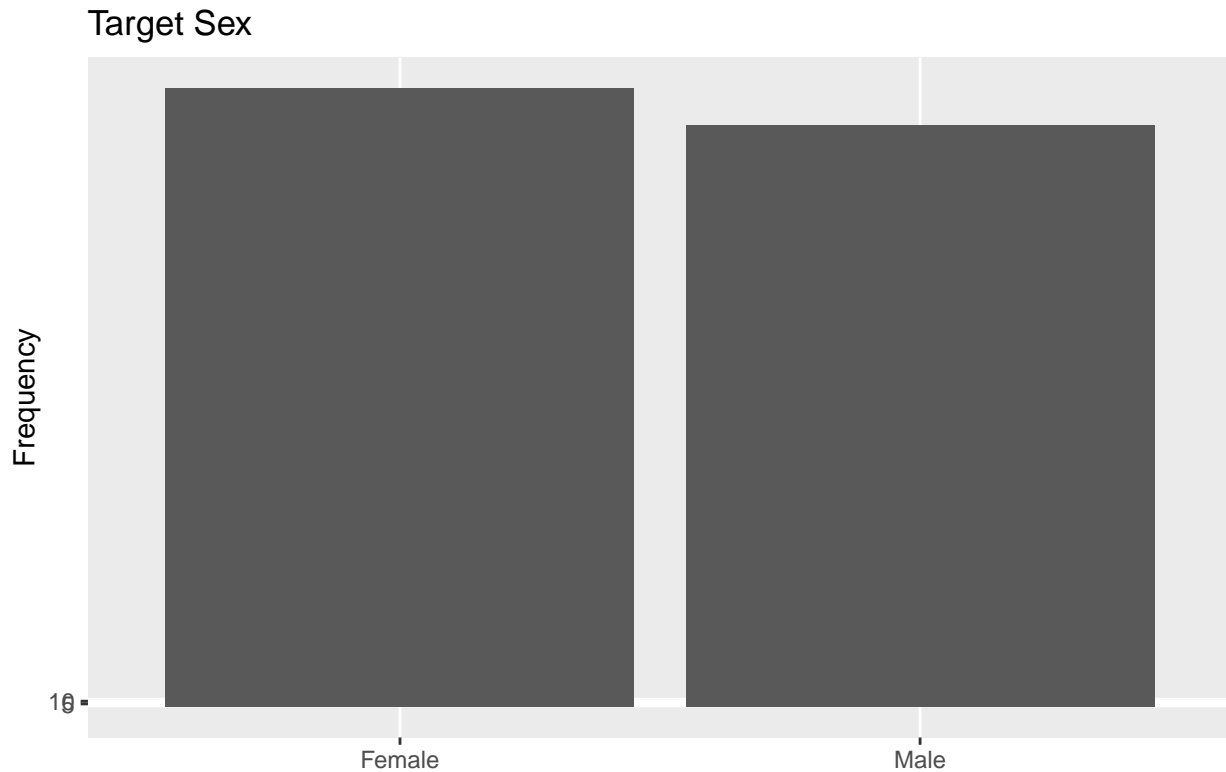# Milestone 5

Mike Silva

4/4/2020

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]

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[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.

Appendix

Extension

Selected Bibliography + References:

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

Alford, John R., Peter K. Hatemi, John R. Hibbing, Nicholas G. Martin, and Lindon J. Eaves. n.d. "The Politics of Mate Choice." *The Journal of Politics* 73 (2). Cambridge University Press: 362–79.

Bereczkei, Tamas. 2004. "Sexual Imprinting in Human Mate Choice." *Proceedings of the Royal Society B: Biological Sciences* 271 (1544). The Royal Society: 1129–34.

Blaustein, Andrew R. 1981. "Sexual Selection and Mammalian Olfaction." *The American Naturalist* 117 (6). University of Chicago Press: 1006–10.

Byrne, D. 1961. "Interpersonal Attraction and Attitude Similarity." *The Journal of Abnormal and Social Psychology* 62 (3). American Psychological Association: 713–15.

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.

"Mike Silva Replication Project Github." n.d. https://github.com/mikesilva23/replication__1006.

Table 1: Odor Attraction as a Function of Ideological Similarity

	attractive		
	Model 1	**Model 2**	**Model 3**
IdeoEvalBinary	−0.0056		
	(0.0540)		
IdeoTargetBinary	0.0196		
	(0.0522)		
politicalIdeo		−0.0009	
		(0.0136)	
IdeoTarget		0.0056	
		(0.0121)	
ideodiffabs		−0.0206	0.0008
		(0.0142)	(0.0163)
same_gender	−0.1436***	−0.1430***	−0.1877***
	(0.0507)	(0.0508)	(0.0618)
same_ideology	0.0853		
	(0.0522)		
MaleMale	−0.00003	0.0004	
	(0.0523)	(0.0522)	
MaleTargetMale	−0.0174	−0.0141	
	(0.0526)	(0.0533)	
mn_attractive	0.9990***	1.0012***	
	(0.0404)	(0.0406)	
mn_attractive_eval2	0.9988***	0.9988***	
	(0.0463)	(0.0463)	
Constant	−3.5759***	−3.5058***	3.7053***
	(0.2254)	(0.2267)	(0.0580)
N	2195	2195	2195
R-squared	0.3426	0.3425	0.0042
Adj. R-squared	0.3402	0.3401	0.0033
Residual Std. Error	1.1770 (df = 2186)	1.1771 (df = 2186)	1.4466 (df = 2192)
F Statistic	142.4236*** (df = 8; 2186)	142.3155*** (df = 8; 2186)	4.6176*** (df = 2; 2192)

*** p < .01; ** p < .05; * p < .1

TABLE 1 Odor Attraction as a Function of Ideological Similarity

	Model 1	Model 2	Model 3
Same Ideology	0.0853		
	(0.0504)		
−Abs. Ideology Diff.		0.0206	0.0226
		(0.0139)	(0.0156)
Same Sex	−0.144	−0.143	−0.143
	(0.0430)	(0.0431)	(0.0443)
Conservative Eval.	−0.00557		
	(0.00428)		
Conservative Target	0.0196		
	(0.0513)		
Ideology of Eval.		−0.000919	
		(0.00101)	
Ideology of Target		0.00561	
		(0.0120)	
Male Evaluator	−0.0000277	0.000401	
	(0.00412)	(0.00417)	
Male Target	−0.0174	−0.0141	
	(0.0439)	(0.0464)	
Avg. Target Attract	0.999	1.001	
	(0.0655)	(0.0654)	
Avg. Eval. Attract	0.999	0.999	
	(0.00339)	(0.00367)	
Constant	−3.576	−3.506	3.290
	(0.231)	(0.233)	(0.142)
Observations	2195	2195	2195

Figure 1: Table from Article

4