

Beyond the OAR: Considering the Operational Meaning and Usefulness of AC Ratings' General Factor

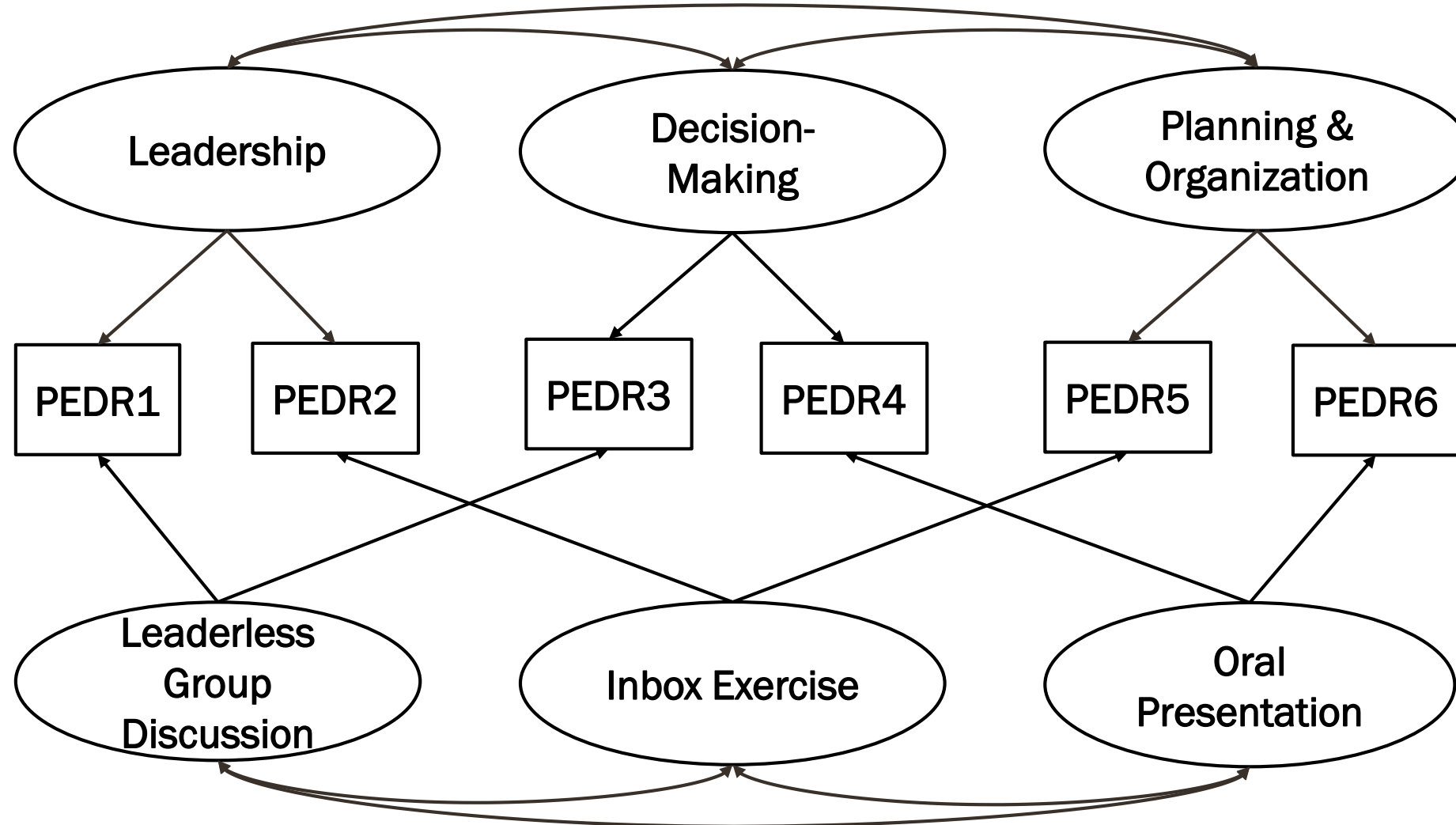
CAITLIN PORTER, DEBORAH RUPP, & SANG EUN WOO

