Relationships Between Different Leadership Practices and Organizational, Teaming, Leader, and Employee Outcomes

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Purposes of the Research Synthesis (Meta-Analysis)

- Identify which **types of leadership practices** are related to what types of organizational, teaming/workgroup, leader, and employee/staff (follower) outcomes

- Determine if particular types of leadership practices are **differentially related to the study outcomes**

- Unpack the nature of the relationships between the leadership practices and study outcomes to **inform adoption of particular types of leadership practices** to have outcomes of interest

- Determine if the relationships between the leadership practices and study outcomes are the **same or different as a function of other factors** (e.g., type of program or organization)
Types of Leadership Practices
Constituting the Focus of Investigation

- Practices used by leaders to equip and influence followers’ understanding and commitment to an organization’s mission and goals causing followers to expend time and effort in a coordinated manner to achieve organizational goals and objectives (Winston & Patterson, 2006)

- Leadership practices that actively influence followers and groups of followers roles and responsibilities in order to achieve organizational goals and objectives (Bass, 1990)

- “The ability of an individual to influence, motivate, and enable others to contribute towards the effectiveness and success of the organizations of which they are members” (House et al., 2004, p. 15)


### Primary Types of Leadership
- Authentic Leadership
- Distributed Leadership
- Shared Leadership
- Transactional Leadership
- Transformational Leadership

### Secondary Types of Leadership
- Charismatic Leadership
- Collective Leadership
- Collaborative Leadership
- Participatory Leadership
Examples of Leadership Scales and Instruments in the Studies

- Multifactor Leadership Questionnaire
- Transformational Leadership Questionnaire
- Authentic Leadership Questionnaire
- Distributed Leadership Inventory
- Charismatic Leadership Scale
- Leadership Practices Inventory
Examples of “Loosely Described” Leadership Constructs (Subscales)

• Idealized Influence Behavior
• Internalized Moral Perspective
• Self-Awareness
• Developing People
• Encouraging the Heart
• Supportive Distribution
Leadership Practices Constituting the Focus of Investigation

**Leader-Centered Practices**

Organizational Visioning

Motivational Communication

Modeling Desired Behavior

**Shared Responsibility Practices**

Encouraging Employee Input & Feedback

Soliciting Creative Employee Solutions

Shared Decision-Making

**Capacity-Building Practices**

Relationship-Building Practices

**Behavioral Practices**

Performance Expectations

Performance Rewards

**Confidence-Building Practices**

Coaching Practices
## Key Characteristics of Leader-Centered Practices

### Organizational Visioning

Leaders clearly describe the vision of the organization; the values and beliefs that are the foundations for the vision; actively engages employees in discussions and activities promoting employee commitment to foundational beliefs, values, sense of purpose, and desired performance; and “depicts a future that is credible, realistic, attractive, inspiring, and better than the status quo” (O’Connell, Hickerson, & Pillutla, 2010, p.105).

### Motivational Communication

Leaders talk positively about the organization and employees; how employee strengths and assets make important contributions to organizational practices and goals; and how “expression of positive and encouraging messages about the organization build [employee] motivation and confidence” (Rafferty & Griffin, 2004, p. 332).

### Modeling Desired Behavior

Leaders lead by example in a manner where modeling desired behavior serves as exemplars to clearly communicate what he or she expects from employees to “increase the levels of those behavior among followers” (Brown & White, 2009, p. 126) where a leader’s behavior and actions are consistent with his or her belief appraisals (Emiliani, 2003).

