GENDER AND ORGANIZATIONAL CULTURE: PERCEPTIONS OF LEADERSHIP STYLE AND EFFECTIVENESS

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The purpose of this paper was to demonstrate changes in the perception of effective leadership as it relates to perceptions of female leaders. Estimations of effectiveness were compared between female and male leaders, while taking into consideration organizational culture. Scenario methodology was used to manipulate leader gender, leadership styles, and organizational culture through an experimental online survey. Findings, in part 1 of the study, show that female leaders were viewed as more transformational than male leaders with no significant differences in perceptions of leadership effectiveness. Leadership style, however, mediated relations between leader gender and perceptions of leadership effectiveness. In part 2, organizational culture was shown to increase the associations between gender roles and leadership style with perceptions of effectiveness. Female leaders may over time be perceived as effective as male leaders, if the present shift in effective leadership styles continue to align with feminine gender roles and organizational cultures embrace collectivistic practices.

Keywords: Leadership Style, Leadership Effectiveness, Gender, Organizational Culture, Perceptions of Leadership, Women in Leadership

Despite progress for women in leadership roles, there remains a relative dearth of female leaders that endured obstacles on their path to being accepted and valued as a leader. The barriers women face in reaching top levels of management have been attributed to stereotypes that women do not possess the requisite characteristics needed for leadership (Heilman, 2001; Schein 2001). Nonetheless changes can be found in the number of women taking on leadership positions (e.g., see www.Catalyst.org), and according to Duehr and Bono (2006), this may be partly explained by the shift in effective leadership being defined more by transformational than transactional behaviors. Transformational leadership conforms to attributes traditionally ascribed to women or communal gender roles (Eagly & Karau, 2002). Therefore, definitions of leadership effectiveness could be shifting in a way that is more congruent to feminine gender roles.

In this article, we examine two parts to a study that looks at gender issues in leadership. The first part examines the paradigmatic shift in leadership effectiveness perceptions that correspond to prescriptive feminine qualities (Duehr & Bono, 2006; Eagly & Carli, 2003; 2007; Furst & Reeves, 2008; Powell, Butterfield, & Parent, 2002). In the second part of the study, we consider perceptions of male and female leaders in the context of organizational culture. Both studies use scenario methodology, which adds to the literature for replicated outcomes using novel methods (e.g., assessing transformational leadership as more effective than transactional leadership). These studies also add to the literature when considering congruency of leadership styles with organization culture, as it relates to perceptions of leadership effectiveness.

Leadership Styles
Management theories have undergone many changes over the last fifty years, and they continue to be shaped by dominant socio-cultural values that are impacting organizations through advances in technology and the process of globalization. A paradigm shift is evident in leadership theory, which moves from emphasizing transactional qualities being defined as effective to transformational ones (Bass, 1985, 1990; Avolio, Bass, & Jung, 1999). The following details this shift in leadership effectiveness.

In historical studies, transactional leadership has been found to be highly effective across many situations (Bass, 1985; Bass & Riggio, 2006). This type of leadership “appealed to subordinates’ self-interest by establishing exchange relationships with them” (p. 815, Eagly & Carli, 2003). For instance, effective managers would arrange to give bonuses to employees, aiming to increase their productivity or output. In the literature task-oriented leadership style, also known as initiating structure, has many similar or overlapping characteristics with transactional leadership and is also strongly related to organizational productivity (Judge, Piccolo, & Ilies, 2004). Activities within...
task-oriented leadership includes the leader letting group members know what is expected of them, deciding what shall be done and how, assigning group members to tasks, and maintaining standards of performance (Bass, 1990; Judge et al., 2004).

On the other hand, transformational leadership occurs when leaders are able to motivate followers towards organizational goals and increase followers’ sense of group identity over self (Seltzer & Bass, 1990). Characteristics of transformational leadership include individualized consideration, intellectual stimulation, inspirational motivation, and idealized influence or charisma (Avolio, Bass, & Jung, 1999; Bass, 1990). Transformational leaders personalize their interactions with followers, and therefore such leaders are successful at obtaining commitment from them (Avolio et al., 1999). Relationships with employees should be highly salient to the transformational leader, and relationship-oriented leadership or consideration can be defined as the amount of importance leaders place in having good interactions with their subordinates, by expressing gratitude and showing respect and concern for their follower’s wellbeing (Judge et al., 2004).

Many characteristics between transformational and relationship-oriented leadership overlap, such as strong associations with employee satisfaction and motivation (Judge et al., 2004), and Duehr and Bono (2006) found a strong positive relationship \( r = .89, p < .01 \) between the constructs. Research in the early 21st century generally shows that transformational leadership is perceived as more effective than transactional leadership; although the impacts of these different leadership styles on actual organizational outcomes is unclear (Judge et al., 2004; Paris, Howell, Dorfman, & Hanges, 2009; Parry & Proctor-Thomson, 2002; Yukl, O’Donnell, & Taber, 2009).

**Perceptions**

How employees perceive a leader is critical to the leader’s ability to be effective. Leadership perceptions are implicit or unconscious processes that occur automatically when followers interact with a leader (Lord, Brown, & Freiberg, 1999; Lord, Brown, Harvey, & Hall, 2001; Lord, Foti, & De Vader, 1984). Followers possess mental representations of leaders or prototypes, which are not rigid depictions of characteristics a person must have to be considered a member, but are ‘fuzzy categorizations’ that can be shaped by context and demographic characteristics of the leader (Hogg, 2001; Lord et al., 1999).

Therefore, when subordinates encounter a new leader within their organization, for instance, they compare this person to their leadership prototype, subconsciously taking in information about the leader’s gender and the organization’s culture. The closer the leader matches followers’ prototypes the more likely they will be perceived as a leader (Lord et al., 1999).