PURDUE UNIVERSITY

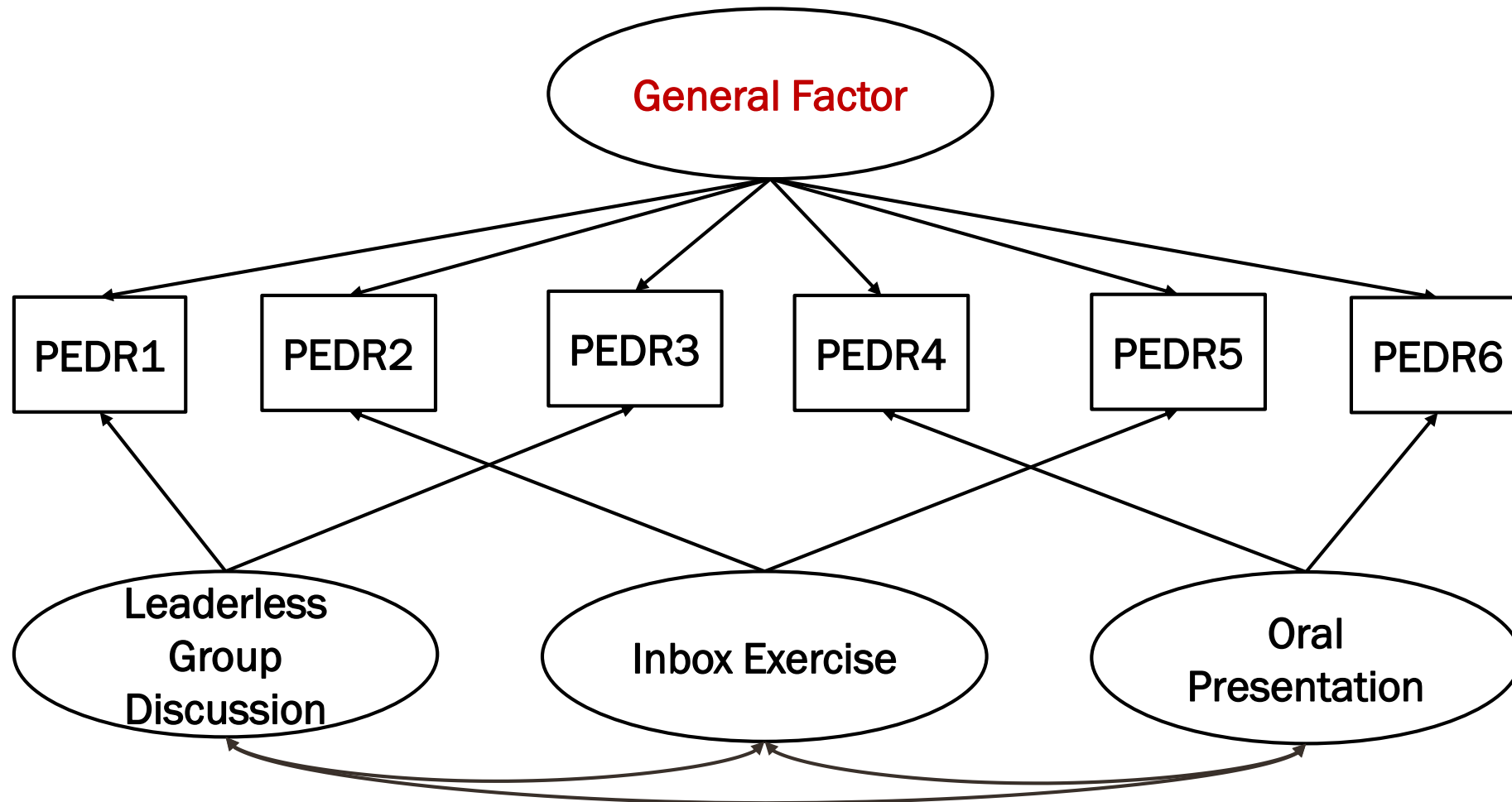
Overview

- History of the **General Factor**
- Behavior-Level Approach** to assessing AC participant performance
- 3 Key questions**
 1. Does a General Factor exist when using a behavior-level approach to AC ratings?
 2. If a General factor exists, to what extent is it relevant to job performance?
 3. Is the General Factor operationally meaningful? In other words, does it have incremental validity in predicting job performance beyond common AC ratings?
- Take-Aways**

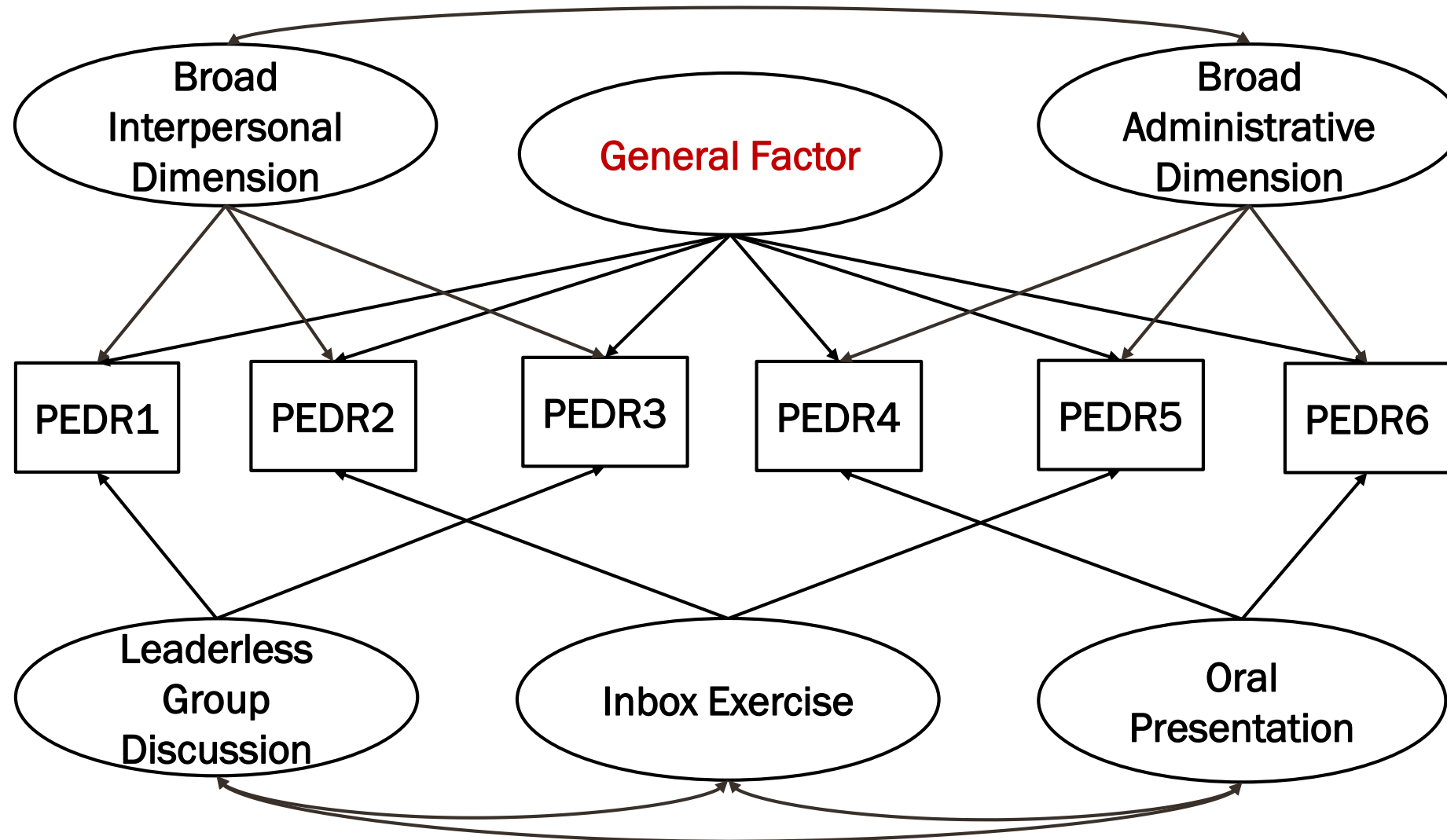
Theoretical Representation of AC Ratings



