

Organizing for Success with lessons from The master – John Boyd OR People, ideas, technology...IN THAT ORDER

Who was John Boyd?



John Boyd 1927-1997:

- Fighter Pilot
- Mathematician
- Engineer
- Designer
- Scholar
- Strategist

John Boyd:

- Fighter Pilot
- Mathematician $P_S = v\left(\frac{T-D}{W}\right)$

$$P_S = V\left(\frac{T-D}{W}\right)$$

- Engineer
- Designer

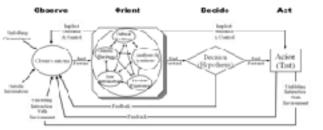








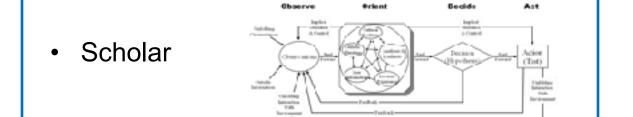
Scholar



Strategist



John Boyd:





Aerial attack study	1960	- 196 4	Air Compat
Patterns of Conflict	1974	- 1986	Eponymous
Destruction and Creation	1976	Analysis & Synthesis	
Fast Transients	1976	Importance of Fast	
Change			
Organic Design for Command & Control	1987	Essence of Leadership	
Strategic Game of ? And ?	1987 - 1991	Strategy Defined	
Discourse on Winning and Losing	1987	OODA Loop	
Conceptual Spiral	1992	Role of Science and Eng.	

All of these are available on the internet at "Slightly East of New"

1040



Boyd was preoccupied with the following questions:

- Efficiency: How do we get the most out of the least?
- Agility: How do we move quickly and effectively?
- Flexibility: How do we change direction without losing forward momentum?
- Intelligence: How do we outhink our opponent and freak him/her/it out?
- Organization: How do we organize to answer the above listed questions?

I think we can agree that these are questions which interest us as business people



Boyd believed that answers were, at least in part, in the following:

- Intelligent, decentralized, organizations designed to act and manuever quickly
- External focus with the ability to analyse and synthesize good decisions
- Constant questioning of our own conclusions in light of unfolding circumstances
- Creative thinking
- Enlightened and scholarly leadership

Let us begin

Contents/Topics



- 1. Common Features in Boydian organizations: maneuver theory
- 2. Market Recon and Pull: Surfaces and Gaps
- 3. Everything you know is wrong and you need to change quickly
- 4. Adaptive reuse: Of Snowmobiles and Steering Column Adjusters
- 5. Finding Unique Approaches: Creativity
- 6. Leadership: Decisions, Initiative, Strategic Direction



Part 1: Common Features



Introduction: ?Nagging Questions?

What are the basic characteristics of a maneuver organization?

What are the common features of successful maneuver based organizations?

How can we apply or design these features to an organization?



Characteristics of the Maneuver based Organization

- Rapidity of Decision Making
- Rapidity of Action
- Decentralized Decision Making
- Significant License to Execute



Consistent Features of the Maneuver based Organization

IMPRESSION:

- Unit Cohesion/Common Values
- High Skill Levels/Training
- New or Adaptive Reuse of Technology
- Tradecraft



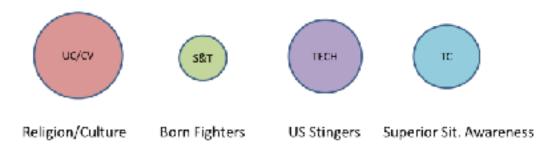
Consistent Features of the Maneuver based Organization

IDEA: Think of these as balloons



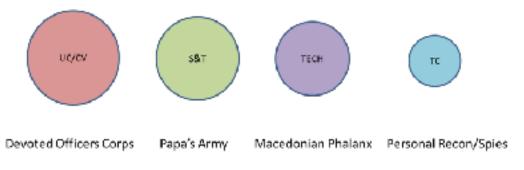
These Features can vary in size in differing organizations but are always present

Example: Afghani Mujahedeen vs. Soviet Union



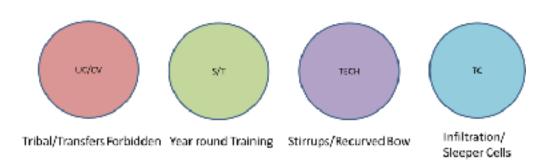


Example: Alexander the Great



Consistent Features of the Maneuver based Organization

Example: The Mongols





Consistent Features of the Maneuver based Organization Conclusion:

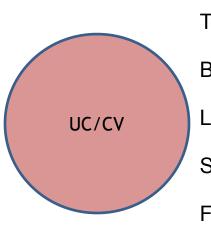
Go look for yourselves:

Check out Scipio Africanus, Belisarius, Napoleon, Stonewall Jackson, T. E. Lawrence, Guderian, Patton, etc., etc.

