

A close-up, black and white photograph of a ruler. The ruler is angled diagonally across the frame. A needle is positioned over the ruler, pointing exactly to the number 5. The numbers 4, 5, and 6 are visible on the ruler. The background is a light, textured surface.

# **Performance and Engagement 1**

SOC 121D: People Analytics

Austin van Loon

# Notes from Week 3 Review Survey

- Thanks so much for the feedback!
- All the readings are uploaded to Canvas: don't need to go to [hbr.org](http://hbr.org)
- More class discussions
- Upload slides before class

# Follow-ups

- Notes on lecture slides
  - Adding detailed lecture notes to slides takes too much time
  - How about an outline of what are important things to take away from each lecture posted before class?
- Additional readings are finally posted on Canvas; sorry for the delay
- I'm sorry for the delay on grading discussion papers: I will catch up this week

# This Week

- Today's lecture
  - Why do we measure performance?
  - The ways we measure performance
  - Sources of error when measuring performance
- Thursday's lecture
  - Why people hate performance assessments (and why that matters)
  - The limits of performance
  - Engagement and why it matters
  - Avoiding burnout

# Could We Do Better?

- An organization's success depends on internal and external criteria
  - External: macroeconomic conditions, changes in regulation, cultural trends
  - Internal: number of units produced, new product quality, quality of service
- We can change the internal components more easily than the external ones
- Presumably, each employee contributes to the internal parts
- "Performance" is our attempt to get at how each employee contributes to the internal components of the organization's success
  - So performance depends on organizational goals
  - Performance depends on the individual's role in the organization

# Reasons for Measuring Performance

1

**Accountability: Who should we keep? Who should we reward?**

Bonus and promotion allocation

Getting rid of under-performers

2

**Development: Who do we need to invest in? What do we need to change?**

Who is under-performing and needs help?

What is predicting poor performance and how can we change it?

3

**Feedback: Let employees know how they are doing**

Employees shouldn't be guessing where they stand

For employees to get better, they need to know when they do well/poorly

4

**Evaluation: Are our practices (e.g., hiring, compensation) working?**

Our analytics are only "evidence-based" if we make sure they "work" in some meaningful sense

