The Dunning-Kruger Effect on Organizational Agility

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Introduction

➢ The Dunning-Kruger Effect – bias where people of low ability tend to overestimate their abilities and underestimate the ability of others (Kruger & Dunning, 1999)

  ➢ Resulting overconfidence and bias shapes behavior and decisions

  ➢ Roughly ¾ of managers exhibit the Dunning-Kruger Effect with the remaining ¼ underestimating abilities

➢ Business exist in a VUCA (volatile, uncertain, complex, ambiguous) world

➢ The ability to adapt and change without disruptive change initiatives is critical

  ➢ Organizational agility is key for success in the 21st century

➢ The Performance Triangle and validated diagnostic tools provide insight into "unseen, and rarely discussed dimensions of culture, leadership, and systems
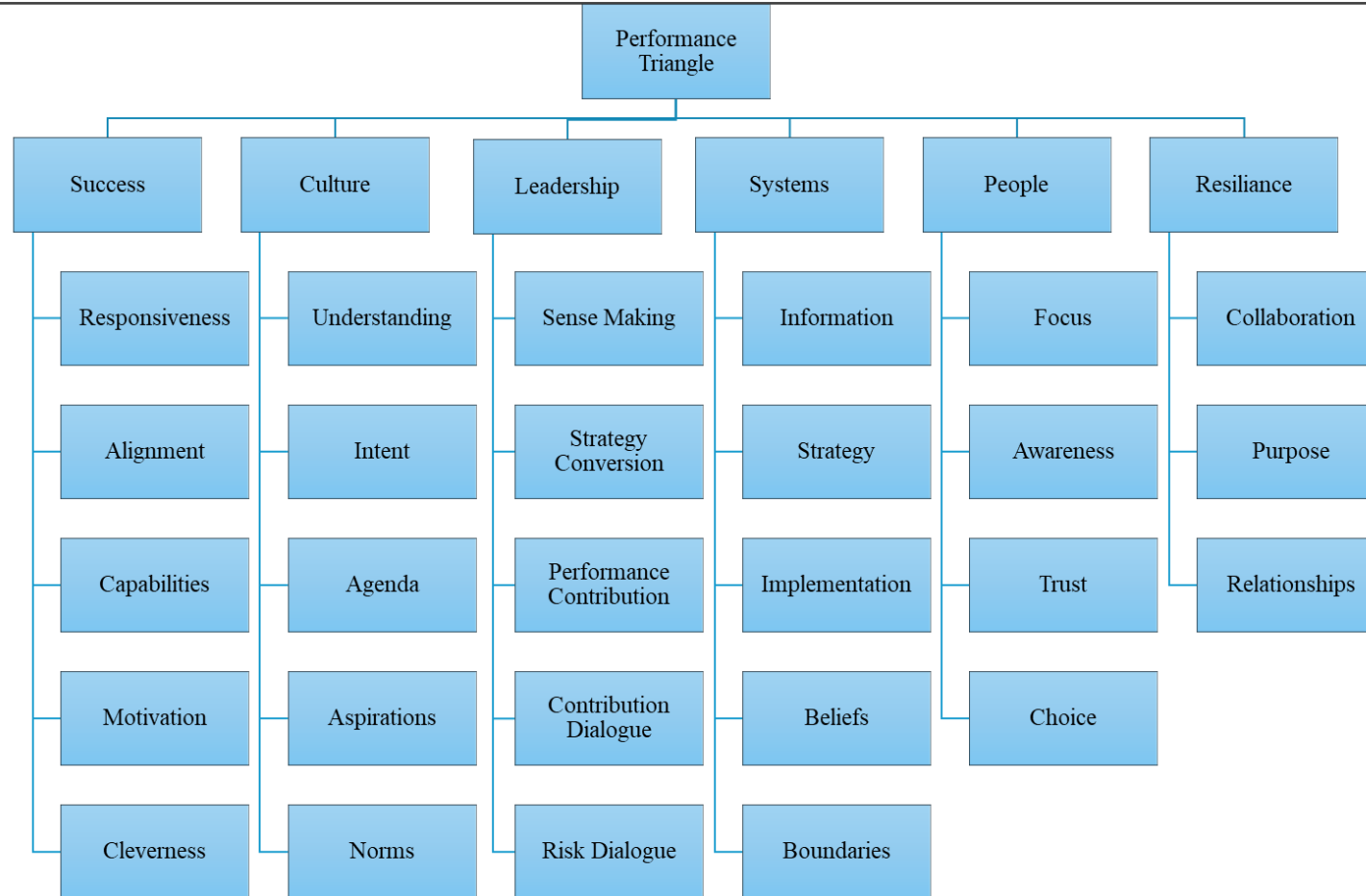
Research Question

➢The Dunning-Kruger Effect
  ➢"Ignorance more frequently begets confidence than does knowledge" – Charles Darwin 1871
  ➢"...in the modern world the stupid are cocksure while the intelligent are full of doubt" – Bertrand Russell (2009)

➢How does the bias in corporate executives described by the Dunning-Kruger Effect affect the ability of organizations to adapt and change? ... ie. organizational agility

➢Is there a difference between executives and lower-level employees in data using the Performance Triangle diagnostic instrument?

