

Supplemental Appendix for “Think Leader, Think Gender? The Gendered Attributes Associated with Ideal Leadership Roles”

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Table A1: Descriptive statistics and respondent demographics

Variable	N	%	Mean	Std. Dev.	Min.	Max.
<u><i>Treatments</i></u>						
Ideal Leader	106	27.04				
Ideal Manager	101	25.77				
Ideal Public Manager	90	22.96				
Ideal HS Principal	95	24.23				
<u><i>Femininity score</i></u>						
Original	392		59.06	6.13	37	90
Alternative 1 (excluding ambiguous traits)	392		55.04	5.76	33	82
Alternative 2 (excluding irrelevant traits)	392		35.88	3.28	23	49
Expressivity	392		28.21	3.54	13	35
Instrumentality	392		28.33	3.75	9	35
<u><i>Manipulation and attention checks</i></u>						
Correctly recalled treatment	392	93.11				
Survey completion time (seconds)	392		471.95	289.08	148	2489
Completed survey within 1 S.D. of mean	392	91.33				
<u><i>Respondent demographics</i></u>						
Gender	392					
Male	198	50.51				
Female	188	47.96				
Nonbinary/third gender	2	0.51				
Prefer not to say	3	0.77				
Prefer to self-describe	1	0.26				
Education	392		4.18	1.35	1	7

Less than high school	4	1.02				
High school graduate	43	10.97				
Some college	102	26.02				
2-year degree	38	9.69				
4-year degree	149	38.01				
Professional degree	48	12.24				
Doctorate	8	2.04				
Age	392		38.22	12.69	18	74
Race	392					
White or Caucasian	279	71.17				
African American or Black	26	6.63				
Asian American or Asian	33	8.42				
Hispanic or Latino/Latina/Latinx	22	5.61				
Multiracial or another race	32	8.16				
Full Time Employment Status						
No	176	44.90				
Yes	216	55.10				
Household Income	392		6.14	3.30	1	13
Less than \$10,000	13	3.32				
\$10,000 - \$19,999	31	7.91				
\$20,000 - \$29,999	53	13.52				
\$30,000 - \$39,999	50	12.76				
\$40,000 - \$49,999	57	14.54				
\$50,000 - \$59,999	32	8.16				
\$60,000 - \$69,999	28	7.14				
\$70,000 - \$79,999	40	10.20				
\$80,000 - \$89,999	15	3.83				

\$90,000 - \$99,999	19	4.85				
\$100,000 - \$109,999	18	4.59				
\$110,000 - \$124,999	10	2.55				
\$125,000 or more	26	6.63				
Marital Status	392					
Married or in a domestic partnership	185	47.19				
Widowed	5	1.28				
Divorced	35	8.93				
Separated	3	0.77				
Single, never married	164	41.84				
Political Ideology	392		3.58	1.79	1	7
Extremely liberal	50	12.76				
Liberal	87	22.19				
Slightly liberal	61	15.56				
Moderate; middle of the road	74	18.88				
Slightly conservative	37	9.44				
Conservative	65	16.58				
Extremely conservative	18	4.59				
Political Partisanship	387		2.62	1.53	1	5
Democrat	134	34.63				
Independent, but lean Democrat	73	18.86				
Independent with no party preference	64	16.54				
Independent, but lean Republican	37	9.56				
Republican	79	20.41				

Table A2: Difference of means tests for the individual traits (significant results only)

