



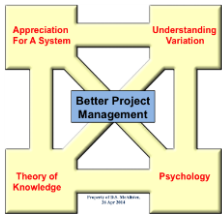
Exploring Deming's System of Profound Knowledge from a Project Management Perspective

**Don McAlister
In2:InThinking Network Forum
21 June 2014**



My Background [[LinkedIn Profile](#)]

- **Born in Calgary, Alberta, Canada;**
- **B.S Aerospace Engineering, Texas A&M University**
- **40 yrs at Rocketdyne in Engineering & Project Management**
- **In2:InThinking partner for > 30 years**
 - Learning, Sharing, and Using In2:In principles and tools
 - Forums, Webinars, On-Going Discussions
- **Retired in December 2011 – 3 ½ years in and Loving It !!**
- **Husband, father of 2, grandfather of 3**
- **Consultant- Technical Services for U.S. Gov't & Businesses**
- **Helping my community and the world through the Rotary Club**
- **Internet Blogger at donmcalister.com**
- **Jazz Keyboard Player and President, Non-Profit Jazz Club Org**
- **Fulfillment Through Inquiry and Sharing of Better Thinking Ideas**



I Need a Cooler Presentation Title



- Although the title of my presentation is accurate and informative, it's a bit boring and “Thesisish”
- Parallel track presentations have much cooler titles
 - “What If Papa Changed His Mind”
 - “What World Are We In”
 - “On Baseball, Bowling Balls, and Teamwork”
- So, because you chose this Sat Morning Track Session in spite of its “uncool” title, you deserve something “cooler”...



Alternative, “Cool” Presentation Title

50 Shades of Grey - The Art of Project Management -

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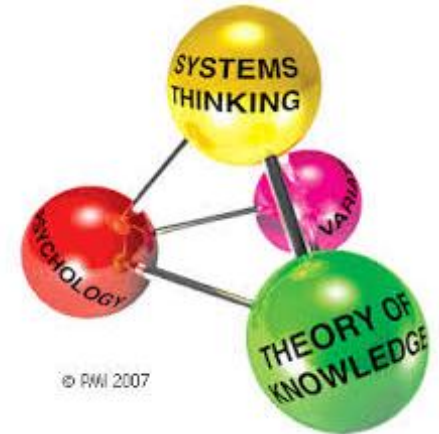


Deming's System of Profound Knowledge (SoPK)

- **Dr. W. Edwards Deming created SoPK to provide a framework for the definition and development of necessary leadership skills**
- **Four major elements**
 - Appreciation for a System
 - Understanding Variation
 - Theory of Knowledge
 - Psychology
- **Provides an approach to integrating the art and science of project management**



Prof. W. Edwards Deming

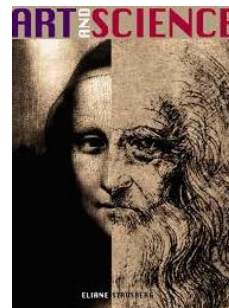


I want to use SoPK to explore the Art of Project Management and find ideas for Better Thinking

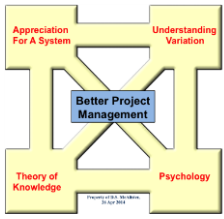


What is Project Management?

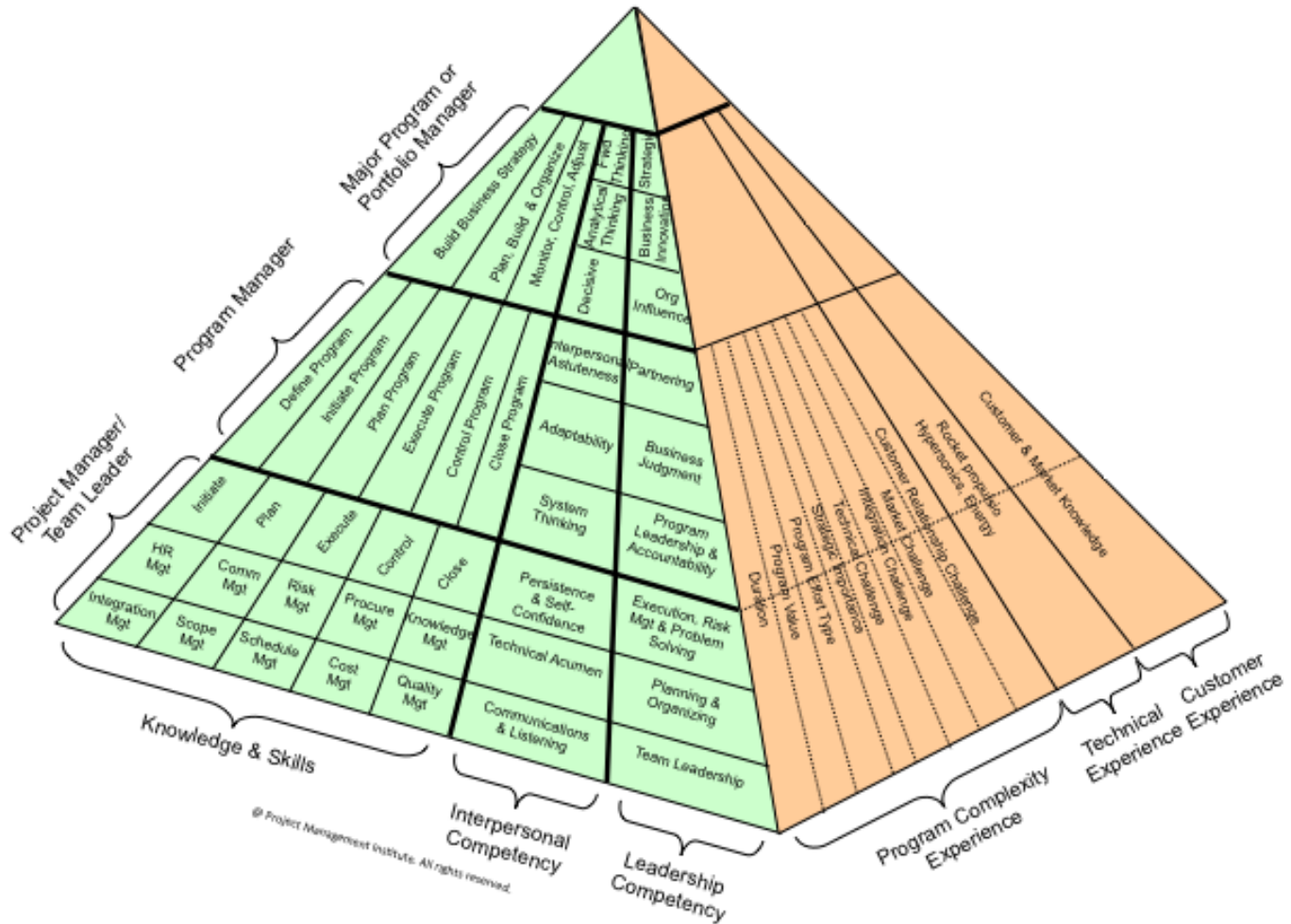
- Deliver products that satisfy customer requirements, within cost and schedule constraints
- System of interdependent activities to initiate, plan, execute, control and deliver products to the customer
- Requires Both Science & Art



