

Modeling Better Decisions

Handout

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Westrum Model

Pathological (power-oriented)	Bureaucratic (rule-oriented)	Generative (performance-oriented)
Low cooperation	Modest cooperation	High cooperation
Messengers shot	Messengers neglected	Messengers trained
Responsibilities shirked	Narrow responsibilities	Risks are shared
Bridging discouraged	Bridging tolerated	Bridging encouraged
Failure leads to scapegoating	Failure leads to justice	Failure leads to enquiry
Novelty crushed	Novelty leads to problems	Novelty implemented

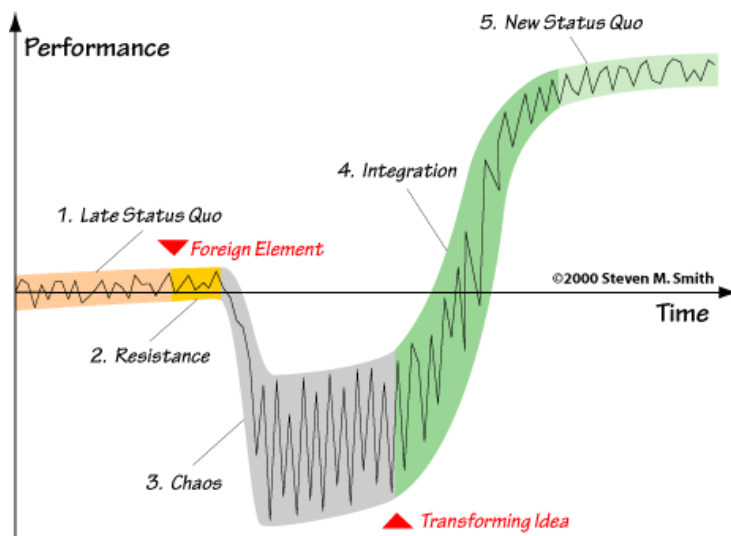
<https://continuousdelivery.com/images/westrum.png>

Westrum R A typology of organizational cultures
BMJ Quality & Safety 2004;13:ii22-ii27.
https://qualitysafety.bmj.com/content/13/suppl_2/ii22

Models 3 types of organizational cultures. It is helpful to understand the organization's relationship with safety and it can be used to predict how organizations or parts of them will behave when signs of trouble arise. This model was heavily referenced in the research (using rigorous statistical methods) presented in the book "Accelerate - The Science of Lean Software and DevOps: Building and Scaling High Performing Technology Organizations",

Additional resources:
<https://itrevolution.com/book/accelerate/>

Virginia Satir Change Process Model



Virginia Satir
<http://www.satirworkshops.com/files/satirchangemodel.pdf>

Based on Virginia Satir's groundbreaking work as a family therapist, this model helps us understand the 5 stages of change and its impact on feelings, thinking, performance and physiology. It is useful to recognize where a system is in their process to better understand how people are reacting.

Additional resources:
<https://stevenmsmith.com/ar-satir-change-model/>

The Responsibility Process



Dr. Christopher Avery -

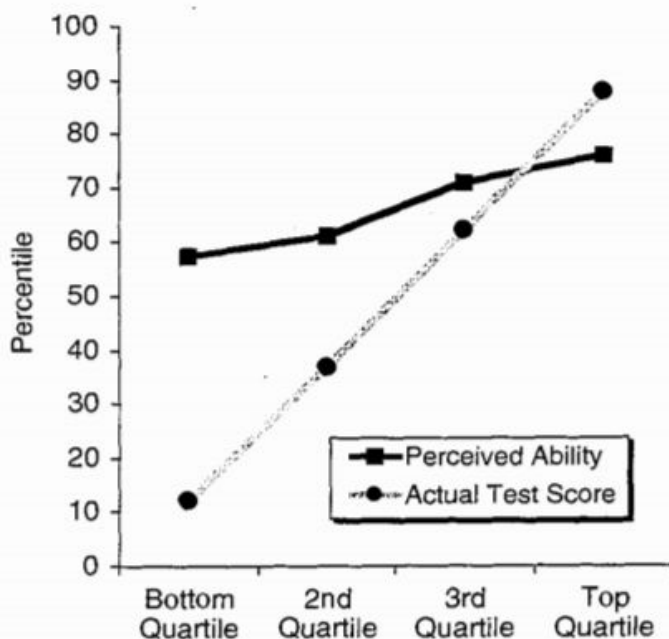
<https://www.christopheravery.com/responsibility-process>

Based off of Dr. Avery's field studies, this process (much like the psychological stages of grief) models how people respond when things go wrong. This can be used to understand how others are responding to an event, but even better to recognize how you are.

