

Leadership style and follower perceptions: evaluations of command within a military training context

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Abstract

Purpose – This study aims to investigate how a leader's binary gender and leadership style affect cadet perceptions within a military academy, focusing on the influence of gendered behaviors associated with each leadership style. Drawing on role congruity theory and expectation states theory, the study explores how gendered behaviors associated with leadership styles shape evaluations in an organizational context where leadership expectations are both highly salient and actively taught.

Design/methodology/approach – Using a 2 × 2 experimental design manipulating leader gender and leadership style, cadets at a military academy were asked to evaluate a fictional commandant.

Findings – Cadets expressed a preference for transformational over transactional leadership on measures of leader likability; however, neither style was perceived as more effective overall. A comparison of expectations states and role congruity theories show mixed results.

Research limitations/implications – The study is context-specific to a military academy setting, which may limit generalizability. In addition, the focus on binary gender and inability to distinguish sex and gender, reflects institutional constraints in the study design.

Originality/value – Military academies provide a unique context to evaluate leadership perceptions while they are being actively developed. This study contributes to the literature by comparing two well-known gender theories in an experimental setting.

Keywords Leadership, Military, Gender, Follower, Training, Transformational, Transactional

Paper type Research paper

Introduction

The USA military increasingly emphasizes transformational leadership as a core value in developing the next generation of officers (Cycyota, Ferrante, Green, Heppard, & Karolick, 2011). This leadership style, characterized by inspiration, individualized consideration, and the ability to motivate followers beyond transactional rewards (Judge & Piccolo, 2004) is promoted as essential for navigating complex, dynamic operational environments. Military



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academies and training programs have responded by integrating transformational leadership principles into their curricula. However, it remains unclear whether these efforts are effectively instilling a value for transformational leadership behaviors in officer candidates and whether such behaviors are perceived equally when exhibited by male and female leaders. Given the American military's culture of masculinity (Goldstein, 2018), leader effectiveness may be evaluated through unconscious expectations, potentially undermining the intended outcomes of leadership training.

Transformational and transactional approaches to leadership

Transformational and transactional leadership styles were first conceived by Burns (1978) as ends of a spectrum of leadership behaviors. On one end, transactional leadership focuses on the exchange of rewards and punishments as extrinsic motivators for follower behavior. On the other end, transformational leadership attempts to build *intrinsic* motivation through conveyance of a leader's vision to inspire followers by meeting those follower's needs. Further development by Bass (1985) reconceptualized these styles as types rather than sitting on a continuum, elaborating several different approaches leaders may follow depending on the "full range" of situations they face. Within transformational leadership, Bass introduced the "4I's"; idealized influence, intellectual stimulation, inspirational motivation and individualized consideration (Judge & Piccolo, 2004), each with a set of related behaviors demonstrated to increase leader effectiveness (Bass & Avolio, 1994; Sosik & Jung, 2011).

Transformational leadership is strongly associated with positive outcomes such as job satisfaction, motivation, satisfaction with leaders and performance (Judge & Piccolo, 2004). Yet the way leaders are prepared depends heavily on the organizational setting as there is often a "misalignment between the value that organizations say they place on leader development and the leader development activities that they actually engage in and reinforce" (Ruvolo, Peterson, & LeBoeuf, 2004, p. 10). Strict hierarchical organizations, such as the military, may lend themselves more to transactional practices and restrict the emergence of transformational leadership (Wright & Pandey, 2010; Pawar & Eastman, 1997; Shamir & Howell, 1999, 2018). This tension between espoused goals of cultivating transformational leaders and the structural realities of hierarchical organizations begs the question of what component has the greater influence on those being developed.

The military context

Military academies represent a distinctive environment to examine this question. Their stated approach to leadership development is holistic, combining education, training and experience to instill transformational principles while ensuring cadets remain committed to the mission (Cycyota et al., 2011). The Officer Development System (ODS) organizes this process through the progressive four-year PITO model: personal development in the first year, interpersonal skills in the second, team leadership in the third, and organizational leadership in the fourth (Price, 2004).

Despite this emphasis on transformational ideals, the academy's culture is inherently formal, hierarchical and discipline focused. Military organizations tend to be structured based upon Classic Management Theory, which unfortunately, creates a system that encourages transactional leadership rather than the preferred transformational style (Watola, Lindsay, & Reimer, 2016). While cadets formally learn the concepts of transformational leadership, much of their day-to-day experience, both in academics and training, relies on transactional methods to enforce standards and achieve short-term compliance. Transactional approaches, which use direct authority to gain immediate results, are often

more practical in military training contexts than the relationship-building required by transformational strategies. This creates a disconnect where cadets are taught to value transformational approaches but frequently observe the efficiency of transactional practices in the structured environment of military life.

Thus, focusing on leadership style outside of additional demographics we can make the following predictions:

- H1a.* Transformational leaders will be rated higher on questions related to likability (admire commander, enjoy serving, approach respect, and optimistic reception) than transactional leaders.
- H1b.* Transactional leaders will be rated higher on questions related to effectiveness (commander competence, approach effectiveness, improve cadet performance) than transformational leaders.