**Influences of Gender**

According to Gender Role Congruity theory, female leaders are expected to be communal (i.e. being cooperative and nurturing) and conform to feminine gender roles, whereas male leaders are expected to be agentic (i.e. being dominant or ambitious) and conform to masculine gender roles (Eagly & Karau, 2002). However, prototypes of leaders have been found to change with environmental fluctuation in social expectations (Hogg, 2001; Hogue & Lord, 2007; Lord et al., 2001). For instance, Duehr and Bono (2006) found the emphasis on agentic and task-oriented prototypes for successful middle managers decreased, while the emphasis on transformational and communal leadership prototypes increased, using a modified Descriptive Index (Schein, 1973) over a 15-year timespan. They also found transformational and relationship-oriented leadership prototypes to have a strong positive correlation with communal characteristics \( r = .60, p < .01; r = .68, p < .01 \). These changes in what constitutes a prototypical manager seem to match prescriptive feminine gender roles.

Extending this thought, Duehr and Bono (2006) also found that managers rated “women in general” and “female managers” as being more transformational than “men in general” or “male managers.” Similarly, Eagly and Johannesen-Schmidt (2001) conducted a meta-analysis of 47 studies, examining sex differences in the transformational and transactional leadership styles. They found female leaders were rated as more transformational than male leaders on three of four transformational subscales (idealized influence, inspirational motivation, and individualized consideration), as well as on one subscale of transactional leadership style (contingent reward). Whereas, male leaders exceeded female leaders on the transactional leadership subscales of active management-by-exception, passive management-by-exception, and laissez faire leadership. According to these studies, female leaders may be more likely considered transformational in their leadership style than male leaders (Eagly & Johannesen-Schmidt, 2001).

Additionally, Koenig, Eagly, Mitchell, and Ristikari (2011) conducted a meta-analysis of three leadership paradigms examining changes in gender-based leadership perceptions. The three paradigms investigated were Schein’s “Think Manager Think Male” paradigm, Powell and Butterfield’s agentic-communal paradigm, and Shinar’s masculinity-femininity paradigm. These historical paradigms were then related to Eagly and Karau’s theory of Gender Role Congruity. They found that social role theories allow flexibility in gender roles in relation to leadership roles based on changes in social recognition of these roles across time. In other words, it is possible that prototypes of both women and leaders are becoming more congruent over time, as leadership characteristics are becoming less agentic and more communal.

Indeed, implicit leadership theories predict that the time for changing leadership representations to incorporate female leaders may be long but inevitable (Lord et al., 2001). Although conceptually leadership is now starting to align with communal characteristics, the changing face of management currently frames gender “equality” for middle organizational layers only and has yet to be evident in upper-echelon positions (Annabi & Lebovitz, 2018; Badura, Grijalva, Newman, Yan, & Jeon, 2018; Catalyst, 2020; Cho, Park, Han, & Ho, 2019; Duehr & Bono,
Research has shown that evaluations of female leaders are partly based on gender roles, leading to biased judgments and negative reactions when these women do not match contextually activated expectations of leadership roles (Eagly & Karau, 2002; Jago, & Vroom, 1982; Martins, Milliken, Wiesenfeld, & Salgado, 2003). Women may not be facing the same degree of stereotyping and discrimination that they have in the past but obstacles still exist (Annabi & Lebovitz, 2018; Badura et al., 2018; Cho et al., 2019; Duehr & Bono, 2006; Holliday, Siker, Chapman, Jagsi, Bitterman et al., 2018; Post, 2015). For example, Garcia-Retamero and Lopez-Zafr (2006), found that female managers in non-gender role congruent industries are more likely to experience bias than female managers in gender congruent industries. Very little has changed with the move from the 20th into the 21st century in regards to female gender roles, therefore prototypes of leadership must be changing by incorporating more communal characteristics while maintaining some agentic qualities (Koenig et al., 2011). On the one hand this will mean that women face harder challenges than men in being perceived as effective leaders. On the other hand, because the view of effective leadership is shifting, women may be perceived as more prototypical in leadership positions than they have in the past.

**Part 1. Gender Roles**

Based on past studies, we know that female leaders have been prescribed to be communal, which corresponds with the transformational style of leadership more so than the transactional style of leadership (Eagly & Carli, 2007; Hogg, 2001; Eagly & Johnson, 1990). Similar to past studies, we expect female leaders to be rated as more transformational than male leaders, and in the case of this study, using scenario methodology extends the research in this area if the relationship is confirmed with this novel methodology. We also predict that female leaders will be rated as more effective than male leaders due to predicted associations between transformational leadership and effectiveness. The following hypotheses reflect this:

**Hypothesis 1.** Female leaders will be rated as more prototypical than male leaders on transformational attributes.

**Hypothesis 2.** Female leaders will be rated as more effective than male leaders.

**Hypothesis 3:** Perceptions of transformational leadership will mediate the relationship between leader gender and leader effectiveness.

For comparison purposes, the following hypotheses look at the mediation effects on effectiveness for male leaders in conjunction with the transactional leadership style. Transactional leadership style is not expected to mediate leadership effectiveness, as it recently does not have as high an association with leadership effectiveness as transformational leadership.

**Hypothesis 4:** Male leaders will be perceived as more transactional than female leaders.

**Hypothesis 5:** Perceptions of transactional leadership will not mediate the relationship between leader gender and leadership effectiveness.

**Method**

**Participants**

Participants were working adults who responded to an e-mailed request for research participation. An announcement of the study was sent out with a link to an on-line survey to business-related or professional listservs, such as the American Evaluation Association, CIO Council XML Community of Practice, Education and Behavior Science, and Gender and Diversity in Organizations mailing lists; among others. Participants voluntarily selected a link that was embedded in an email they received through their respective list serve.

Respondents were selected for inclusion in the study if they were employed for an organization based in the U.S. or if they resided in the U.S and worked more than 20 hours a week. Five hundred and sixty-eight participants started the survey, and 133 did not finish, giving a completion rate of 76.6%. Twenty-seven participants were removed due to non-U.S. residency or employment and 15 due to unemployment. Further, one respondent took less than 3 minutes to complete the study and was removed. Four cases were deleted due to multiple attempts at participating; identified through computer IP address. The first completed survey was retained from this respondent.