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## Key Characteristics of **Shared-Responsibility Practices**

| **Encouraging Employee Input and Feedback** | Leaders solicit employee input and feedback to improve organization practices and to encourage frequent and ongoing employee engagement as a means to strengthen leader-employee and employee-employee actions consistent with organizational visioning and goals (Lewis, 2014) |
| **Soliciting Creative Employee Solutions** | Leaders seek creative, alternative, and innovative ways of improving organizational and employee practices that challenges deeply held beliefs and ways of achieving organizational goals (King Duvall, 1999) |
| **Shared Decision-Making** | Leaders engage employees in shared leadership characterized by collaboration and participatory decision-making with a focus on methods and strategies for achieving organizational goals. Shared decision-making is a particular type of confidence-building practice that influences employee and team commitment to organizational goals (Barnett & Weidenfeller, 2016). |

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### Key Characteristics of **Capacity-Building Practices**

| **Relationship-Building Practices** | Leaders engage in behavior that is sensitive and responsive to employees’ values, needs, and individual differences in order to build trusting relationships and open communication between a leader and employees where “high-quality relationships are considered mature partnerships based on respect, trust, and mutual obligation for one another” (Uhl-Bien, 2003, p. 134). |
| **Confidence-Building Practices** | Leaders provide employees opportunities to participate in organizational processes that instill pride and builds employee confidence where leader provided confidence-building experiences (Kanter & Fox, 2016) are one practice for strengthening employee beliefs and improving job performance (Axelrod, 2017). |
| **Coaching Practices** | Leaders provide employees supportive guidance and feedback on organizational and individual practices in ways that build on existing employee strengths and promote improvements in employee performance (Ely et al., 2010). |


Key Characteristics of Behavioral Practices

**Performance Expectations**

Leaders clearly articulate behavior expectations in terms of both organizational and individual employee practices and insists on high levels of performance in order to achieve organizational goals that clearly communicate high but reasonable performance expectations that “increases employees’ understanding and confidence in their work” (Moynihan, Wright, & Pandey, 2012, p. 319).

**Performance Rewards**

Leaders provide positive feedback in response to collective and individual accomplishments where “contingent rewards provide rewards for effort and recognizes good performance” (Odumeru & Ogbonna, 2013, p. 359).

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# Leadership Study Outcome Measures

<table>
<thead>
<tr>
<th>NonEmployee Outcomes</th>
<th>Employee-Related Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Engagement</td>
<td>Personal Belief Appraisals</td>
</tr>
<tr>
<td>Team/Workgroup Effectiveness</td>
<td>Psychological Health</td>
</tr>
<tr>
<td>Leader Entrustment</td>
<td>Job Satisfaction</td>
</tr>
<tr>
<td></td>
<td>Job Performance</td>
</tr>
</tbody>
</table>
Criteria for Inclusion in the Meta-Analysis

- Leadership measures were completed by employees or staff who made judgments of the leadership practices of individuals in immediate leadership or management roles.

- The relationships (correlations) were reported between the specific types of leadership practices constituting the focus of investigation and one or more organizational, teaming/workgroup, leader, or employee outcome measures.
Measure of the Relationships Between the Leadership Practices and the Study Outcomes

- Weighted average correlations between the leadership practices and study outcomes (studies with larger sample sizes contribute more to the average weighted correlations)

- *MedCalc* (Schoonjans, 2017) was used to run diagnostics, identify (and exclude) outlier correlation coefficients, and compute the average correlations between the leadership practices and study outcomes (there were only 5 outliers deleted)

- *Comprehensive Meta Analysis* (Borenstein, Hedges, Higgins, & Rothstein, 2018) was used to test for between leadership practices and between outcome measure differences in the sizes of effect

- Random effects models were used because of the heterogeneity of the studies in the meta-analysis


Standards for Conducting the Meta-Analysis

• American Psychological Association *Meta-Analysis Reporting Standards* (Appelbaum, Cooper, Kline, Mayo-Wilson, Nezu, & Rao, 2018) were used to both conduct the research synthesis and include the requested information in the meta-analysis reports.

• The meta-analysis includes a primary report (journal article) that includes the main results and moderator results and a secondary report (supplemental report) that includes detailed tables and figures of all follow-up, post-hoc, and confirmatory analyses.