A General Factor is Continually Found in AC Ratings



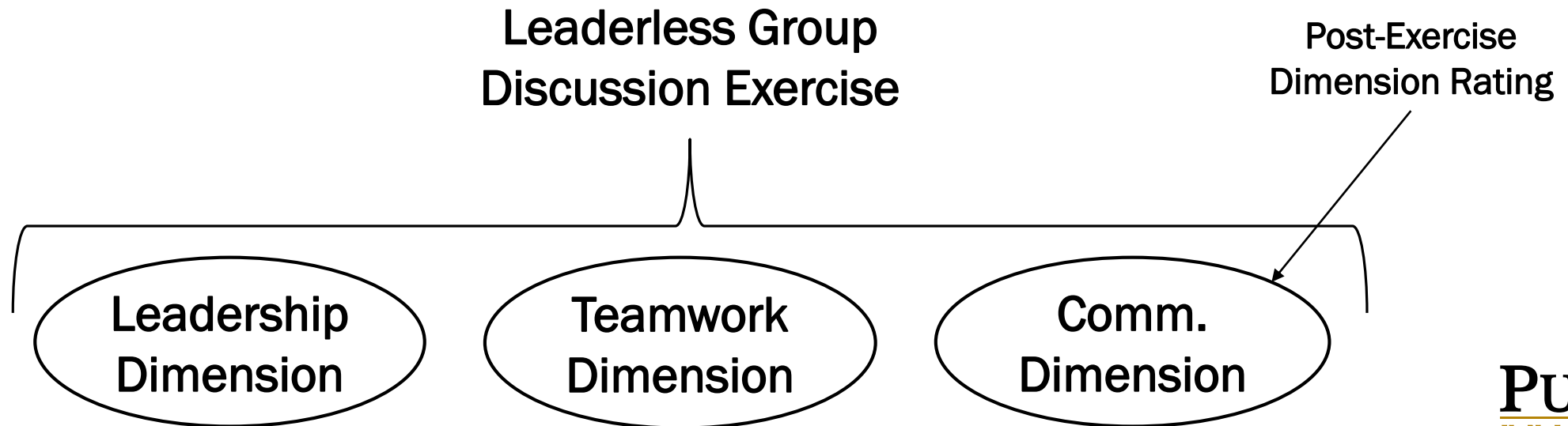
A General Factor is Continually Found in AC Ratings



Common Approach to Making AC Ratings

ACs have commonly adopted a dimension-level approach to making AC ratings (i.e., Post-Exercise Dimension Ratings):

- Observe and Record AC participant behaviors
- Classify behaviors from an exercise into dimensions
- Rate participant standing on each dimension at the conclusion of the exercise



Behavior-Level Approach to Making AC Ratings

ACs are more often adopting a Behavior-Level Approach to making AC ratings, which we term Behavior-Level Dimension Ratings:

- Observe AC participants' behaviors
- Rate AC participants' proficiency on multiple behaviors that has been identified as being relevant to dimensions a priori

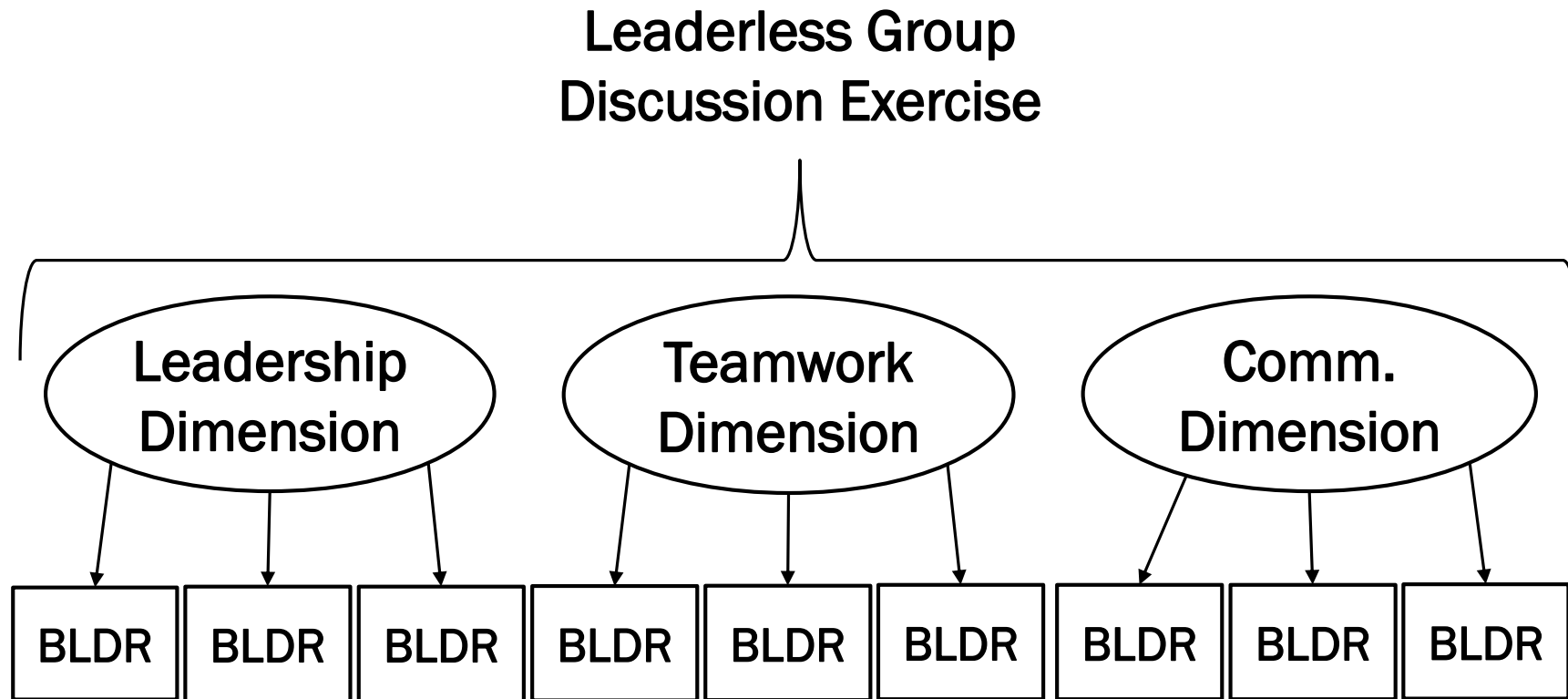
Behavioral Item Relevant to the Decision-Making Dimension:

“Adapts decisions as more information becomes available”

(rated on a 7-point proficiency scale)

Behavior-Level Approach to Making AC Ratings

****Multiple behaviors representative of the same dimension are rated in each exercise****



3 Key Questions

#1: Does a General Factor exist when we use a behavior-level approach to making AC ratings?