Overall, 388 participants were included in the final analysis. The mean age of the participants was 45 years old (SD = 12.7) and the majority were women (64.5%). The composition of participants’ ethnic background was 80.2% European American, 4.6% African American, and 3.2% “other.” Of the participants, 65.5% reported that they received some form of advanced higher-education degree, 20.1% had received a bachelor’s degree, 9.4% had some college, 3.2% had achieved some other type of educational certificate, and 1.9% had a high-school diploma.

With regard to employment status, 90.7% of the participants were employed by an organization, 6.9% were self-employed, and 2.4% reported other, and they worked on average 44.1 (SD = 10.1) hours per week. Most participants reported being from the education industry (52.1%) and 84.4% reported having been a supervisor before. Further, out of the participants that had a supervisor, 56.6% reported their supervisor to be male. Overall, participants came from a variety of industries, organizations, and occupations.

**Procedures**

Participants were randomly assigned on the basis of their birth month to one of four conditions in a 2 (gender of leader) X 2 (leadership style: transformational vs. transactional) between-subjects design. Participants were instructed to imagine that they
worked for the organization depicted in the scenario, which portrayed a first encounter with the company’s new CEO. Participants then read the scenario, completed the measures, and answered demographic questions.

There are various issues that correspond with this method of data collection, such as reduced experimental control, potential multiple responses, and increased dropout rates. Based on a review of the literature, Birnbaum (2004) suggested different steps a researcher should go through to decrease potential bias and increase validity for on-line surveys. The following controls were based on Birnbaum’s suggestions: participants were not allowed to go back to previous survey pages once they submitted a page; only one respondent per computer was allowed to complete the survey; no rewards were given for participating; the surveys were timed and exceedingly short response times were removed from the analysis; and the survey invitation email included a password that was necessary in order to participate.

**Materials**

One male and one female picture were used to manipulate leader gender. The pictures were selected based on similarity of attractiveness, intelligence, and age from pilot study data. The tone of the leader was varied to represent either a transformational leadership style or a transactional leadership style as follows:

**Transformational Leadership Style** (emphasis added to highlight condition-relevant manipulations).

Coming into this place and seeing the team inspires me to imagine what we can all do together to make this company great. Our company is driven by all of our work, which will exceed expectations when everyone works together as a fully functioning business unit. Therefore, we should all get to know even more about each other, since everyone’s skills in this unit are important when put together. With this understanding, we should get a sense of how to challenge each other to perform the work to our greatest combined abilities. The recent CEO of this company reported that this generation of workers is very talented and it shows in your group evaluations, and therefore, if we ever have any problems, we should all come together to make decisions about the problems that we face.

**Transactional Leadership Style**

As I come into this place, I am getting ideas of the things that you need to do to become successful individuals and keep this company great. I am interested in knowing more about your background and what you can bring to this organization. My job will be to get you to excel for the good of yourself and the company. Therefore, I am going to work hard to help enhance your knowledge, skills, and abilities so that you exceed even my expectations. I believe the best way to motivate and challenge people is to reward them for the amount of effort they put into the job. If you have problems with the new tasks that you are assigned come see me, and I can help you to make decisions regarding the problems that you face.

**Measures**

**Leadership Prototypes**

Leadership prototypicality was measured, using a version of the Schein Descriptive Index (SDI; Schein, 1973) that was enhanced by Duehr and Bono (2006). The revised SDI is comprised of five scales derived from Duehr and Bono’s analyses, giving the following subscales: Agentic (7 items, r = .78; e.g. Aggressive, Ambitious, and Self-confident), Communal (7 items, r = .73; e.g. Helpful, Kind, and Sympathetic), Transformational (13 items, r = .94; e.g. Considerate, Encouraging, and Sincere), Task-oriented (10 items, r = .80; e.g. Competitive, Independent, and Objective), and Relationship-oriented (10 items, r = .87; e.g. Compassionate, Inclusive, and Sociable), and consisted of 47 items.

| Table 1 |

| Resulting Leadership Prototype Items |

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cooperative</td>
<td>.786</td>
<td>-.068</td>
<td>.039</td>
</tr>
<tr>
<td>2. Aware of the feelings of others</td>
<td>.758</td>
<td>-.152</td>
<td>.203</td>
</tr>
<tr>
<td>3. Attends to the needs of others</td>
<td>.746</td>
<td>.198</td>
<td>.100</td>
</tr>
<tr>
<td>4. Encouraging</td>
<td>.743</td>
<td>-.156</td>
<td>.266</td>
</tr>
<tr>
<td>5. Compassionate</td>
<td>.739</td>
<td>.001</td>
<td>.210</td>
</tr>
<tr>
<td>6. Supportive</td>
<td>.735</td>
<td>-.081</td>
<td>.232</td>
</tr>
<tr>
<td>7. Good listener</td>
<td>.721</td>
<td>-.053</td>
<td>.076</td>
</tr>
<tr>
<td>8. Considerate</td>
<td>.712</td>
<td>-.179</td>
<td>.233</td>
</tr>
<tr>
<td>9. Considers others’ ideas</td>
<td>.702</td>
<td>-.205</td>
<td>.091</td>
</tr>
<tr>
<td>10. Kind</td>
<td>.666</td>
<td>-.030</td>
<td>.305</td>
</tr>
<tr>
<td>11. Inclusive</td>
<td>.653</td>
<td>-.225</td>
<td>.363</td>
</tr>
<tr>
<td>12. Shows appreciation</td>
<td>.649</td>
<td>-.123</td>
<td>.384</td>
</tr>
<tr>
<td>13. Understanding</td>
<td>.649</td>
<td>-.119</td>
<td>.104</td>
</tr>
<tr>
<td>14. Open-minded</td>
<td>.614</td>
<td>-.210</td>
<td>.075</td>
</tr>
<tr>
<td>15. Helpful</td>
<td>.611</td>
<td>-.265</td>
<td>.159</td>
</tr>
<tr>
<td>16. Inspiring</td>
<td>.608</td>
<td>.017</td>
<td>.176</td>
</tr>
<tr>
<td>17. Sympathetic</td>
<td>.584</td>
<td>-.221</td>
<td>.152</td>
</tr>
<tr>
<td>18. Sociable</td>
<td>.547</td>
<td>.078</td>
<td>.181</td>
</tr>
<tr>
<td>19. Optimistic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Fair</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 1. Assertive | -.132 | .809 | .177 |
| 2. Ambitious | -.086 | .770 | .146 |
| 3. Energetic | .228 | .766 | .041 |
| 4. Aggressive | -.266 | .735 | .006 |
| 5. Decisive | -.013 | .713 | .222 |
| 6. Self-confident | -.001 | .696 | .257 |
| 7. Submissive* | .049 | -.682 | -.142 |
| 8. Competitive | -.213 | .673 | .032 |
| 9. Passive* | .007 | -.661 | -.133 |
| 1. Knowledgeable | .253 | .220 | .715 |
| 2. Logical | .218 | .322 | .708 |
| 3. Intelligent | .273 | .296 | .688 |
| 4. Self-controlled | .153 | .095 | .676 |
| 5. Well-informed | .333 | .206 | .623 |
| 6. Skilled in business matters | .273 | .402 | .600 |
| 7. Consistent | .226 | .199 | .589 |
| 8. Speedy recovery from emotional disturbances | .026 | .277 | .573 |