Overview of the Studies in the Meta-Analysis

- 112 studies of leadership practices-outcome measure relationships

- The studies included 39,433 participants

- Approximately half of the participants were male and half were female

- Studies were conducted in 31 different countries

- Studies were conducted in for-profit and not-for-profit organizations, programs, businesses, etc.
### Distribution of Studies by World Regions

<table>
<thead>
<tr>
<th>World Region</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>51</td>
<td>45.5</td>
</tr>
<tr>
<td>Europe</td>
<td>20</td>
<td>17.9</td>
</tr>
<tr>
<td>Asia</td>
<td>14</td>
<td>12.5</td>
</tr>
<tr>
<td>Middle East</td>
<td>13</td>
<td>11.6</td>
</tr>
<tr>
<td>Australasia</td>
<td>10</td>
<td>8.9</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>4</td>
<td>3.6</td>
</tr>
</tbody>
</table>
Types of Organizations in the Leadership Studies

- Government (e.g., state and local agencies, government departments)
- Education (e.g., universities, high schools, middle schools, elementary schools)
- Healthcare (e.g., hospitals, nursing care programs, mental health programs)
- Not-For-Profit (e.g., organizations, churches, community organizations)
- For-Profit (product-oriented businesses)
- For-Profit (service-oriented businesses)
### Distribution of the Education-Related Organizations

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Childhood Intervention</td>
<td>1</td>
</tr>
<tr>
<td>Elementary School</td>
<td>2</td>
</tr>
<tr>
<td>Middle School</td>
<td>1</td>
</tr>
<tr>
<td>Elementary/Middle School</td>
<td>2</td>
</tr>
<tr>
<td>High School</td>
<td>3</td>
</tr>
<tr>
<td>K-12</td>
<td>3</td>
</tr>
<tr>
<td>Universities</td>
<td>5</td>
</tr>
</tbody>
</table>
Overall Findings from the Meta-Analysis

• 77 leadership practices-outcome measure relationships (11 practices x 7 outcomes)

• 72 leadership practices-outcome measure relationships (94%) included 3 or more effect sizes

• 69 of the 72 leadership practices-outcome measure relationships (96%) were statistically significant

• The 7 types of outcomes were differentially related to all 11 leadership practices

• The strength of the relationships between the leadership practices were larger for non-employee outcome measures compared to employee outcome measures
### Example of Leadership Practices-Outcome Measure Relationships for Motivational Communication

<table>
<thead>
<tr>
<th>Outcome Measures</th>
<th>k</th>
<th>N</th>
<th>Weighted Average $r$</th>
<th>95% CI</th>
<th>Z-test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leader Entrustment</td>
<td>31</td>
<td>9638</td>
<td>.66</td>
<td>.59, .72</td>
<td>13.64</td>
<td>.000</td>
</tr>
<tr>
<td>Organizational Engagement</td>
<td>18</td>
<td>8590</td>
<td>.41</td>
<td>.24, .55</td>
<td>4.48</td>
<td>.00</td>
</tr>
<tr>
<td>Team Effectiveness</td>
<td>10</td>
<td>1867</td>
<td>.37</td>
<td>.26, .47</td>
<td>6.31</td>
<td>.000</td>
</tr>
<tr>
<td>Employee Job Satisfaction</td>
<td>19</td>
<td>10,167</td>
<td>.35</td>
<td>.21, .47</td>
<td>4.70</td>
<td>.000</td>
</tr>
<tr>
<td>Employee Psychological Health</td>
<td>12</td>
<td>3308</td>
<td>.33</td>
<td>.18, .46</td>
<td>4.14</td>
<td>.000</td>
</tr>
<tr>
<td>Employee Belief Appraisals</td>
<td>8</td>
<td>3833</td>
<td>.26</td>
<td>.17, .35</td>
<td>5.30</td>
<td>.000</td>
</tr>
<tr>
<td>Employee Job Performance</td>
<td>7</td>
<td>1752</td>
<td>.25</td>
<td>.18, .32</td>
<td>6.77</td>
<td>.000</td>
</tr>
</tbody>
</table>