# Ways of Measuring Performance

## Alter ratings

- Manager ratings
- Forced rankings
- 360 review

## Goal completion

- annual goal-setting interviews
- management by objectives

## Organizational/team performance

## Behavioral records or “metrics”

- Quantity of output
- Frequency of errors

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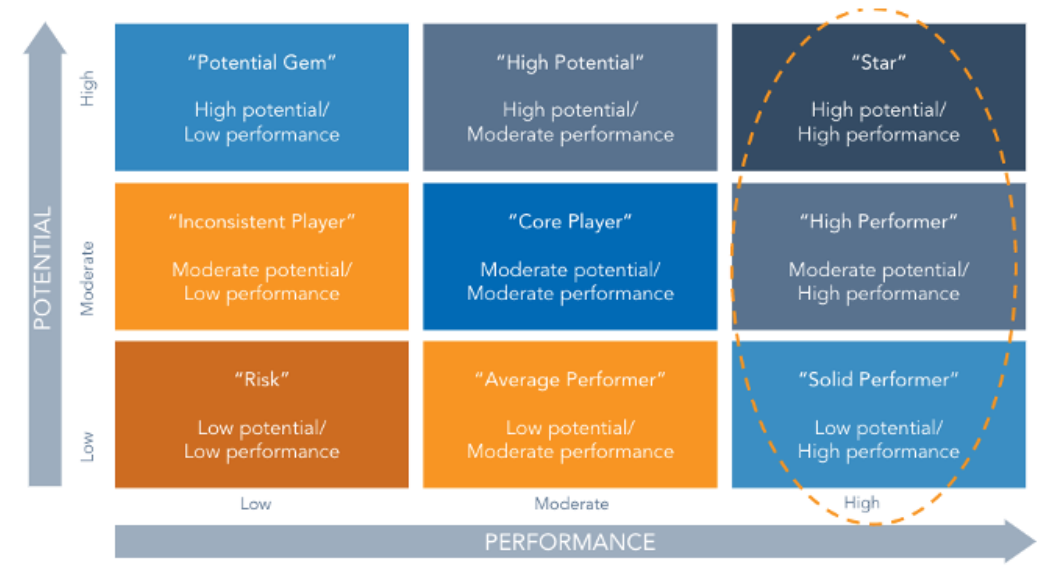