**Excellent Project Management
Body of Knowledge (PMBok) Resources
Available for the Science of Leading Projects**



The Science Aspects of Project Management are Well Characterized





But Traditional Project Management Art Competency Thinking is Limited

- Strong “Hard” or Science Competencies
 - Market, Technical, Administrative and PM Body of Knowledge domain expertise
- Supportive “Soft” or Art Competencies
 - Communications, Motivation, Negotiation, Conflict Resolution
- Aggressive, decisive, goal-oriented leadership style



Figure 1-1. Overview of Project Management Knowledge Areas and Project Management Processes



**Command & Control
Leadership Style is Common**



The Problem with Traditional Thinking About PM Art Competency Is...

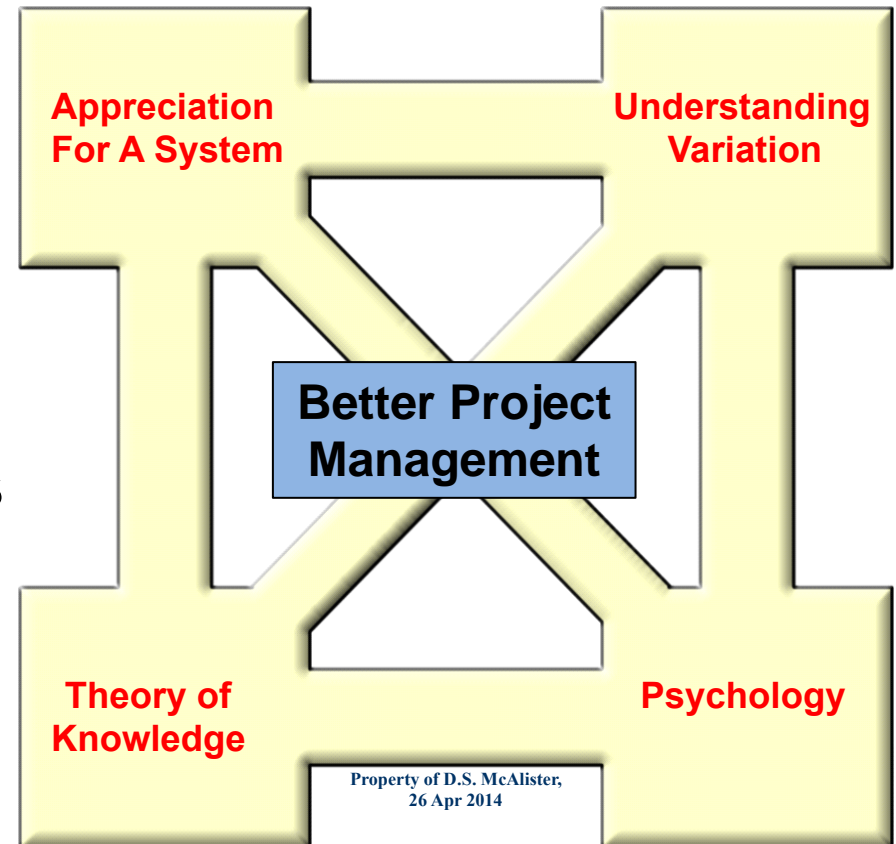
- **Businesses don't understand the criticality of Leadership Art**
- **Selection processes predominantly based on a Science skills**
- **Leaders focused on the “stuff” and not the people connections, which are really what enables the “stuff” to get done**
- **Customers are risk averse, and want mature, controlled processes and strong Leadership Science competencies.**
- **But in practice, real satisfaction is achieved through a “personalized” relationship between the customer and the PM**
 - Only possible with strong PM Leadership Art competencies

More Projects get in to trouble because of failures in Leadership Art than in Leadership Science



Building A New PM Leadership Art Model Using SoPK

- **Interdependence Model used to guide my SoPK exploration**
 - **Provoke thinking**
 - **Documenting ideas**
 - **Visualize relationships**
 - **Satisfy my “Inner Engineer”**
- **“All Models Are Wrong But Some Are Useful”**
George E. P. Box





