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NEXT SESSION

SYSTEM DYNAMICS OF ALTERNATIVE ANALYSIS IN PROGRAM MANAGEMENT

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This session will be
recorded.

University of Maryland
Project Management
Symposium



PROJECT MANAGEMENT
CENTER FOR EXCELLENCE
A.J. CLARK SCHOOL OF ENGINEERING
Civil & Environmental Engineering Department





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System Dynamics of Alternative Analysis in Program Management

shy nucleus of counterfactuals

Stephen Michael Self
2023 Project Management Symposium



PROJECT MANAGEMENT CENTER FOR EXCELLENCE

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UMD Project Management Symposium
April 20-21, 2023

Slide 3





Agenda

- Cognitive Biases & Logical Fallacies
- Conventional Wisdom
- Perspectives & Solutions*



Perspective – 30K Feet

- Alternative Analysis
- Red Teams
- War Gaming

- Scenario Planning



Likelihood	Consequences					
	Insignificant <i>Risk is easily mitigated by normal day to day process</i>	Minor <i>Delays up to 10% of Schedule Additional cost up to 10% of Budget</i>	Moderate <i>Delays up to 30% of Schedule Additional cost up to 30% of Budget</i>	Major <i>Delays up to 50% of Schedule Additional cost up to 50% of Budget</i>	Catastrophic <i>Project Abandoned</i>	
Certain >>90% chance	High	High	Extreme	Extreme	Extreme	Extreme
Likely 50% - 90% chance	Moderate	High	High	Extreme	Extreme	Extreme
Moderate 10% - 50% chance	Low	Moderate	High	Extreme	Extreme	Extreme
Unlikely 3% - 10% chance	Low	Low	Moderate	High	Extreme	Extreme
Rare <3% chance	Low	Low	Moderate	High	High	High



“Typical” Planning Session

- Meeting
- Objective (RMF / RTO)
- Issues
- AAR

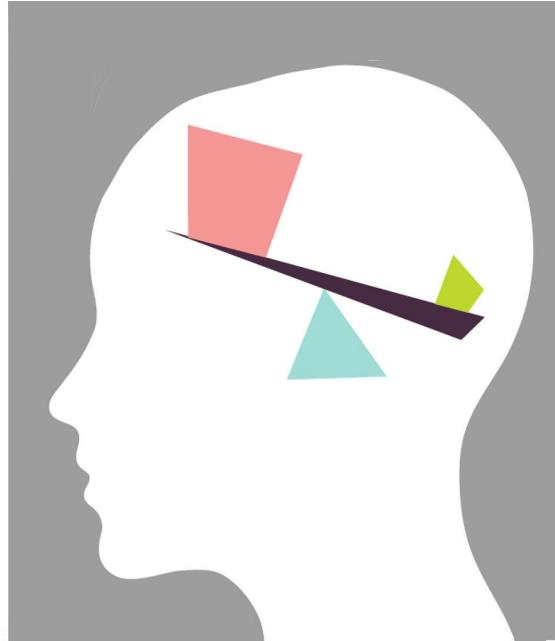
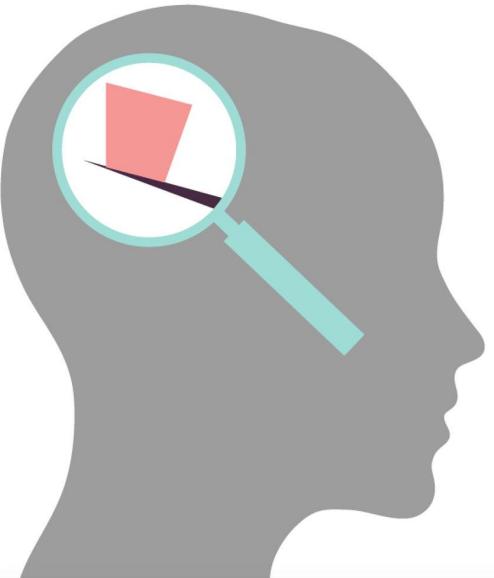


Definitions (simple)



- Improve decision making
- Challenge organizational thinking
- Examine preconceived notions & knowledge
- Find & exploit what is overlooked

