Northumbria Research Link

Citation: Hope, Alex and Olufemi, Moses (2014) A Socio-Cognitive Perspective of Project Failure. In: Northumbria Research Conference, 21 - 22 May 2014, Northumbria University.

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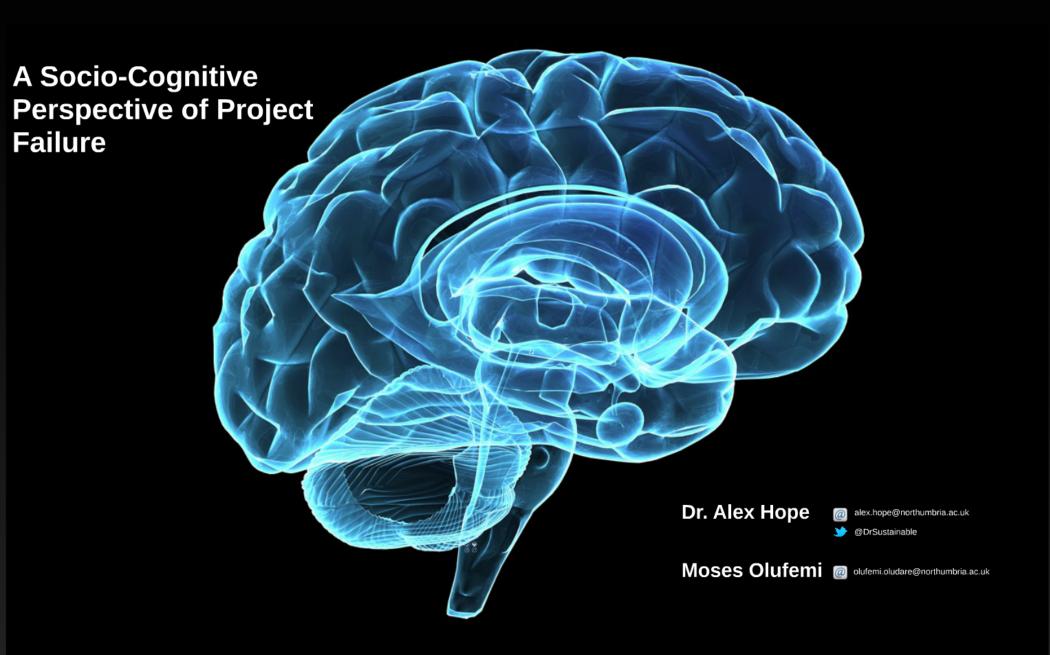
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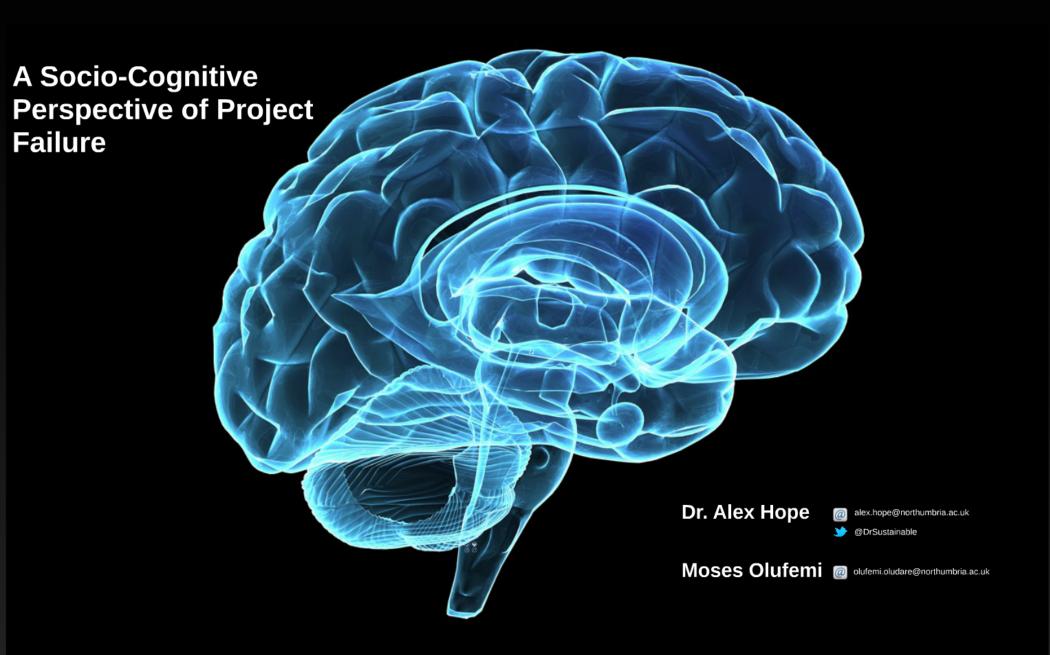
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What is a Project?