Exploring SoPK & Elements in a PM Context

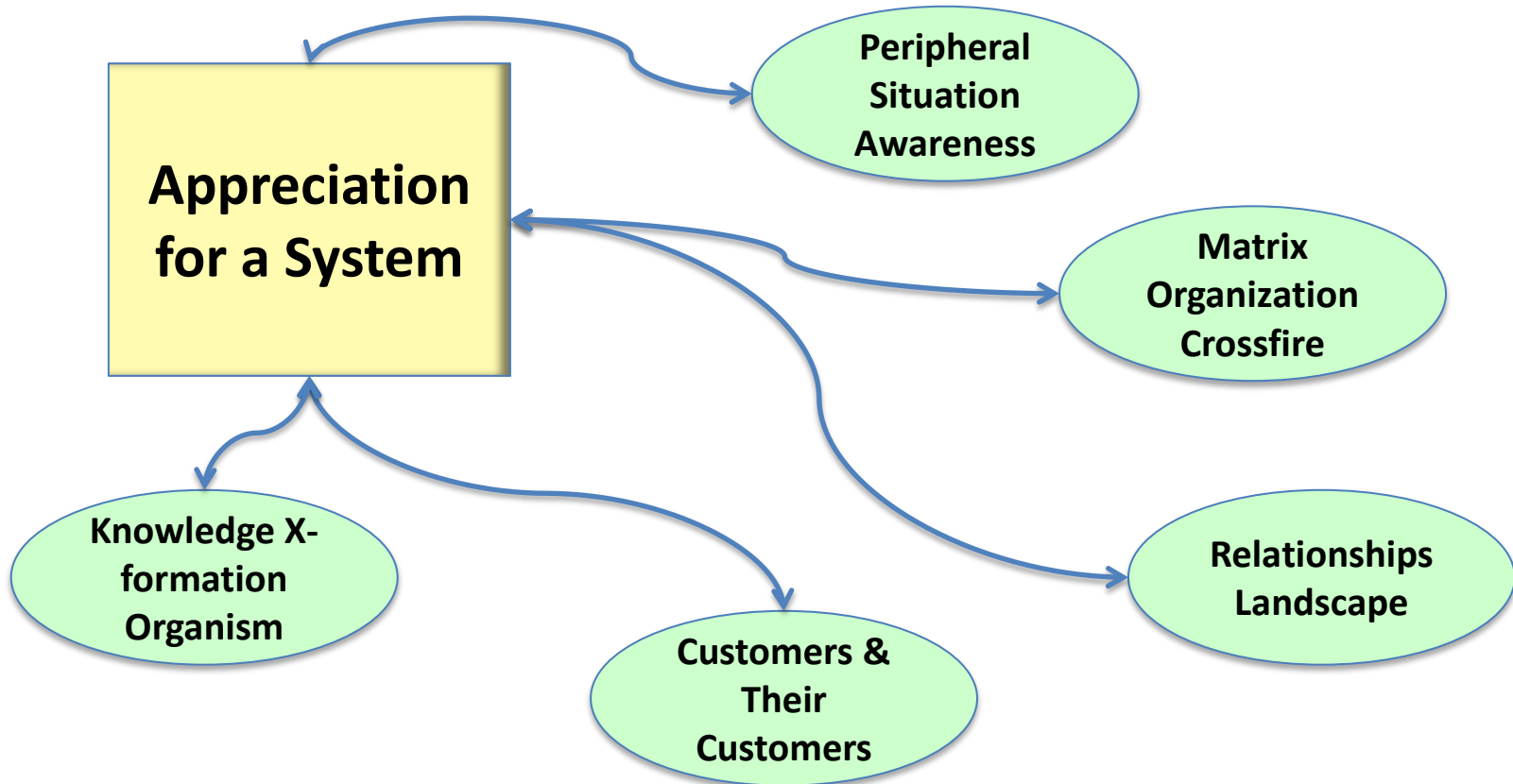
- Used a bit of a “Reductionist Thinking” approach by looking at each element separately
- Brainstormed each element of SoPK from my personal PM perspective
 - My perspective is not a traditional view of PM
 - Key role of each element
 - 5 ideas for better PM thinking, actions, practices and/or behaviors





When I Think of Appreciation for a System, in a PM Context I Think of...

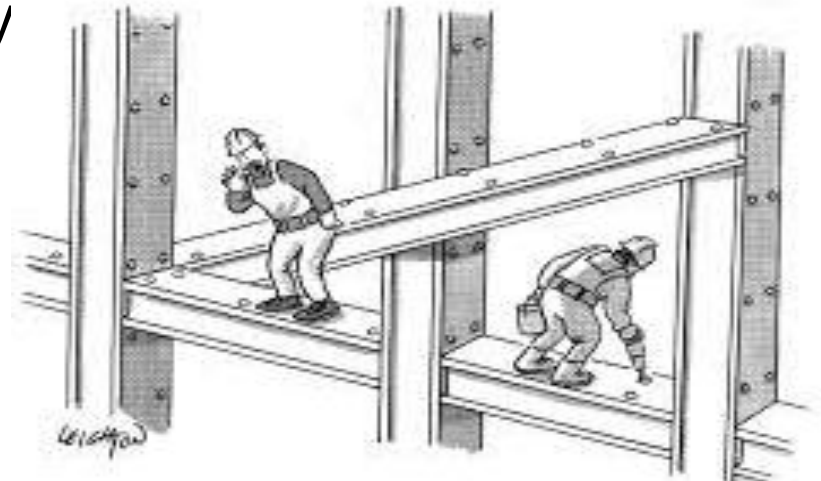
Connections Scale, Complexity, and Cultures