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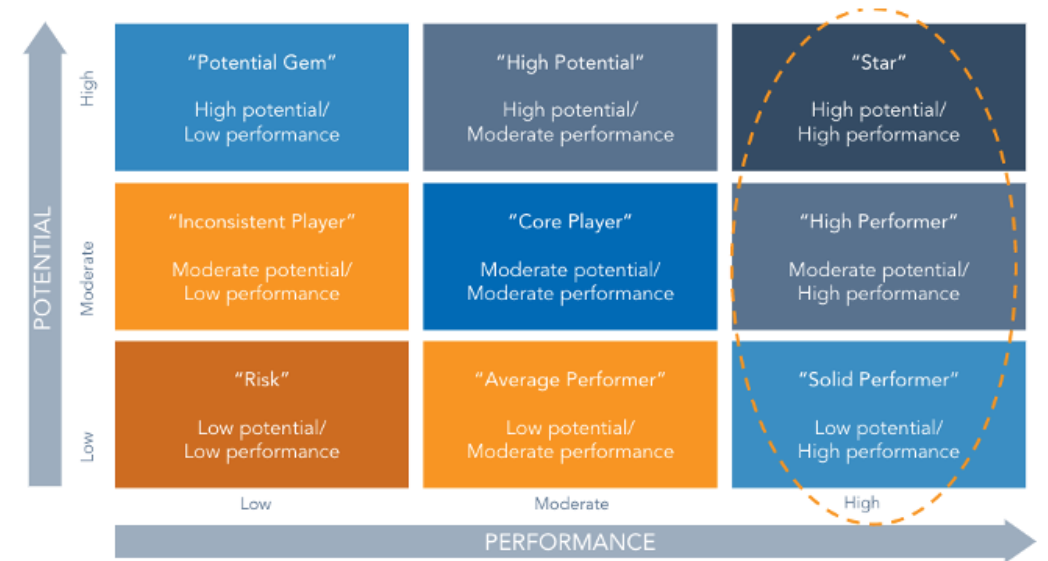
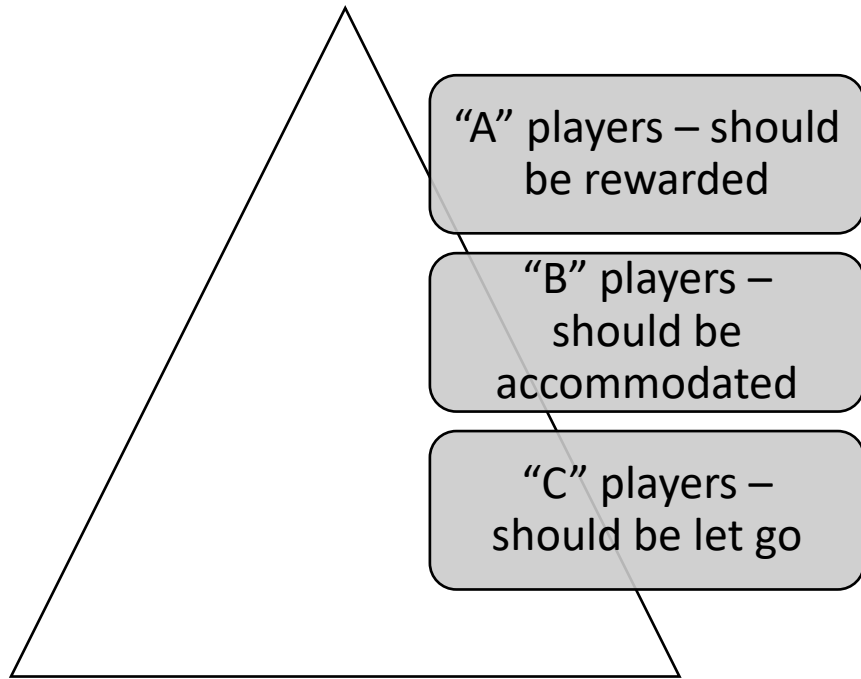
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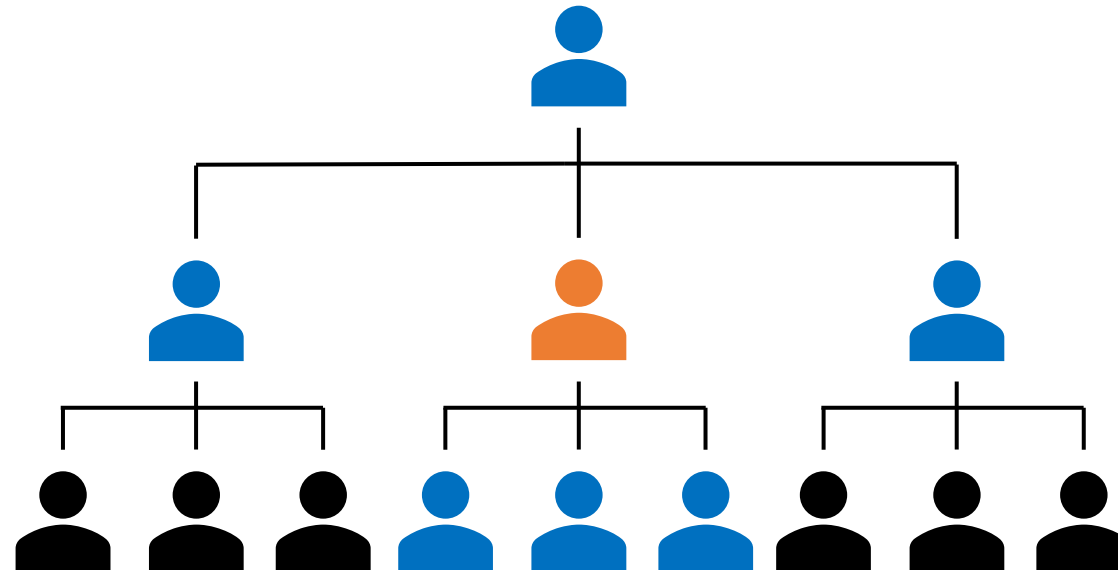
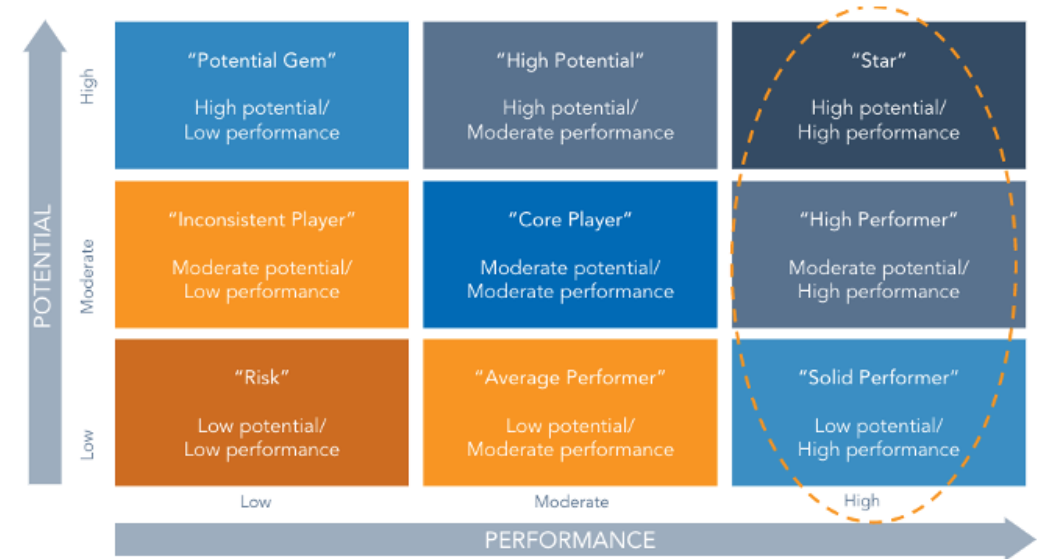
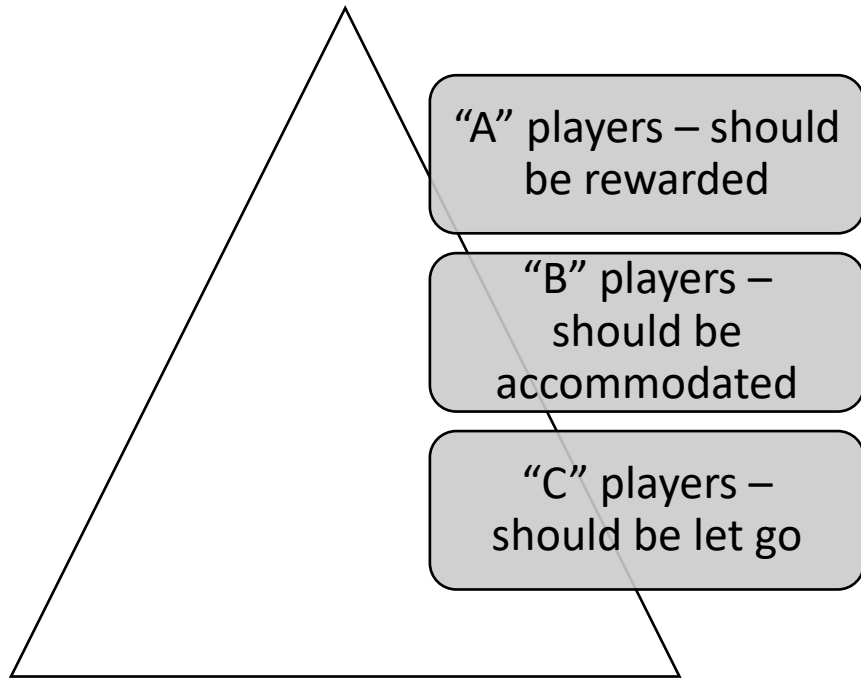
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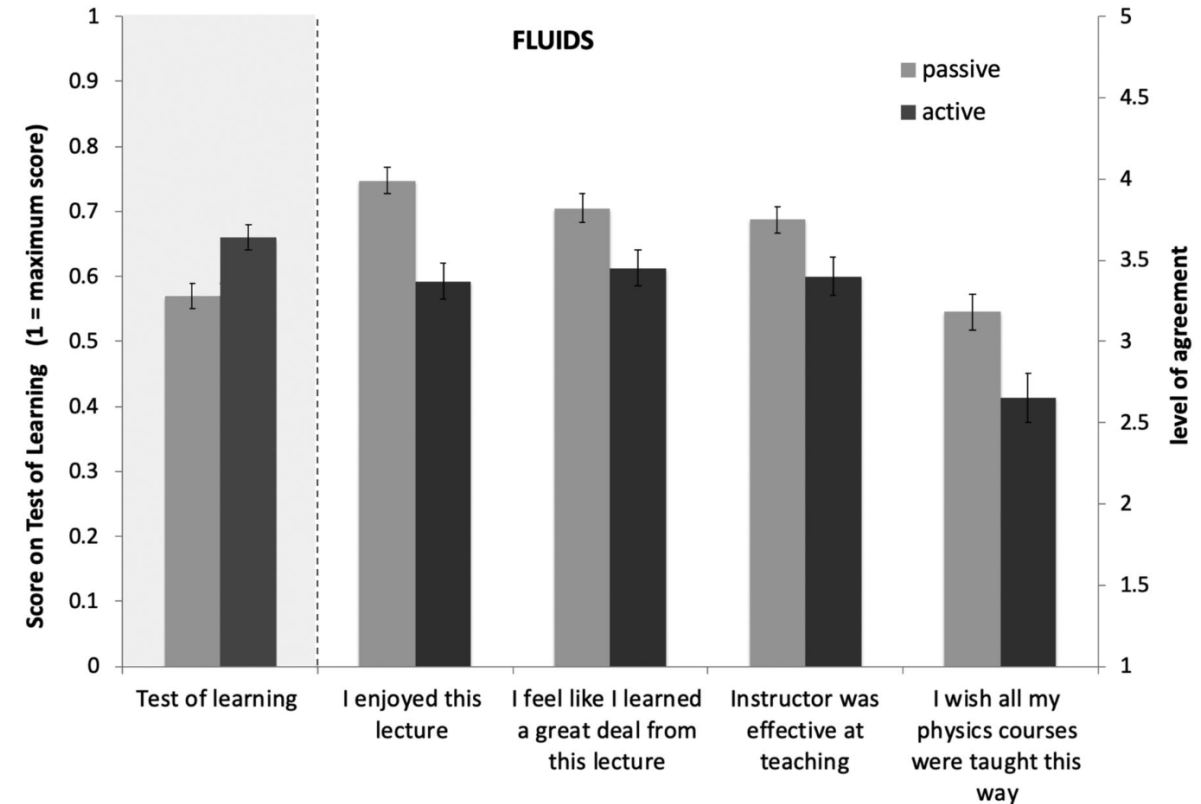
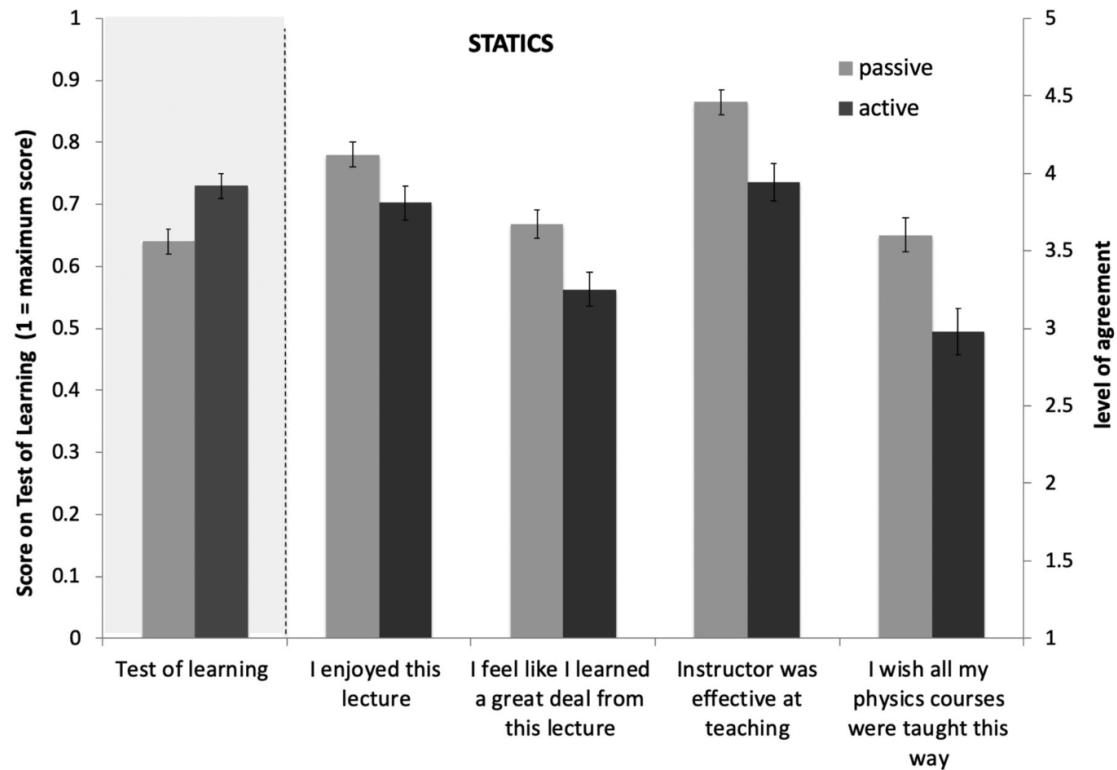