"An individual or collaborative enterprise planned and designed to achieve a specific aim"

Wedding



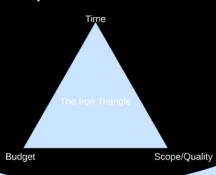
PhD



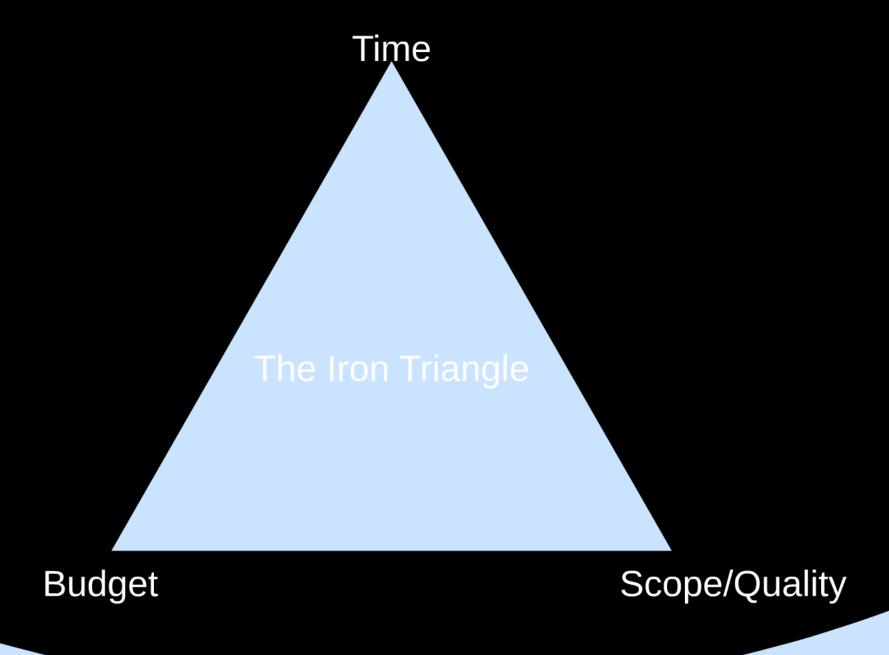
Infrastructure



Project Success Criteria



Project Success Criteria



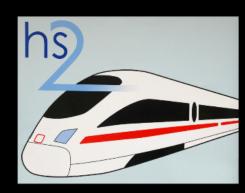
The problem with projects

They don't always go to plan.....

Project Failure

88% are past deadline, over budget or both...

HS2 Ltd has overshot its allocated £101million budget by £87million



Average cost overrun is 189%



Average time overrun is 222%

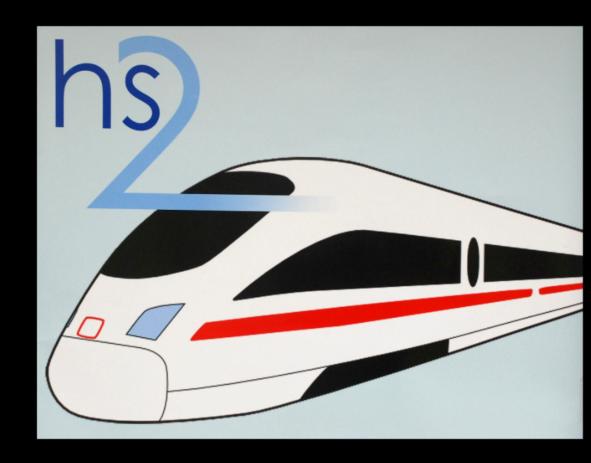
The Boeing 787 dreamliner was delivered 3 years late.... (and \$18B over budget)



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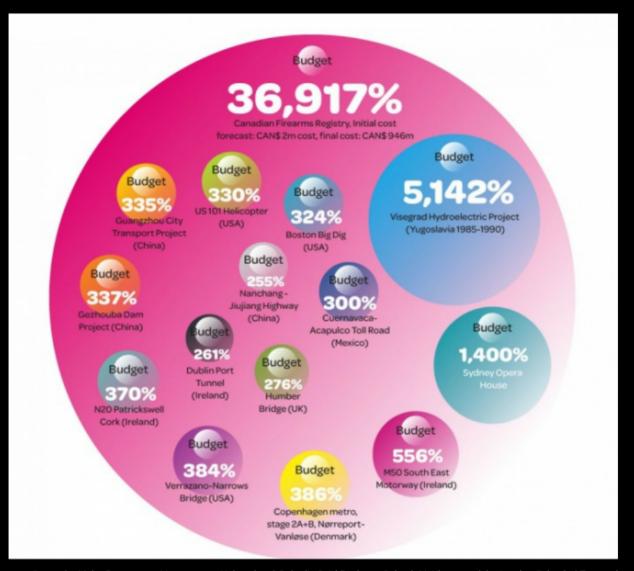
HS2 Ltd has overshot its allocated £101million budget by £87million