Project Management Systems Thinking Insights

- **Projects are complex organic systems that flow and transform knowledge**
 - Flow depends on quality of the relationships, and the effectiveness and efficiency of the interactions.
 - Interactions lubricated by trust, inspiration, and empathy
 - Products are Knowledge Artifacts

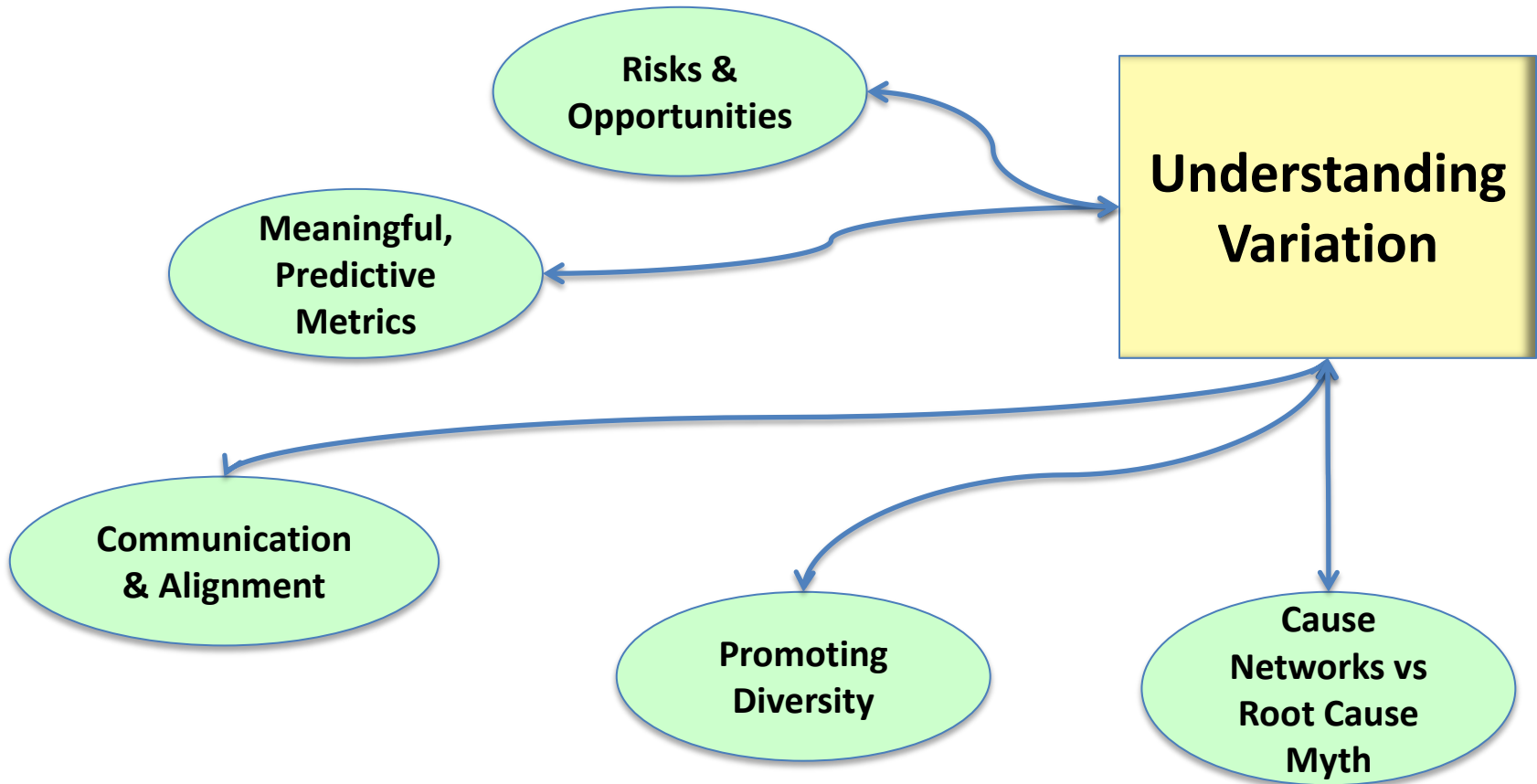


"Escher! Get your ass up here."



When I Think of Understanding Variability in a PM Context, I Think of...