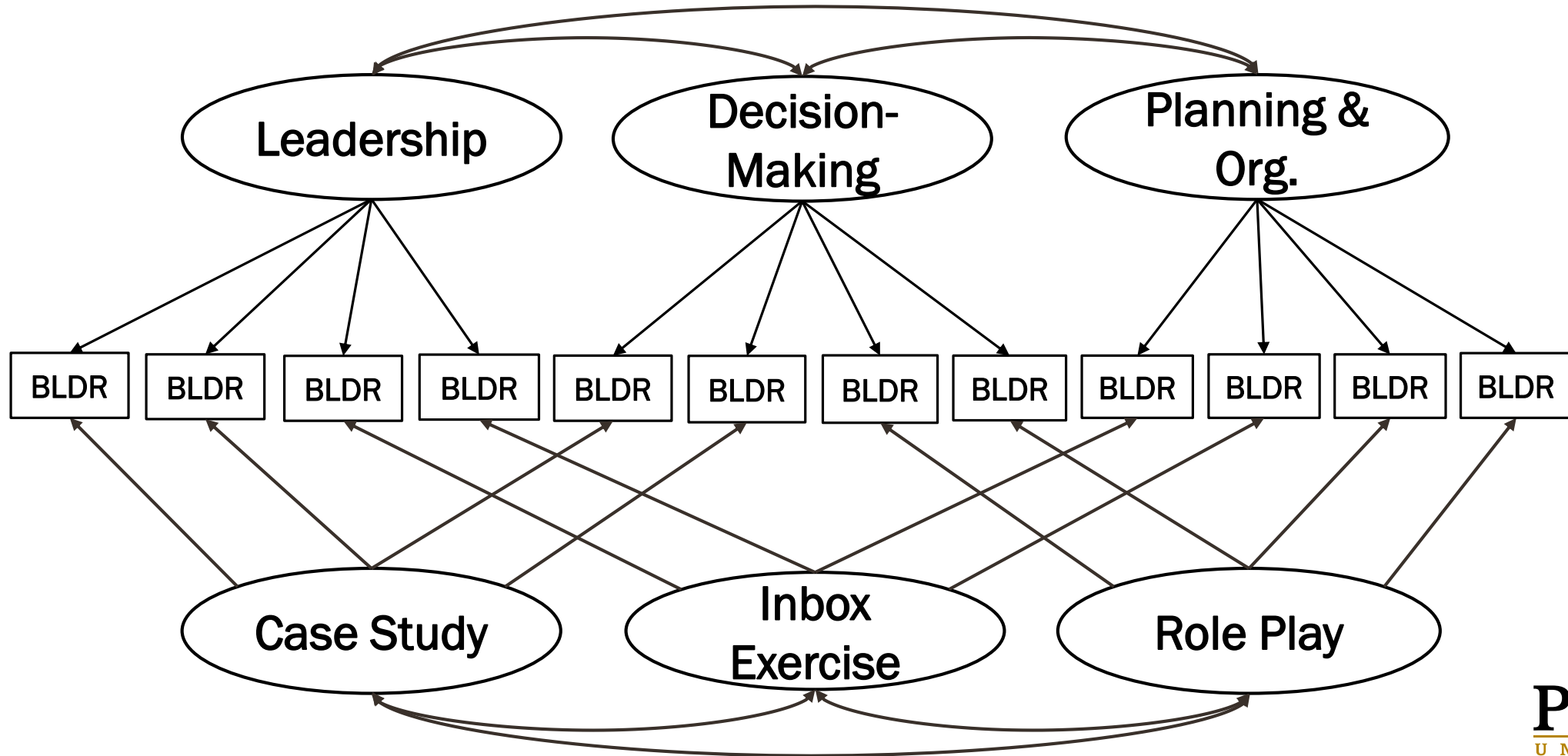
#2: If a General factor exists, to what extent does it relevant to job performance?

#3: Is the General Factor operationally meaningful? In other words, does it have incremental validity in predicting job performance beyond common AC ratings?

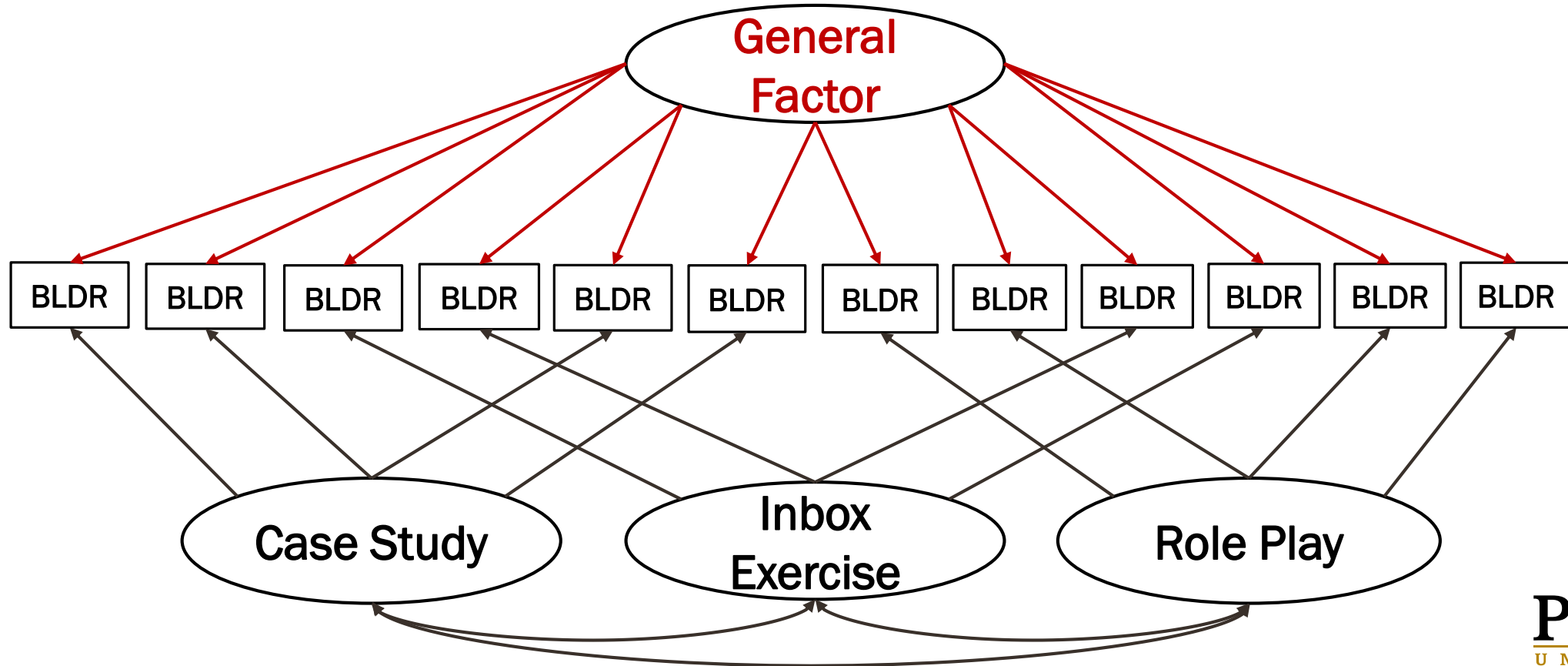
#1: Does a General Factor Exist when Using a Behavior-Level Approach?