Additional References

<https://www.youtube.com/watch?v=-T3lZ2lSxag>

The Dunning-Krueger Effect



David Dunning and Justin Kruger's 1999 -

<https://www.jerwood-no.org.uk/pdf/Dunning%20Kruger.pdf>

Kruger, J., & Dunning, D. (1999). Unskilled and unaware of it: How difficulties in recognizing one's own incompetence lead to inflated self-assessments. *Journal of Personality and Social Psychology*, 77(6), 1121-1134

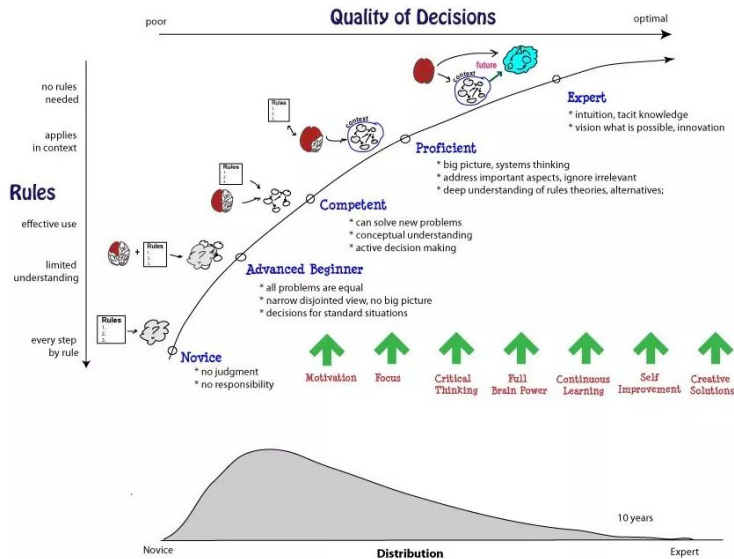
While not to be taken as a universal law, it may be worth questioning a person's confidence with their actual ability. This quick check can help us the potential for perception and reality to drift. Like the "The Responsibility Process", this is applicable to ourselves as well.

Reference

Additional References

https://www.demenzemedicinagenerale.net/images/mens-sana/Dunning_Kruger_Effect.pdf

Dreyfus Model of Skill Acquisition



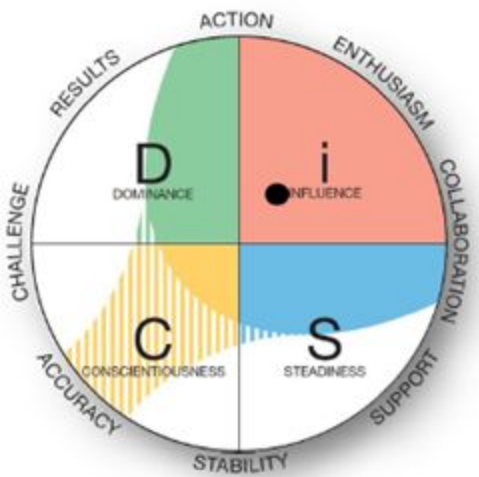
<http://everydaylean.info/2014/01/dreyfus-hopping-mad>

Stuart and Hubert Dreyfus - 1980

<https://www.bumc.bu.edu/facdev-medicine/files/2012/03/Dreyfus-skill-level.pdf>

While learning we go through different stages. It's helpful to understand your own progress and know that others may be going through this as well.