Quiz

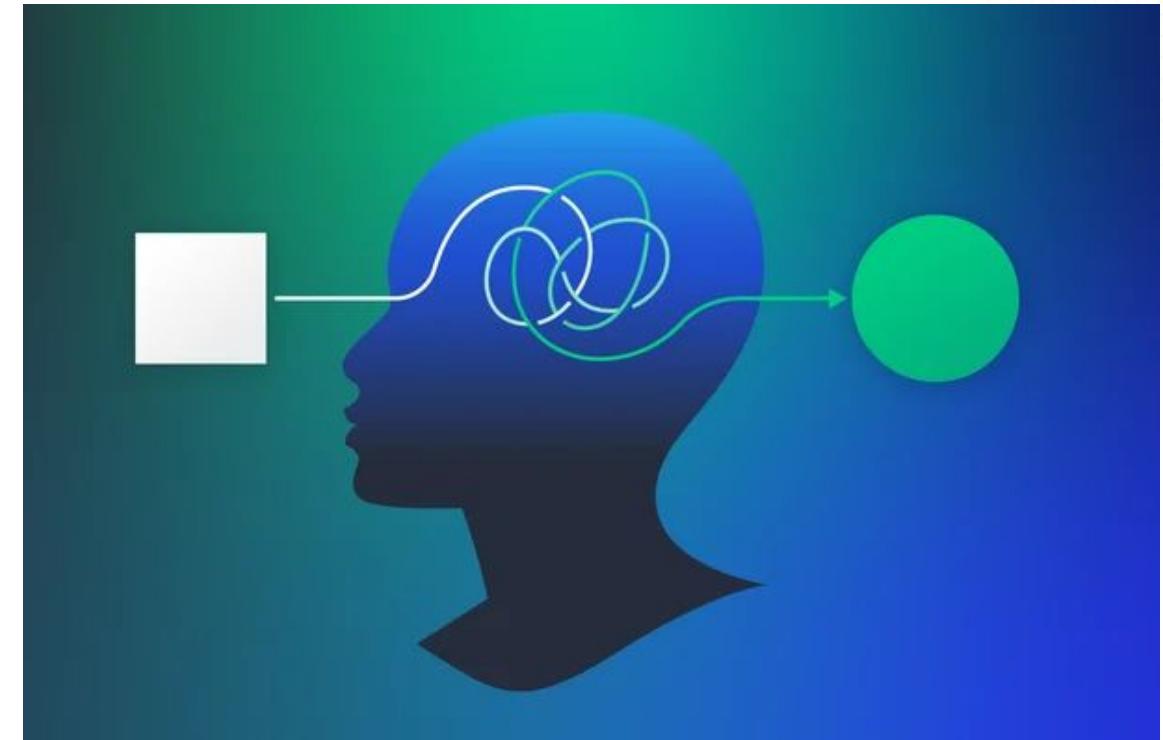


- Who's thinking here is biased, distorted, partial, uninformed or down-right prejudiced...?



Cognitive Biases & Logical Fallacies

- Confirmation
- Mistakes better, Mistakes best





Cognitive Biases

- Individuals create their own “subjective reality” from their perception of the input.



Goal of Predictive Judgements...

...aim to approach a true value with maximum accuracy (the least bias) and precision (the least noise).

- Bias as unseen variability
- Noise as unwanted variability



Exercise: Ego Distancing

- Be someone else...
- Be somewhere else...
- Be sometime else...