- **Proposed analytic approach:** AC ratings made using a behavior-level approach are analyzed using Confirmatory Factor Analysis (CFA)
 - CFA allows one to compare theoretical representations of AC ratings in order to identify which representation is best supported by the data
- **Proposed Theoretical Representations of AC Ratings:**
 - **Model 1:** Dimensions & exercises are separate factors (traditional conceptualization of AC structure)
 - **Model 2:** General Factor & exercises represented (no dimensions) (Lance et al. 2000)
 - **Model 3:** Broad dimensions, exercises, & General Factor represented (Hoffman et al., 2011)

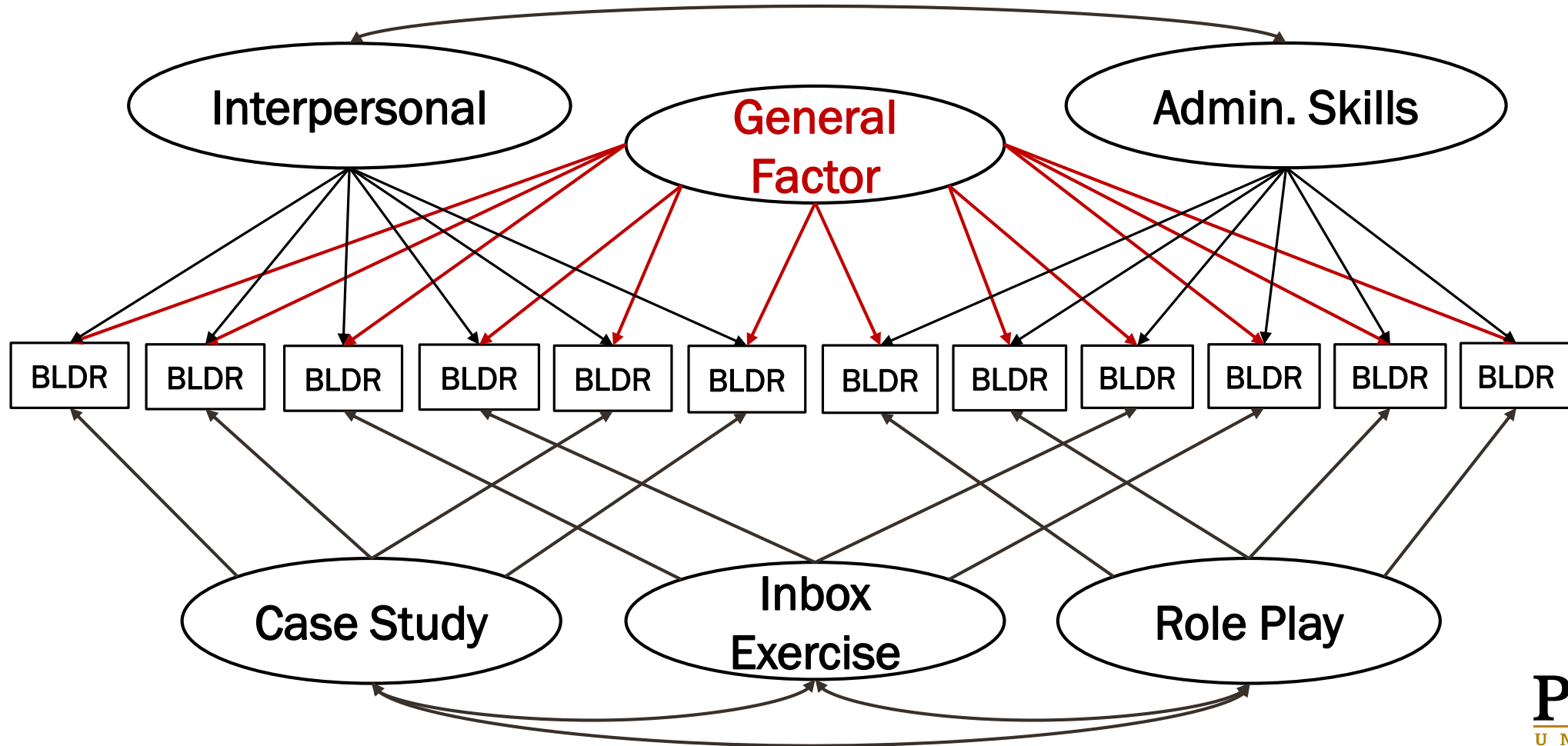
Model 1: Dimensions & Exercises



Model 2: General Factor & Exercises



Model 3: Broad Dimensions, General Factor, & Exercises



#1: Does a General Factor Exist when Using a Behavior-Level Approach?