**NOTES.** $k =$ Number of studies and number of effect sizes. CI = Confidence interval.
Example of Leadership Practices-Outcome Measure Relationships for *Soliciting Creative Employee Solutions*

<table>
<thead>
<tr>
<th>Outcome Measures</th>
<th>k</th>
<th>N</th>
<th>Weighted Average $r$</th>
<th>95% CI</th>
<th>Z-test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leader Entrustment</td>
<td>44</td>
<td>15,701</td>
<td>.61</td>
<td>.56, .65</td>
<td>18.24</td>
<td>.000</td>
</tr>
<tr>
<td>Team Effectiveness</td>
<td>17</td>
<td>3918</td>
<td>.38</td>
<td>.29, .46</td>
<td>7.14</td>
<td>.000</td>
</tr>
<tr>
<td>Organizational Engagement</td>
<td>36</td>
<td>17,326</td>
<td>.32</td>
<td>.27, .36</td>
<td>12.82</td>
<td>.000</td>
</tr>
<tr>
<td>Employee Job Satisfaction</td>
<td>31</td>
<td>16,425</td>
<td>.32</td>
<td>.22, .40</td>
<td>6.45</td>
<td>.000</td>
</tr>
<tr>
<td>Employee Psychological Health</td>
<td>16</td>
<td>4506</td>
<td>.31</td>
<td>.23, .39</td>
<td>6.92</td>
<td>.000</td>
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<tr>
<td>Employee Belief Appraisals</td>
<td>18</td>
<td>6962</td>
<td>.30</td>
<td>.23, .36</td>
<td>8.33</td>
<td>.000</td>
</tr>
<tr>
<td>Employee Job Performance</td>
<td>13</td>
<td>4813</td>
<td>.21</td>
<td>.14, .28</td>
<td>5.87</td>
<td>.000</td>
</tr>
</tbody>
</table>

NOTES. $k =$ Number of studies and number of effect sizes. CI = Confidence interval.
Example of Leadership Practices-Outcome Measure Relationships for *Coaching Practices*

<table>
<thead>
<tr>
<th>Outcome Measures</th>
<th>k</th>
<th>N</th>
<th>Weighted Average $r$</th>
<th>95% CI</th>
<th>Z-test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leader Entrustment</td>
<td>31</td>
<td>9638</td>
<td>.66</td>
<td>.58, .72</td>
<td>12.80</td>
<td>.000</td>
</tr>
<tr>
<td>Organizational Engagement</td>
<td>19</td>
<td>8306</td>
<td>.35</td>
<td>.29, .41</td>
<td>10.02</td>
<td>.000</td>
</tr>
<tr>
<td>Employee Psychological Health</td>
<td>12</td>
<td>3308</td>
<td>.38</td>
<td>.28, .46</td>
<td>7.27</td>
<td>.000</td>
</tr>
<tr>
<td>Employee Job Satisfaction</td>
<td>20</td>
<td>10,055</td>
<td>.36</td>
<td>.22, .48</td>
<td>4.76</td>
<td>.000</td>
</tr>
<tr>
<td>Team Effectiveness</td>
<td>10</td>
<td>1794</td>
<td>.35</td>
<td>.26, .43</td>
<td>7.75</td>
<td>.000</td>
</tr>
<tr>
<td>Employee Job Performance</td>
<td>7</td>
<td>1752</td>
<td>.26</td>
<td>.17, .34</td>
<td>5.69</td>
<td>.000</td>
</tr>
<tr>
<td>Employee Belief Appraisals</td>
<td>7</td>
<td>2151</td>
<td>.21</td>
<td>.07, .34</td>
<td>2.89</td>
<td>.004</td>
</tr>
</tbody>
</table>

NOTES. $k =$ Number of studies and number of effect sizes. CI = Confidence interval.
Follow-up and post-hoc tests were used to determine which leadership practices *stand out as most important* in terms of their relationships with the study outcomes.

