

Impact of Schema on Assessor's Cognition : Implications for Assessment Center Construct Validity

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Format of Presentation

- Definition of Assessment Center
- Evolution & Growth
- Assessment Center Process
- Schema Driven Approach
- Leveraging Schema Driven Approach
- Conclusion

Assessment Center Definition

“A Standardized Evaluation of Behavior Based on Multiple Inputs. Multiple Trained Observers and Techniques Are Used. Judgments About Behavior Are Made, in Major Part, From Specifically Developed Assessment Simulations. These Judgments Are Pooled in a Meeting Among the Assessors or by a statistical integration process.” (Task Force on AC Guidelines, 1989)

Evolution and Growth

- Early Use War Office Selection Boards (Ballantyne & Povah, 1995)
- Existing System Haphazard and Faulty
- Job Simulations Used During World War II to Identify Skills and Potential to Work Under Pressure Situation.

Evolution & Growth

- **1956, First Industrial Use of Assessment Center
(Thornton & Byham, 1982)**
- **Douglas Bray Management Progress Study**
- **Purpose to Identify the Individual Characteristics
That Would Result in a Successful Manager**

Evolution & Growth

- **AC Process Had High Predictive Validity
(85% of Sample Achieved Middle Management Level)**
- **Techniques Used Were Projective Tests, Leaderless Group Discussion, Business Games, In-basket Exercise**
- **1973, First International Congress on Assessment Center Method Was Held**
- **1975, the First Set of Guidelines & Ethical Standards for Assessment Center Was Published**

Assessment Center Process

- Identification of Competencies
- Multiple Exercises
- Multiple Assessors
- Observation & Recording
- Consensus Discussion

Identification of Competencies

- Competencies Are Characteristics That Lead to Demonstration of Skills or Abilities
- Observable & Relevant to the Organization
- Expert Panel, Repertory Grid & Critical Incident Method.

Multiple Exercises

- Job Simulations to Demonstrate Actual Behaviors and Skills
- Typical Exercises Used :
 - *In-basket,*
 - *Group Discussion,*
 - *Business Games &*
 - *Role-play Exercises.*

Multiple Assessors

- Psychologist and Line Managers
- Ratio 2:1
- Role As a Stimulus
- Role of a Recorder

Observation & Recording

- Assessor Assigned 1-3 Participants
- Use of Blank Form to Record
- Use of Behavior Observation Scales and Behavior Checklist
- Classify Recorded Behavior Into Different Dimensions

Example of Behavioral Observation Notes

Assessor's Name : MrX **Date**:21-10-05

Participant's Name: Mr Y

Sen(+) Greeted Team Members and Asked If Arrangements Were Satisfactory

Lead(+) Clearly Stated What He Would Expect From the Team Members and How He Would Contribute

*OC(-)*fumbled With Words When Describing the First Objective

Consensus Discussion

- Behavior Description
- Dimension Evaluation
- Dimension Consensus Discussion
- Overall Assessment Rating

Research Issues in Assessment Center

- Research on Assessment Center Validities
- AC Consistently Demonstrates Criterion-Related Validity (Damitz, Manzey, Klienmann & Severin, 2003; Bartels, Bommer & Rubin, 2000)
- Meta-analysis further supported criterion-related validity (Arthur, Day, McNelly & Edens, 2003)

Research Issues in Assessment Center

- Construct validity issues intrigued researchers
- Two analytical methods to examine construct validity
- Debate-whether ACs actually measure the dimensions that they purport to measure ?
- Three factors to unravel AC construct validity Puzzle: Careful design, assessor reliability&Bias or true-cross situational performance difference
(Lievens&Conway,2001;Lievens,2002;Woehr&Arthur,2003)
- Shifting focus on Process-Related Issues- Assessor's cognitions,exercise order(Bycio&Zoogah,2002)assessee IM(McFarland,Ryan&Kriskal,2003),Assessor type(Lievens,2001),Social Cognition(Thornton,2003)

Schema-Driven Approach – Process Related Issue

- Based on the Theory of Social Judgment
- What We Think of Other People's Behavior Is Influenced by Our Prior Perceptions, memory and Inferences
- Alternate Terms: Top-down Approach
- Memory Storage: General Impression

Schema

- Introduced by Bartlett in 1932
- Consist of Our Beliefs Regarding a Particular Entity, Social Category, Social Situation and Social Domain
- Knowledge structures that summarize our past experience and direct Our subsequent behavior

Schema

Operate in Four Phases

(Alba & Hasher, 1983)

- **During the Selection of Material to Be Remembered**
- **During Abstraction**
- **During Interpretation**
- **During Integration**

Types of Schema

- *Person Schema*-impression and Representation of Specific People
- *Self Schema*-general Information About One's Own Psychological Make-up
- *Role Schema*-schema for Particular Roles, social Groups Involves Social Norms and Expectations
- *Event Schema*- Expectations Regarding Typical Sequence of Events.

Schema and Cognition

- *Attention & Encoding* – Initial Selection and Identification of Information Units to Be Processed (Fiske, 1993)
- *Elaboration* – interpretation of new information in terms of previously existing knowledge or concepts (Stagnor & Ruble, 1989)
- *Retrieval* – Determine What Information Is Brought for Retrieval

Management Behavior Schema

- Zedeck (1986) Introduced This Schema
- Assessors Trained and Experienced Managers
- Helps to Attend ,Store and Retrieve Information Relevant
- Develops by Abstracting From Similar Events or Experiences the Managers Has Accumulated.