Summary:

- **Model 1:** Dimensions & exercises represented
 - IF Model 1 is supported, then then the General Factor does *not exist when behavior-level dimension ratings* are used
- **Model 2:** General Factor & exercises represented (no dimensions) (Lance et al. 2000)
- **Model 3:** Broad dimensions, exercises, & General Factor represented (Hoffman et al., 2011)
 - IF either Model 2 or Model 3 is supported, then the *General Factor exists* and should be examined in more detail

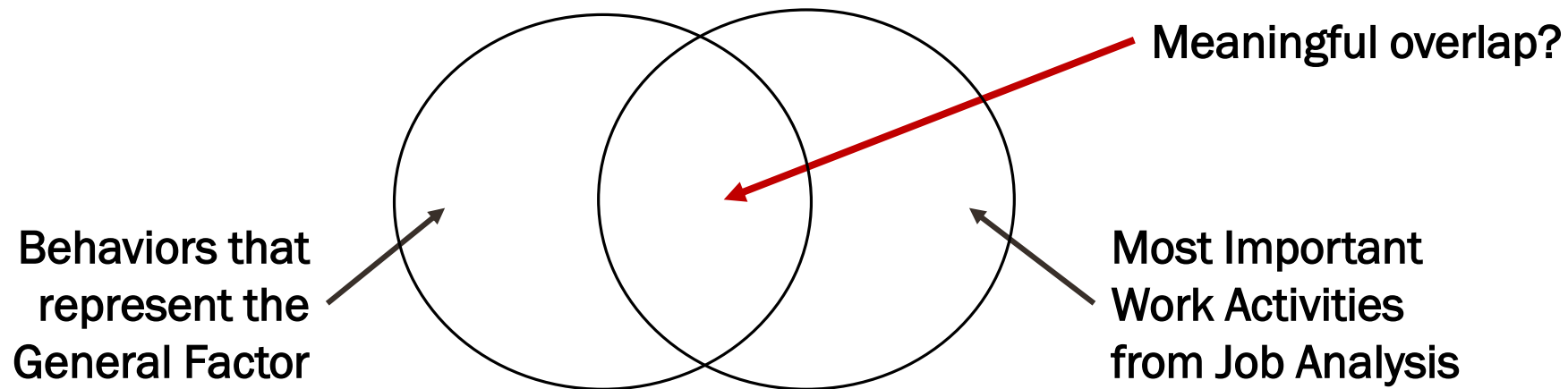
If the General Factor exists, then the next question is...

#2: To what extent is the General Factor relevant to Job Performance?

Step 1: Identify the behaviors (represented by the Behavior-Level Dimension Ratings) that represent the General Factor

Step 2: Identify the important work activities relevant to a job (e.g., job incumbents' ratings of work activities' importance)

Step 3: Compare the behaviors represented in the General Factor with work activities from job analysis



Step 1: Identify Behavior-Level Dimension Ratings that Represent the General Factor

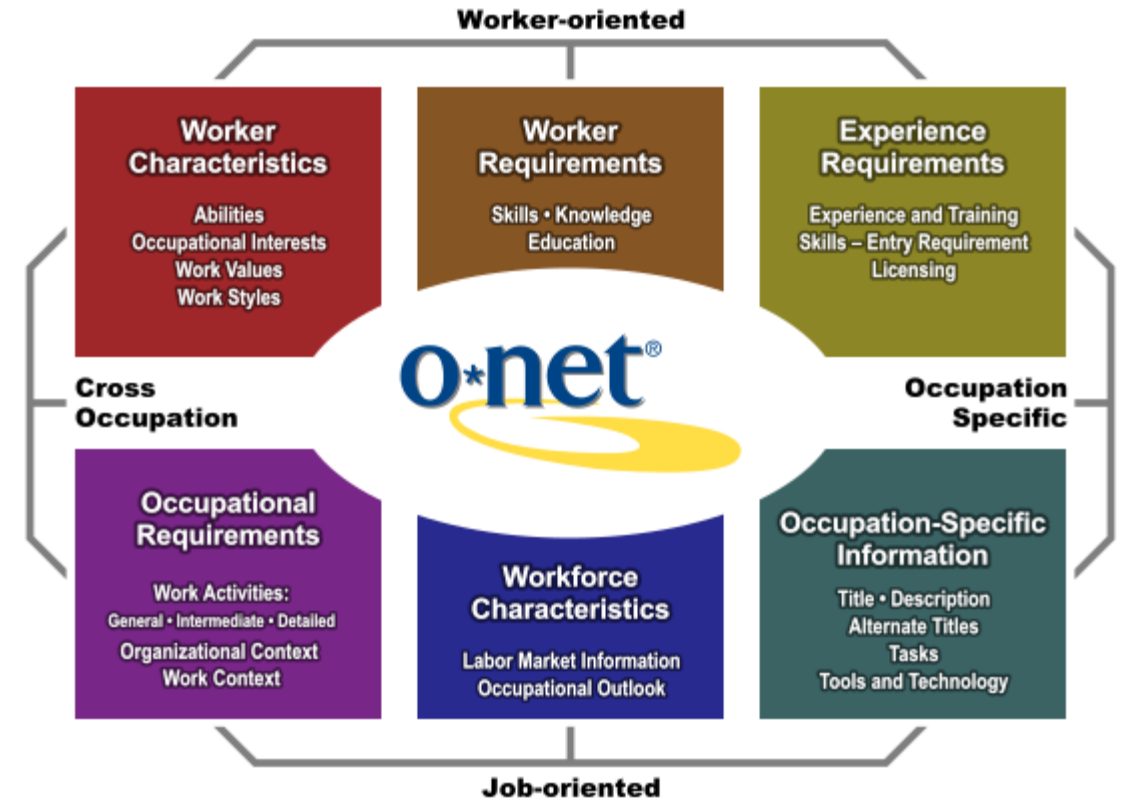
- Results from the Confirmatory Factor Analysis provide information about which behavior-level dimension ratings are influenced by the General Factor
- Behavior-level Dimension Ratings are associated with specific behaviors
- We can infer that the proficiency with which one performs these behaviors are influenced by AC participants' standing on the General Factor

Step 2: Identify Important Work Activities from Job Analysis

Identify the important work activities of a job based on job incumbent ratings taken from O*Net

Occupational Network Online (O*Net):

- Online database of job analysis information derived from multiple sources (i.e., job incumbents)