Comfort is Comfortable

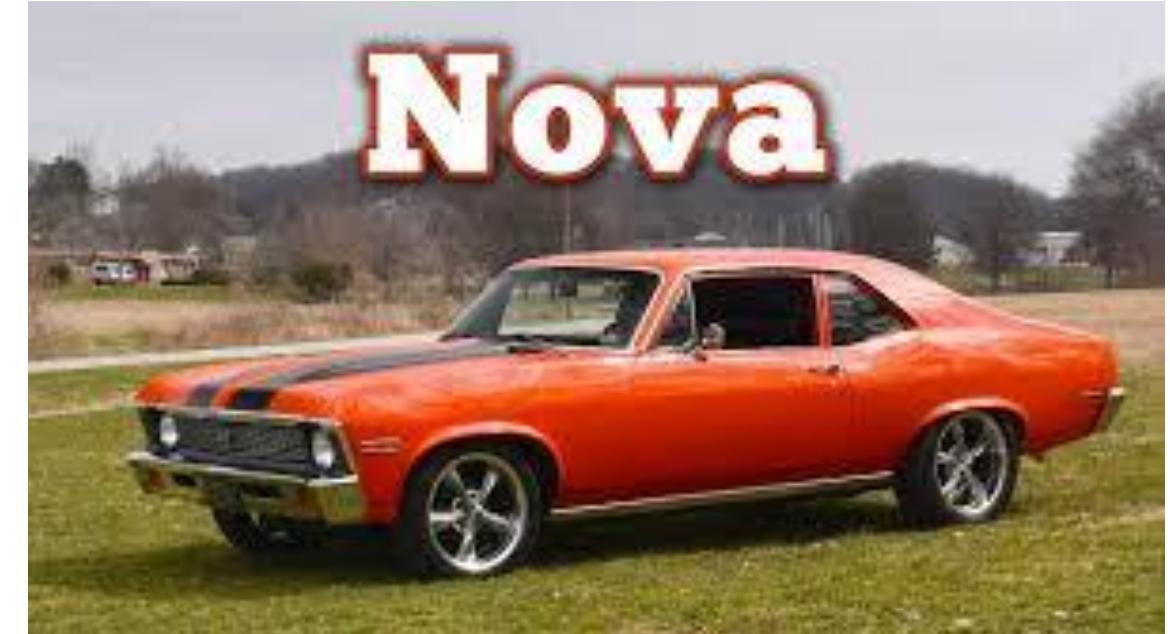


- Mental models carry emotional attachment, which encourages explaining away conflicting evidence.



Exercise: Pre-Post Game

- Plan failed.
- What happened?
- Chevy...