Gender expectations and transformational leadership

The guiding theories of this study will focus on binary gender (i.e. identifying as a man or woman), as do some studies discussed in the following sections. While this approach is limited in its ability to fully explore various gender dynamics affecting leadership perceptions, our examination of a military population and current DOD guidelines limits our ability to discuss gender in broader terms or treat it as a separate construct from biological sex ([Exec. Order No. 14168 and 3 C.F.R. 8615, 8615, 8615, 2025](#)).

Transformational leadership has been found to be positively related to leader effectiveness regardless of leader gender ([Wells, Peachey, & Walker, 2014](#)). However, questions remain regarding whether women are perceived similarly to men when adopting a particular leadership style. Broad societal expectations related to gender, either in terms of abilities or disposition, may alter the degree to which transformational leadership inspires followers to accept a leader's influence. Our research into leadership dynamics seeks to explain how gender operates as an institutionalized system deeply intertwined with social hierarchy, which impacts legitimacy beliefs about women's capabilities and performance evaluations in leadership roles ([Ridgeway, 2011](#); [Lucas, 2003](#)). To do this, we build on both social role theory ([Eagly & Karau, 2002](#)) and expectations states ([Ridgeway, Johnson, & Diekema, 1994](#)) explanations.

Status and expectation for leadership ability. One theoretical tradition, based in expectation states theory ([Berger, Fisek, Norman, & Zelditch, 1977](#)), argues that unconscious expectations of competence and social value associated with socially significant categories such as sex/gender, arise in task settings and translate into opportunities for leadership. Individuals belonging to groups generally viewed as more socially valued (such as men) are assigned higher levels of perceived competence in these settings, which translates to more opportunities to contribute to group activities ([Correll & Ridgeway, 2003](#)). Specifically, we will focus on the work of Cecilia Ridgeway and colleagues, which finds that status disadvantaged leaders, among them women, have more difficulty being viewed as legitimate by followers.

Within expectation states theoretical research, status characteristics theory explains how expectations associated with status characteristics arise in task groups and generate stable prestige hierarchies. A status characteristic is any socially significant characteristic that divides the population into two or more categories or "states," where each category is assigned social value, and one category is associated by members of a society with greater social value than other categories ([Correll & Ridgeway, 2003](#)). Furthermore, the value of

each category is associated with expectations for competence levels that are consistent with the relative value of the category, with the most valued state associated with the greatest levels of expected competence in task settings.

Extensive early research in the expectation states program showed that sex, operationalized as a binary man/woman characteristic, operates as a status characteristic (Berger, Rosenholtz, & Zelditch, 1980; Ridgeway, 1978; Ridgeway, 1982; Carli, 1990), with women having less influence than men in task settings. Interest in women's leadership and its legitimacy emerged in the late 1970's and 1980's as women entered the workplace in unprecedented numbers and came to dominate college campuses (DiPrete & Buchmann, 2013). By the late 1980's and early 1990's, Cecilia Ridgeway had established a program of research on status and legitimacy that included attention to the challenges women face to their authority as leaders (Ridgeway & Berger, 1986; Ridgeway et al., 1994). This research found that even when women showed superior competence and were assigned to leadership positions within a dyad, their attempts to be dominant were more often rejected by a same-sex partner than when men were in the same position. Ridgeway (2011) found that gendered beliefs systematically disadvantage women leaders by creating a constraining set of role expectations which lower women's opportunities for these roles, as well as performance evaluations for role incumbents.

Research shows that women and other status disadvantaged group members can gain influence by communicating that they are motivated to help their groups succeed. If transformational leadership communicates motivation to help the group, it more likely serves as a means of offsetting negative expectations that arise with lower status, including the expectation that women are more concerned with self or interests outside the group (Ridgeway, 1982; Correll, Benard, & Paik, 2007). Research has found that women are more likely to engage in the individualized consideration component of transformational leadership (Bass, Avolio, & Atwater, 1996; Carless, 1998), which includes the development of followers. By demonstrating concern for others, individualized consideration likely operates to assure followers of a woman leader's motivation to help the group (or organization) succeed, countering expectations that individuals from lower status groups are more selfish (Ridgeway, 1982). Showing group motivation does not undermine high status but would counter negative expectations for lower-status members. Rather than disadvantage men, we would thus expect that being transformational would have both a positive impact on a man's evaluations relative to men who are transactional and significantly improve perceptions of women leaders. This would lead to the following predictions:

- H2. If expectation states theory is driving responses, then transformational men will be rated highest, followed by transformational women, transactional men, and transactional women.