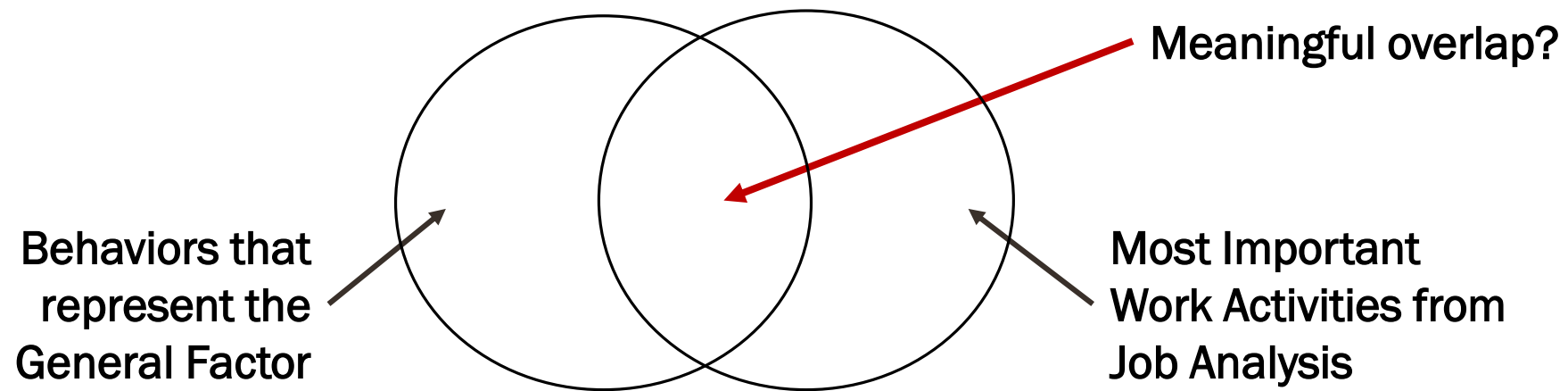


Example: General Manager Work Activities

1. Making Decisions & Solving Problems
2. Communicating with Supervisors, Peers, or Subordinates
3. Getting Information
4. Coordinating the Work Activities of Others
5. Interacting with Computers
6. Guiding, Directing, and Motivating Subordinates
7. Identifying Objects, Actions, and Events
8. Monitor Processes Materials, or Surroundings
9. Judging the Qualities of Things, Services, or People
10. Organizing, Planning, and Prioritizing Work
11. Evaluating Information to determine compliance with standards
12. Developing and Building Teams
13. Scheduling Work and Activities
14. Processing Information
15. Establishing & Maintaining Interpersonal Relationships
16. Training & Teaching Others
17. Coaching & Developing Others
18. Communicating with Persons outside the Organization
19. Resolving Conflicts & Negotiating with Others
20. Performing for or Working Directly with the Public
21. Monitoring & Controlling Resources
22. Developing Objectives & Strategies
23. Analyzing Data or Information
24. Documenting or Recording Information
25. Updating & Using Relevant Knowledge
26. Selling or Influencing Others
27. Estimating Quantifiable Characteristics of Products, Events, or Information
28. Interpreting the Meaning of Information for Others

Step 3: Compare General Factor Behaviors with Work Activities from Job Analysis

Allows us to confirm that the General Factor is adequately assessing AC participants' standing on the full range of behaviors relevant to Job Performance.

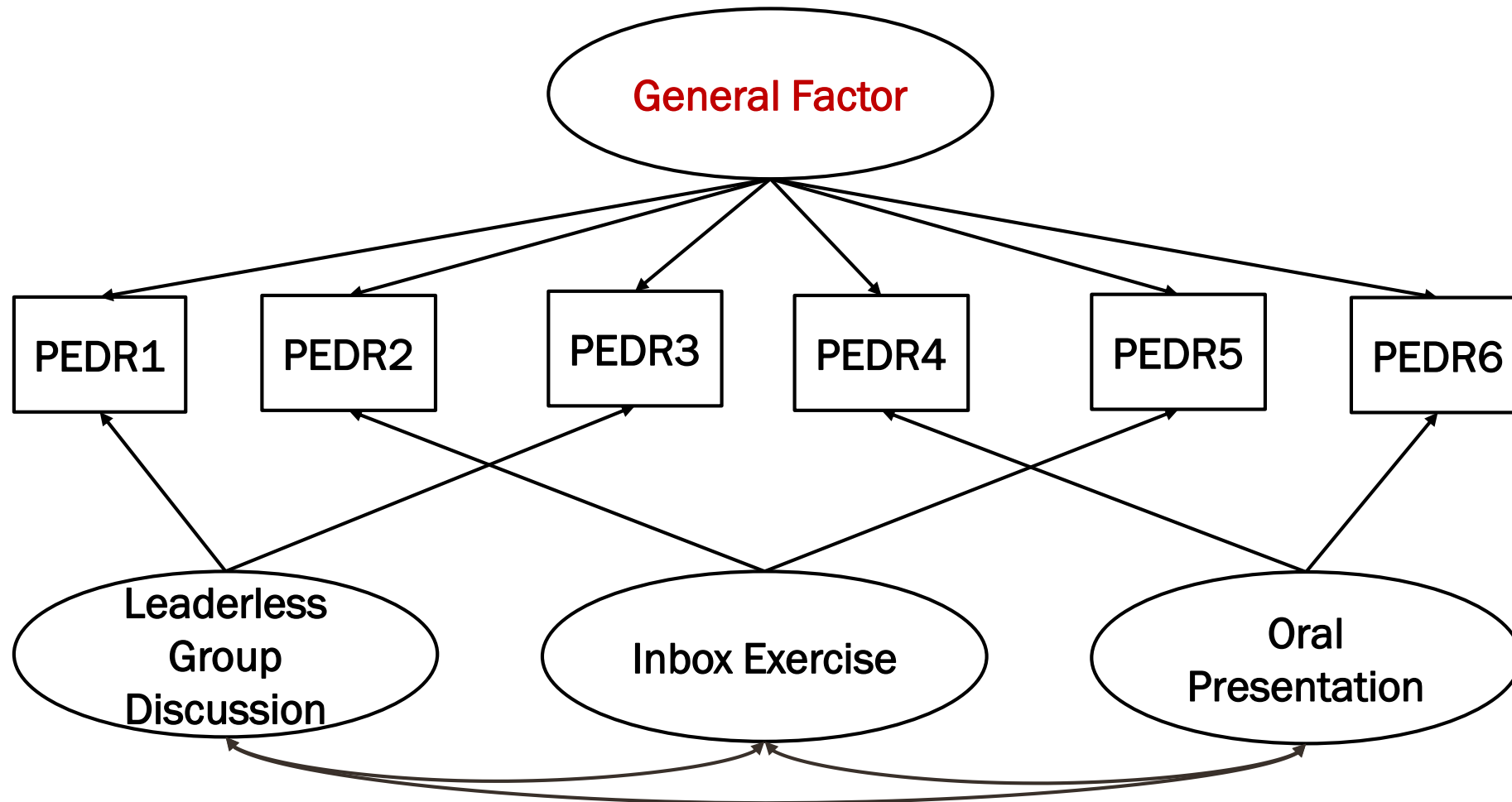


The last question is...