DiSC

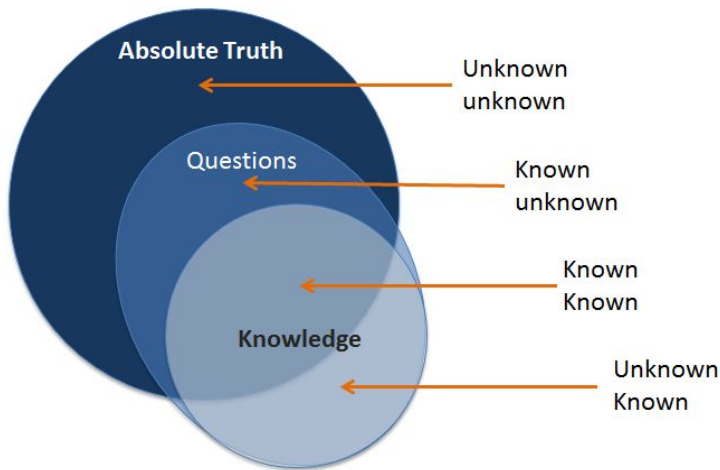


William Moulton Marston - 1928 (Emotions of Normal People - Book)

<https://www.discprofile.com/what-is-disc/history-of-disc/>

One of many personality profiles this can help highlight people's values and motivations. It's useful to know how to work with people and what types of interactions are going to be at odds with them. Like all models, these are not without detractors and should be used with that understanding.

Rumsfeld Model



<https://www.theinovogroup.com/deconstructing-rumsfeld-knowledge-and-ignorance-in-the-age-of-innovation/>

Donald Rumsfeld, US Secretary of Defense 2002
<https://www.youtube.com/watch?v=REWeBzGuzCc>

While not a model created in traditional manor, Mr. Rumsfeld's comments in 2002 about explicitly stating the relationship between that which is known and not, along with the acknowledgement that we don't know what we don't know. After Rumsfeld's statements, his unofficial model gained interest by many others to highlight what is really known when making decisions.

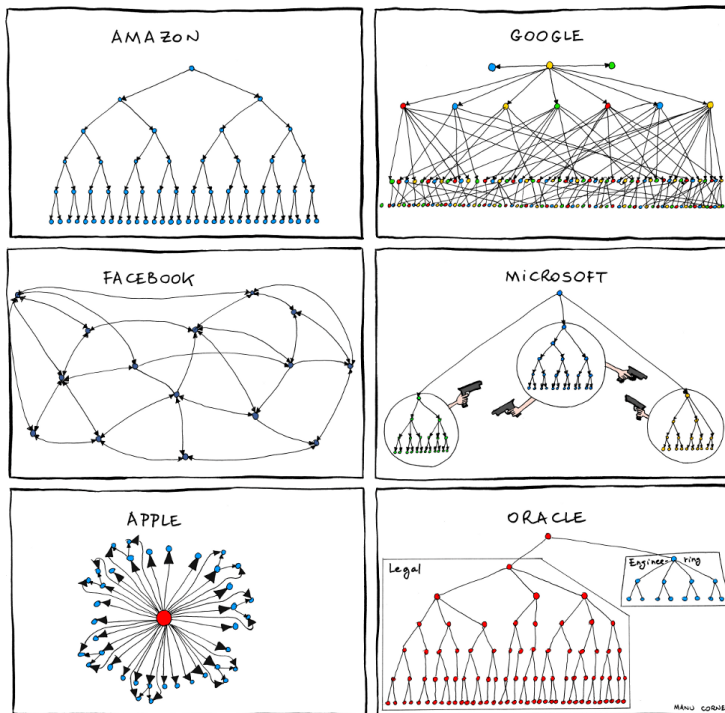
Reference

Additional References

<https://www.youtube.com/watch?v=nAnKdq5Yty8>

←

Conway's Law



<https://tomtunguz.com/conways-law/>

Melvin E. Conway - 1968

<http://www.melconway.com/research/committees.html>

Based on Melvin Conway's studies, he found that the systems we design in our organizations reflect the structures within our organization.