Rhythms, Patterns & Differences That Matter





Project Management Understanding Variation Insights

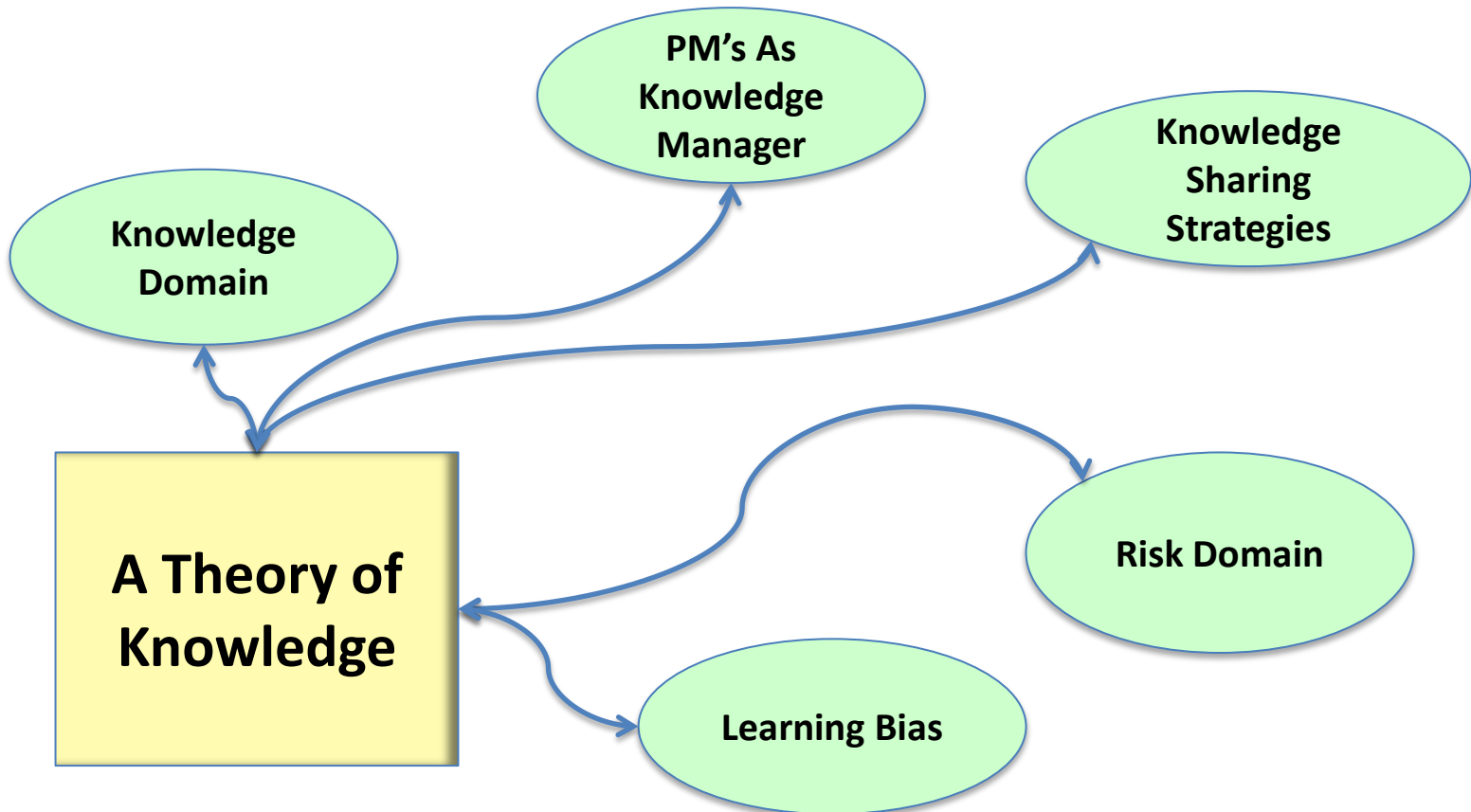
- Risk is lack of, or uncertainty in knowledge
- Assumptions are decisions that we make, consciously or unconsciously, to artificially eliminate uncertainty for our convenience.
- Variability is the norm, Embrace it, Manage with it, not against it
 - Margins; Buffers; Reserves; Cause Networks; Learning bias; Diversity
 - All cost and schedule estimates are probabilistic not deterministic –demand estimates with confidence levels
- In complex system failures, pursuit of root cause is counter-productive and possibly dangerous

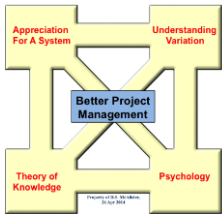




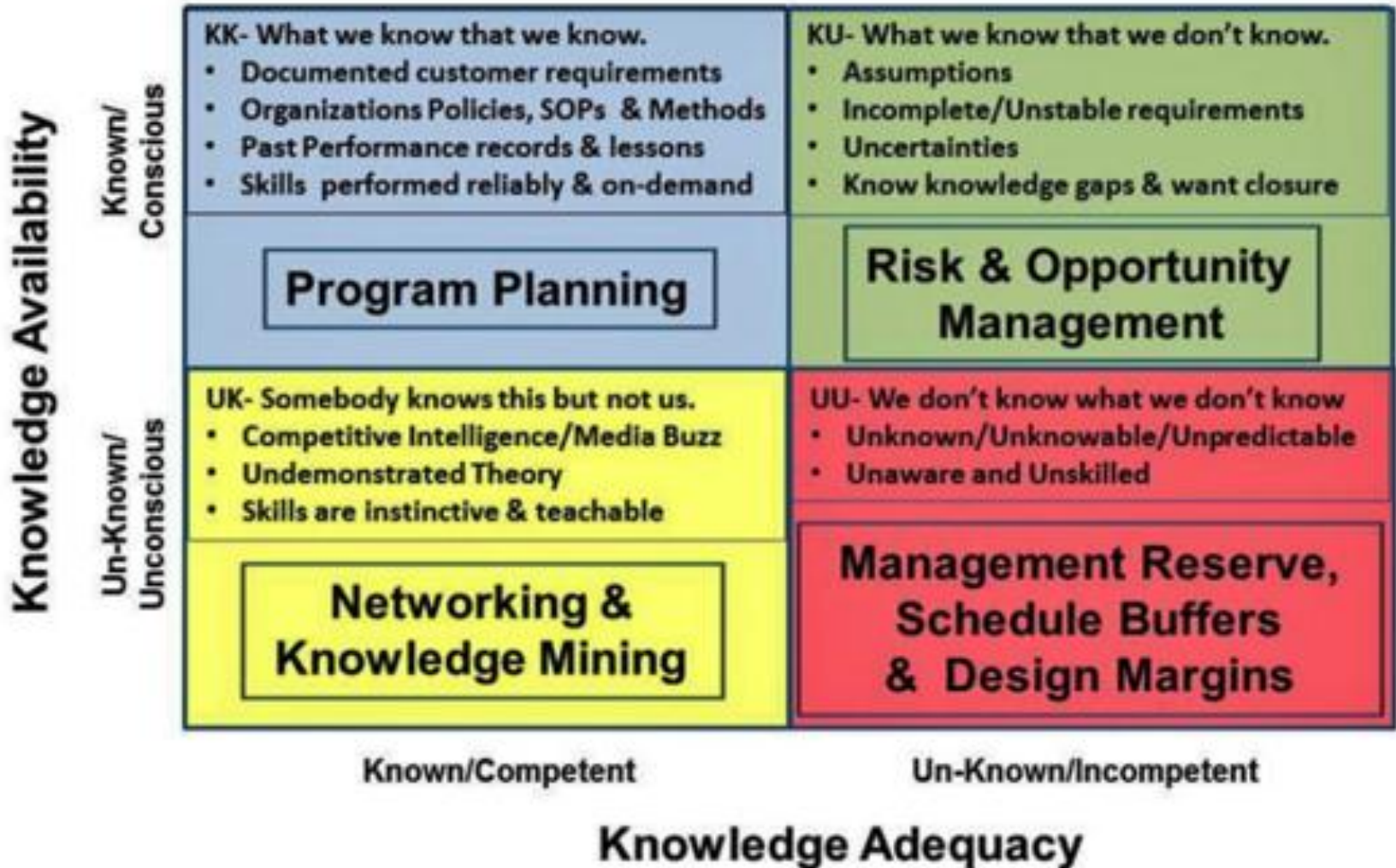
When I Think of A Theory of Knowledge, in a PM Context, I Think of...