➢If there is a difference, how does the difference affect the organization's ability to adapt and change in a VUCA world?

The Performance Triangle Model

➢Describes a dynamic system of culture, leadership, systems powered by the talents of people for superior success

➢Developed and refined over 15 years with data from over 400 organizations

➢Diagnostic instrument statistically validated in 2018

➢Diagnostic instrument has 34 possible data points

The Performance Triangle Structure (Data points)

Performance Triangle					
Success	Culture	Leadership	Systems	People	Resiliance
Responsiveness	Understanding	Sense Making	Information	Focus	Collaboration
Alignment	Intent	Strategy Conversion	Strategy	Awareness	Purpose
Capabilities	Agenda	Performance Contribution	Implementation	Trust	Relationships
Motivation	Aspirations	Contribution Dialogue	Beliefs	Choice	
Cleverness	Norms	Risk Dialogue	Boundaries		

Methodology

➤ Collect data from 374 organizations who participated by using the Performance Triangle diagnostic instrument over 15 years.

➤ 55 questions scored using a Likert-type scale capture perceptions on 27 elemental characteristics that can be summed to give insight into higher level dimensions

➤ Data is presented on a 100-point scale for ease of understanding

➤ Segregate out the top 3 executives in each participating organization

➤ Compare the data for executives to that from all other employees

Demographics of the Sample

Industry		Location		Type	
Consumer Products	35	Africa	5	Cooperative	13
Education	7	Asia	10	Foundation	13
Financial Services	76	Australia/New Zealand	11	Private	131
Healthcare	12	Europe	303	Public	171
Infrastructure/Construction	16	Latin America	11	Public Administration	46
Manufacturing	38	Middle East	2	Total	374
Pharma/Chemicals	21	UK/Ireland	2		
Professional Services	46	US/Canada	30		
Public Services	29	Total	374		
Natural Resources	14				
Technology	52	Size		Life Cycle	
Telecom	11	Very Large	120	Established	263
Tourism	17	Large	78	Growth	26
Total	374	Mid-Size	106	Mature	78
		Small	70	Start-up	7
		Total	374	Total	374

Results – Top Level and 27 Individual Elements

Table 1: Analysis of Top Level Dimensions paired t-test and correlation, N=6							
	Executives	Workers	Var.	Var. %	t	p	Correlation
Top Level - Mean	67.5	64.2	3.3	4.8%	6.09	0.002	0.907**
Standard Deviation	2.68	1.11					
Success - Mean	68.0	65.5	2.5	3.7%			
Culture - Mean	66.9	63.2	3.7	5.5%			
Leadership - Mean	64.9	63.4	1.5	2.3%			
Systems - Mean	64.2	61.7	2.5	3.9%			
People - Mean	70.8	66.5	4.3	6.0%			
Resilience - Mean	70.1	65.1	5.0	7.1%			
Note: * p<.05, **p<.01, ***p<.001							

Table 2: Analysis of all Elements paired t-test and correlation, N=27							
	Executives	Workers	Var.	Var. %	t	p	Correlation
All elements - Mean	67.1	64.1	3.0	4.5%	8.41	0.000	0.874***
Standard Deviation	3.93	3.28					
Note: * p<.05, **p<.01, ***p<.001; Trust was identified as having an unusually large influence.							

Results – Success & Culture

Table 3: Analysis of Success Dimension & Elements paired t-test and correlation, N=5							
	Executives	Workers	Var.	Var. %	t	p	Correlation
Success - Mean	68.0	65.5	2.4	3.6%	5.18	0.007	0.980**
Standard Deviation	1.85	2.81					
Responsiveness	69.4	67.0	2.4	3.4%			
Alignment	69.9	68.8	1.1	1.6%			
Capabilities	67.9	66.1	1.8	2.7%			
Motivation	67.5	64.4	3.1	4.6%			
Cleverness	65.2	61.4	3.7	5.7%			
Note: * p<.05, **p<.01, ***p<.001							