SWOT ANALYSIS



Albert S. Humphrey - 1960's and 1970's

<https://rapidbi.com/SWOTanalysis/>

https://en.wikipedia.org/wiki/SWOT_analysis

Strengths, Weaknesses, Opportunities and Threats. A mainstay in management training, this model helps to quickly organize factors an organization needs to address and position the mindset for how to deal with them.

The Three Ways

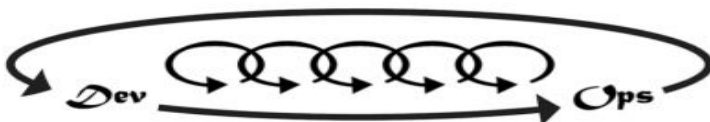
**The First Way:
Systems Thinking**



**The Second Way:
Amplify Feedback Loops**



**The Third Way:
Culture Of Continual Experimentation And Learning**



Gene Kim

<https://itrevolution.com/the-three-ways-principles-underpinning-devops/>

Based on Goldratt's "Theory of Constraints", The Three Ways helps focus where improvements should be addressed. Addressing problems where they appear is reactive and not sustainable. Addressing root causes and improving the performance of the entire system is the key to improvement. These principles are the core of DevOps books "The Phoenix Project" and "DevOps Handbook".

Additional References

<https://www.toc-goldratt.com/en/product/the-goal-movie-how-to-version>

S.M.A.R.T Decisions:

SMART



<https://www.questionpro.com/blog/smart-objectives-and-goals/>

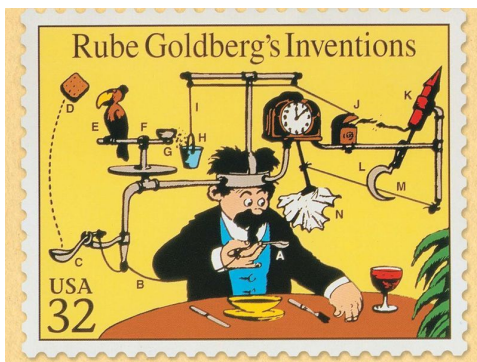
Doran, G. T. (1981). "There's a S.M.A.R.T. way to write management's goals and objectives".

Management Review

https://en.wikipedia.org/wiki/SMART_criteria

This mnemonic is great to ensure that goals and decisions have what it takes to be followed through and achieved.

Rube Goldberg machine

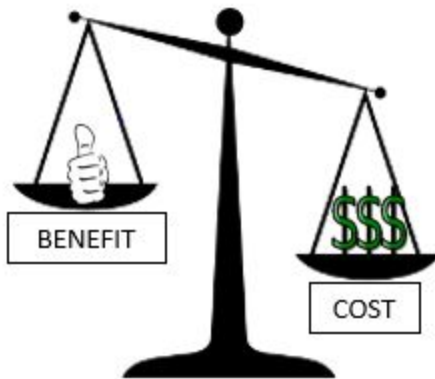


Rube Goldberg 1883 - 1970

<http://www.rubegoldberg.com/>

Pulitzer Prize winning cartoonist from the early 1900's, Rube Goldberg was known for creating illustrations of complex and convoluted processes to accomplish simplistic tasks. While tongue in cheek, it's worth illustrating actual workflows to ensure they are fit for purpose.

Cost-Benefit Analysis



<http://www.integritymc.com/blog/2015/11/tricks-or-treats-depends-on-cost-benefit-analyses/>

Jules Dupuit, Alfred Marshall 1939

<https://web.archive.org/web/20060616003822/http://chicagoasa.org/downloads/CostBenefitConference2006/benefit%20cost%20history.pdf>

Instrumented in the Flood Control Act of 1939, this model established policy requiring that "the benefits to whomever they accrue [be] in excess of the estimated costs.". Combined with other models, this is an important aspect to consider when making a decision regarding the distribution of funds.

Build vs Buy models stem from CBA. Opportunity Cost also should be introduced into the decision making process as Time may impact current and future benefits.

Additional Resources

https://www.cmu.edu/tcinc/students/course_documents/08/BuyBuild.pdf

<https://www.youtube.com/watch?v=x-hYzRncxTc>