You will find these consistencies in every maneuver based organization



Real World Application: CRH of North America 2000



Team was selected carefully (HR manager was the second person hired)

Bought fewer "A" players with enhanced span of control

Little or no micromanagement: Mission Orders

Success builds Esprit de Corps – Celebrate every victory...together

Frequent feedback: "What's going on"



Real World Application: CRH of North America 2000

Training and certifications for Technical requirements

S/T

Personal instruction: Costing and Finance

Hands on career planning and support

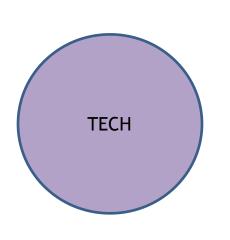
Developed "curricula" for each department and function

Encouraged teaching and speaking at conferences

Mandatory reading list for staff, "Warfighting", "Maneuver Warfare Handbook", "Certain to Win", "The Goal", "Out of the Crisis".



Real World Application: CRH of North America 2000



Leader in Materials Development (high tensile steel)

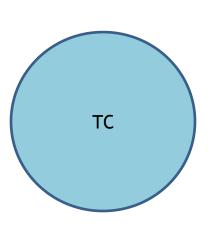
Co-development of Motors and Gearboxes (Bosch and IMS)

Leader in Mechanisms Development (PEL, Height Adjuster)

Manufacturing systems superiority (Press Lines)



Real World Application: CRH of North America 2000



Misdirected competitors (the one motor story)

Focused on Infiltrating customer 's customer's Engineering

Researched customer activities (Edgar, Analysts Calls, Consultants)

Created networks of informants

Developed contacts at media sources



Part 2: Market and Maneuver



Market Pull: Surfaces and Gaps

Question: What is Pull? What is it contrasted with?

We generally think in terms of PUSH or PULL systems.

A PUSH system is one where the planning and forecasting take priority. Organizations must predict and execute a plan based on the predictions. Actions are "Pushed" by the plan

A PULL system responds to external stimuli in real time and resources are "Pulled" to the demand identified by those external stimuli



Market Pull: Surfaces and Gaps

Pull systems have gained in popula

Recon Pull: In recon pull, we start the attack going without being married to a plan. Our recon forces find weak spots in the enemy lines, and pull resources to take advantage of the weakness (the expanding torrent).

Manufacturing Pull: A manufacturing pull system is where processes are fed by demand. The concept is that each process pulls the resources required to deliver based on customer demand

In both cases resources are pulled to where required whatever the "plan" may

Market Pull: Surfaces and Gaps



- Market pull operates to identify and pursue high probability opportunities.
- These opportunities are in excess of actual budgetary resources.
- As the opportunities are explored, positive responses from the market are reinforced (i.e. money and people), and negative or flat responses are abandoned.
- Opportunities are transient and shifting. These "gaps" can open and close quickly. Taking advantage of an opportunity presented requires agility and fast decision making abilities (analysis and synthesis).





In effect, you are running your corporate hands down the surface of the market "wall" and looking for "cracks" or "gaps" that you can exploit.

The better your understanding of the environment, the more light you will have.





You then try to make sure that you increase the size of that gap as quickly as possible. So that you can "pull" the resources needed to increase the probability of success.





You may have to exert your will upon a gap to make sure you can get through it successfully. In business, the pyrotechnical device used is your intellect!

Surfaces and Gaps: Example: Gap found



Real World Application: CRH of North America: 2003







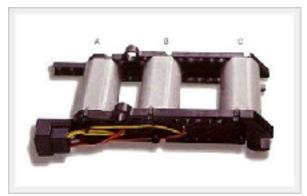
Ford 500

CRH was invited into a Tier 1 to solve a technical problem

Surfaces and Gaps: Example: Exploited



Real World Application: CRH of North America









In the interests of "cost savings", La Tier 1 corporation had wedded itself to the "Tripack" motor system. This system took up a lot of room under the vehicles seat and Ford wanted that real estate.

Surfaces and Gaps: Example: Better Tech REALLY helps



Real World Application: CRH of North America



CRH used a flexible motor/gearbox design which allowed us to move the motors around. These gearboxes had been designed by CRH



The La Tier 1 one piece motor "Pack", (designed by an outside supplier) which was inflexible and could not adapt to Fords package requirements

Surfaces and Gaps: Example: Getting behind their lines



Real World Application: CRH of North America

Our "flexible" design allowed us to solve the customer's problem.

