

## Skills and Leadership: Main Effects and Explanatory Mechanisms

Brian J. Hoffman University of Georgia

36<sup>th</sup> International Congress on Assessment Center Methods



## Individual Differences and Leader Effectiveness

- “The history of the world is but the biography of great men”  
–Thomas Carlyle (1841)
- Attribute-based approaches to leadership
  - Multiple meta-analytic reviews focusing on individual differences (Lord et al., 1986; Judge and colleagues, 2002 & 2004)
  - Intelligence, extraversion / dominance, achievement orientation, self confidence, conscientiousness, and neuroticism have been revealed as key antecedents to effective leadership
- Is the leadership literature missing a piece of the puzzle?



## Models of Individual Differences and Leadership

- Locke (1991)- skills and traits uniquely lead to leader vision
- Yukl(2006)- skills and traits jointly influence leader behavior
- Zaccaro (2007)- traits influence skills and skills influence leader effectiveness.
- Regardless of differences in direction of effects and presumed proximity, a common element to modern leader individual difference models is the distinction between traits and skills



## Leader traits vs. Leader Skills

- |                  |                       |
|------------------|-----------------------|
| • Leader traits  | • Leader skills       |
| 1. Dispositional | 1. Developed Capacity |
| 2. Stable        | 2. Malleable          |
| 3. Distal        | 3. Proximal           |
| 4. Leadership    | 4. Management         |
| 5. Often signs   | 5. Often samples      |



## This Presentation

- Limited research attending to skill-based individual differences associated with leadership
  - Are leader traits or leader skills stronger predictors of leader effectiveness?
  - Do leader skills explain unique variance in effectiveness beyond traits?
  - Does leader vision account for the relationship between leader skills and effectiveness?



## Study 1: Main Effects of Traits and Skills

- Meta-analysis of 23 individual difference antecedents of effective leadership (Hoffman, Woehr, Maldegan, & Lyons, 2011)
- 15 traits and 8 skills drawn from popular individual difference models of leadership (e.g., Locke, 1991; Yukl, 2006)
- Primary Questions
  1. What are the individual difference antecedents of effective leadership?
  2. Are traits or skills stronger predictors of effectiveness?



## Study 1: Main Effects of Traits and Skills

- Comprehensive literature search
- K = 663 (498 for traits, 165 for skills)
- Coded correlation between individual differences and measures of effectiveness
- Hunter & Schmidt's (2004) meta-analysis method
  - Weighted by sample size
  - Corrected for predictor and criterion unreliability



## Key Traits and Skills

Traits	$\rho$	Skills	$\rho$
Need for Achievement	.28	Interpersonal Skills	.30
Energy	.29	Oral Communication	.25
Dominance	.35	Written Communication	.24
Honesty/Integrity	.29	Management Skills	.40
Self-confidence	.24	Problem Solving Skills	.39
Creativity	.31	Decision Making	.52
Charisma	.57		



## Less Consistent / Weaker

Traits	$\rho$	Skills	$\rho$
Initiative	.19	Technical Skills / Knowledge*	.19
Ambition*	.18	Organizing and Planning*	.17
Need for Power*	.16	<b>Traits overall:</b>	<b>.27</b>
Extraversion*	.15	<b>Skills overall:</b>	<b>.26</b>
Conscientiousness*	.16		
Flexibility	.19		
Self-monitoring	.19		
Cognitive Ability*	.17		



## Study 2: Do Skills Add Something New?

- Meta-analysis of the incremental validity of AC dimensions (Meriac, Hoffman, Woehr, & Fleisher, 2008)
- Seven AC dimensions from Arthur et al.'s (2003) taxonomy
- Supervisor ratings of manager performance
- 47 independent samples
- Hunter & Schmidt's (2004) meta-analysis method
  - Meta-analytic regression of supervisor ratings on the 7 AC skills and personality and intelligence.



## Meta-analytic Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11	12
1. Intelligence	1											
2. Effectiveness	.32	1										
3. Consideration	.22	.24	1									
4. Communication	.35	.27	.44	1								
5. Drive	.26	.16	.47	.48	1							
6. Influence	.28	.31	.51	.52	.67	1						
7. Organizing & Plan	.36	.35	.36	.49	.49	.60	1					
8. Problem-solving	.34	.32	.42	.45	.48	.56	.66	1				
9. Stress Tolerance	.28	.18	.63	.50	.56	.63	.44	.45	1			
10. Neuroticism	-.08	-.12	-.10	-.11	-.06	.02	-.09	-.09	-.1	1		
11. Extraversion	.08	.29	.10	.16	.29	.21	.11	.11	.17	-.02	1	
12. Openness	.13	-.02	.09	.17	.08	.11	.14	.14	.15	.00	.24	1
13. Agreeableness	.15	.12	.07	.13	.12	.11	.09	.09	.09	-.10	.27	.24
14. Conscientiousness	.24	.29	.14	.12	.14	.13	.17	.17	.17	-.24	.31	.30



## Meta-regression

	R	R <sup>2</sup>	ΔR <sup>2</sup>
Step 1: Intelligence	.32*	.10*	
Step 2: Personality	.45*	.20*	.10
Step 3: 7 AC Dimensions	.55*	.30*	.10

Note.  $P < .05$ ; Each of the seven skill dimensions explained unique information beyond the other dimensions in effectiveness.