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Because Duehr and Bono’s (2006) enhanced SDI is fairly new, we conducted an exploratory factor analysis to examine the subscales that would emerge from the data set, which revealed six factors using the “eigenvalues over one” rule of thumb; however, a Scree plot depicted only three relevant factors. A further examination into the six factors revealed only three interpretable factors, with remaining factors depicting multiple cross-loaded items and relatively few items with high loadings (i.e. two items or less).

After removing cross-loading items, the factor analysis with a varimax rotation was re-conducted specifying a three-factor solution. The first factor contained 20 high-loading items consisting of communal, relationship-oriented, and transformational adjectives. The resulting scale was labeled the transformational prototype (α = .95) that we used for this study, see Table 1 for item loadings. The second factor consisted of 9 items and reflected agentic and task-oriented items. This resulting scale was labeled the transactional prototype (α = .88). Finally, the last factor had eight items that reflected emotional control. The reliability of this subscale was acceptable (α = .88), but because this dimension of leadership was not central to our research questions, it was not analyzed in the current study.

**Effectiveness**

Leadership effectiveness was measured with four questions, “The new leader would...” (a) “...be effective in representing you to higher authorities”; (b) “be effective in meeting your job-related needs”; (c) “be effective in meeting organizational requirements”; and (d) “overall, lead a group that is effective.” The measure was rated on a 5-point scale ranging from 1-Not at all to 5-Frequently, if not always. Items were borrowed from Awamleh and Gardner (1999) that originally used items from the Multifactor Leadership Questionnaire (MLQ-5X/Short Form) perceptions of leader effectiveness (EF) subscale (α = .87).

**Results**

**Descriptive Statistics**

Means, standard deviations, and inter-correlations among the study variables are provided in Table 2. Overall, leaders were rated as moderately effective and were perceived as more transactional than transformational. However, perceptions of leadership effectiveness were strongly and significantly related to perceptions of the transformational prototype (r = .58, p < .001), and less strongly but still significantly related to perceptions of the transactional prototype (r = .14, p = .009). There was a non-significant trend for female leaders to be perceived as more effective than male leaders [Mmale = 3.49, SD = .85; Mfemale = 3.66, SD = .87; t(df = 366) = -1.86, p = .064]. Female leaders were perceived as more transformational than male leaders [Mmale = 3.51, SD = .69; Mfemale = 3.74; SD = .64; t(df = 331) = -3.21, p = .002]; whereas male leaders were perceived as more transactional than female leaders, [Mmale = 4.10, SD = .67; Mfemale = 3.94, SD = .69; t(df = 344) = 2.21, p = .028]. Although female leaders were perceived as more transformational than male leaders, and transformational leadership was strongly correlated to perceptions of leadership effectiveness, female leaders were not perceived to be significantly more effective than male leaders.

**Table 2**

**Means, Standard Deviations, and Correlations**

<table>
<thead>
<tr>
<th>Measure</th>
<th>M</th>
<th>SD</th>
<th>N</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>e</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Effectiveness</td>
<td>3.58</td>
<td>0.86</td>
<td>368</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Transformational</td>
<td>3.62</td>
<td>0.67</td>
<td>333</td>
<td>.58***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Transactional</td>
<td>4.02</td>
<td>0.68</td>
<td>346</td>
<td>.14** - .13'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Leader Gender (1=Female)</td>
<td>0.01</td>
<td>1.00</td>
<td>387</td>
<td>.10* .17' - .12'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Leader Style</td>
<td>-0.07</td>
<td>.98</td>
<td>387</td>
<td>- .03 - .16' .21'' - .10''</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1=Transactional)

**Note.*** p<.001; ** p<.01; * p<.05; + p<.10

**Mediation Analysis**

The series of hypotheses 1-3 tested the general hypothesis that female leaders would be perceived as more transformational and thus more effective than male leaders and that perceptions of transformational prototypicality would mediate the effect of leader gender on leadership effectiveness ratings. As indicated by the results, female leaders (regardless of leadership style) were perceived as more transformational than male leaders and there was a trend for female leaders to be perceived as more effective, but this was not found to be statistically significant.