Role congruity theory. Social role theory posits that perceptions of a person's "fit" within a role are impacted by the stereotypes associated with groups to which they belong. Eagly's Role Congruity Theory argues that stereotypes propagate within cultures as people are socialized (Eagly & Wood, 2012). According to this view, people in the US internalize a binary conception of gender during the socialization process that spreads beliefs that there are certain behaviors, characteristics and roles that are more desirable, dependent on one's gender (Eagly & Wood, 2012). Men are often expected to convey agentic characteristics such as aggression, confidence and strength (Eagly & Wood, 2012). Women are expected, and valued, for displaying communal characteristics such as understanding, sensitivity and warmth (Eagly & Wood, 2012). Role congruity theory extends social role theory, by positing that positive and negative evaluations of an individual fulfilling a role are dependent on the

alignment between gender expectations and role demands (Eagly & Karau, 2002). Leadership as a role tends to stereotypically align with more agentic traits. This alignment results in men being seen as more “natural leaders,” while women face a contradictory choice (Eagly, 2007). They can adopt more agentic traits associated with leadership to be viewed as more legitimate, but that choice then becomes incompatible with the communal traits expected from their gender (Eagly, 2007).

An examination of the behaviors associated with transformational and transactional styles of leadership suggests that the transformational approach aligns more closely with communal actions (associated with femininity) while transactional tends to better align with agentic or instrumental, goal-focused action (associated with masculinity) (Powell, Butterfield, & Bartol, 2008). This would suggest that women might choose to engage in transformational styles of leadership more often than men because it more closely aligns with their gender stereotype. A meta-analysis (Eagly, Johannesen-Schmidt, & Van Engen, 2003) examined studies comparing the leadership styles of men and women across organizations. As predicted, women leaders tended to exhibit more transformational style leadership behaviors than men. Men were much more likely to engage in transactional leadership behaviors, particularly active and passive management by exception.

A leader's sex/gender may alter how different forms of leadership are perceived by subordinates, for reasons related to both expectations for the groups in society from which leaders emerge as well as the specific stereotypes held for women and men in leadership. For instance, while transactional leadership is associated with the use of reward and punishment to coerce compliance, and might easily be construed as instrumental in the ways that Eagly assumes leadership to be, transformational leadership entails actions that may very well be viewed through a stereotype lens as communal or through a functional lens as showing motivation to help others and the group succeed. If transformational leadership is viewed as communal, and so incongruent with a masculine stereotype, we might expect men who enact transformational leadership to be seen as less capable than men who enact transactional leadership. Conversely, women might be seen as particularly suited for enacting transformational leadership and so be evaluated more favorably when they act as transformational leaders, especially compared to women who act in a transactional way that is incongruent with feminine gender stereotypes:

H3. If role congruity theory is driving responses, then transactional men will be rated highest, followed by transformational men, transformational women, and transactional women.

Both role congruity and status-based expectations may operate concordantly. Especially in a masculine context such as the military, all types of leadership may be considered more masculine as men are more likely to occupy leadership roles, which would also strengthen the effects of sex/gender as a status characteristic entailing expectations that men are more competent leaders than women in that context. Yet this would not eliminate the positive expected impact of transformational behaviors on men's or women's evaluations. So, gender and leadership style may combine to affect preferences for leaders. This leads to a fourth prediction for the order into which evaluations of men and women leaders will fall:

H4. If a combination of expectations states and role congruity theories are driving responses, then transformational men will be rated highest, followed by transactional men, transformational women, and transactional women.

Contribution

While both the work of Eagly and Ridgeway reference one another's work in their theoretical reviews, the current authors were only able to identify one other experimental article in which role congruity and expectation states theories were tested against one another (Reid, Palomares, Anderson, & Bondad-Brown, 2009). The current study provides an additional examination of role congruity, expectation states, and the theoretical combination of the two in an experimental setting. This study population also allows for examination of these theories in a developmental and highly salient leadership context. The military environment is deeply embedded in leadership structures and practices, making a military academy an ideal context for examining leadership perceptions while cadets are still developing and internalizing leadership expectations.

Methods

To test these hypotheses, an experiment was conducted using an online 2x2 factorial survey varying the gender and leadership style of a fictitious military leader. Participants were randomly assigned to read a vignette about either a man or woman leader who exhibited either a transformational or transactional leadership style.

Sample and procedure

Demographic and control variables. Two-hundred and 70 (270) cadets at the U.S. Air Force Academy accessed an online factorial survey experiment. Of these, three participants provided no data, resulting in a total sample size of 267. Participants were asked to provide class year, sex, parent military status, race/ethnicity, grade point average (GPA) and military performance average (MPA). U.S. Department of Defense (DoD) policy severely restricts asking about gender identity on official surveys (DoD, 2022). Therefore, while our vignettes are designed to indicate gender, we asked self-reported binary sex of the cadet respondents. Female respondents (134) represented 50.2% of the sample, male respondents (131) were 49.1% of the sample, and two respondents chose "prefer not to answer." The class year of the respondents was 69 seniors, 46 juniors, 70 sophomores, 80 freshmen and 2 no response.

Independent variables. Each participant was randomly assigned to one of four vignettes describing (1) a fictional man or woman Commandant who (2) displays either transactional or transformational leadership style resulting in a 2x2 factorial design. The leader's description and characteristics were adapted from a published study comparing transactional and transformational leaders (Burton & Peachey, 2009; See supplementary Appendix). The man vs woman Commandant was indicated to participants through the use of he/she pronouns and the name "John" or "Joan." The Commandant of Cadets is a military officer in charge of all cadets at the academy. The position serves under the USAFA Superintendent as the military equivalent to the Dean of Faculty, who is also a military officer but is charged with the academic development of cadets under a liberal arts model. By making the leader "Commandant" it clearly designates the evaluative context as a military one.