We then "pulled" the resources required to the project.
Our development and product launch went smoothly. The OEM didn't have to step in and spend money solving problems during new product introduction.

Once we launched the product, our focus on quality and reliability showed to advantage when the 12 month warranty costs per carline came out. The warranty costs were about 85% less for the CRH product than they were for comparable Tier 1 offerings.

Surfaces and Gaps: Example: The ever expanding torrent



Real World Application: CRH of North America

By 2005 we were working with Ford (without a Tier 1) to develop a new specification for their seat adjusters going forward.

As if by magic, some of the unique and proprietary properties of the CRH seat adjusters found their way into the new Ford specifications.

We were able to keep expanding the "market gap" and kept pushing through the ever expanding gap and completely took the Tier 1 supplier out of the equation.

Results!

Real World Application: CRH of North America





The result was that in 2005 we took the Ford F-150 (and four other programs) away from a major Tier 1 supplier. They never even saw it coming

Part 3: Everything you know is wrong





EVERYTHING YOU KNOW IS WRONG!



Keep questioning & OODAing! You must be prepared to throw even your most cherished beliefs out the window if they become dissonant with your environment.

You have to be able to "let go" of material things too. If your capital is about to become obsolete, it is better that you recognize it and deal with it than to let the market (your competitors) do so.

Never let your doctrine become dogma

The imperative must be to stay sensitive to the environment and keep responding to it!



Everything You Know is Wrong: Example: Schuler Presses

Real World Application: CRH of North America: 2005



500 Ton Hydraulic Press

- \$20 million in investment globally
- Belief in necessity of this type of press
- 400 Parts per hour
- 7 step complex line dies
- Very slow tooling changeover

Everything You Know is Wrong: Example: Schuler Presses

Real World Application: CRH of North America: 2005



150 Ton Mechanical Presses

While visiting a Asian competitor:

- We saw a press line that took our complicated process and broke it down into simpler steps
- Ran at around 1000 parts per hour for the same amount of investment
- Simple tools faster changeover



Everything You Know is Wrong: Example: Schuler Presses

Real World Application: CRH of North America: 2005

- CRH ownership immediately recognized the potential advantages of this system
- A study was undertaken to determine whether the quality could be maintained
- · Once the study was completed we started our first press line
- We doubled production rates, reduced tooling costs and reduced the time for changeover
- We destroyed the value of \$20 million in assets

This could never have happened at a "normal" US company

Everything You Know is Wrong: Example: Schuler Presses



Real World Application: CRH of North America: 2005

Several years ago a study done by MIT's Sloan school of management came to the conclusion that large American corporations were not able to innovate.

American corporations, once capitalized, were loath to entertain anything that would disturb that capital structure.

In other words, "We bought it, let's run it to death and woe unto all those who would come up with ideas that would threaten the basic concept of running it to death. Invest as little as possible and use it for as long as you can."

It sounds like a pretty good idea, however, when this becomes corporate dogma, which it often does in the Finance driven USA, and that dogma becomes so powerful that it blinds its adherents to unfolding circumstances or a new reality, then it becomes a bad idea; (see Kodak).



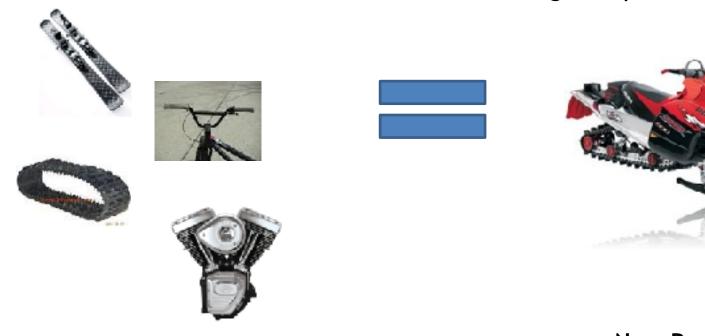
Part 4: Of Snowmobiles and Steering Adjusters
Or: Adaptive Re-use

Building Blocks

Of Snowmobiles and Steering Adjusters



Lessons from the Master The Colonel's famous "Thought Experiment"



New Product

Of Snowmobiles and Steering Adjusters



Lessons from the Master

And the Colonel's conclusion about winning and losing!

A loser is someone (individual or group) who cannot build snowmobiles when facing uncertainty and unpredictable change;

Whereas

A winner is someone (individual or group) who can build snowmobiles, And employ them in appropriate fashion, when facing uncertainty and unpredictable change.