**Table 3**

**Mediation Analyses**

<table>
<thead>
<tr>
<th>Analysis I: Variable</th>
<th>B (Sobel)</th>
<th>SE(B(Sobel))</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformational prototype as Mediator</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transformational prototype regressed on Leader Gender</td>
<td>Leader Gender</td>
<td>.115</td>
<td>.097</td>
<td>3.16</td>
</tr>
<tr>
<td>Effectiveness regressed on Leader Gender and Transformational Prototype</td>
<td>Leader Gender</td>
<td>-.008</td>
<td>.040</td>
<td>- .21</td>
</tr>
<tr>
<td>Transformational</td>
<td>.411</td>
<td>.059</td>
<td>7.53</td>
<td>.000</td>
</tr>
<tr>
<td>Prototype</td>
<td>Sobel Test</td>
<td>3.02</td>
<td>.028</td>
<td>.003</td>
</tr>
</tbody>
</table>

**Analysis II**

| Transactional prototype regressed on Leader Gender | Leader Gender | -.030 | .016 | -2.01 | .046 |
| Effectiveness regressed on Leader Gender and Transactional Prototype | Leader Gender | .112 | .047 | 2.39 | .017 |
| Transactional prototype | .201 | .069 | 2.92 | .004 |
| Sobel Test | 1.77 | .099 | .800 |

**Note.** For regression results, unstandardized betas are reported; for Sobel test, Sobel statistic is reported.
Hypothesis 4 and 5 examined whether perceptions of the transactional prototype would mediate associations between leader gender and leadership effectiveness. We predicted that it would not. Although male leaders were perceived as more transactional than female leaders, as reported above, perceptions of transactional leadership did not mediate gender differences in leadership effectiveness (see Table 3, analysis II). Indeed, when both leader gender and transactional leadership prototype perceptions were simultaneously entered into the regression equation to predict leadership effectiveness both variables were significant. The significant, positive beta weight on leader gender indicated that female leaders were perceived as more effective than male leaders and the significant positive beta weight for the transactional prototype indicated that perceptions of transactional leadership was associated with leadership effectiveness. However, perceptions of transactional leadership did not mediate the gender difference in leadership effectiveness, as indicated by the non-significant Sobel test (Sobel, 1982; 1986).

Part 2. Organizational Culture

Leadership

Organizational culture needs to be taken into consideration in this study, as perceptions of effective leadership behaviors will be affected by organizational culture type (Bass & Avolio, 1993; Triandis, 2004). For instance, House et al. (1999) reported that leaders in collectivistic organizational cultures were positively related to relationship-oriented leadership styles. Attributes of transformational leadership, such as idealized influence, inspirational motivation, and individualized consideration, relate closely to collectivistic ideals. For example, Bass and Riggio (2006) described a sample item from the Multifactor Leadership Questionnaire’s (MLQ) idealized influence subscale as “the leader emphasizes the importance of having a collective sense of mission” (p. 6). Additionally, they stated that inspirational motivation should enhance “team spirit” and that the leader should “demonstrate commitment to goals and the shared vision” (p. 6). Therefore, the transformational leadership style is likely to be perceived as more congruent with collectivistic cultural values than to individualistic cultural values.

Gender Roles

Collectivistic organizational cultures also tend to align with prescriptions for female gender roles. For instance, women are expected to be attuned to others needs and create harmony within groups, which may be simultaneously regarded as communal or collectivistic (for more information see: Abele & Wojciszke, 2007; Cuddy, Fiske, & Glick, 2008). Therefore, female leaders embedded within collectivistic organizational cultures are more likely to experience gender role congruence. Adding together the transformational leadership style, collectivistic cultural values, and gender roles all seemingly align, increasing the possibility that followers will effectively perceive female leaders as prototypical.

In contrast, individualistic organizational cultures that emphasize personal goals, competition, and achievement relate more to the prototypes associated with the transactional leadership style. Individualistic cultures, therefore, are not congruent with feminine gender roles, as women are expected to be nurturing towards others and focused on developing community (Eagly & Karau, 2002). The resulting combination of the transactional leadership style within an individualistic organizational culture should serve as compounding incongruities for female leaders.

In contrast, male leaders are generally perceived to have prototypical leadership characteristics across different environments. In other words, they have not been found to experience the “double-bind” from gender role incongruity that their female colleagues face (Eagly & Karau, 2002). Therefore, there should not be implicit bias expected for male leaders. Additionally, employee commitment, according to a study conducted by Averin (2019), was found to be higher for collectivistic leaders than individualistic leaders, and employees were more likely to be innovative when congruence was found between leadership styles (i.e., transactional and transformational) and organizational culture (i.e., individualistic and collectivistic, respectively; Zheng, Wu, Xie, & Li, 2019). Therefore, one could expect that leaders embedded within collectivistic organizational cultures should be rated higher on transformational leadership characteristics and effectiveness, than those embedded within an individualistic culture due to associations noted above (Averin, 2019; Zheng et al., 2019). The next hypothesis predicts that leaders in general will benefit from the congruence of transformational leadership when embedded in collectivistic organizations.

Hypothesis 6. Leaders embedded in collectivistic organizational cultures will be perceived as more a) transformational and b) effective than leaders embedded in individualistic organizational cultures.

Our final hypothesis examines whether female leaders will be able to achieve congruency between gender and leadership roles within the collectivistic organizational context. Specifically, if women leaders are found to be more transformational and effective and are embedded within a gender role congruent organizational culture, then they may benefit from fitting the prescribed leadership prototype.

Hypothesis 7. Female leaders embedded in collectivistic organizational cultures will be perceived as more a) transformational and b) effective than any other condition.

Methods

Participants and Procedures

Participants were the same as in the first part of the study and were randomly assigned to the conditions based on a 2 (gender of leader) X 2 (organizational culture: collectivistic vs. individualistic) design.
Stimuli

Scenarios were used to manipulate organizational culture. The scenarios were modeled after those used by Cuddy, Fiske, and Glick (2004), Cundiff (2006), and Paul, Costley, Howell, Dorfman, and Trafimow’s (2001) organizational scenario descriptions. A marketing organization was used as the scenario setting, as it has been found to be a gender-neutral industry (Cabrera, Sauer, & Thomas-Hunt, 2009). The organization depicted in the scenario was the same except for references to collectivistic (in italics) or individualistic (in parentheses) cultural characteristics:

“You have been working for this company for the past 4 years and have a good understanding of how things work around the office; everyone here works together as a team (individual achievement is very much valued here). In fact, the company’s mission describes its dedication to enhancing collaborative (individual) employee efforts, and group projects are encouraged so employees seek out colleagues to work on projects (the company fully supports outstanding levels of individual achievement.). Recently a new program was established where rewards are given out for outstanding team (individual) efforts (meeting pre-described individual objectives.). The goal of this program is to create an atmosphere that focuses on using a group’s (uses an individual’s) expertise to problem solve, allowing for more creative application of organizational resources.”