# Measuring actual learning versus feeling of learning in response to being actively engaged in the classroom

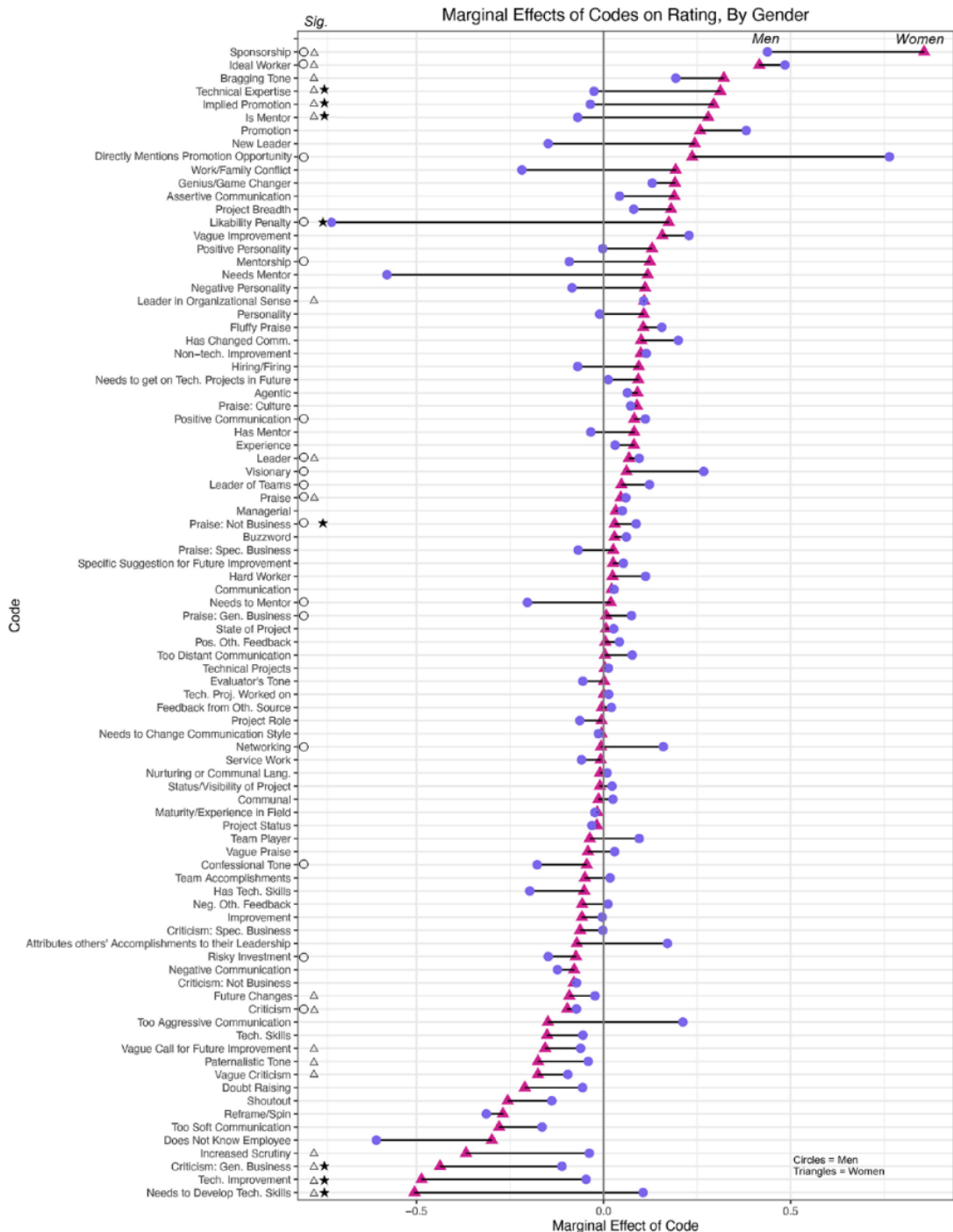
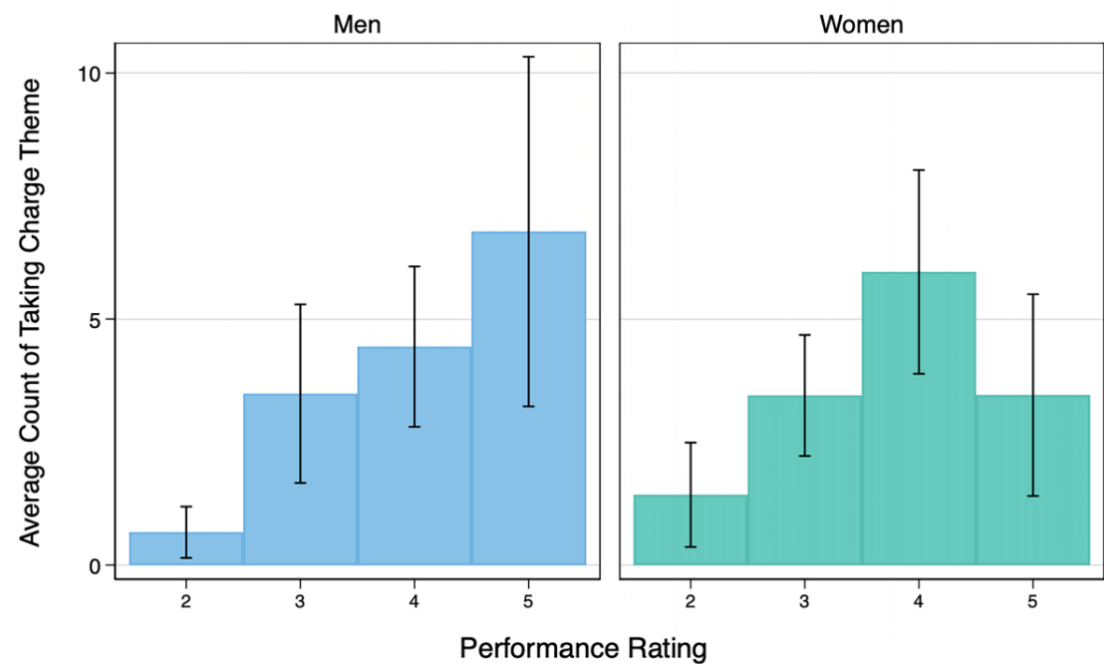
[Louis Deslauriers](#)  , [Logan S. McCarty](#) , [Kelly Miller](#),  , and [Greg Kestin](#) [Authors Info & Affiliations](#)