These analyses are the foundations for *implications for practice* in terms of which leadership practices are most likely to have the “biggest bang for the buck”
EFFECTS OF CAPACITY-BUILDING LEADERSHIP PRACTICES
(Relationship-Building, Confidence-Building, Coaching Practices)

- Leader Entrustment
- Team Effectiveness
- Organizational Engagement
- Employee Psychological Health
- Employee Satisfaction
- Employee Beliefs
- Employee Performance

Mean Effect Size
EFFECTS OF LEADER-CENTERED PRACTICES

(Organizational Visioning, Motivational Communication, Modeling Desired Behavior)

- Leader Entrustment
- Organizational Engagement
- Team Effectiveness
- Employee Satisfaction
- Employee Psychological Health
- Employee Beliefs
- Employee Performance

Mean Effect Size

0.00 0.10 0.20 0.30 0.40 0.50 0.60 0.70
EFFECTS OF SHARED RESPONSIBILITY PRACTICES
(Employee Input & Feedback, Creative Solutions, Shared Decision-Making)

- Leader Entrustment
- Team Effectiveness
- Organizational Engagement
- Employee Psychological Health
- Employee Satisfaction
- Employee Beliefs
- Employee Performance

MEAN EFFECT SIZE
EFFECTS OF LEADERSHIP BEHAVIORAL PRACTICES

(Performance Expectations & Performance Rewards)

OUTCOME MEASURES

- Leader Entrustment
- Team Effectiveness
- Organizational Engagement
- Employee Psychological Health
- Employee Satisfaction
- Employee Beliefs
- Employee Performance

MEAN EFFECT SIZE
Relationships Between the Leadership Practices and the Combined Study Outcomes

Confidence-Building Practices
Motivational Communication
Coaching Practices
Organizational Visioning
Soliciting Creative Solutions
Shared Decision Making
Relationship-Building Practices
Performance Expectations
Modeling Desired Behavior
Encouraging Employee Input
Performance Rewards

MEAN EFFECT SIZE
Relationships Between the Combined Leadership Practices Measures and Study Outcomes

- Leader Entrustment
- Team/Workgroup Effectiveness
- Organizational Engagement
- Employee Psychological Health
- Employee Job Satisfaction
- Employee Belief Appraisals
- Employee Job Performance

Mean Effect Size
Unpacking the Leadership Practices-Outcome Measure Relationships

(Are the strength of the relationships between the leadership practices and study outcomes the same or different?)

- Evaluated by between outcome measure comparisons for each leadership practice. All 11 sets of analysis were significant at the $p = .0000$ level.

- Follow-up tests of employee-related outcomes vs. nonemployee outcomes. 10 of the 11 analyses produced between outcome measure significant differences favoring the non-employee outcomes.
# Average Weighted Correlations for the Employee and NonEmployee Outcome Measures