Measures

The organizational culture manipulation was assessed by asking participants, whether when working for the organization they were expected to work on projects individually or in teams, using four questions that had 5-point rating scales (α = .88). An example item is, ‘This organization probably rewards: 1-independently work completely over teamwork to 5-teamwork completely over independent work.’ A reading check assessed whether participants were attuned to the information presented in the scenario by asking them to identify the name of the organization depicted from four categorical choices. Participants were also asked the scenario leader’s gender, age, and ethnicity to throw them ‘off’ from guessing the main hypothesis.

Results

A Fisher’s exact test was used to check the gender manipulation, which was found to be successfully manipulated (N = 387, p < .001). Further, manipulation checks for organizational culture were found to be successful with statistically significant differences in how participants rated the collectivistic (M = 4.18, SD = .49) and individualistic organizational culture (M = 1.94, SD = .71; t(293) = 35.18, p < .001) on the collectivism manipulation scale.

Analyses

A 2 (gender) X 2 (culture) between-subjects factorial MANOVA on leadership prototypes and effectiveness, using Type III Sums of Squares, was performed in order to examine the remaining hypotheses. Participants’ gender has historically affected outcomes in gendered leadership studies (Eagly & Carli, 2007; Schein, 2001). Therefore, the participant’s gender was entered into the equation as a covariate to examine potential effects. No statistical relationship was found for participants’ gender, and differences were not evident between the findings using or not using a covariate in the equation. Therefore, the more parsimonious test (i.e. no covariate) was used for the main analysis.

The dependent variables’ distributions were checked for normalcy prior to running the analysis. A violation of the homogeneity of variance-covariance assumption was found [Box’s M = 74.16, F (30, 180500) = 2.41, p < .001]. This is likely due to unequal sample sizes per condition. Going with the recommendations of Tabachnick and Fidell (2001), all multivariate statistics were assessed using Pillai’s criterion as opposed to Wilk’s lambda.

The omnibus F- tests for the main effects of leader’s gender and organizational culture were significant (Pillai’s Trace = .06, F (3, 277) = 4.59, p = .001, η2p = .06; Pillai’s Trace = .04, F (3, 277) = 2.48, p = .044, η2p = .04; respectively). Further, the interaction between organizational culture and leader’s gender was insignificant (F (3, 277) = 0.17, p = .954); see Table 4. Therefore, further inspection of hypotheses 6 and 7 concerning the main effects for gender and organizational culture was warranted.

Table 4

<table>
<thead>
<tr>
<th>Source</th>
<th>Value</th>
<th>δ2</th>
<th>F</th>
<th>p</th>
<th>η2p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (G)</td>
<td>.06</td>
<td>3.277</td>
<td>4.59</td>
<td>.001</td>
<td>.06</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>-</td>
<td>1.279</td>
<td>8.52</td>
<td>.004</td>
<td>.03</td>
</tr>
<tr>
<td>Transformational</td>
<td>-</td>
<td>1.279</td>
<td>5.47</td>
<td>.020</td>
<td>.02</td>
</tr>
<tr>
<td>Transactional</td>
<td>-</td>
<td>1.279</td>
<td>0.20</td>
<td>.655</td>
<td>.00</td>
</tr>
<tr>
<td>O × G</td>
<td>.00</td>
<td>3.277</td>
<td>0.17</td>
<td>.954</td>
<td>.00</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>-</td>
<td>1.279</td>
<td>0.14</td>
<td>.712</td>
<td>.00</td>
</tr>
<tr>
<td>Transformational</td>
<td>-</td>
<td>1.279</td>
<td>0.01</td>
<td>.928</td>
<td>.00</td>
</tr>
<tr>
<td>Transactional</td>
<td>-</td>
<td>1.279</td>
<td>0.48</td>
<td>.491</td>
<td>.00</td>
</tr>
</tbody>
</table>
Hypothesis 6a proposed that leaders would be rated more transformational in collectivistic rather than individualistic organizational cultures. Looking at the main effect for organizational culture, this hypothesis was supported. There was a statistically significant difference (F(1, 279) = 5.47, p = .02; η²p = .02) between collectivistic (M = 3.75) and individualistic (M = 3.58) organizational cultures on transformational leadership prototypes. Additionally, there was a statistically significant difference (F(1, 279) = 8.52, p = .004; η²p = .03) found between collectivistic (M = 3.74) and individualistic (M = 3.46) organizational cultures on perceived leader effectiveness, providing support for hypothesis 6b. According to these findings leaders in collectivistic organizational cultures are perceived to be more effective and transformational than leaders in individualistic organizational cultures.

Table 5

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization (O)</td>
<td>Collectivist</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>3.74 .82</td>
</tr>
<tr>
<td>Transformational</td>
<td>3.75 .63</td>
</tr>
<tr>
<td>Transactional</td>
<td>4.02 .71</td>
</tr>
<tr>
<td>Gender (G)</td>
<td>Male</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>3.50 .84</td>
</tr>
<tr>
<td>Transformational</td>
<td>3.53 .70</td>
</tr>
<tr>
<td>Transactional</td>
<td>4.14 .68</td>
</tr>
<tr>
<td>O × G</td>
<td>Collectivist</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>3.83 .83</td>
</tr>
<tr>
<td>Transformational</td>
<td>3.62 .67</td>
</tr>
<tr>
<td>Transactional</td>
<td>4.09 .70</td>
</tr>
</tbody>
</table>

Hypotheses 7a & b predicted that women leaders embedded within collectivistic organizational cultures would be perceived as more transformational and effective than other conditions. These hypotheses were supported based on the significant main effects previously tested, see Table 5 for means and standard deviations for each condition. Figures 1 and 2 demonstrate the combination of these main effects, with female executives in collectivistic organizational cultures being perceived as more effective and transformational than female executives in individualistic cultures and male executives in both collectivistic and individualistic cultures.