# Inside the Black Box of Organizational Life: The Gendered Language of Performance Assessment

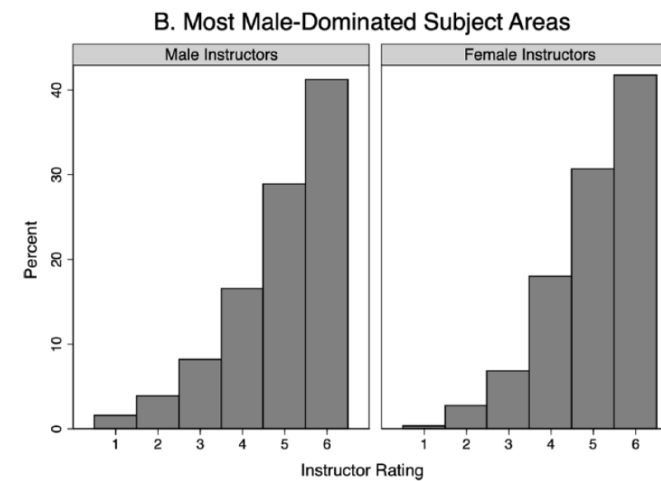
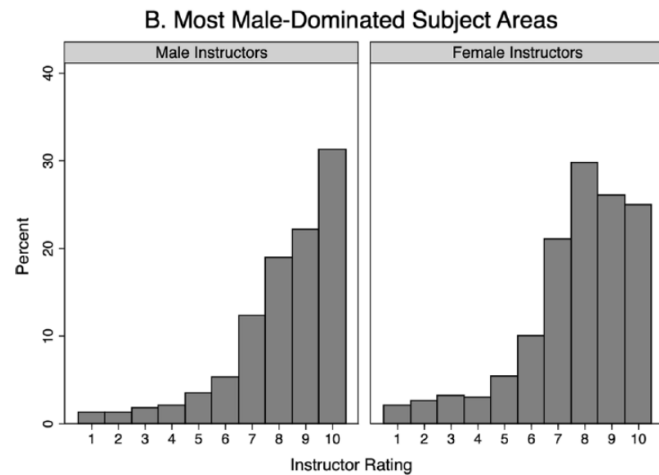
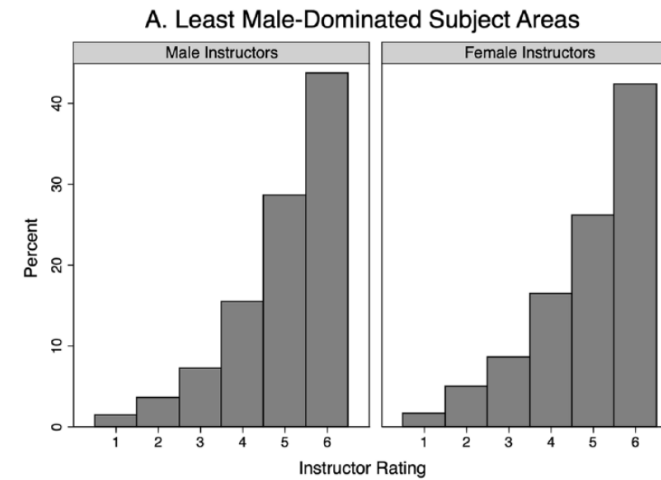
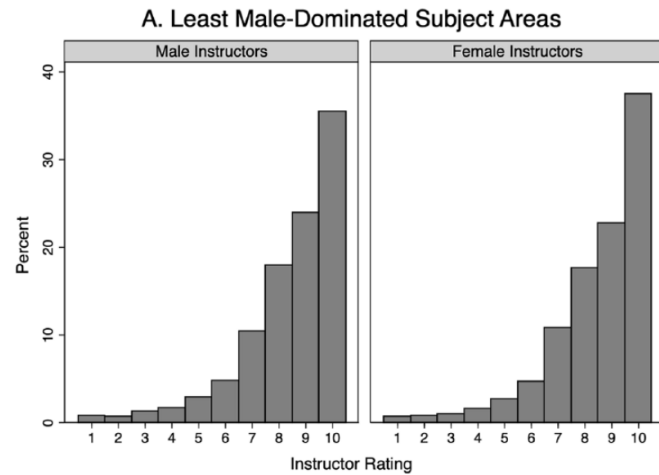
Shelley J. Correll,<sup>a</sup> Katherine R. Weisshaar,<sup>b</sup>  
Alison T. Wynn,<sup>a</sup> and JoAnne Delfino Wehner<sup>a</sup>

Valuing Differences: Taking Charge Theme, by Gender and Rating



# Scaling Down Inequality: Rating Scales, Gender Bias, and the Architecture of Evaluation

Lauren A. Rivera<sup>a</sup> and András Tilcsik<sup>b</sup>



# Measuring Performance: Alter ratings

- Most widely used
- If human judgement is biased, so are these
- Think carefully about the following factors:
  - Frequency of assessment
  - Number of categories
  - What questions you include
  - Who you are asking
  - What you're doing with the assessments (and how that might change them)

# Ways of Measuring Performance

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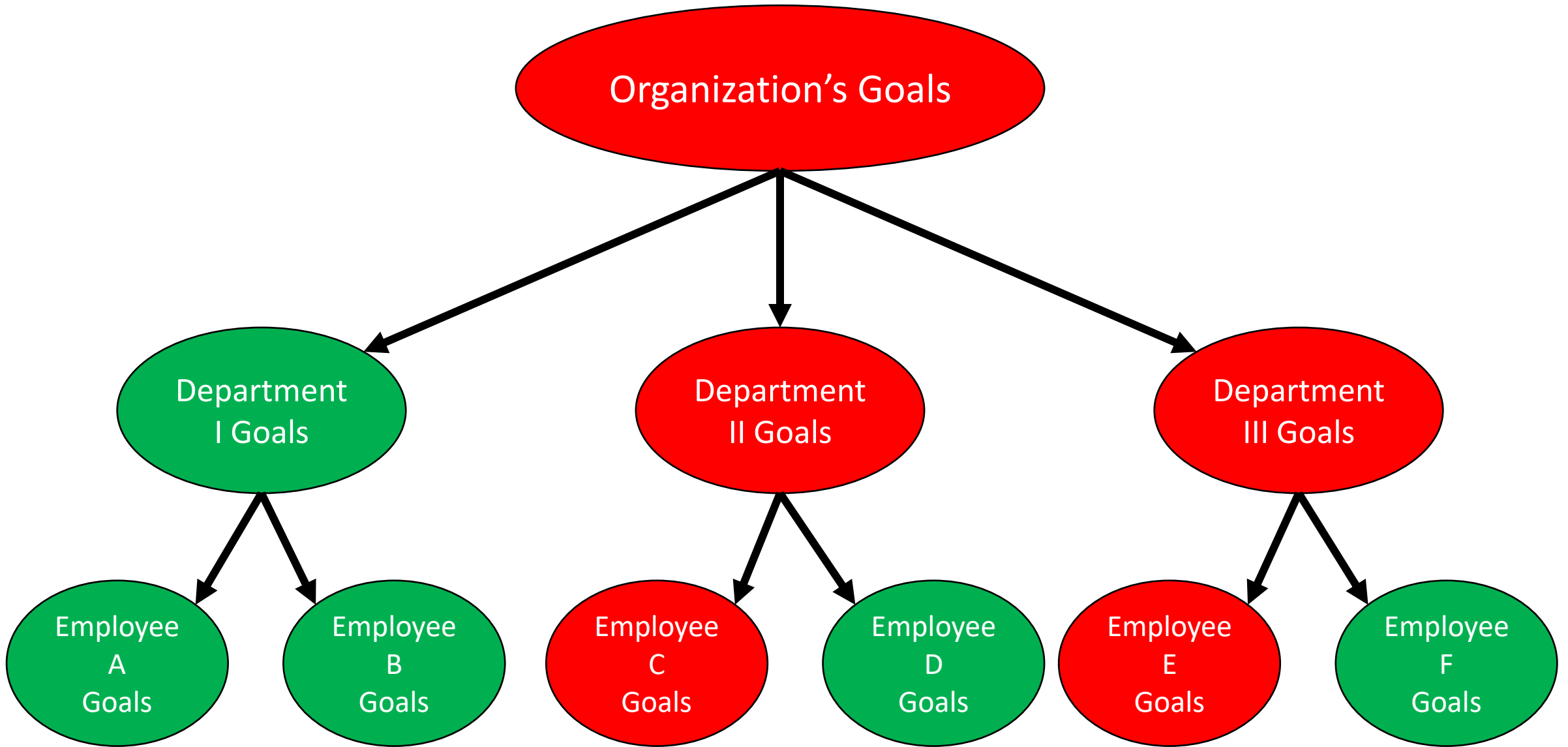
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- Quantity of output
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# Measuring Performance: Goal Completion