Dependent variables. Participants were asked to rate the Commandant on the following items on a scale from 1 to 5, where "1" indicated the low end of the scale and "5" the high end. The dependent variables were author developed, so a Cronbach reliability analysis was performed to determine how the items performed as an overall scale ($\alpha = 0.885$), and how they performed based on the theoretical split between likeability (Qs 1–4; $\alpha = 0.853$) and effectiveness (Qs 5–7; $\alpha = 0.713$).

Items included:

- How much would you enjoy serving under the leadership of this commander?

- How much do you believe you would respect this commander's approach?
- How likely are you to admire this commander?
- How likely is it that this commander would be optimistically received by the cadet wing?
- How competent do you believe this commander will be?
- How effective do you believe this commander's approach will be?
- How likely do you think this commander would be to improve cadet performance?

Results

Analytical strategy

To test the hypotheses, nonparametric Kruskal–Wallis tests were performed. The use of Kruskal–Wallis is appropriate as an alternative to the one-way ANOVA when the assumption of normality is violated. Both the Shapiro–Wilk and Kolmogorov–Smirnov tests suggested that the data was not normally distributed. Dunn's method of post hoc pairwise comparisons were used for all analyses. A principal components analysis was performed with a varimax rotation resulting in the dependent variable questions loading on one factor overall. Paired with the composite alpha reliability, this result supports the dependent variables being treated as one scale. However, as these questions are untested, we chose to also analyze them individually and as composite likeability and effectiveness scales.

Hypothesis tests

H1a-1b. Transformational leaders will be rated higher on questions related to likability (admire commander, enjoy serving, and optimistic reception) than transactional leaders. Transactional leaders will be rated higher on questions related to effectiveness (commander competence, approach effectiveness, improve performance) than transformational leaders.

Analysis of the main effects of leadership approach reveals significant differences between approaches in their impact on dependent measures (see Table 1). Kruskal–Wallis tests found significant effects in the predicted direction for leadership approach on ratings of how much the participant would enjoy serving with the commander [$\chi^2(1, n = 265) = 6.69$,

Table 1. Kruskal–Wallis test for effects of leader style on DVs

Measure	Transactional		Transformational		$\chi^2(1, 265)$
	M	SD	M	SD	
Commander competence	4.53	0.72	4.38	0.93	1.39
Enjoy serving commander	3.92	0.83	4.19	0.91	8.48**
Effectiveness of approach	4.04	0.75	4.02	0.84	0.03
Respect for approach	4.13	0.77	4.16	0.82	0.26
Admiration for commander	4.01	0.88	4.24	0.80	4.70*
Improve cadet performance	4.07	0.77	4.23	0.75	3.25
Optimistic reception	3.81	0.89	4.30	0.80	22.17**
Overall composite	4.03	0.62	4.21	0.64	6.04*
Likeability composite	3.99	0.68	4.24	0.67	9.51**
Effectiveness composite	4.22	0.57	4.22	0.64	0.07

Note(s): * $p < 0.05$, ** $p < 0.01$. Mean ranks and multiple comparisons are not given as there are less than Three test fields

$p = 0.004$], how much the participant would admire the commander [$\chi^2 (1, n = 265) = 4.70, p = 0.030$], and how optimistically the commander would be received by the cadet wing [$\chi^2 (1, n = 265) = 22.17, p < 0.001$]. For composite scales transformational leadership was rated significantly higher on the overall composite [$\chi^2 (1, n = 265) = 6.04, p = 0.014$] as well as the likeability composite score [$\chi^2 (1, n = 265) = 9.51, p = 0.002$]. These findings support *H1a* in which transformational leaders are viewed as more likeable but does not support *H1b*, in which transactional leadership is seen as more effective:

H2. Transformational men will be rated highest, followed by transformational women, transactional men, and transactional women.

H3. Transactional men will be rated highest, followed by transformational men, transformational women, and transactional women.

H4. Transformational men will be rated highest, followed by transactional men, transformational women, and transactional women.

To test these competing hypotheses, a non-parametric Kruskal–Wallis Test was performed with results reported in [Table 2](#).

Results for *H2* received partial support. There was a significant difference in the composite scale of leader likeability [$\chi^2 (3, n = 265) = 9.77, p = 0.021$] where transformational leadership was preferred for both men and women. The two primary likeability dependent variables driving this effect were how much the cadets would enjoy serving this leader, and how optimistically this leader would be received by the cadet wing. There was a significant difference in enjoy serving across the leader style/gender conditions [$\chi^2 (3, n = 265) = 9.01, p = 0.029$]. The mean ranks of enjoy serving were highest for transformational man, followed by transformational woman, transactional man and transactional woman.

Post hoc comparisons using Dunn's method (see [Table 3](#)) found a significant difference between transactional woman-transformational woman ($p = 0.03$), transactional woman-transformational man ($p = 0.01$), and transactional man-transformational man ($p = 0.05$). Both men [$\chi^2 (1, n = 131) = 4.06, p = 0.044$] and women [$\chi^2 (1, n = 134) = 4.29, p = 0.038$] exhibiting a transformational approach received higher ratings than either men or women using a transactional approach (see [Figure 1](#)), but there is no significant difference within leader style. There was no significant difference between transactional men and transformational women.