**Discussion**

Examining perceptions of effectiveness for female leaders in relation to that of male leaders is a sensitive topic. Evidence of stereotyping and bias in the workforce has for many decades brought about large differences in the acceptability of women in leadership positions. Many of the reasons for this gap in perceiving females as leaders had to do with the incongruence between feminine gender roles and leadership roles, which have historically been more agentic (Eagly & Karau, 2002).

Whether followers perceive a newly encountered supervisor as possessing leadership characteristics is an important component to the leader’s ability to gain acceptance and support from their workforce (Riggio, Chaleff, & Lipman-Blumen, 2008), and changes in expectations for leaders to be more transformational than transaction assists female leaders as gender roles become more congruent with leadership roles (Koenig et al., 2011; Pirson & Lawrence, 2010). This research examined the impact
of gender and organizational culture on follower’s perceptions of effectiveness and prototypical leadership categorizations.

Part 1: Gender

Differences in perceptions of male and female leaders on leadership prototypes and effectiveness were considered first. Replicating past research, female leaders were found to be higher in the transformational and lower in the transactional leadership styles than male leaders (Eagly & Johannesen-Schmidt, 2001; Paris et al., 2009). This study extends these findings using scenario methodology, which to the best of our knowledge is not evident in the literature.

The definition of effective leadership seems to be shifting from transactional to transformational leadership styles, and we were interested in finding out if female leaders would be perceived as more effective than male leaders due to gender role congruence with the transformational leadership prototype. In this scenario, we found that female leaders were perceived just as effective as male leaders but not more effective. These results do not directly support our original hypothesis of having higher ratings, as female leaders were rated similarly on effectiveness as male leaders.

Our findings demonstrate the following possible interpretations: a) women are no longer perceived as incongruent with effective leadership styles; b) there is still some level of bias due to prescriptive stereotyping of female leaders. It appears that participants used their own gender and leadership schemas when they viewed these scenarios and rated the female conditions as more transformational than the male conditions, while the male conditions were rated as more transactional. However, even with the high correlation between transformational leadership and managerial effectiveness, the female conditions were just on par with the male conditions for perceived effectiveness.

A mediation analysis was conducted in order to further examine the relationship between gender and perceptions of leadership effectiveness, while taking into account the effects of leadership style on effectiveness ratings. Perceptions of transformational leadership were found to completely mediate the effect of leader gender on leadership effectiveness. Therefore, female leaders were likely to be perceived as effective not due to prescriptions related to their gender directly (i.e. communal), but in how stereotypical prescriptions of female roles relate with the transformational leadership prototype. Implicit bias is likely still a major factor for women in leadership positions, it is possible, however, that due to changes in expectations for leadership in general that subconscious reactions towards female leaders are being mitigated by the congruency with feminine gender roles. Therefore, if female leaders are starting to match leadership role expectations, embracing their gender roles should result in more positive than negative reactions; especially if the association between transformational leadership and effectiveness continues to increase.

Part 2: Organizational Culture

Organizational culture was also considered in this study for its potential to impact perceptions of leaders’ prototypicality and effectiveness (Hogue & Lord, 2007; Lord & Brown, 2001; Lord & Maher, 1993; Lord et al., 1999, 2001). Collectivistic organizational cultures are expected to enhance perceptions of transformational leadership qualities, whereas individualistic organizational cultures likely enhance perceptions of transactional leadership qualities. Indeed, we found that leaders embedded within a collectivist organizational culture were perceived as more effective than those embedded within an individualistic organizational culture; likely due to the congruency between collectivist cultural values and effective leadership styles. As noted in previous research, congruency between organizational culture and leadership style enhances innovative behaviors (Zheng et al., 2019). It would not be a far stretch to extend this to the relationship between leadership style and organizational culture on perceived effectiveness of the leader. In other words, having congruency between a leader’s style and their organizational culture will likely enhance their followers’ perceptions of the leader’s effectiveness.

It was also expected that female leaders would be rated positively within collectivist organizational cultures due to leader and gender role congruence. Based on the findings from this research, the hypothesis was supported with female leaders embedded within collectivist cultures being rated higher on effectiveness and transformational prototypes than all other conditions examined. Although this seems to give women an advantage in organizations that have cultural values matching feminine gender roles, male leaders also displayed greater ratings of transformational and effective leadership characteristics in the collectivist culture scenario. Based on these findings, both male and female leaders should consider modifying their leadership style to match their organization’s culture.

Managerial Applications

Practitioners need to take into consideration how organizational culture could help ‘level the playing field’ for male and female leaders. For instance, as organizations become more organic in order to stay competitive within the global market, more transformational leaders will be needed to lead these efforts. Similarly, as departments and groups within organizations further embrace teamwork and horizontal coordination processes, their cultures are going to move towards collectivistic values (Schaffers, Gareis, Stanoevska-Slabeva, & Vartiainen, 2008). In this sense, the global arena is forcing organizations to embrace transformational leadership and collectivistic values that both men and women should benefit from. Depending on the industry and context, it might be a pertinent time for all leaders to consider influencing a change to their organization’s culture. This could be done through mission redevelopment, value statement adjustments, and associated policy changes that emphasize collectivistic qualities.
Managers can use the information from this study by encouraging women to not disregard their gender roles when aspiring to a leadership position. Shifts in perceptions of what constitutes effective leadership can aid female leaders through gender role congruence, especially within collectivistic organizational cultures. For example, Kalev (2009) looked at over 800 organizations and found that restructuring jobs using cross-functional teams is effective at increasing the number of women into management positions through augmented intergroup contact. Cross-functional teams promote surfacing of unique personal characteristics and allow for members of a group to get past initial stereotypic thinking when working with female colleagues. Experience with female leaders in a team setting, challenge and potentially alter stereotypic thought processes, creating an environment that “re-categorizes” leadership prototypes as women leaders emerge (Christman & McClellan, 2008).