<table>
<thead>
<tr>
<th>Leadership Practices</th>
<th>Employee Outcomes&lt;sup&gt;a&lt;/sup&gt;</th>
<th>NonEmployee Outcomes&lt;sup&gt;b&lt;/sup&gt;</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average r</td>
<td>95% CI</td>
<td>Average r</td>
<td>95% CI</td>
<td>Q&lt;sub&gt;Between&lt;/sub&gt;</td>
<td>df</td>
</tr>
<tr>
<td>Organizational Visioning</td>
<td>.34</td>
<td>.23, .44</td>
<td>.54</td>
<td>.42, .65</td>
<td>6.36</td>
<td>1</td>
</tr>
<tr>
<td>Motivational Communication</td>
<td>.32</td>
<td>.24, .39</td>
<td>.55</td>
<td>.47, .62</td>
<td>18.72</td>
<td>1</td>
</tr>
<tr>
<td>Modeling Desired Behavior</td>
<td>.28</td>
<td>.23, .32</td>
<td>.42</td>
<td>.36, .48</td>
<td>13.89</td>
<td>1</td>
</tr>
<tr>
<td>Encouraging Employee Input/Feedback</td>
<td>.26</td>
<td>.20, .32</td>
<td>.44</td>
<td>.38, .50</td>
<td>17.34</td>
<td>1</td>
</tr>
<tr>
<td>Soliciting Creative Solutions</td>
<td>.30</td>
<td>.25, .34</td>
<td>.47</td>
<td>.42, .51</td>
<td>27.30</td>
<td>1</td>
</tr>
<tr>
<td>Relationship-Building Practices</td>
<td>.27</td>
<td>.22, .32</td>
<td>.44</td>
<td>.37, .51</td>
<td>13.52</td>
<td>1</td>
</tr>
<tr>
<td>Confidence-Building Practices</td>
<td>.30</td>
<td>.18, .41</td>
<td>.58</td>
<td>.48, .66</td>
<td>13.94</td>
<td>1</td>
</tr>
<tr>
<td>Shared Decision Making</td>
<td>.29</td>
<td>.21, .37</td>
<td>.42</td>
<td>.32, .52</td>
<td>3.96</td>
<td>1</td>
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<tr>
<td>Coaching Practices</td>
<td>.33</td>
<td>.25, .40</td>
<td>.53</td>
<td>.46, .59</td>
<td>15.01</td>
<td>1</td>
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<tr>
<td>Performance Expectations</td>
<td>.23</td>
<td>.13, .33</td>
<td>.31</td>
<td>.24, .38</td>
<td>1.84</td>
<td>1</td>
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<tr>
<td>Performance Rewards</td>
<td>.20</td>
<td>.12, .26</td>
<td>.43</td>
<td>.36, .49</td>
<td>23.78</td>
<td>1</td>
</tr>
</tbody>
</table>

<sup>a</sup>Belief appraisals, psychological health, job satisfaction, and job performance.

<sup>b</sup>Organizational engagement, team effectiveness, and leader entrustment.
Moderators of Leadership Practices-Outcome Measure Relationships
(Do the leadership practices-outcome measure relationships differ as a function of other explanatory factors?)

- Type of Organization.................. 5
- Country Economic Status\(^a\)....... 4
- Country Democracy Index\(^b\)...... 2
- Study Sample Size....................... 1
- Employee Position....................... 1
- Year of Publication....................... 0

Average Weighted Correlations for Different Types of Organizations

<table>
<thead>
<tr>
<th>Type of Organization</th>
<th>Mean Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>0.00</td>
</tr>
<tr>
<td>Education</td>
<td>0.20</td>
</tr>
<tr>
<td>Healthcare</td>
<td>0.30</td>
</tr>
<tr>
<td>Mixed</td>
<td>0.40</td>
</tr>
<tr>
<td>For-Profit (Product)</td>
<td>0.50</td>
</tr>
<tr>
<td>Non-Profit</td>
<td>0.55</td>
</tr>
<tr>
<td>For-Profit (Service)</td>
<td>0.60</td>
</tr>
</tbody>
</table>
Implications for Practice (thus far)

• Adopting the BIG-5 leadership practices (employee confidence-building practices, motivational communication, coaching practices, organizational visioning, and soliciting employee creative solutions) is more likely to have the biggest payoffs.

• The use of these five leadership practices will more likely contribute to trust in leaders, improvements in team and workgroup effectiveness, and employee engagement in achieving organizational missions and goals.
Next Steps

- Identify which combinations of leadership practices are associated with which outcome measures. This will further inform the use of particular leadership practices to have specific outcomes or benefits.

- Prepare user-friendly nontechnical briefs of the results for informing use of evidence-based and evidence-informed leadership practices.

- Investigate the use of meta-analytic structural equation modeling for tracing the effects of leadership practices on nonemployee outcomes and nonemployee outcomes on employee outcomes.
PowerPoint available at:
www.puckett.org/presentations