

#### Assignment 4. Experimental statistics

Profile pictures play an important role in impression management. This study investigates whether holding a dog in one's Tinder profile picture makes one more attractive. Based on the gender stereotype theory, the researchers have expected that showing a dog in a user's profile picture may affect people's perception (main effect), but this depends on the gender of the user (interaction effect).

Next, the researchers conducted a 2 (Presence of dog: yes vs no) by 2 (Gender: male vs. female) between-subject online experiment. 366 heterosexual participants were randomly assigned to the following four groups. Male participants were assigned to the female model while female participants were shown the picture of the male model.



Self-Perceived Sexual Attractiveness (SPSA) scale (Amos et al., 2015) was used to measure perceived sexual attractiveness.

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> library(psych)
> describeBy(dd$Attractiveness, list(dd$Dog, dd$Gender), mat = T, digits = 2)
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	item	group1	group2	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis
X11	1	no dog	female	1	86	-0.41	1.74	0	-0.44	1.48	-3	3	6	-0.02	-1.03
X12	2	presence of dog	female	1	100	-1.09	1.52	-1	-1.21	1.48	-3	3	6	0.54	-0.36
X13	3	no dog	male	1	86	-0.98	1.62	-1	-1.06	1.48	-3	3	6	0.22	-1.07
X14	4	presence of dog	male	1	94	-0.95	1.51	-1	-1.00	1.48	-3	3	6	0.19	-0.92

se

X11 0.19  
X12 0.15  
X13 0.18  
X14 0.16

\$emmeans

Dog	Gender	emmean	SE	df	lower.CL	upper.CL
no dog	female	-0.407	0.172	362	-0.746	-0.0683
presence of dog	female	-1.090	0.160	362	-1.404	-0.7759
no dog	male	-0.977	0.172	362	-1.315	-0.6380
presence of dog	male	-0.947	0.165	362	-1.271	-0.6228

Confidence level used: 0.95

\$contrasts

contrast	estimate	SE	df	t.ratio	p.value
no dog female - presence of dog female	0.6830	0.235	362	2.908	0.0201
no dog female - no dog male	0.5698	0.244	362	2.339	0.0912
no dog female - presence of dog male	0.5398	0.238	362	2.265	0.1083
presence of dog female - no dog male	-0.1133	0.235	362	-0.482	0.9630
presence of dog female - presence of dog male	-0.1432	0.229	362	-0.624	0.9243
no dog male - presence of dog male	-0.0299	0.238	362	-0.126	0.9993

P value adjustment: tukey method for comparing a family of 4 estimates