A Closer Look at AC Construct-Related Validity Evidence

Eric Anthony Day  
University of Oklahoma

David J. Woehr  
University of Tennessee
This presentation is a review and extension of:

Which was a response to arguments made in favor of abandoning a dimensioned-based focus in favor of a task- or role-based focus
Overview: On The Viability of Task- or Role-Based Approach

- Empirical evidence discounting the dimension-based approach is flawed
  - Espoused as opposed to actual constructs predominate the empirical literature
  - Analyses involving postexercise dimension ratings are fundamentally flawed
- It is premature to abandon the dimension-based approach, yet the dimension-based approach still needs improvement
Espoused vs. Actual Constructs: The “Elephant in the Room”

- **Dimensions are taken at face value**
  - Lack of traditional psychometric evaluation during AC development

- **Low expectations on deriving and defining dimensions**
  - Profusion of [esoteric] dimension labels
  - Reliance on job analysis to support content-related validity
  - Little if any dimension explication
Improving the Derivation and Definition of Dimensions

- **Consult the scientific literature**
  - Link dimensions to relevant scholarly literature
  - Include scholars in the pool of SMEs
- **Conduct formative evaluations of dimensions**
  - Content-related validity of dimension definitions
  - Convergent and divergent validity of dimension scores
- **Explicate dimensions in reports and articles**
  - General conceptual definitions
  - Exercise-specific operationalizations and activation
Over Reliance on MTMM

- AC construct-related validity literature has overemphasized MTMM approach for validity evidence
  - Emphasis on Post Exercise Dimension Ratings (PEDR’s)
  - Post Consensus Dimension Ratings (PCDR’s) ignored

- As a result:
  - Underestimate reliability
  - Potentially underestimate validity
Other Construct-Related Validity Evidence

Need to:

- Look for other approaches to construct-related validity evidence
  - Nomological networks, etc.
- Focus on broader construct domains
  - Dimensions aren’t necessarily constructs
Construct Models

Thornton and Byham (1982)
- Oral Comm
- Oral Fees
- Written Comm
- Btsm-Org, Appr
- Btsm-Org, Stks
- Org. Awareness
- Org. Sensitivity
- Rec. E.S. Needs
- Sensitivity
- Independence
- Integrity
- Leadership
- Control
- Delegation
- Devel. of Subs.
- Plan. and Organiz.
- Analysis
- Creativity
- Decisions
- Judgment
- Practical Learning
- Range of Interests
- Tech. & Prof.
- Knowledge
- Career Ambition
- Energy
- Initiative
- Job Motivation
- Tranquility
- Work Standards
- Adaptable
- Resistance
- End Thng
- Tol. for Stress

Arthur et al. (2003)
- Communication
- Consideration and Awareness of Others
- Influencing Others
- Organizing and Planning
- Problem Solving
- Drive
- Tolerance for Stress / Uncertainty

Borman and Brush (1993)
- Interpersonal Dealings and Communication
- Leadership and Supervision
- Technical Activities and the Mechanics of Management
- Useful Personal Behavior

Schmitt (1977)
- Interpersonal Skills
- Leadership Skills
- Administrative Skills
- Useful Personal Behavior

Shore et al. (1992)
- Interpersonal - Style
- Administrative Skills
- Activity / Forcefulness

Viswesvaran et al. (2005)
- General AC Perf.
- Performance-Style
Current Evidence

Meta-analytic studies using the 7 construct domains indicate:

- AC constructs demonstrate criterion-related validity over and above an overall assessment center rating (Arthur et al., 2003)
- AC construct ‘effects’ are similar in magnitude to exercise ‘effects’ but vary by specific construct (Bowler & Woehr, 2006)
Further Supporting Evidence

Additionally, meta-analytic studies using the 7 construct domains indicate:

- AC constructs demonstrate incremental criterion-related validity over and above measures of cognitive ability and personality (Meriac et al., 2008)

- 7 AC construct categories provide best empirical representation of AC ratings (Meriac & Woehr, 2008)
Conclusions
Turning to a Task or Role Focus Is Scientifically Untenable

- **Empirical evidence discounting the dimension-based approach is flawed**
- **Recent empirical evidence supports the dimension-based approach**
- **Identifying the human requirements to effective performance is fundamental to the psychological and management sciences**
Turning to a Task or Role Focus Is Poor Practice

- Tasks and roles are an unnatural way to describe people and provide feedback
- Tasks and roles do not generalize well over time and situations
Improvements Are Needed

- Higher standards for the explication and substantiation of dimensions is needed
- The evidential basis for dimensions needs to be broadened beyond the multitrait-multimethod approach