http://www.telegraph.co.uk/news/uknews/road-and-rail-transport/10433659/HS2-engineering-costs-overshoot-budget.html



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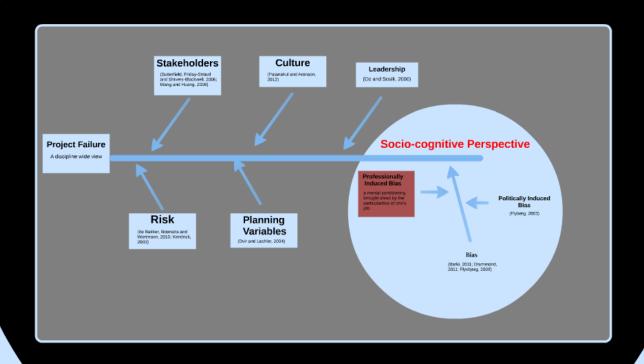
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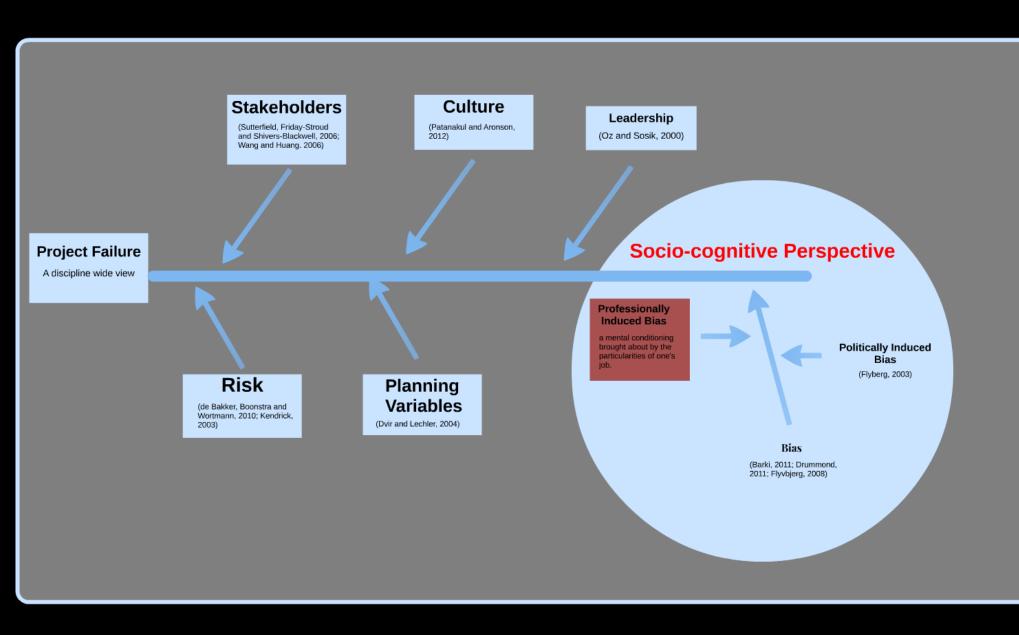
The Boeing 787 dreamliner was delivered 3 years late.... (and \$18B over budget)

http://calleam.com/WTPF/?p=4617



Why do projects fail?





Socio-cognitive Perspective

Professionally Induced Bias

a mental conditioning brought about by the particularities of one's job.

Politically Induced Bias

(Flyberg, 2003)

Bias

(Barki, 2011; Drummond, 2011; Flyvbjerg, 2008)

Socio-Cognitive Bias

"A cognitive bias is a pattern of deviation in judgment, whereby inferences about other people and situations may be drawn in an illogical fashion"

Socio-cognition theory suggests a triadic determinism of environmental, cognitive and behavioral factors







Socio-cognition in Project Management

- Social interactions within the project management practice and academic communities acrespread though inquisite mechanisms such as the protessional body of knowledge
- Mechanisms, such as the body or knowledge, cover expectations (of behavior and actions) and methodologies of achieving them





- Personal responsibility
- Proximity to goal
- Norm for consistent
 Sunk cost
- Reputation and incentive
 Overconfidence

Research Question

How do tools and techniques in the PMBoKs influence or create bias in project management decisions?