Female leaders, however, still need to be intentional in their role as a leader, ensuring that there is alignment between their leadership style and the organization’s culture. For instance, findings show that both transactional and transformational elements of leadership are related to leadership effectiveness (Duehr & Bono, 2006). Therefore, female leaders may also need to take on transactional leadership styles in order to align with their organization’s culture, while also maintaining a gender role congruent transformational style as well (Koenig et al., 2011). In other words, “walking a fine balance.” This is possible by taking into consideration the behaviors associated with both transactional and transformational leadership. For instance, a female leader could leverage communal gender roles, while also fitting into an individualistic culture, by taking on individual consideration of each subordinate and initiating structure through individual goal setting. Vroom’s (1964) expectancy theory of motivation aligns with this recommendation and for more information on this alignment with leadership styles see Isaacs, Zerbe, and Pitt (2001).

Eagly (2005), however, argued followers need to perceive leaders as legitimate in order for them to be viewed as authentic leaders and since female leaders have a harder time being perceived as legitimate, they will also not likely to be perceived as authentic leaders. Although change is becoming evident, there are still a lot of obstacles and inequitable barriers for female leaders to overcome (for more information, see Annabi & Lebovitz, 2018; Badura et al., 2018; Cho et al., 2019; Hoobler, Wayne, & Lemmon, 2009; Prasad, 2009; Tyler & McCullough, 2009). Researchers and practitioners need to remember that these biases are not simple and it takes much effort and motivation for organizations to change.

Future Research Considerations and Limitations

Although leadership prototypes are undergoing a paradigm shift that corresponds with feminine gender roles, women still encounter many barriers in leadership positions. For instance, Lee and James (2007) found using 10 years of data examining top executive announcements that shareholders react more negatively toward new female CEOs than male CEOs. Additionally, women in executive positions tend to have reduced retention rates and face glass cliffs. Looking at retention, Becker-Blease, Elkinawy, and Stater (2010) found that within Standard & Poor’s (S&P) top 1500 firms, female executives were more than twice as likely to leave a position than male executives. Further, women in their study had higher turnover rates than men, whether the reason for leaving was voluntary or involuntary.

Glass cliffs may help explain why female executives are turning over faster than male executives. A glass cliff is a position that comes with an enhanced degree of risk for failure at the beginning of the assignment (Ryan & Haslam, 2007). In other words, failure tends to be imminent in these positions. Ryan and Haslam (2007) found that women are more likely than men to be selected for boards of directors in financially precarious organizations. Although the women were not responsible for the firms’ poor performance (i.e. declines were evident for the organizations before the women were placed in the positions), they tend to be blamed for it. The research on glass cliffs, conducted by Morgenroth, Kirby, Ryan, and Sudkämper (2020), showed at least moderate effects by three meta-analyses and provided a compelling description of the realities that female executives face: such women, having cracked the glass ceiling, are faced with often insurmountable challenges.

Although the existence of the glass ceiling was confirmed (Morgenroth et al., 2020), several recent studies argue that female executives are not being placed in firms that are more financially precarious than male executives and that the glass ceiling is a myth (Ahn & Cunningham, 2020; Bechtoldt, Bannier, & Rock, 2019). Therefore, more research is needed on barriers female leaders encounter in order to provide guidance to managers on how to mitigate the negative ramifications of these obstacles.

This study’s generalizability is limited, as respondents mostly identified as European Americans. It would be interesting to see variations in outcomes if men and women of color were assessed on their perceptions of leadership effectiveness across both gender and organizational culture. Research examining the intersectionality of gender and ethnicity in leadership is more important than ever, and replication of this study with participants that identify as African American, for instance, would be extremely informative.

Landy (2008) identified several issues that arise when using scenario methodology in order to measure bias in research, such as not having enough background information about the leader. Therefore, additional research should be conducted on organizations as they hire new executives in order to establish “real world” differences in perceptions of male and female leaders. Additional external factors, such as a leader’s reputation or ethnicity, competitive or turbulent industry environments, and type of industry, could influence followers’ perceptions of their leaders (Furst & Reeves, 2008; Paris et al., 2009; Stanley, 2009). For instance, Cabrera et al. (2009) found that female managers...
were perceived similar to male managers on expected performance in masculine industries but were rated higher in gender-neutral industries. Future research needs to take into consideration a combination of these factors to determine which environments support or hinder female leaders’ success.

The outcomes assessed in this study assumed that task-oriented would be a separate dimension from relationship-oriented leadership style (Barrow, 1977) and more aligned with agentic leadership characteristics (Eagly & Johannesen-Schmidt, 2001). The transactional scale was redefined by the factor analysis and included task-oriented characteristics, whereas relational-oriented items corresponded with transformational and communal characteristics. These characteristics may have altered the outcomes one would expect to see when assessing gender differences in perceptions of leaders. More research is needed on these scales and other measures assessing transformational leadership in order to determine additional differences in the perceptions of male and female leaders.

Finally, the effect sizes from this study were relatively small. Past research, however, has shown that single studies tend to have small effects but as they are aggregated across “multiple observations” the effects become much larger (Eagly, 2007). In other words, all of the little differences that occur between male and female leaders on a day-to-day basis add up over time, having large overall impacts (Martell, Lane, & Emrich, 1996). Additionally, scenario methodology does not have as large an impact on participants than if they were experiencing a real-life interaction with another person (Landy, 2008). Therefore, real-life cases offer an expectation for larger effects. If a scenario can produce effects in the ratings of leadership styles and effectiveness, then real-life interactions are likely to have even greater impacts and should be explored further to confirm.

Conclusion

In the business world today, there has been a change in what constitutes effective leadership. Over the last 50 years, changes in what constitutes effective leadership (i.e. transformational) is evident. This paradigm shift has proven beneficial to women seeking management careers, as we see more women in middle management positions and some filtering into the executive suite. However, female executives still encounter obstacles; even if they are perceived to display effective leadership characteristics within congruent organizational cultures.

References


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