Facilitating Knowledge Transformation





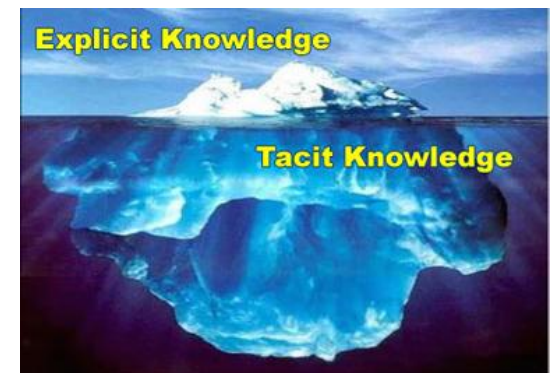
Project Management Across the Knowledge Domain





Thoughts on Knowledge Capture, Retention and Sharing Shortcomings

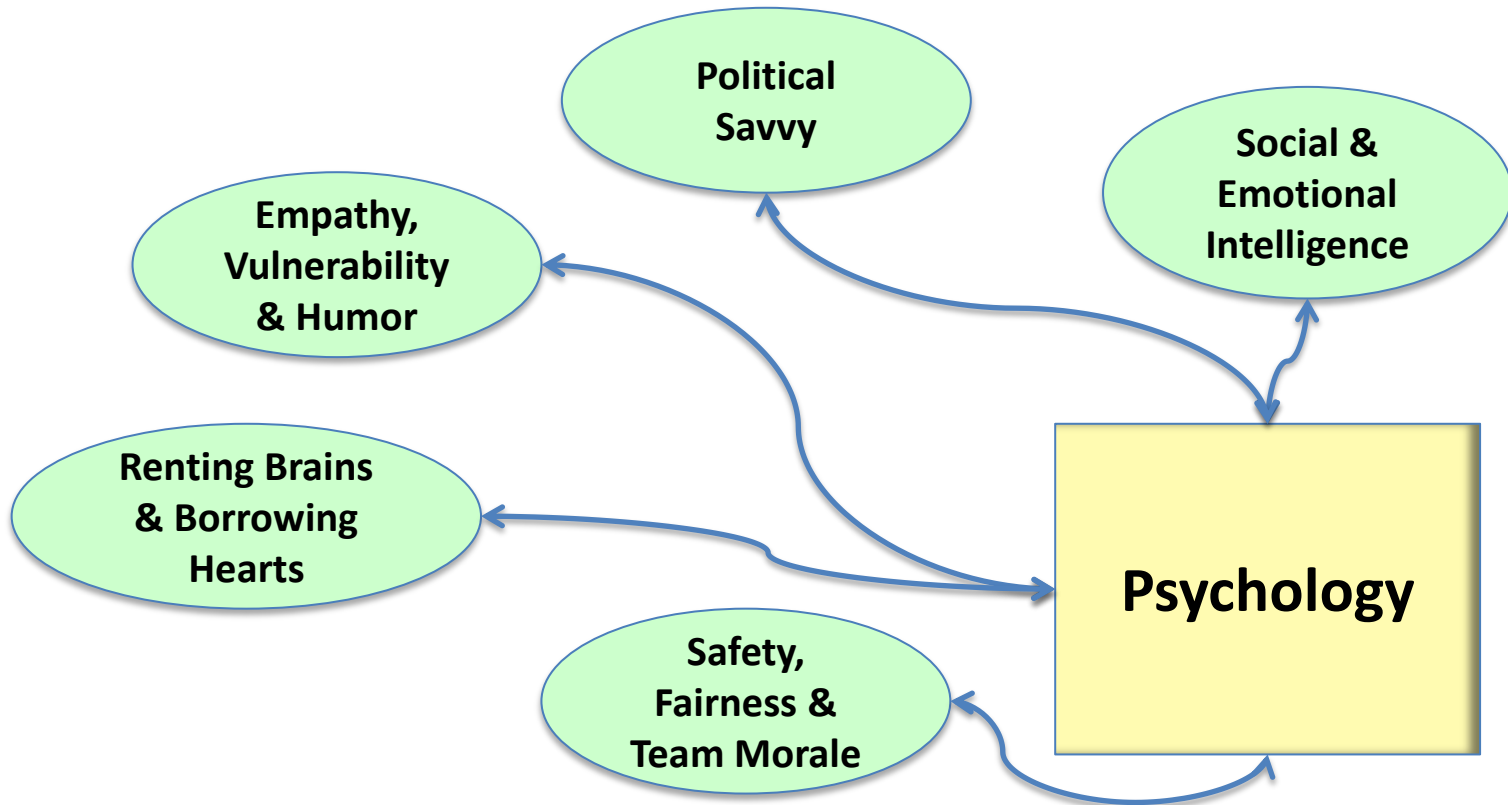
- **Tactics for capture, retention and sharing knowledge still falling short**
 - Central knowledge banks don't work
 - Searchable, distributed knowledge banks are better, but not good enough yet.
- **Much effort has been on advances in the technologies for explicit knowledge, and not enough on the tacit knowledge**
- **Suggest more attention to:**
 - Volunteer expertise registry, with on-demand network access to people
 - The power of stories for knowledge transfer