## Conclusions: Main Effects

- Both skills and more conventional traits appear to play a key role in effective leadership / manager performance
  - Skills and traits had similar mean correlations with effectiveness
  - Skills, when measured in ACs, explain unique variance in effectiveness
  - Much less work on skills
  - Skills were almost synonymous with performance measures / ACs
- Despite progress on bivariate relationships, limited work explaining the role that individual differences play in leadership
  - Especially for skill-based individual differences.



## Study 3: Linking ACs and Vision

- We know ACs “work,” which is to say we know that leader skills are a key individual difference antecedent of leader effectiveness
  - But we don’t know why.
- Study 3 proposes and tests a model that links leader skills to leader vision and subsequent work unit effectiveness (Hoffman & Baldwin, in preparation\* 2011 Douglas Bray and Ann Howard Grant).

Overarching Questions:

1. What are the explanatory mechanisms that link leader skills to effectiveness?
2. Do traditional leadership constructs account for the criterion-related validity of AC?



## Visionary Leadership

- Dominant paradigm (Avolio; Bass; Conger)
  - Vision gives followers a sense of purpose, directs attention to desired future states, inspires follower confidence, and communicates values
- Actual leader vision (Berson et al., 2001; Sosik & Dinger, 2005)
  - Inspirational
  - Instrumental
  - Follower focused
- Follower awareness of leader vision (Baum & Locke, 2004)

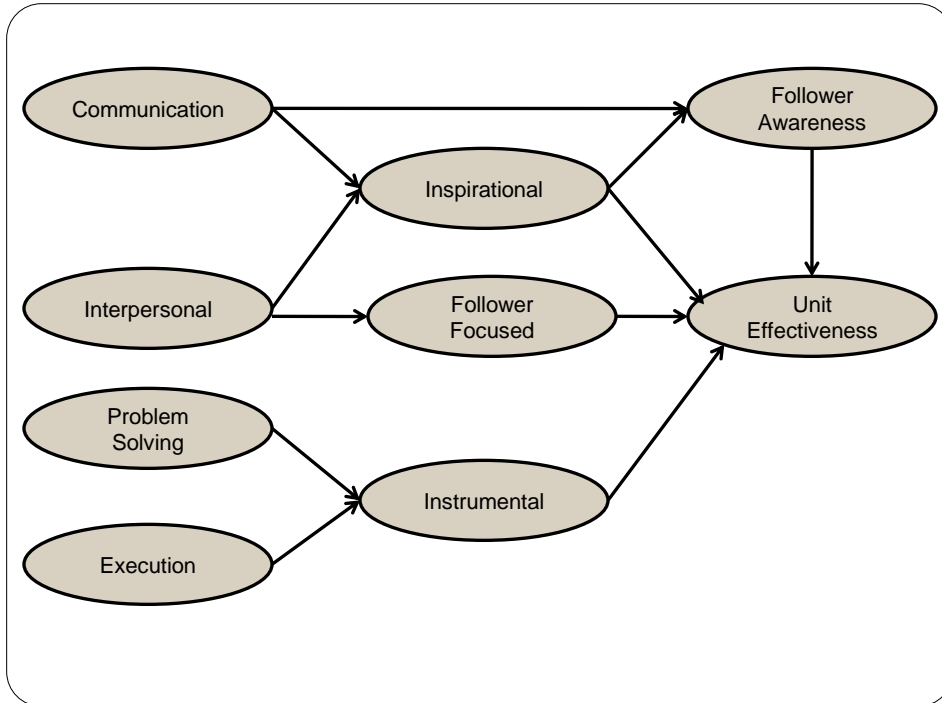


## AC Dimensions (Leader Skills)

- Consistent relationships with performance
  - But why?
- Skills and vision linkages
  - Communication- inspirational vision, followers' awareness of vision
  - Influence/Interpersonal- inspirational vision / follower focused vision
  - Execution & Problem-solving- instrumental vision