Similar results were found for optimistic reception [$\chi^2 (3, n = 265) = 23.93, p < 0.001$], with the same mean rank pattern as enjoy serving. [Table 3](#) shows post hoc pairwise comparisons using Dunn's method that found a significant difference between transactional woman-transformational woman ($p = 0.005$), transactional woman-transformational man ($p < 0.001$), transactional man-transformational woman ($p = 0.009$), and transactional man-transformational man ($p < 0.001$). There is again, no significant difference within leader style, (see [Figure 2](#)) as transformational is preferred over transactional for both men and women. Unlike enjoy serving, there is a significant difference between transactional men and transformational women when it comes to optimistic reception. The findings for these two dependent variables partially support *H2*. The mean ranks of the different conditions support the expectations states-based hypothesis, but only optimistic reception showed a significant difference between transactional men and transformational women (the key differentiator between *H2* and *H4*).

Finally, there was a significant difference in improve cadet performance across the conditions [$\chi^2 (3, n = 265) = 10.44, p = 0.015$]. The mean ranks of enjoy serving were highest for transformational man, followed by transactional man, transformational woman and transactional woman consistent with *H4* (see [Figure 3](#)). Post hoc comparisons using Dunn's method found a significant difference between transactional woman-transactional man

Table 2. Kruskal–Wallis Test for effects of gender and leader style on DVs

Measure	Transformational						Transactional						χ^2 (3, 265)
	Man			Woman			Man			Woman			
	M	SD	Mean rank	M	SD	Mean rank	M	SD	Mean rank	M	SD	Mean rank	
Commander competence	4.41	0.93	131.88	4.35	0.94	124.74	4.51	0.79	137.45	4.55	0.66	138.17	1.78
Enjoy serving commander	4.23	0.84	148.65	4.16	0.97	143.18	3.96	0.86	123.72	3.88	0.81	116.37	9.01*
Effectiveness of approach	3.97	0.88	129.22	4.07	0.82	135.25	4.03	0.78	133.30	4.06	0.74	134.11	0.28
Respect for approach	4.15	0.83	135.20	4.18	0.81	135.23	4.10	0.72	127.55	4.15	0.82	133.99	0.53
Admiration for commander	4.22	0.82	141.15	4.26	0.78	142.75	3.93	0.91	116.84	4.09	0.85	129.21	5.71
Improve cadet performance	4.32	0.73	151.02	4.13	0.77	129.87	4.21	0.69	136.94	3.93	0.82	112.82	10.44*
Optimistic reception	4.38	0.76	161.85	4.22	0.84	145.63	3.84	0.86	113.58	3.79	0.91	110.98	23.93**
Overall composite	4.25	0.61	148.09	4.17	0.68	141.03	4.04	0.60	123.78	4.01	0.64	119.08	6.45
Likeability composite	4.28	0.62	150.76	4.21	0.71	144.07	3.98	0.67	118.11	4.00	0.70	118.98	9.77*
Effectiveness composite	4.26	0.62	137.89	4.18	0.66	129.76	4.25	0.55	135.11	4.20	0.59	127.49	0.78

Note(s): * $p < 0.05$, ** $p < 0.01$

Note(s): * $p < 0.05$, ** $p < 0.01$

Table 3. Pairwise post hoc comparisons for significant Kruskal-Wallis test using Dunn’s method

Paired independent variables	Dependent variable	Mean difference	Sig.
Woman transactional- Man transactional	Enjoy serving commander	-7.35	0.559
	Improve cadet performance	-24.12	0.044*
	Optimistic reception	-2.60	0.834
	Likeability composite	0.87	0.948
Woman transactional- Woman transformational	Enjoy serving commander	26.81	0.032*
	Improve cadet performance	17.05	0.151
	Optimistic reception	34.64	0.005**
	Likeability composite	25.09	0.056
Woman transactional- Man transformational	Enjoy serving commander	32.28	0.010**
	Improve cadet performance	38.20	0.002**
	Optimistic reception	50.87	<0.001**
	Likeability composite	31.78	0.017*
Woman transformational- Man transformational	Enjoy serving commander	-5.47	0.662
	Improve cadet performance	-21.15	0.077
	Optimistic reception	-16.22	0.190
	Likeability composite	-6.69	0.612
Man transactional- Woman transformational	Enjoy serving commander	19.46	0.118
	Improve cadet performance	-7.07	0.551
	Optimistic reception	32.05	0.009**
	Likeability composite	25.96	0.048*
Man transactional- Man transformational	Enjoy serving commander	24.93	0.048*
	Improve cadet performance	14.08	0.243
	Optimistic reception	48.27	<0.001**
	Likeability composite	32.65	0.014*

Note(s): * $p < 0.05$, ** $p < 0.01$. Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same. Asymptotic significances (2-sided tests) are displayed. The significance level is 0.050