When I Think of Psychology in a PM Context, I Think of...

Relationships Management



I don't really like the term "Psychology", but haven't anything better...yet



Deming's SoPK – My Thoughts on “Psychology”

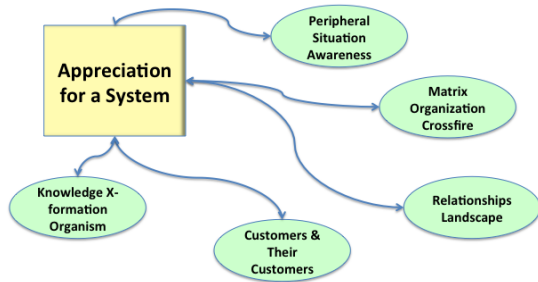


- **I don't like the “Psychology” term...prefer “Social Intelligence”**
 - Awareness, empathy, adaptability
 - Charisma, humility, vulnerability, & humor
 - & Horror of Horrors... even Political Savvy
- **Work is accomplished through people connections and good connections require relationship management**
- **PM's primary job is to understand connections and manage relationships**
- **Must create an environment of trust, safety, respect, diversity and inclusion. How?**
 - Commitment to caring about and helping each-other succeed
 - Team morale feedback is a key leading indicator of project performance - Surveys, Discussions
 - Social interaction outside of the project



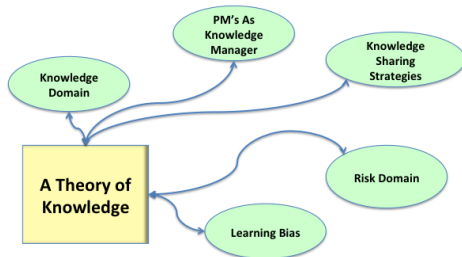
SoPK Element Interdependencies

Connections Scale, Complexity, and Cultures

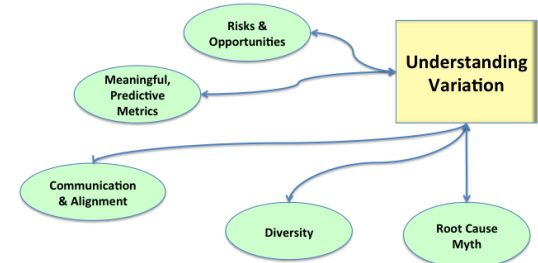


Connection Effectiveness

Facilitating the Knowledge Transformation



Rhythms, Patterns & Differences That Matter



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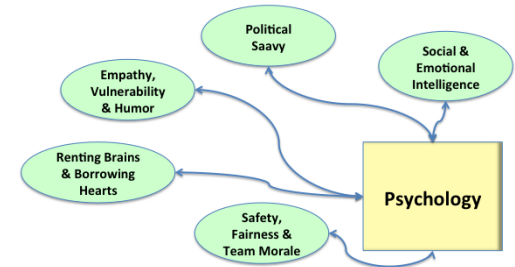


Managing Human Uncertainty

Managing Risks

Focusing on What Matters

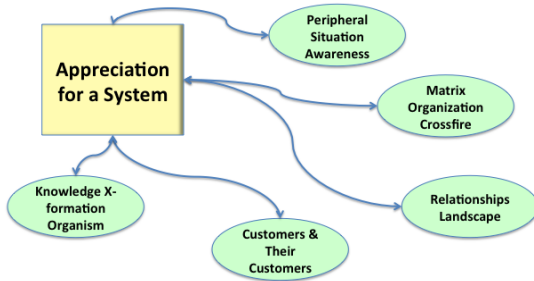
Relationships Management



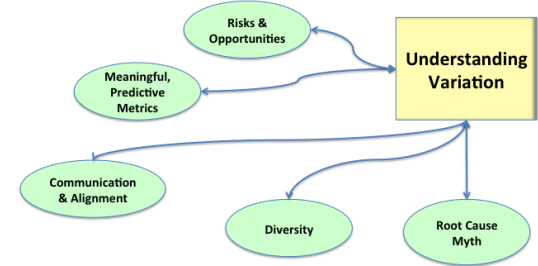


SoPK Element Interdependencies

Connections Scale, Complexity, and Cultures



Rhythms, Patterns & Differences That Matter

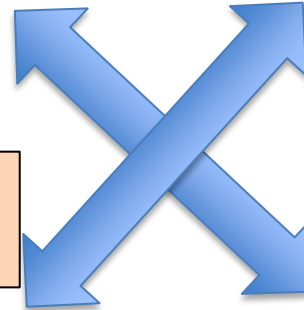


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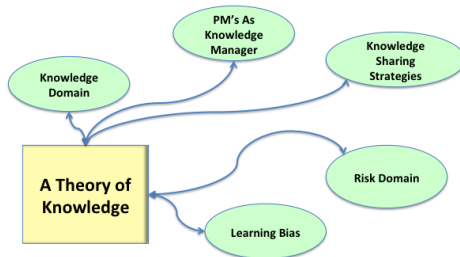
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Reducing the Unknowns