## Sample & Method

- 182 managers enrolled in EMBA program
- Developmental Assessment Center- 4 exercises, 12 dimensions
  - CFAs- Communication (OC, WC), Execution (Dec, Init, P & O), Problem-Solving (An, Jud), Influence / Interpersonal(LDR, CONF, COA, SNS, TB)
- Leader vision statements- “Describe your vision for your workgroup.”
  - Coded by two trained coders using Berson et al.’s 12 items (rwg(j) = .89)
  - CFA- Inspirational, Follower-focused, and Instrumental
  - Follower awareness
- Supervisor ratings of unit effectiveness

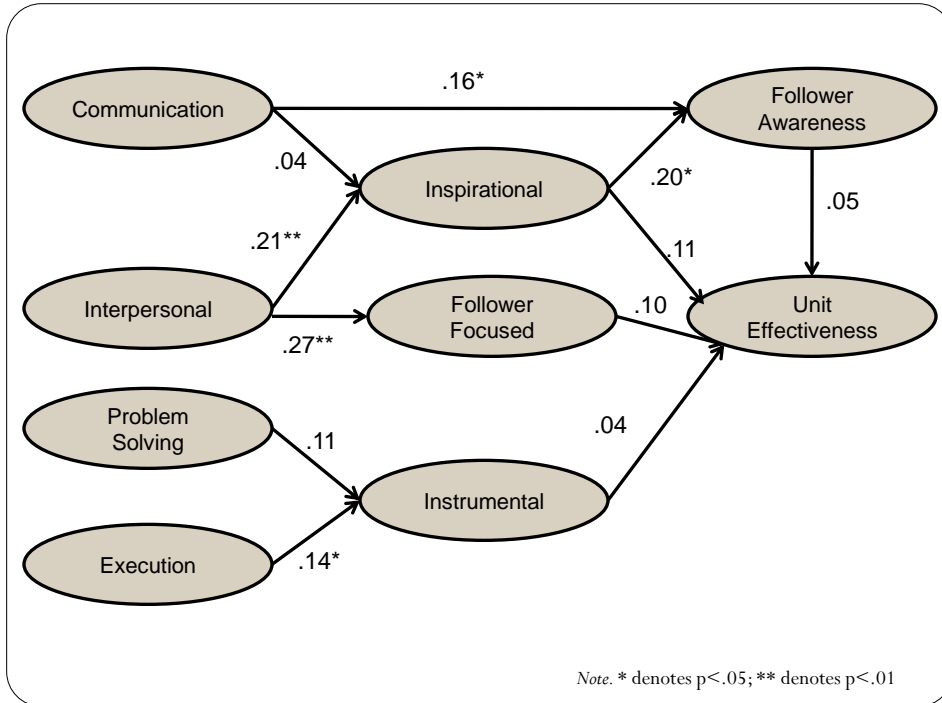
## Results

- Proposed model fit well
- Model comparisons
  - Model 2 that added direct paths from ACs to effectiveness did not significantly enhance model fit s ( $\Delta\chi^2(4) = 4.3$ , ns)
  - Model 3 omitted direct path from vision and skills to effectiveness ( $\Delta\chi^2(3) = 12.5$ ,  $p < .05$ )
  - Model 4 included only vision on effectiveness
  - Model 5 included only inspirational on effectiveness (3.7(5), ns)
  - Model 6: Only Significant Paths



## Path Analysis Results

Antecedents of Effectiveness	df	$\chi^2$	RMSEA	TLI	CFI	$\Delta\chi^2$
1. Vision + Awareness	14	22.90	.06	.94	.98	
2. Skills, Vision, Aware	10	18.62	.07	.91	.98	4.3
3. Awareness Only	17	35.37	.08	.89	.95	12.5*
4. Vision Only	15	23.33	.06	.95	.98	.44
5. Inspirational Vision	17	27.07	.06	.94	.97	3.7
6. Final	21	31.83	.06	.95	.97	8.7



## Discussion

- One of the first steps to integrate AC and leadership literature
  - Leadership vs. management is a false distinction.
  - ACs “work” by predicting content of leader vision.
  - Also has implications for leadership research.
- Implications for AC research and practice
  - Unnecessary to redesign ACs to measure visionary leadership.
  - But, a “vision” exercise, presentation, and feedback sounds interesting.
  - Evidence for nomological network of AC dimensions.

## Overall Conclusions

- Traits vs. skills in the prediction of leadership
  - Both appear to be important
  - Skills, at least when measured in ACs, explain unique variance beyond traits.
- ACs offer a unique gateway to research on skill-based approaches to leadership.
  - Integrating ACs with leadership research helpful to visibility, adoption, and theoretical foundation of ACs.
  - Additional explanatory work might help functioning of ACs



## Questions and Comments