- Gives clear objectives to teams and employees
- Reduces flexibility/agility
- Requires a really strong understanding of how the organization runs (or a lot of coordination from middle managers)
- The more complicated the organization, the more costly it is

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## **Measuring Performance: Org/Team Performance**

- Still have to come up with a way to assess the higher-level performance
- Can create stronger collective orientation (or a hostile environment)
- Might be considered unfair if individuals have little control

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# Goodheart's Law

- When a measure becomes a target, it ceases to be a good measure
- Soviet nail factory allegory
- If your grade was calculated solely by the number of concepts from class incorporated into your final paper, how might you respond?
- (Quick) class exercise
  - One person come up with a metric for class grades
  - Second person come up with a way to game that metric
  - Switch

# Cameras of Merit or Engines of Inequality? College Ranking Systems and the Enrollment of Disadvantaged Students<sup>1</sup>

James Chu

- College rankings lead universities to accept less Pell grant and first-gen students
  - This is especially bad for colleges in the bottom-half of their “tier”
-



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## Metrics Management and Bureaucratic Accountability: Evidence from Policing

**Laurel Eckhouse**

University of Denver

- The introduction of CompStat lead to more minor arrests, more “unfounded” rapes, and no changes in serious crime

# Measuring Performance: Metrics

- Often promotes short-sided thinking
- Better for jobs in which output is highly standardized (e.g., assembly line worker vs. graphic designer)
- Measure output, not input
- “Goodheart’s Law”: When a measure becomes a target, it ceases to be a good measure
  - One solution is to keep metrics anonymous
  - Another is to try to find metrics that are “un-gameable”
- The more the metric determines reward, the more you should expect “gaming”

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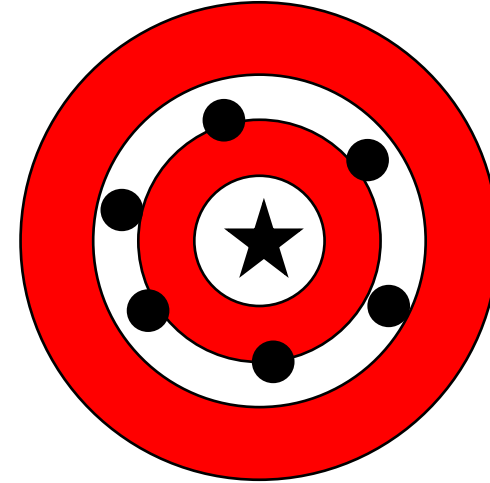
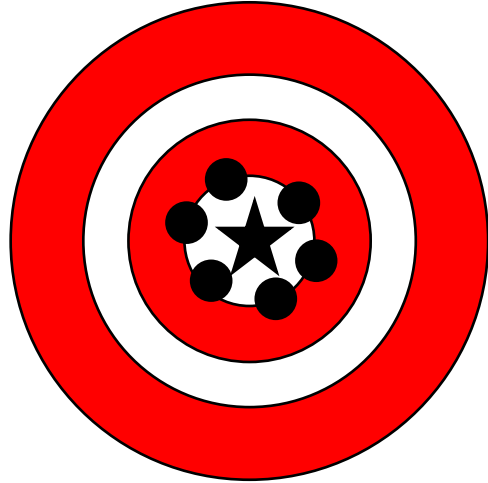


# Reducing Error in Performance Measurement

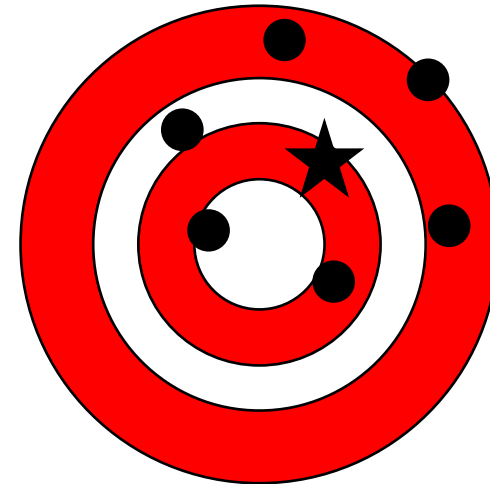
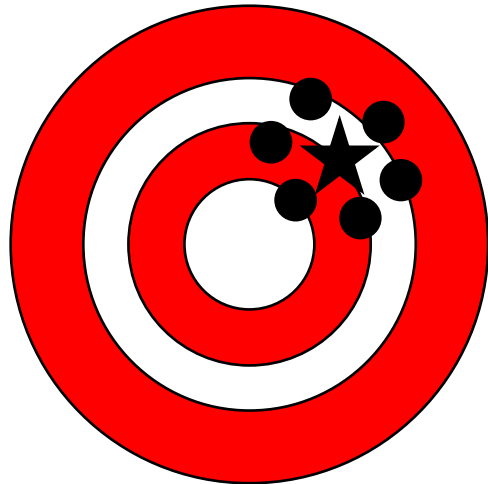
Low Noise