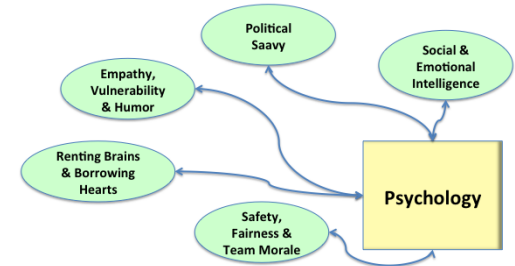
Nurtured Connections

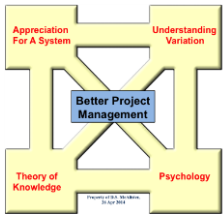


Facilitating the Knowledge Transformation

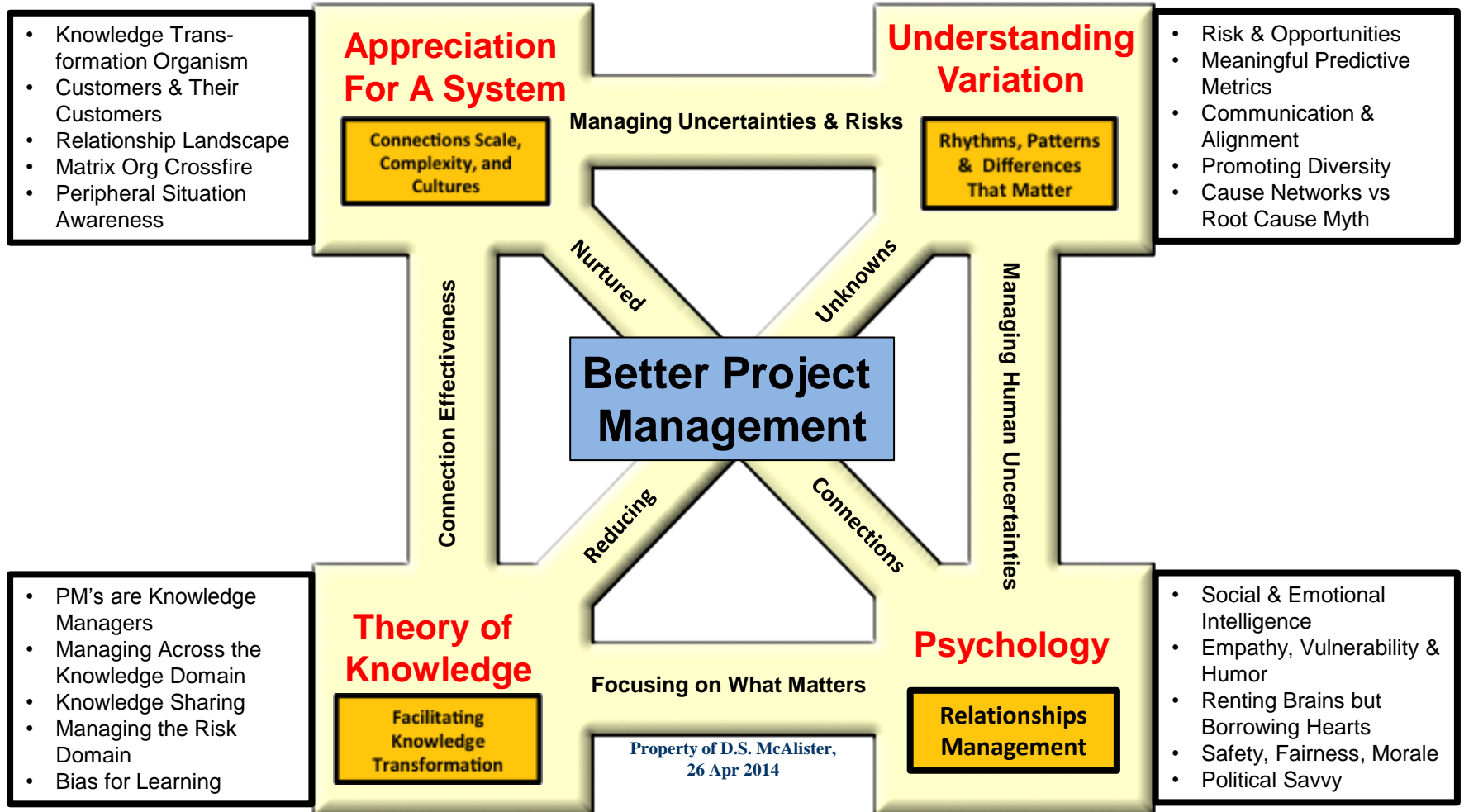


Relationships Management





An Integrated SoPK Model for Better Project Management





Parting Thoughts

- **Thank you for the opportunity to share these ideas with you**
- **I hope you discovered something useful, or at least interesting in this exploration**
- **If you're interested in more detail on some of these ideas, I invite you to check out my blog archives at www.donmcalister.com**

The road to better thinking is open and unbounded. This was just a sight-seeing stop. If you found something Interesting, keep a souvenir and but please continue the journey.