Comparison	Mean 1	Mean 2	Difference	P-Value	Stat. Sig.
<u>Not at all aggressive</u>					
Ideal Leader vs. Ideal HS Principal	2.95	3.57	-0.62	0.000	***
Ideal Manager vs. Ideal HS Principal	3.14	3.57	-0.43	0.004	**
Ideal Public Manager vs. Ideal HS Principal	3.08	3.57	-0.49	0.002	**
<u>Very submissive</u>					
Ideal Leader vs. Ideal Manager	2.26	2.54	-0.28	0.008	**
Ideal Manager vs. Ideal Public Manager	2.54	2.33	0.21	0.063	+
Ideal Manager vs. Ideal HS Principal	2.54	2.36	0.19	0.091	+
<u>Very excitable in a major crisis</u>					
Ideal Leader vs. Ideal Public Manager	2.18	2.53	-0.35	0.041	*
Ideal Public Manager vs. Ideal HS Principal	2.53	2.18	0.35	0.067	+
<u>Very passive</u>					
Ideal Manager vs. Ideal Public Manager	1.92	1.69	0.23	0.049	*
<u>Able to devote oneself to others</u>					
Ideal Leader vs. Ideal HS Principal	4.06	4.26	-0.21	0.063	+
Ideal Manager vs. Ideal HS Principal	3.93	4.26	-0.33	0.002	**
Ideal Public Manager vs. Ideal HS Principal	4.04	4.26	-0.22	0.073	+
<u>Very gentle</u>					
Ideal Leader vs. Ideal HS Principal	3.46	3.72	-0.25	0.045	*

Very helpful to others

Ideal Leader vs. Ideal Public Manager	4.41	4.67	-0.26	0.009	**
Ideal Leader vs. Ideal HS Principal	4.41	4.65	-0.25	0.015	*
Ideal Manager vs. Ideal Public Manager	4.42	4.67	-0.25	0.020	*
Ideal Manager vs. Ideal HS Principal	4.42	4.65	-0.24	0.029	*

Not at all competitive

Ideal Leader vs. Ideal Manager	2.16	2.45	-0.29	0.029	*
Ideal Leader vs. Ideal Public Manager	2.16	2.39	-0.23	0.086	+
Ideal Leader vs. Ideal HS Principal	2.16	2.67	-0.51	0.000	***
Ideal Public Manager vs. Ideal HS Principal	2.39	2.67	-0.28	0.051	+

Very home oriented

Ideal Manager vs. Ideal Public Manager	2.60	2.38	0.23	0.097	+
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Very kind

Ideal Leader vs. Ideal HS Principal	4.21	4.43	-0.22	0.043	*
Ideal Manager vs. Ideal HS Principal	4.19	4.43	-0.24	0.028	*

Needs others' approval

Ideal Leader vs. Ideal Manager	2.57	2.78	-0.22	0.096	+
Ideal Leader vs. Ideal Public Manager	2.57	2.86	-0.29	0.029	*
Ideal Public Manager vs. Ideal HS Principal	2.86	2.55	0.31	0.035	*

Feelings easily hurt

Ideal Leader vs. Ideal Manager	1.75	1.96	-0.22	0.098	+
Ideal Manager vs. Ideal HS Principal	1.96	1.60	0.36	0.009	**

Aware of others' feelings

Ideal Manager vs. Ideal Public Manager	4.34	4.53	-0.20	0.081	+
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Gives up very easily

Ideal Manager vs. Ideal Public Manager	1.70	1.40	0.30	0.007	**
Ideal Manager vs. Ideal HS Principal	1.70	1.39	0.31	0.007	**

Not at all self-confident

Ideal Manager vs. Ideal Public Manager	1.63	1.46	0.18	0.060	+
Ideal Public Manager vs. Ideal HS Principal	1.46	1.64	-0.19	0.091	+

Very understanding of others

Ideal Leader vs. Ideal HS Principal	4.46	4.67	-0.21	0.032	*
Ideal Manager vs. Ideal HS Principal	4.50	4.67	-0.17	0.071	+

*Note: Difference equals Mean 1 minus Mean 2. The reported p-value is from a two-tailed t-test with equal variances. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.*

As an internal validity check for the gendered coding of each trait, we asked respondents to “Imagine that you are meeting two people for the very first time, one person is a man and the other is a woman. Which person do you think would be more likely to possess each characteristic, the man or the woman?” Table A3 shows that the majority of respondents agreed with our coding of each trait.