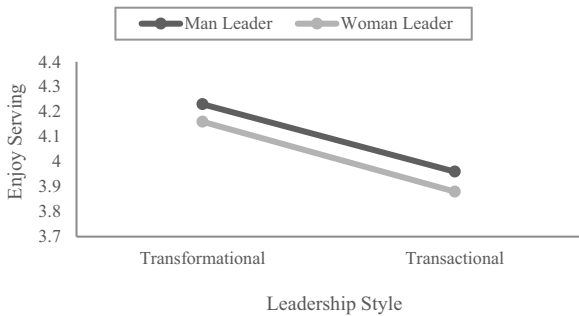


Figure 1. Mean differences in how cadets would enjoy serving under this leader across gender × style conditions

($p = 0.044$), and transactional woman-transformational man ($p = 0.002$). While the mean rank patterns follow those consistent with $H4$, there is no significant difference between transactional man and transformational woman. Therefore, we are unable to conclusively differentiate between $H2$ and $H4$.

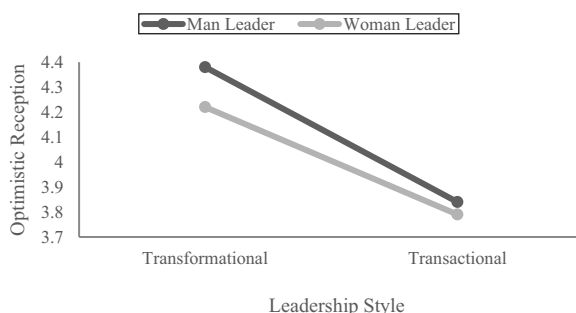


Figure 2. Mean differences in how cadets feel the leader would be optimistically received across gender $\times$ style conditions

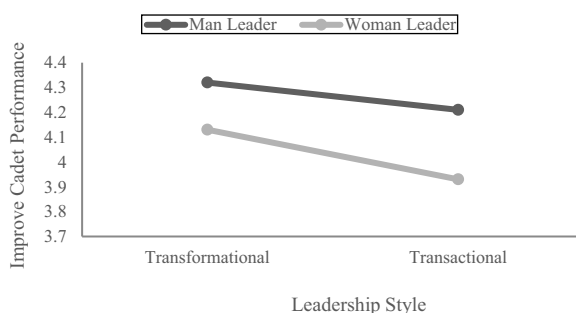


Figure 3. Mean differences in how cadets feel the leader would improve performance across gender $\times$ style conditions

The only consistent finding among the three mentioned dependent variables was transformational men being significantly rated higher than transactional women, consistent with *H2* and *H4*. None of the results supported *H3*, in which transactional men would be rated the highest. Therefore, there is no support for role congruity theory alone as a driver of responses.

Exploratory analysis. Over time, we might expect leadership training at a military academy to impact the preferences of cadets for certain types of leaders and leadership approaches. Given the heterogeneity of our sample in terms of year in school and age, we further analyzed our data to identify potential differences between classes on our individual dependent measures. A Kruskal–Wallis test found that year in school interacted with leader gender and leadership approach to affect ratings on two measures: *Likely to Improve Cadet Performance* and *Optimistic Reception* (see [Table 4](#)).

Analysis reveals that Freshmen and Sophomores expected no differences in a leader's ability to improve cadet performance or optimistic reception, regardless of leadership approach or gender. Seniors rated a transformational man higher than a transformational woman ($p = 0.005$), transactional woman ($p = 0.007$), and transactional man ($p = 0.038$) on optimistic reception (see [Table 5](#)). Juniors rated a transactional woman lower than a transformational woman ($p = 0.040$) or transformational man ($p = 0.045$). For improving

Note(s): * $p < 0.05$, ** $p < 0.01$. Results are shown for significant DVs only

Measure	Year in school	Transformational						Transactional						
		Man			Woman			Man			Woman			
		M	SD	Mean rank	M	SD	Mean rank	M	SD	Mean rank	M	SD	Mean rank	χ^2
Improve cadet performance	Senior	4.50	0.52	43.00	3.91	0.81	29.00	4.29	0.61	37.39	3.79	0.70	25.82	$\chi^2(3, 67) = 9.95^*$
	Junior	4.86	0.38	35.07	4.50	0.53	27.75	4.20	0.42	21.60	3.75	1.02	18.00	$\chi^2(3, 46) = 11.89^*$
	Sophomore	4.00	0.71	35.00	3.93	0.96	33.83	4.35	0.67	42.38	4.35	0.61	28.67	$\chi^2(3, 70) = 5.16$
Optimistic reception	Freshman	4.33	0.86	43.38	4.33	0.58	40.62	4.09	0.81	36.71	4.35	0.61	41.47	$\chi^2(3, 80) = 1.12$
	Senior	4.59	0.51	45.68	3.86	0.94	29.57	4.07	0.62	32.32	3.79	0.97	28.46	$\chi^2(3, 67) = 10.14^*$
	Junior	4.43	0.53	30.50	4.50	0.53	31.75	4.00	0.47	23.15	3.40	1.04	16.76	$\chi^2(3, 46) = 12.32^{**}$
	Sophomore	4.14	0.85	41.00	4.27	0.88	42.23	3.75	0.85	30.60	3.67	0.72	27.97	$\chi^2(3, 70) = 7.24$
	Freshman	4.43	0.87	45.81	4.43	0.75	44.57	3.73	1.12	30.76	4.35	0.61	40.94	$\chi^2(3, 80) = 6.41$