High Noise

Low  
Bias

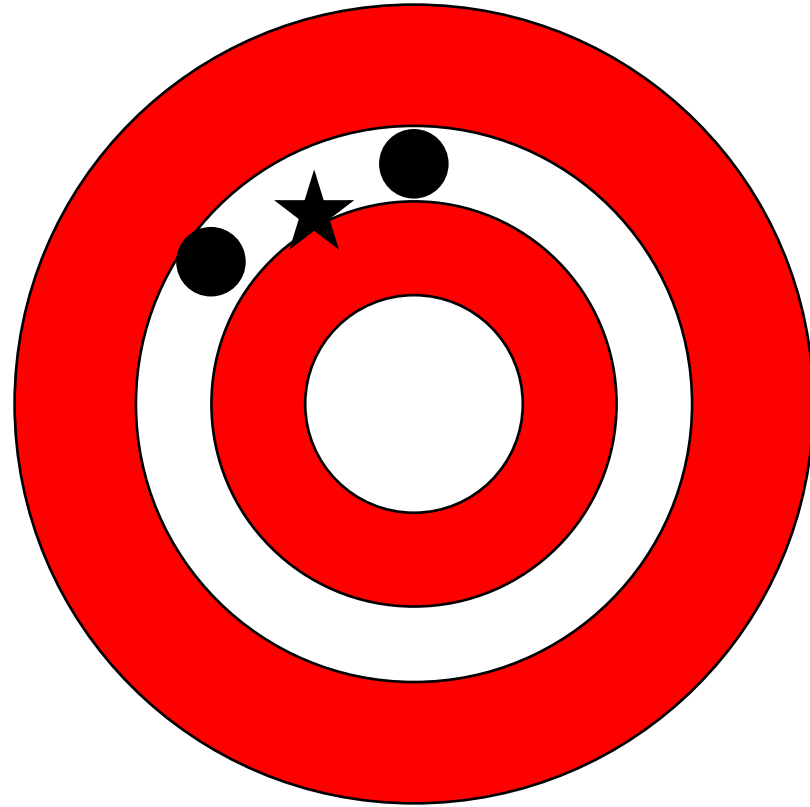


High  
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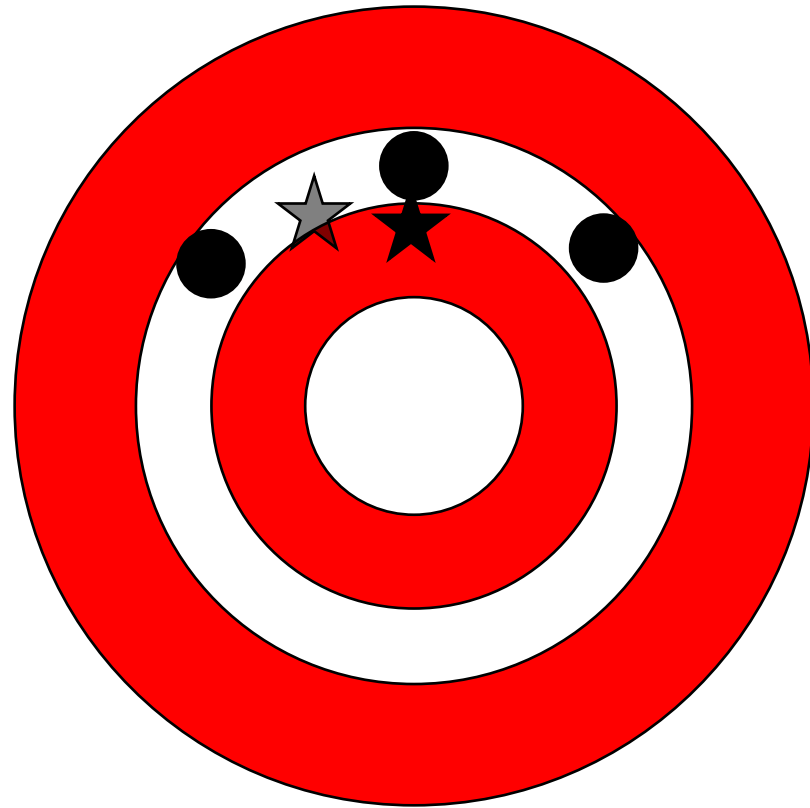