We created an alternative measure of the femininity score that excludes two traits that did not achieve higher than 60% consensus on whether a man or a woman would be more likely to possess the characteristic (worldly and never gives up).

Table A3: Internal validity check for gendered coding of traits

	A man	A woman	Respondents' consensus	Authors' coding
Very aggressive	87.76	12.24	Man	Masculine
Very independent	68.37	31.63	Man	Masculine
Very emotional	12.24	87.76	Woman	Feminine
Very dominant	89.29	10.71	Man	Masculine
Very excitable in major crisis	31.12	68.88	Woman	Feminine
Very active	63.27	36.73	Man	Masculine
Able to devote oneself to others	11.99	88.01	Woman	Feminine
Very gentle	8.42	91.58	Woman	Feminine
Very helpful to others	12.50	87.50	Woman	Feminine
Very competitive	81.63	18.37	Man	Masculine
Very worldly	55.10	44.90	Man	Masculine
Very kind	10.46	89.54	Woman	Feminine
Indifferent to others' approval	83.67	16.33	Man	Masculine
Feelings easily hurt	20.41	79.59	Woman	Feminine
Aware of others' feelings	8.16	91.84	Woman	Feminine
Can make decisions easily	68.37	31.63	Man	Masculine
Never gives up easily	58.16	41.84	Man	Masculine
Never cries	91.07	8.93	Man	Masculine
Very self-confident	78.06	21.94	Man	Masculine
Feels very superior	86.22	13.78	Man	Masculine

Very understanding of others	8.93	91.07	Woman	Feminine
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Note: Respondents were asked "Who is more likely to possess each characteristic?" The columns "A man" and "A woman" report the percentage of respondents who selected "man" or "woman" for each characteristic.

Table A4 presents the percentage of respondents in each treatment group who identified a particular trait as irrelevant for a leader/manager/public manager/high school principal. Based on these results, we created a second alternative femininity score that excludes nine traits that at least 20% of respondents identified as irrelevant (emotional, submissive, gentle, competitive, worldliness, needs others' approval, feelings easily hurt, cries easily, feels superior).