Socio-cognition theory suggests a triadic determinism of environmental, cognitive and behavioral factors

Environment

Individual: Personal Experiences

Individuals learn behaviors, which inform action, judgement and decisions, mainly by replicating the actions of others

Collective: Corporate Culture or Function

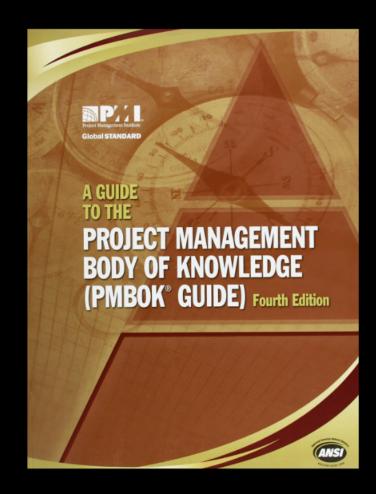
Individuals knowledge is acquired through observation within social interaction

Time

Socio-cognition in Project Management

 Social interactions within the project management practice and academic communities are spread though linguisite mechanisms such as the professional body of knowledge

 Mechanisms, such as the body of knowledge, cover expectations (of behavior and actions) and methodologies of achieving them.



Question

How are project managers influenced by professional bias?

- Personal responsibility
- Proximity to goal
- Norm for consistency
- Sunk cost
- Reputation and incentive
- Overconfidence

Research Question

How do tools and techniques in the PMBoKs influence or create bias in project management decisions?

Method

Quantitative



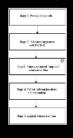
Quasi-Experimental survey



Project Management Bodies of Knowledge

Professional Induced Bias

Survey questionnaire



The questionnaire was designed to measure bias (implicit behavior) which project managers cannot directly link to their experience of the project management body of knowledges.

In order to simulate conditions similar to real life situations, the questionnaire (with the aid of technology) adapts situational and cognitive moderators in an experimental condition

Qualitative



Semi-Structured Interviews



Refine and explain statistical results

Semi-structured Interviews

- How SHOULD porject enoughs apply the PAZSeK?
 Few TrO project enoughs apply the ZMReS, in the natural senses.
- For do Project managem respond to their contraduct Overson's in project gottige, making?

 Love do Project emagem respond information and Electroy in project.
- devices and ing?

 5. What determines the charge of mode under rechalques in a project distant of
- Way to "transfers" not an acceptable (or popular) form of action to project rangement product?
- First world you interpret the role and responsibility of a project manager in a failed project connect?
- Baset on the PMBoS, do you think project transpowers of florenty equipped to improve a falling project or a failed project?
- Proof on your experience, how would you defined following fifth the project?
 Dect on your experience, how do bested decisions contribute to propagation provided?
- Ward is your opinion about bias in graject management practice?

Sample constrained to PMI Certified PMs



Quantitative



Quasi-Experimental survey

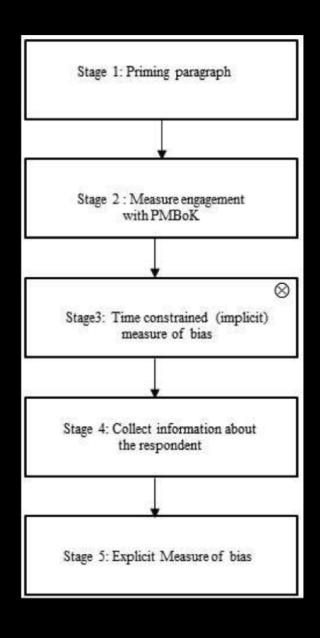




Project
Management
Bodies of
Knowledge

Professional Induced Bias

Survey questionnaire



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In order to simulate conditions similar to real life situations, the questionnaire (with the aid of technology) adapts situational and cognitive moderators in an experimental condition

'e

Qualitative



Semi-Structured Interviews



Refine and explain statistical results

Semi-structured Interviews

- How SHOULD project managers apply the PMBoK?
- 2. How DO project managers apply the PMBoK, in the actual sense?
- 3. How do Project managers respond to time constraints (Pressure) in project decision making?
- 4. How do Project managers respond information insufficiency in project decision making?
- 5. What determines the choice of tools and/or techniques in a project situation?
- 6. Why is "inaction" not an acceptable (or popular) form of action in project management practice?
- 7. How would you interpret the role and responsibility of a project manager in a failed project context?
- 8. Based on the <u>PMBoK</u>, do you think project managers are sufficiently equipped to improve a failing project or a failed project?
- 9. Based on your experience, how would you define a failed project?
- 10. Based on your experience, how do biased decisions contribute to project management practice?
- 11. What is your opinion about bias in project management practice?