Table 4: Analysis of Culture Dimension & Elements paired t-test and correlation, N=5							
	Executives	Workers	Var.	Var. %	t	p	Correlation
Culture - Mean	66.7	63.2	3.4	5.2%	17.51	0.000	0.974**
Standard Deviation	1.34	0.99					
Understanding	65.4	62.0	3.4	5.2%			
Intent	65.9	62.8	3.2	4.8%			
Agenda	66.7	63.5	3.2	4.8%			
Aspirations	68.9	64.7	4.2	6.0%			
Norms	66.5	63.2	3.3	4.9%			
Note: * p<.05, **p<.01, ***p<.001							

Results – Leadership & Systems

Table 5: Analysis of Leadership Dimension & Elements paired t-test and correlation, N=5							
	Executives	Workers	Var.	Var. %	t	p	Correlation
Leadership - Mean	64.9	63.4	1.5	2.3%	1.51	0.205	0.914*
Standard Deviation	5.14	4.05					
Sense Making	70.1	68.7	1.4	2.0%			
Strategy Conversation	63.1	63.4	-0.3	-0.5%			
Performance Conversation	59.3	57.9	1.4	2.4%			
Contribution Dialogue	61.5	61.7	-0.2	-0.4%			
Risk Dialogue	70.6	65.5	5.1	7.2%			
Note: * p<.05, **p<.01, ***p<.001							

Table 6: Analysis of Systems Dimension & Elements paired t-test and correlation, N=5							
	Executives	Workers	Var.	Var. %	t	p	Correlation
Systems - Mean	64.2	61.7	2.5	3.9%	2.48	0.068	-0.144
Standard Deviation	0.80	1.98					
Information	64.7	63.1	1.5	2.4%			
Strategy	64.1	59.1	5.0	7.7%			
Implementation	63.3	61.4	1.9	3.0%			
Beliefs	63.7	64.2	-0.6	-0.9%			
Boundaries	65.3	60.9	4.4	6.7%			
Note: * p<.05, **p<.01, ***p<.001							

Results – People & Resilience

Table 7: Analysis of People Dimension & Elements paired t-test and correlation, N=4							
	Executives	Workers	Var.	Var. %	t	p	Correlation
People - Mean	70.8	66.5	4.3	6.0%	5.27	0.013	.964*
Standard Deviation	5.30	4.30					
Focus	63.5	61.5	1.9	3.0%			
Awareness	70.5	64.9	5.6	8.0%			
Trust	75.8	71.6	4.2	5.5%			
Choice	73.2	68.0	5.2	7.1%			
Note: * p<.05, **p<.01, ***p<.001							

Table 8: Analysis of Resilience Dimension & Elements paired t-test and correlation, N=3							
	Executives	Workers	Var.	Var. %	t	p	Correlation
Resilance - Mean	70.1	65.1	5.0	7.1%	6.19	0.025	0.996*
Standard Deviation	2.95	4.32					
Collaboration	66.8	60.4	6.4	9.6%			
Purpose	71.0	66.0	5.0	7.0%			
Relationships	72.5	68.9	3.6	5.0%			
Note: * p<.05, **p<.01, ***p<.001							

Conclusions and Managerial Implications

➤There are definite gaps between what executives perceive and what subordinates perceive

➤Greatest gaps are in people and resilience dimensions with trust identified as most influential
  ➤Traditionally trained executives are creating structured environments that inhibit the flow of knowledge
  ➤People are not able to maximize their creative potential

➤Difference in dimensions of success and culture help explain why change initiatives fail
  ➤Executives think that the organization has all the capabilities to be successful. Employees do not.
  ➤Executives and employees are not on the same page. No shared understanding where the organization is going, shared intent, common agenda, or common sense of purpose.
  ➤Provides evidence supporting Peter Drucker's quote "Culture eats strategy for breakfast."

Conclusions & Managerial Implications

➢ Positive variance in leadership and systems dimensions
  ➢ Workers have little or no input in organizations with classically trained leaders or managers
  ➢ Workers have limited comparison. Comparison is limited to the immediate work group
  ➢ Executives may be more critical because they feel that they have limited freedom to act due to outside pressures, governmental regulations, or societal demands.

➢ Findings support the assertions of the Dunning-Kruger Effect and that it hinders organizational agility
  ➢ Executives consistently overestimate their own abilities while underestimating the abilities of subordinates
  ➢ Executives make decisions because they are not aware of the "unknown, unknowns"
  ➢ Change initiatives are likely to fail because executives are ignorant or unaware of interferences in their organizations and overestimate their own abilities while underestimating those of the people in their organization

➢ Recognizing this inherent bias is the first step for executives to design agile organizations
  ➢ Executives should strengthen self-reflection to raise awareness for the "unknown, unknowns"
  ➢ Executives should take action to diagnose their organization to identify then eliminate "unseen, and rarely discussed" interferences that inhibit change before starting disruptive change initiatives