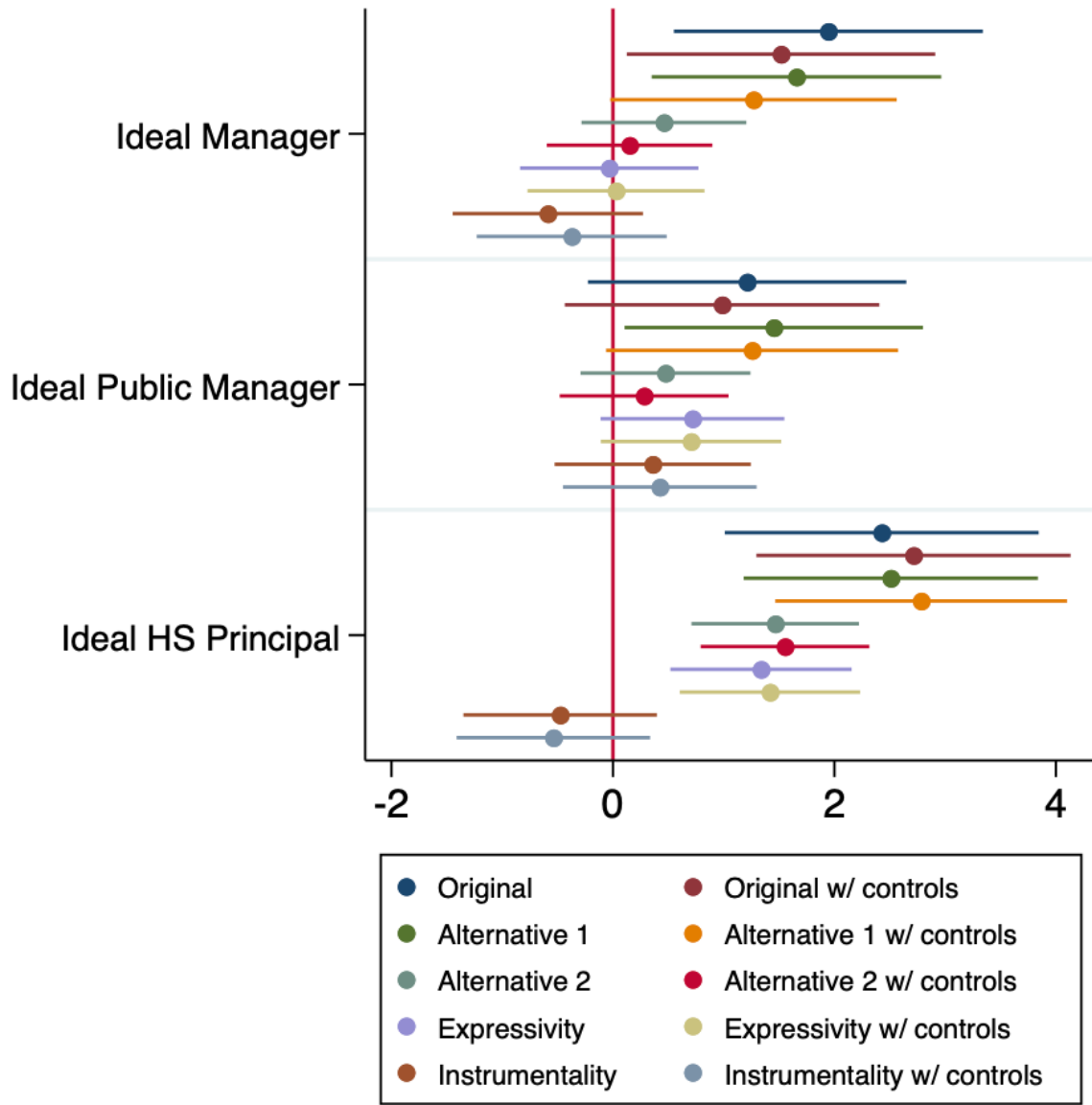
Table A4: Traits identified as irrelevant

Trait	Overall	Ideal Leader	Ideal Manager	Ideal Public Manager	Ideal HS Principal
Not at all / Very aggressive	13.52	15.09	16.83	13.33	8.42
Not at all / Very independent	9.95	7.55	12.87	7.78	11.58
Not at all / Very emotional	20.41	23.58	19.80	18.89	18.95
Very dominant / Very submissive	20.41	18.87	21.78	21.11	20.00
Not at all / Very excitable in a major crisis	10.46	9.43	9.90	11.11	11.58
Very passive / Very active	12.50	9.43	16.83	8.89	14.74
Not at all / Able to devote oneself to others	16.84	15.09	26.73	18.89	6.32
Very rough / Very gentle	21.68	28.30	26.73	18.89	11.58
Not at all / Very helpful to others	6.38	7.55	3.96	7.78	6.32
Not at all / Very competitive	20.66	12.26	15.84	23.33	32.63
Very home oriented / Very worldly	45.92	44.34	51.49	44.44	43.16
Not at all / Very kind	9.95	13.21	8.91	12.22	5.26

Indifferent to / Needs others' approval	22.96	21.70	19.80	22.22	28.42
Feelings not / Feelings easily hurt	23.47	27.36	18.81	25.56	22.11
Not at all / Aware of others' feelings	7.65	12.26	5.94	7.78	4.21
Can make decisions easily / Has difficulty making decisions	7.65	10.38	8.91	7.78	3.16
Gives up very easily / Never gives up easily	6.63	5.66	8.91	6.67	5.26
Never cries / Cries very easily	54.34	55.66	50.50	53.33	57.89
Not at all / Very self-confident	6.89	7.55	11.88	3.33	4.21
Feels very inferior / very superior	25.00	26.42	21.78	25.56	26.32
Not at all / Very understanding of others	8.16	11.32	6.93	8.89	5.26

Note: Each cell corresponds to the percent of respondents in each treatment condition who identified this trait as completely irrelevant for that person to display.