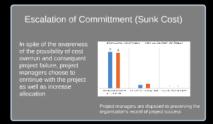
Sample constrained to PMI Certified PMs

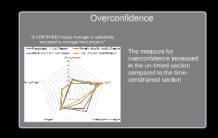


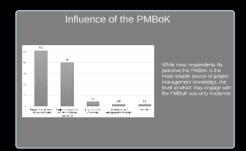
Analysis

Snapshot of results

128 Survey responses (90 valid) coupled with 5 interviews







Analysis

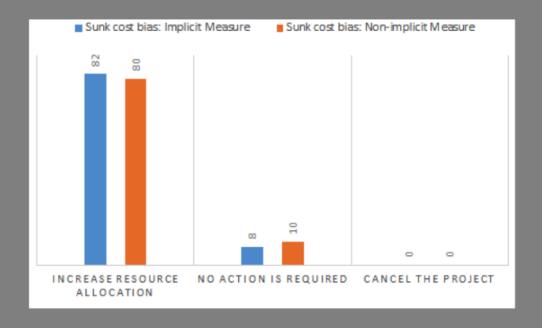
Snapshot of results

128 Survey responses (90 valid) coupled with 5 interviews

Overco

Escalation of Committment (Sunk Cost)

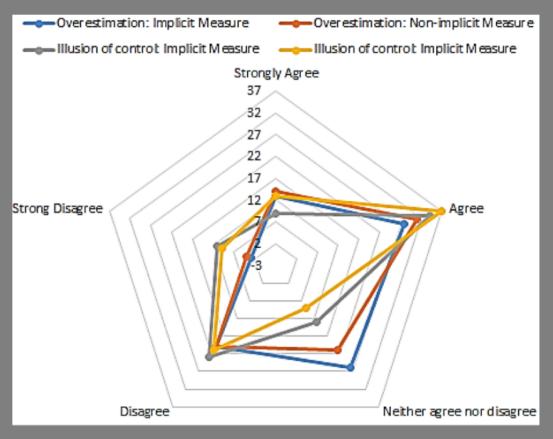
In spite of the awareness of the possibility of cost overrun and consequent project failure, project managers choose to continue with the project as well as increase allocation



Project managers are disposed to preserving the organisation's record of project success

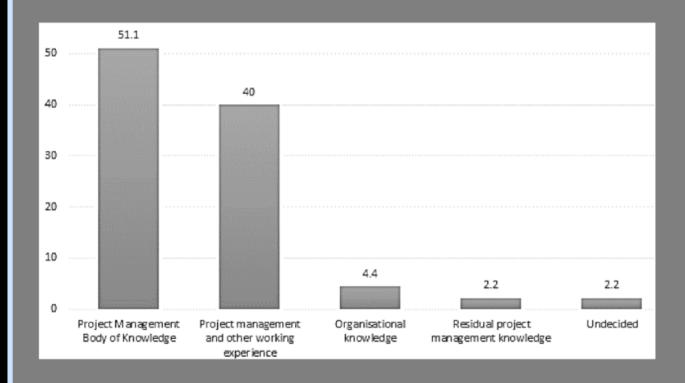
Overconfidence

"A CERTIFIED Project manager is sufficiently equipped to manage most projects"



The measure for overconfidence increased in the un-timed section compared to the time-constrained section

Influence of the PMBoK



While most respondents do perceive the PMBoK is the most reliable source of project management knowledge, the level at which they engage with the PMBoK was only moderate

Conclusions

"Like other human endeavors, project management practice is influenced by bias"





"Project managers are more likely to make biased decisions in time constrained conditions and when data is scarce"

"Evidence suggests that the use of the PMBoK contributes to professionally induced bias, although this may be substituted with experience over time"





"Project managers are likely to use the PMBoK to support biased decision making in post rationalization mode"

"Some project management practices may indirectly contribute to behaviors which promote flawed project decisions and consequently lead to failed projects."

Implications

There is a dynamic (and complex) connection between project environment, PMBoK, and the project management behaviour of the project manager.





Tools such as contingency planning be adapted to cater for biased judgement. Given that time constraints induces some degree of bias, this implies that contingency plans should be more focused on time buffers compared to cost buffers

Also, PMO interventions should also provide effective mechanisms of minimizing information paucity.





Modifying the context of the PMBoK to reflect the realities of failed project and to empower project managers with performance improvement skills.