Conventional Wisdom

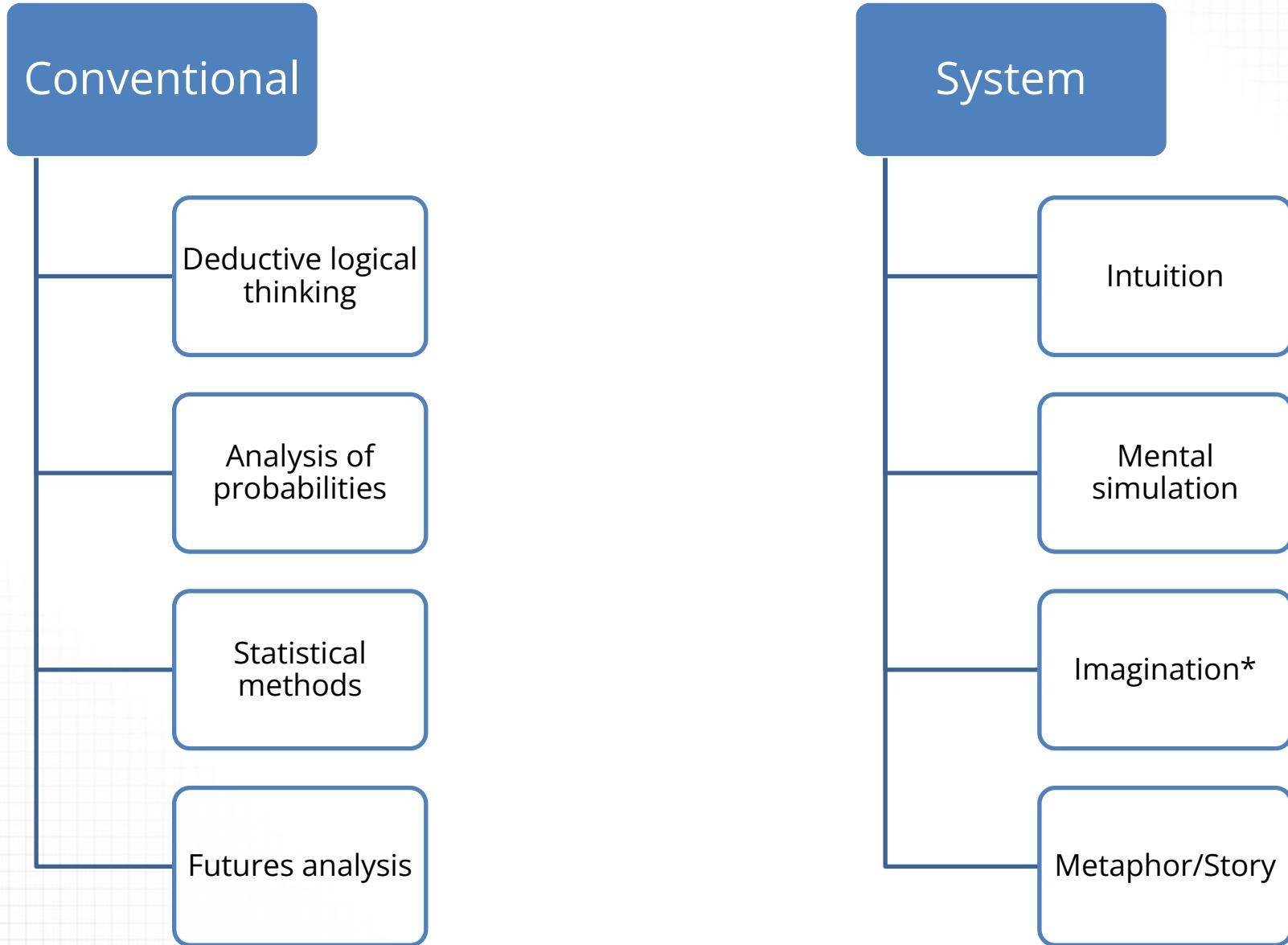


- Endogenous vs Exogenous
- Individuals/organizations prefer
- Consensus & harmony
- Over dissent & conflict
- Discomfort of Disagreement



Conventional Objectives

- What is/are the weaknesses/vulnerabilities of the plan?
- How might the enemy/reality respond to the plan?
- What are the impacts on the plan if...?
- What if X happens?
 - Consequences of X?





Exercise: Cognitive Priming





Exercises, Techniques, Skills & Methods

- Argument mapping
- Assumption checks
- Pre-mortem analysis
- People Training*
- Post-mortem analysis