Note(s): * $p < 0.05$, ** $p < 0.01$. Results are shown for significant DVs only

Table 5. Significant pairwise post hoc comparisons by class year

Dependent variable	Year in school	Pairwise comparison	Mean difference	Sig.
Optimistic reception	Senior	Woman transactional-Man transformational	17.21	0.007**
		Woman transformational-Man transformational	-16.10	0.005**
		Man transactional-Man transformational	13.36	0.038*
	Junior	Woman transactional-Woman transformational	14.27	0.040*
		Woman transactional-Man transformational	13.03	0.045*
Improve cadet performance	Senior	Woman transactional-Man transformational	17.18	0.006**
		Woman transformational-Man transformational	-14.00	0.013*
	Junior	Woman transactional-Woman transformational	9.75	0.039*
		Woman transactional-Man transformational	17.07	0.001**
		Man transactional-Man transformational	13.47	0.023*

Note(s): * $p < 0.05$, ** $p < 0.01$. Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same. Asymptotic significances (2-sided tests) are displayed. The significance level is 0.050. Dunn's method showing only significant relationships

cadet performance, a very similar pattern was found with seniors rating a transformational man significantly higher than a transformational ($p = 0.013$) or transactional ($p = 0.006$) woman. Juniors rated a transformational man higher than a transactional man ($p = 0.023$) or woman ($p = 0.001$), and a transformational woman higher than a transactional woman ($p = 0.039$). The general patterns seems to display juniors rating transformational leadership higher regardless of gender, whereas the seniors rate men leaders higher than women leaders regardless of style (see [Figures 4 and 5](#)).

These cross-sectional data appear to show a differentiation in leader expectations over the four years, particularly with a widening gap between transformational men and transactional women.

Discussion and implications

This study explored how leader gender and leadership style interact to shape cadet perceptions of effectiveness, likability and overall leader evaluation within a military context. The findings offer mixed support for our hypotheses, raising important implications about how leadership is interpreted through the lens of gender and style at a military academy.

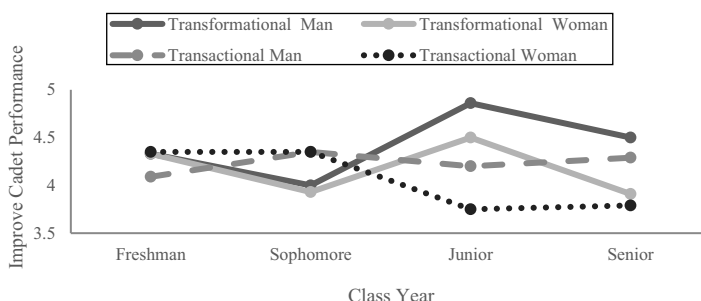


Figure 4. Mean differences by class year in how cadets feel the leader would improve performance across gender $\times$ style conditions

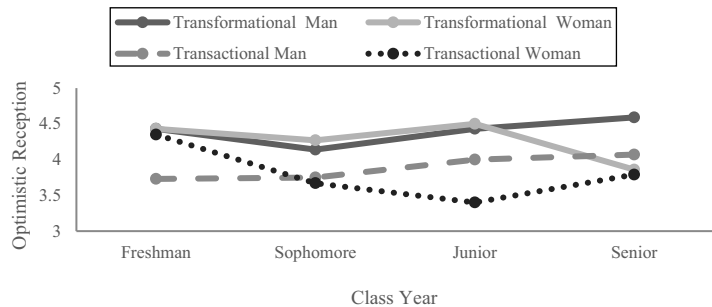


Figure 5. Mean differences by class year in how cadets feel the leader would be optimistically received across gender $\times$ style conditions

Leadership style as a moderating factor

Transformational leadership was generally rated more favorably than transactional leadership across gender conditions, providing support for *H1a*. Participants consistently reported greater enjoyment in serving, admiration and expected positive reception when evaluating transformational leaders. This aligns with the institutional preference for transformational leadership emphasized in military training and educational philosophy.

Contrary to *H1b*, transactional leadership did not significantly outperform transformational leadership on measures of effectiveness, such as perceived competence and ability to improve cadet performance. This discrepancy suggests that while cadets prefer transformational leaders on a relational and interpersonal level, they do not report a significant difference in its effectiveness in achieving mission outcomes. While this non-preference for transactional leadership effectiveness could be viewed as a win for leadership education at a military academy, the nonsignificant difference also raises questions of why cadets liked transformational leadership but did not think it was more effective. However, it is necessary to avoid interpreting a non-finding and suggests further research is needed. Future studies should explore these results to determine if there is potentially a mismatch between what cadets *like* in a leader and what they *think works* in the unique military context.