Silencing Noise

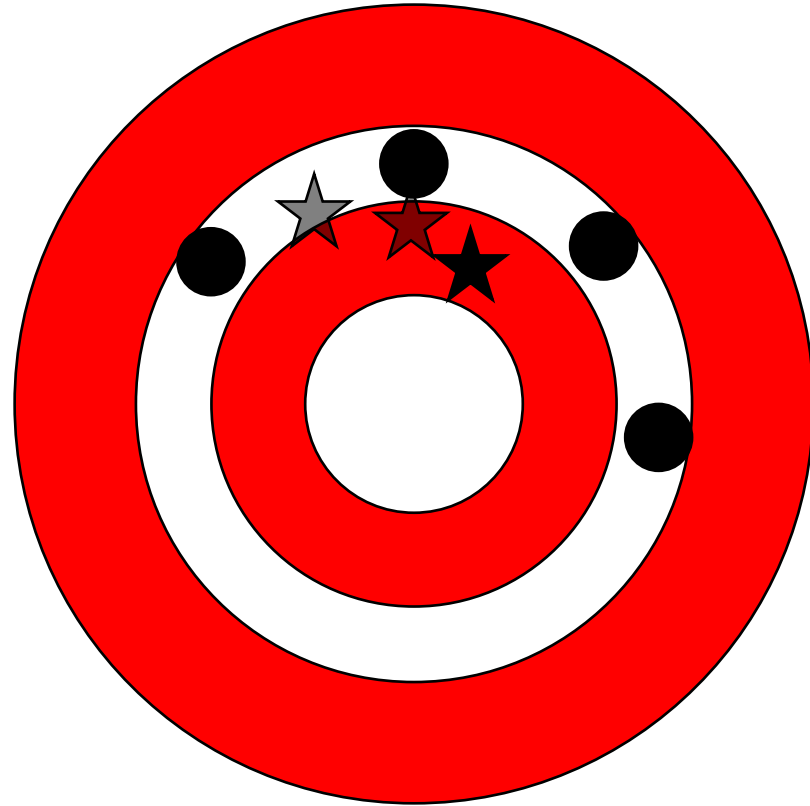


Silencing Noise



Silencing Noise





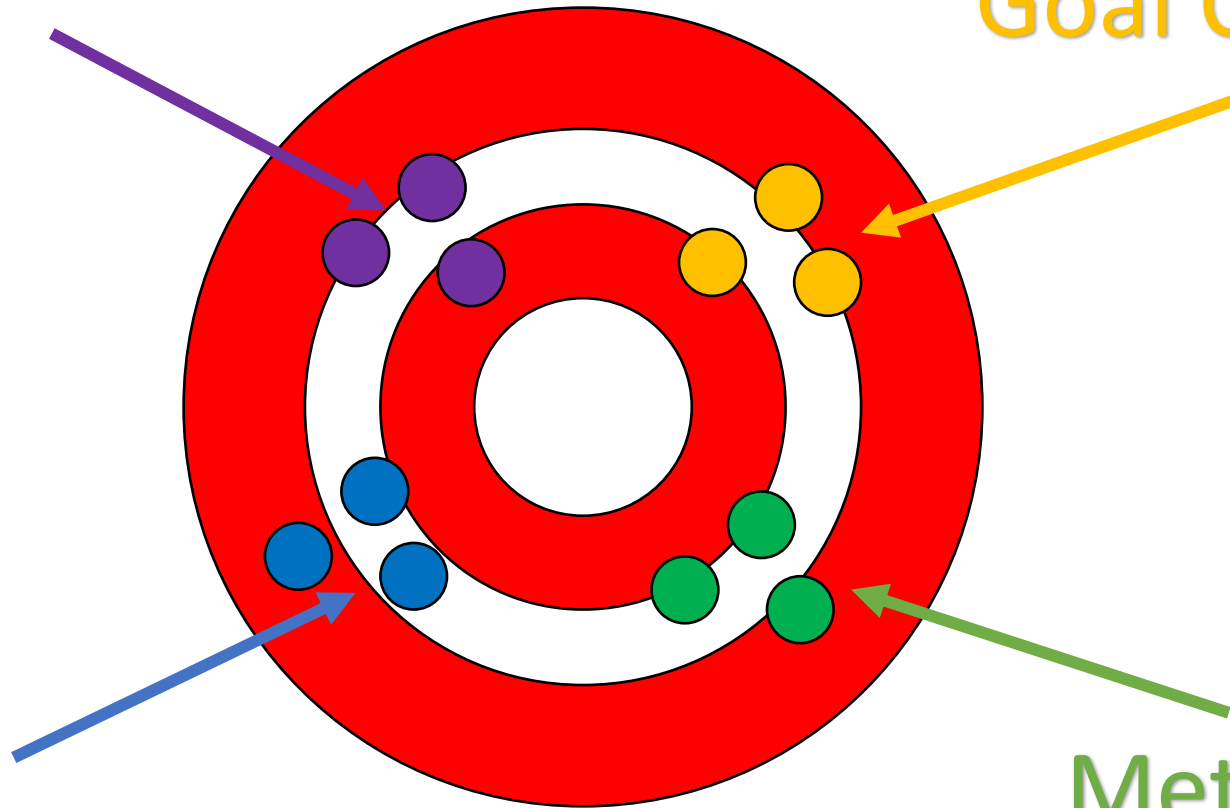
Silencing Noise



Silencing Noise

Alter Assessment

Goal Completion



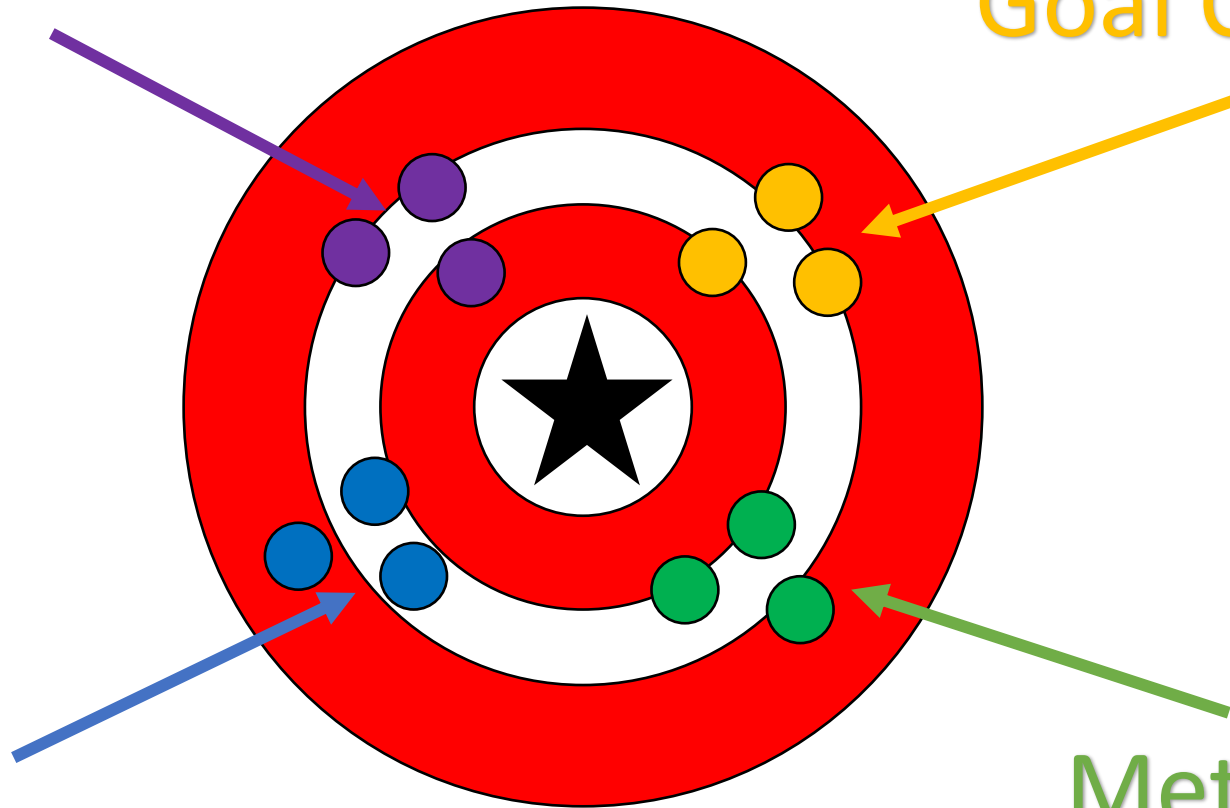
Metrics

Team performance

Reducing Bias

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Goal Completion



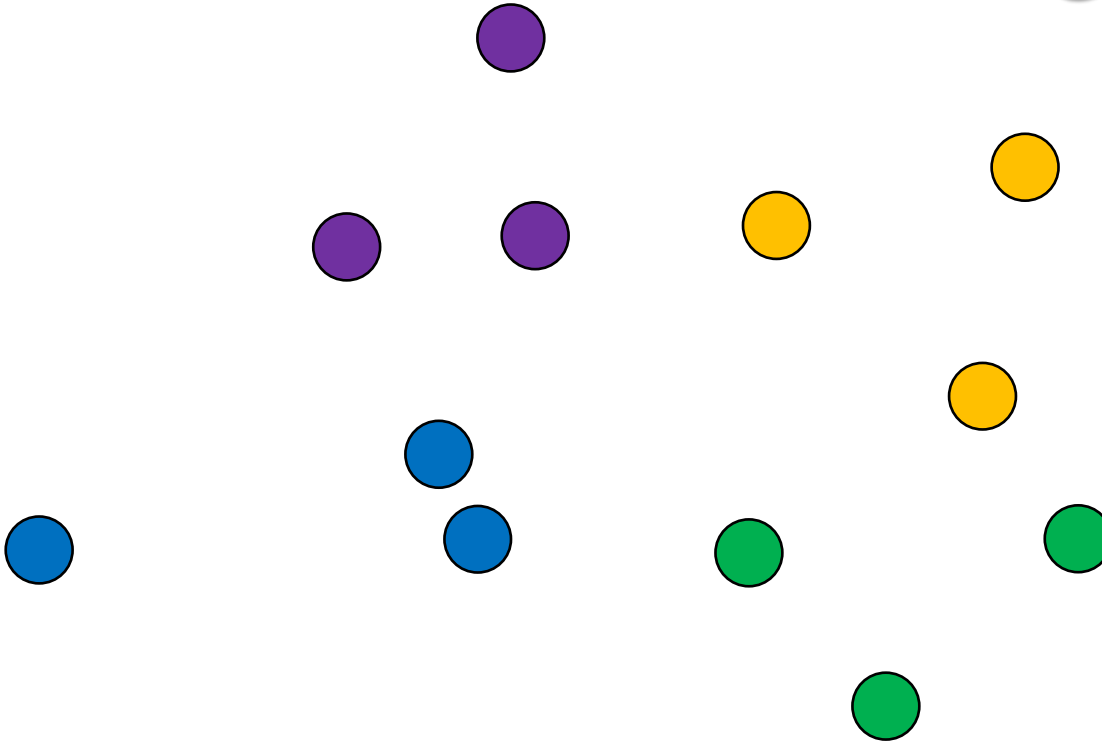
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Metrics


Team performance

The Real World is More Complex



## Going further

- Typically, using statistical analysis (e.g., PCA, FA, LPA/LCA, matrix factorization) we can do a bit better than averaging
  - We can leverage the fact we have observations of each variable over many individuals
  - Find out which measures are more/less noisy, up-weight the more reliable ones
- Remember that you can put in time to improve measure (e.g., get feedback, test how they relate to other outcomes, etc.)
- Known bias (e.g., if women are known to receive unduly low manager ratings) can be corrected through statistical analysis

- 
- “The rich get richer”
  - Those who succeeded at one time continue to benefit from that success
    - Scientists with one highly cited paper get more citations
    - Directors with a “hit” movie get more resources (e.g., studio funding/autonomy, actors) to make their next movie
    - Athletes who scores frequently get more playing time and attention in practice, thus getting better

## **The Matthew Effect**





See you Thursday!