What Does Schema Do?

- Aid in Recognition
- Lend Structure to Experience
- Direct Attention to Relevant Information
- Affect Processing Time, Speed of Information Flow, speed of Problem-solving
- Makes Memory Selective

Negative Influence of Schema

- Schema Can Produce Distortions in Our Understanding
- Schema Can Also Exert Self-confirming Effects
- Persist in Face of Disconfirming Information

Schema Accessibility

- Situational Cues
- Person Categories
- Recent Experience
- Personal Constructs
- Mood
- Cognitive Load

Memory and Schema

- Schematic Information Processing Model
(Bartlett 1932, Taylor & Crocker 1981)
- Associative Network Model
(Hastie & Kumar 1979)
- Schema Pointer Plus Tag Model (Graesser, 1981)

Schematic Information Processing Model

- Memory for Expectancy Congruent Information Better (Taylor & Crocker, 1981)
- More Attention & Elaboration Leads to Better Storage and Recall
- Congruent Information Is Easier to Assimilate Into Existing Schematic Representation
- Incongruent Information Is Either Ignored or Reinterpreted to Make It Congruent (Crocker, Hannah & Weber, 1983)

Associative Network Model

- Information That Is Incongruent to the Schemas Will Be Recalled Better

(Hastie & Kumar, 1979, Wyer & Scull , 1981, Scull , 1998)

- More Time Spent in the Working Memory Deeper Processing Takes Place

- Outcome Cognitive Associations Formed Between Incongruent Items and Other Information

Schema-pointer Plus Tag Model

- Proposed by Graesser(1981) Information That Is “Atypical” is Encoded in a Separate Memory Location
- Schema Congruent Information Stored Generically Within the Schema

Schema-pointer Plus Tag Model

- Does Not Show Preference for Schema Consistent or Schema Inconsistent Information
- Prediction Based on the Model Directly Counter the Selectivity Hypothesis Described in Earlier Models

Schema & Assessment Center

- AC Method Can Be Divided Into the Following Stages:
 - Observation & Recording of Behavior**
 - Classification of Behavior Into Managerial Attributes**
 - Presentation of Exercise Reports**
 - Preliminary Rating of Exercise Dimension Performance**
 - Overall Assessment Center Rating (Thornton, 1999)**

Schema & Assessment Center

- ***Observation***

- **Prior Knowledge May Influence Subsequent Observation.**

- ***Classification***

- **Influence of Beliefs in Categorization of Behaviors.
E.G., *Fluency Means Intelligence***

- ***Discussion***

- **Assessors Rely on Memory and Report Schema Consistent Information**

Leveraging the Influence of Schema

- Assessor Training
- Type of Assessor
- Number of Dimensions
- Use of Technology

Assessor Training

- Rating Accuracy Does Not Improve Just by Training on Rating Errors

(Bernardin & Buckley, 1981; Hedge & Kavanagh, 1988; Woehr & Huffcut, 1984)

- Frame-of-reference Training Results in Significant Improvement in Accuracy

(Bernardin & Buckley, 1981)

Assessor Training

- Goal of FOR Is to Eliminate Idiosyncratic Standards Held by the Assessors
- Replace Them With Common Frame of Reference
- Enables to Develop a “Common Schema”
- FOR Training in Assessment Center Results in Higher Accuracy and Higher Inter-rater Reliability (Lievens, 2001; Goldstone & Lopez, 2001)

Assessor Training- Steps

- Teaching Important Dimensions
- Behaviors Indicative of Various Effectiveness Levels
- Practice Evaluations With the New Frame of Reference
- Feedback on the Accuracy of the Ratings
(Pulakos,1984)

AC Design

- Relationship Between Long-term Memory & Working Memory (Sweller, 1988)
- Traditional Method of Taking Notes Leads to Decay From Memory
- Checklist Improve Assessment Center Ratings (Reilly, Henry & Smither, 1990)

Number of Dimensions

- Use of Large Number of Dimensions Enables Assessors to Note Wide Variety of Behavior (Gaugler, Bentson & Pohey, 1990)
- More Accurate Ratings When Assessors Use Three to Four Dimensions (Klienmann, 1995)

Type of Assessors

- **Psychologists Possess Well-established Cognitive Structures
(Lievens & Klimoski,2001)**
- **Better in Attention, Categorization, Integration and Recall Process
(Fiske & Taylor,1991,Zedeck,1986)**

Use of Technology

- Assessors Rely on Memory
- Schema Activation Can Lead to Distortion
- Use of Video Can Minimize the Negative Effects of Prior Impression
- Pick up Subtle Details & View Exercise When He/she Was a Role-player

Conclusion

- Research on Assessment Center Has Moved From Estimating Predictor-criterion Relationship to AC Processes.
- Paper Posits a New Perspective That Could Contribute to an Understanding of the Process and Highlight the Need for Research
- Strong Influence of Social Cognition in Future Research

Conclusion

- Future research should focus on
 - The effects of expectancies or schemas on the representation and retrieval of information by the assessors
 - Reasons/conditions under which schema based evaluation takes place in an AC

Conclusion

- Interventions Based on Assessor Cognitive Process Can Increase the Validity of Overall Performance Judgment in an Assessment Center
- Examination of AC Process Can Help in Designing the Models That Explain the Assessor Decision Making in AC Context

Thank You