Figure A1: Coefficients plot using alternative measures and model specifications



Note: 90% confidence intervals are shown.

As robustness checks, we estimated ordinary least squares regression models with and without control variables using the original femininity score along with four alternative measures.

Figure A1 presents the results of these robustness checks in the form of a coefficients plot where “ideal leader” is the reference category.

“Original” refers to the measure of the femininity score presented in the main text.

“Alternative 1” is an alternative measure of the femininity score that excludes two traits (worldly and never gives up easily) that lacked over 60% consensus on the gender-typing of the trait (see Table A3).

“Alternative 2” is an alternative measure that excludes nine traits (emotional, dominant, gentle, competitive, worldly, needs others’ approval, feelings hurt easily, cries easily, feels superior) that at least 20% of survey respondents identified as irrelevant for an ideal leader/manager/public manager/high school principal to have (see Table A4).

“Expressivity” is a measure of expressivity/femininity based on the personal attributes questionnaire (PAQ) that includes seven traits (emotional, able to devote oneself to others, gentle, helpful, kind, aware of others’ feelings, and understanding).

“Instrumentality” is a measure of instrumentality/masculinity based on the personal attributes questionnaire (PAQ) that includes seven traits that are coded so that higher values indicate greater masculinity (independent, active, competitive, decisive, never gives up easily, confident, and superior).

The models with control variables include respondents’ level of education, gender (man=1, otherwise=0), age, race, employment status (full time=1, otherwise=0), household income, marital status (married=1, otherwise=0), political ideology, political partisanship, whether the respondent correctly answered the manipulation check, and whether the survey completion time fell within +/- 1 standard deviation of the mean completion time (yes=1, no=0). See Table A1 in for summary statistics.

These robustness checks suggest that the ideal high school principal is viewed as more feminine compared to the ideal leader across all models except when the more limited instrumentality measure is used. The ideal manager is viewed as more feminine compared to the ideal leader in only three out of the ten model specifications. The ideal public manager is also viewed as more feminine compared to the ideal leader, but only in one of the ten models.

Table A5 expands on the analysis presented in Table 2 in the main text. Table A5 shows the percentage of respondents who had a man, woman, or no one in mind when thinking about an ideal leader, manager, public manager, or high school principal. The table presents the results for all respondents, male respondents only, and female respondents only. Notably, both male and female respondents were more likely to think of a man than a woman across all four treatment groups.

Table A5: Gender of person respondent had in mind, by respondent gender

	Ideal Leader	Ideal Manager	Ideal Public Manager	Ideal HS Principal
<u>All respondents: Gender of Person in Mind</u>				
No one in mind	60.38	65.35	80.00	72.63
Gender not specified	11.32	23.76	4.44	18.95
Man	24.53	9.90	11.11	8.42
Woman	3.77	0.99	4.44	
<u>Male respondents: Gender of Person in Mind</u>				
No one in mind	63.79	65.12	81.63	81.25
Gender not specified	13.79	20.93	4.08	12.50
Man	20.69	13.95	12.24	6.25
Woman	1.72		2.04	
<u>Female respondents: Gender of Person in Mind</u>				
No one in mind	54.35	65.52	79.49	62.22
Gender not specified	8.70	25.86	5.13	26.67
Man	30.43	6.90	10.26	11.11
Woman	6.52	1.72	5.13	

Note: Each cell is the percent of respondents in each treatment condition who had a man, woman, or no one in mind when thinking of an ideal leader, manager, public manager, or high school principal.