#3: Does the General Factor have Incremental Validity beyond Common AC Ratings?

- Mixed research findings regarding the usefulness of the General Factor when investigated using post-exercise dimension ratings:
 - Positively correlated with job performance when dimension factors were *not* taken into account (Lance, Foster, Gentry, & Thoresen, 2004)
 - *NOT* correlated with job performance when dimension factors were also modeled (Hoffman et al., 2011)

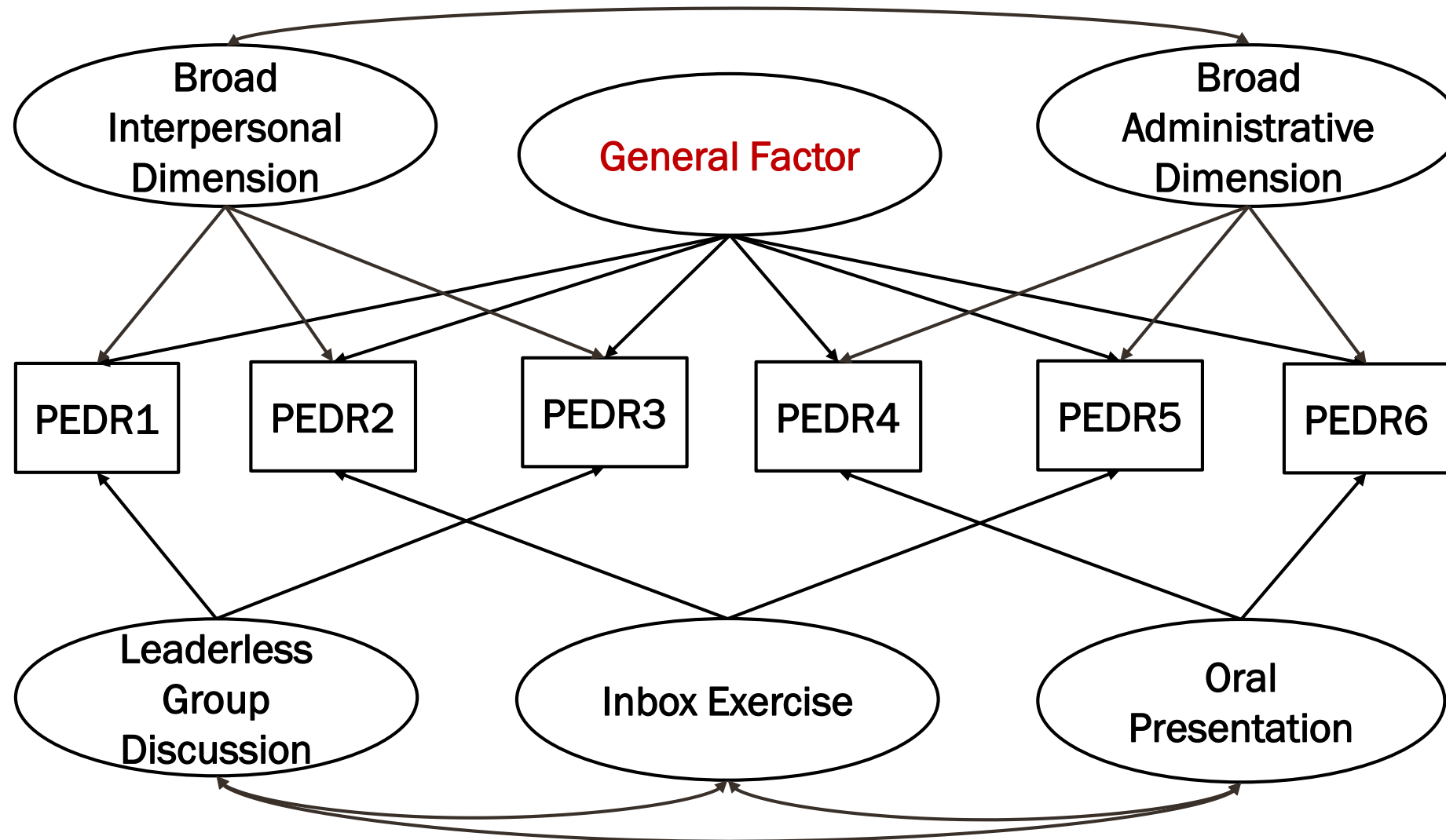
General Factor Positively Correlated with Job Performance



#3: Does the General Factor have Incremental Validity beyond Common AC Ratings?

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General Factor Unrelated to Job Performance



#3: Does the General Factor have Incremental Validity beyond Common AC Ratings?

- Mixed research findings regarding the usefulness of the General Factor when investigated using post-exercise dimension ratings:
 - Positively correlated with job performance when dimension factors were *not* taken into account (Lance, Foster, Gentry, & Thoresen, 2004)
 - *NOT* correlated with job performance when dimension factors were also modeled (Hoffman et al., 2011)
- Need to investigate whether the General Factor (based on behavior-level dimension ratings) would predict job performance beyond common AC ratings

How would we answer this question?

- 3 separate Hierarchical Linear Regressions
 - General Factor (factor score) predicting individual effectiveness after taking into account
 - 1) Overall Assessment Rating
 - 2) Across Exercise Dimension Ratings
 - 3) Exercise Ratings
- Investigate multiple aspects of individual effectiveness:
 - Task Performance
 - Organizational Citizenship Behaviors
 - Counterproductive Work Behaviors
 - Career Success (i.e., Promotion and Salary)

Take-Aways

Behavior-Level Approach to assessment in ACs:

- BLDRs are used in practice, but research lags behind!

We presented one way to leverage Behavior-Level Approach to assessment:

- Using BLDRs to provide conceptual clarity about the presence and meaning of the General Factor

Usefulness of the General Factor?

- It may be an untapped aspect of AC participant performance!
- **Need to investigate the existence and incremental validity of a General Factor**

Potential Application to AC Design:

- If these ideas hold, we may consider more intentionally incorporating opportunities to perform behaviors that are frequent and important aspects of the job into exercises

Thank you! Any Questions?