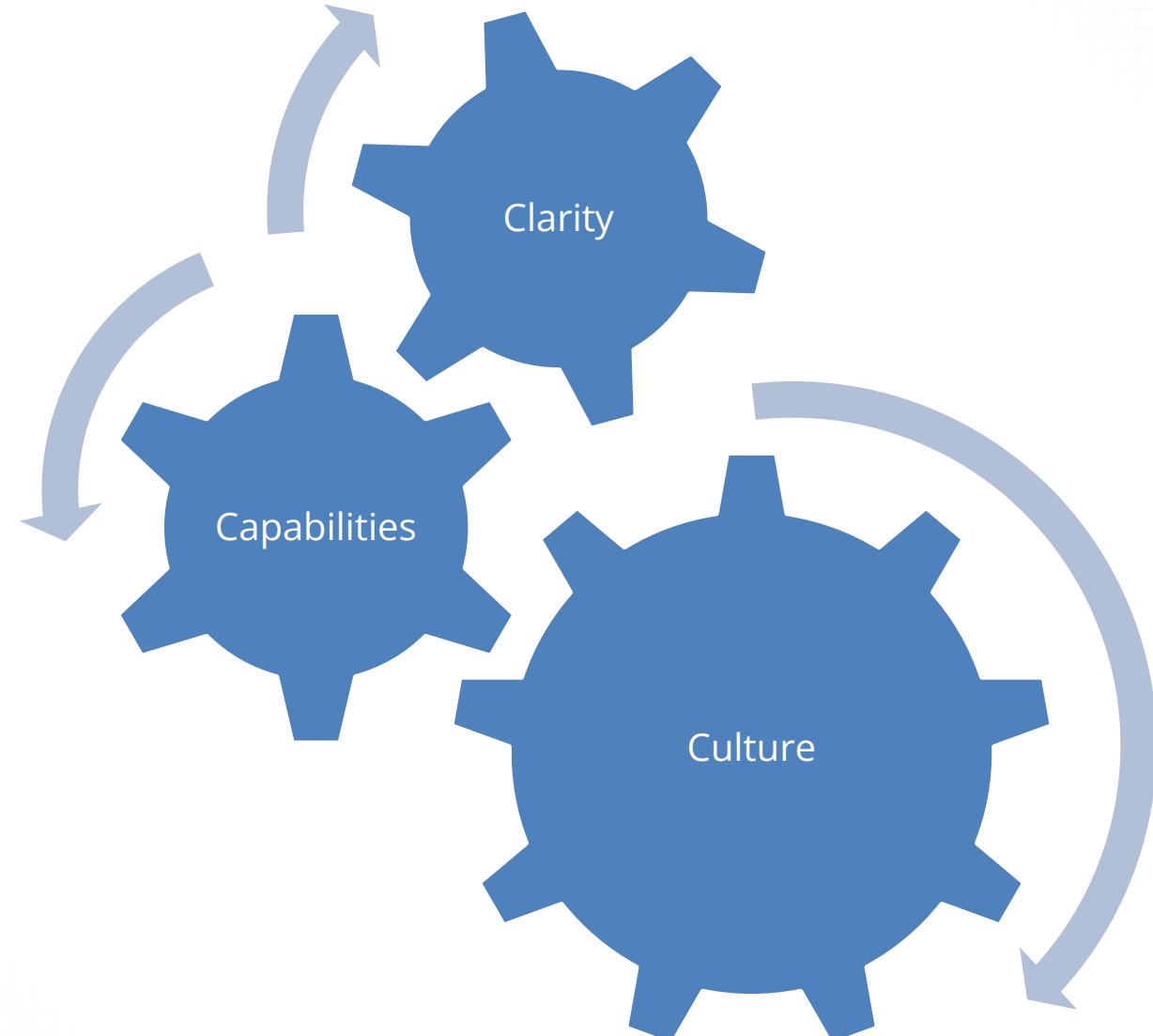


Perspectives & Solutions* *(shy nucleus of counterfactuals)*





Empowered

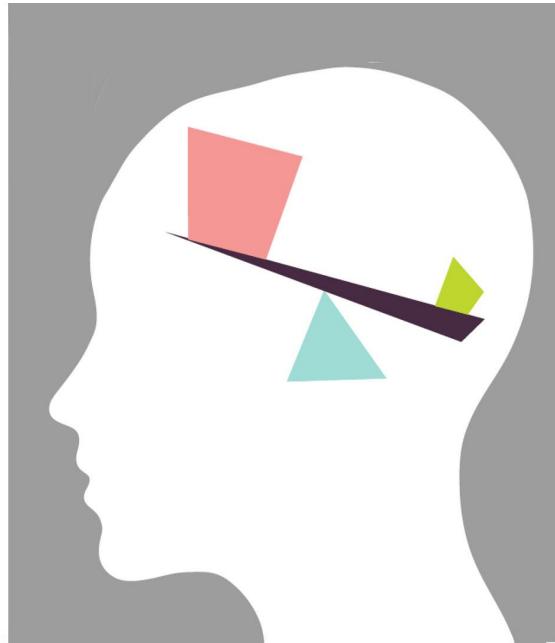
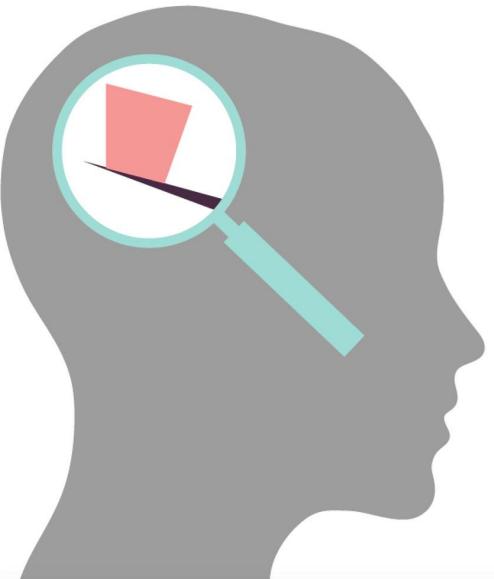




Resources

- [GoodJudgement.com](#)
- [RedTeamThinking.com](#)
- Longbine, *Red Team Past & Present*
- CSIS Executive Program

Quiz



- Who's thinking here is biased, distorted, partial, uninformed or down-right prejudiced...?



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Evaluate Session