Of Snowmobiles and Steering Adjusters



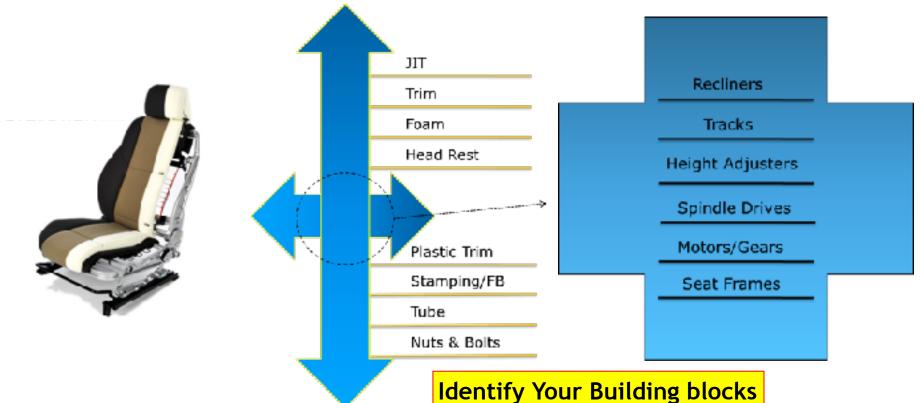
Lessons from the Master

Boyd was trying to demonstrate two things here. One, that complex systems can be broken down into "building blocks" which can be adaptively reused and reconfigured into new systems saving the designer time and making him or her quicker and more effective at coming up with new solutions.

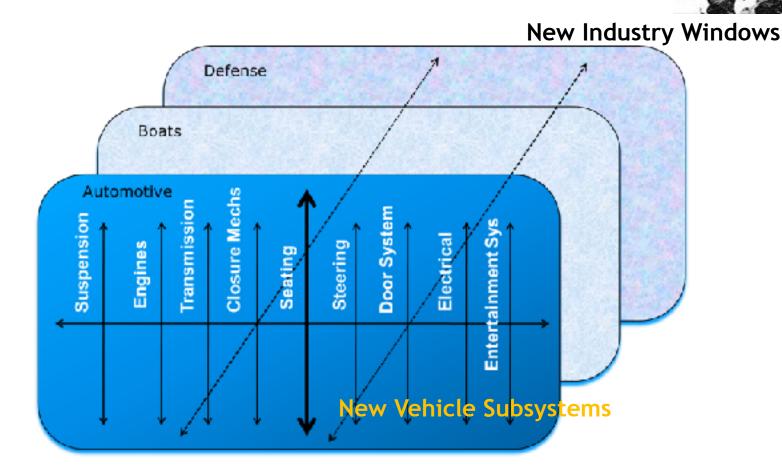
The other point Boyd was trying to make is that if we can look at things from a number of perspectives and utilize the tools of analysis and synthesis to come up with novel approaches that integrate seemingly unrelated concepts or elements we can help ourselves to be successful.

Of Snowmobiles and Steering Adjusters





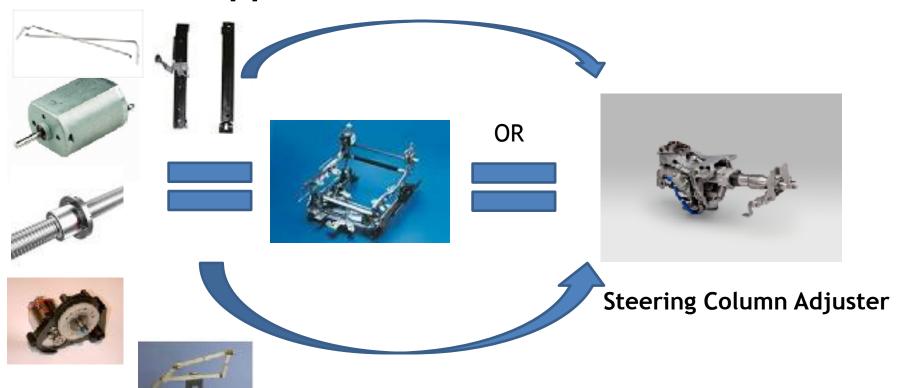
Of Snowmobiles and Steering Adjusters: And Find Homes For Them