Gender bias in leadership evaluations

This study directly examined competing hypotheses based upon expectation states theory, role congruity theory and a combination of the two. Role congruity theory would suggest that perceptions of leader likeability and effectiveness would be based upon congruence with gender stereotypes. Therefore, it was predicted that transactional men would be rated the highest and transactional women the lowest (*H3*). Role congruity theory alone did not receive statistical support, primarily the notion that transactional men would be rated the highest.

Expectation states theory suggests communicating a motivation to help the group succeed, such as through transformational leadership, can overcome status-based competency evaluations. Findings partially supported expectations states theory (*H2*), showing that transformational leaders were rated significantly higher than transactional leaders on the measures of composite likeability, how much cadets would enjoy serving the leader, and how optimistically cadets felt the leader would be received. This would suggest that transformational leadership can assist women in overcoming status disadvantages when it comes to being perceived as likeable. However, the primary differentiator between

expectations states theory and a combination of expectation states and role congruity theories is whether transformational women or transactional men are rated higher than the other. In support of expectations states theory alone, transformational women were found to be significantly higher than transactional men for the optimistic reception variable only.

The combination of expectations states and role congruity theories would suggest that transactional men would be rated higher than transformational women. While this directional pattern was found for how likely a leader would be to improve cadet performance, the differences were not significant. There is not strong statistical evidence to differentiate expectations states theory from the combination of the two discussed theories, but the mean rank patterns are interesting in that expectations states seem to be contributing to leader likeability, but role congruity in combination with expectation states seems to influence followers rating of actual leader effectiveness.

While the gender/leader effect was not consistent across all dependent variables, the fact that a significant difference emerged suggests that gender bias may still subtly shape cadet evaluations of leader likeability and effectiveness. In all significant dependent variables transactional women consistently had the lowest mean, while transformational men had the highest mean. This pattern suggests that leadership is not evaluated in a vacuum but is interpreted in relation to prevailing gender status characteristics. Transactional women leaders may be penalized for violating expectations that women should be communal and may potentially reinforce the status assumption that they are less competent and more selfish, whereas transformational men seem to benefit from demonstrating relational warmth and inspiration, regardless of the social role violation. These results demonstrate that role congruity theory alone is not enough to predict follower behaviors.

Developmental shifts over time and the role of pluralistic ignorance

Exploratory analyses revealed that cadet perceptions vary based on year in school. Underclassmen did not show significant differences in evaluations across leader gender or leadership style. Seniors exhibited stronger preferences for men leaders, regardless of style, on the measures improving cadet performance and optimistic reception. Juniors exhibited a preference for transformational leaders, regardless of gender, on the same dependent variables. In both classes, we see a similar mean pattern of transformational men being rated the highest and/or transactional women rated the lowest. This trend suggests that institutional socialization may influence cadets' attitudes over time, potentially reinforcing gendered assumptions about who can be effective in a leadership role.

Notably, the measures most sensitive to class differences often asked about *how others* would perceive the leader, rather than how the individual cadet personally felt. This discrepancy raises the possibility of pluralistic ignorance in which one assumes that their personal viewpoints do not match broader social norms (Allport, 1924). Cadets may privately endorse more egalitarian views, but believe their peers maintain gender-biased expectations. This effect may be strengthened over the course of their time in training as seen in the cross-sectional year in school results. If so, even those who personally support women leaders might still rate them lower on "group perception" questions, fearing that their peers will not respond as positively.

Implications and future research

Taken together, these findings highlight both progress and persistent challenges in achieving gender equity in leadership evaluations within military environments. The consistent preference for transformational leadership is encouraging, especially as this style is often associated with inclusive, morally grounded leadership. However, the lower ratings of women transactional leaders and the degradation of support for women leaders over time

suggest that institutional culture and peer influence may still disadvantage women in certain leadership contexts. More tailored dependent variable questions could better differentiate between the impact of expectation states theory and the combination of expectation states theory and role congruity theory on follower perceptions. This would guide future interventions on whether they should primarily target status expectations or gender stereotypes.

Future research should explore longitudinal trends in cadet attitudes, ideally capturing the same individuals over time, to assess how institutional experiences shape leadership preferences. The data showed some differential responding based upon whether cadets were judging a leader's likeability or effectiveness. However, this differentiation was based upon theoretical assumptions. Future research should target this divergence more directly. In addition, future work should assess implicit attitudes and use experimental manipulations to disentangle whether observed biases reflect personal beliefs or social projection. Interventions aimed at reducing pluralistic ignorance, such as perspective-taking exercises or transparent discussions of norms, may also help reduce the gap between private values and perceived public opinion. Multiple studies have shown that exposure to targeted norms alters behaviors to reduce pluralistic ignorance (Kearney, Petersen, & Frantz, 2025; Moojen, Gillebaart, & de Ridder, 2024; Van Grootel, Van Laar, Meeussen, Schmader, & Sczesny, 2018; etc.). Ultimately, leadership development programs in military academies must address not only what effective leadership looks like but also how gendered perceptions may distort evaluations of leadership. By doing so, such programs can cultivate an officer corps that both values and practices equitable leadership.

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Further reading

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Supplementary material

The supplementary material for this article can be found online.

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