Of Snowmobiles and Steering Adjusters New Vehicle Subsystem



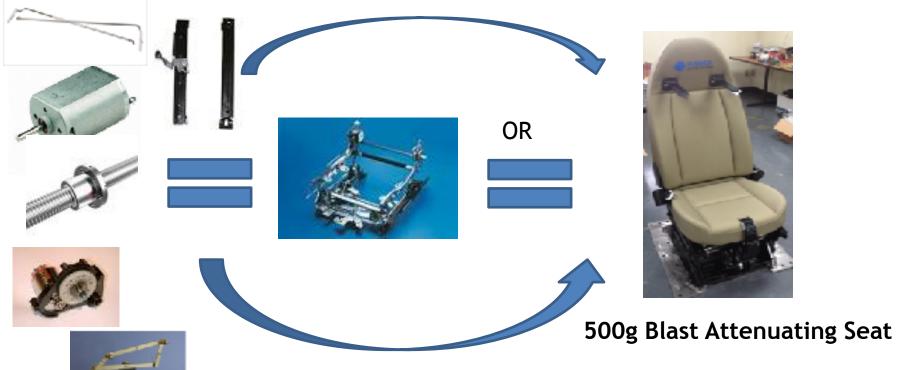
Real World Application: CRH of North America: 2004



Of Snowmobiles and Steering Adjusters
New Industry Window



Real World Application: CRH of North America: 2007

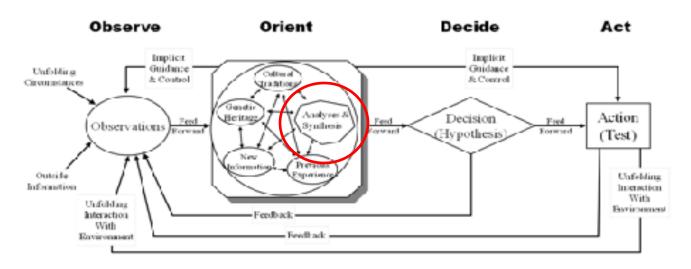




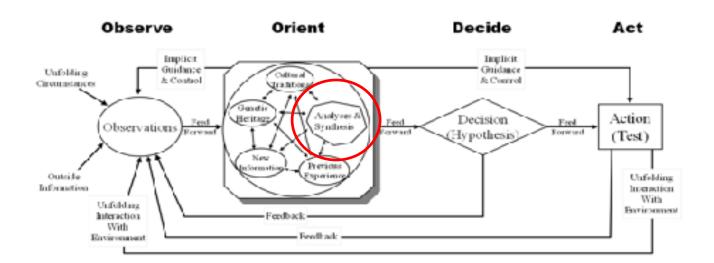
Part 5: Finding Unique Solutions (Synthesis)



Before we continue, a note about analysis and synthesis



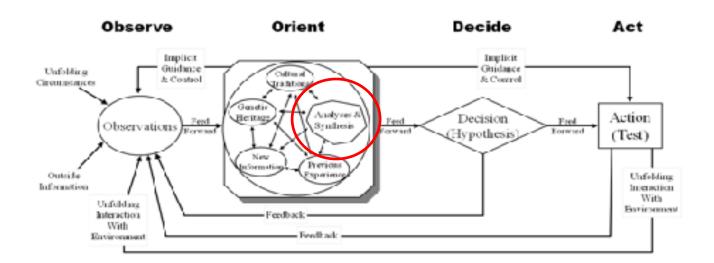
This is Boyd's OODA loop, we could talk about this thing alone for over a week, which we do not have. Therefore I am going to take two elements out of this loop and clarify and amplify because of the importance of these disciplines





<u>Analysis</u>: We are all familiar with this. Analysis is, in a way, destruction. It involves taking something apart and drawing conclusions from looking at the manner in which indivdual parts interact with one another. (General to Specific)

Synthesis: Not so familiar unless you have studied Kant, Fichte, and Hegel. Synthesis is, in a way creation. It involves drawing a conclusion from an incomplete data set. This is tricky and requires solid understanding of the manner in which external unfolding circumstances (environmental factors) may be changing in real time and how those changes may effect you. A solid understanding of probability and statistics helps. (Specific to General)





When reaching a decision on approaching the market, mastering the disciplines of analysis and synthesis are key aspects of decision making.

To master these disciplines requires education and training. The highest probability for success will be achieved when the leadership is both highly trained, highly educated and externally focused.

Let us proceed



Finding Unique Solutions (Synthesis):

The complicated orientation component of the OODA loop is synthesis.

To oversimplify it, synthesis is what happens when you are forced to draw a conclusion from an incomplete data set.

You have to think and plan in ways that are different. You have to adapt. You have to try things that are not "normal".

Developing a non-standard "mindset" is a key success factor.

Keeping it churning is another

Finding Unique Solutions (Synthesis):



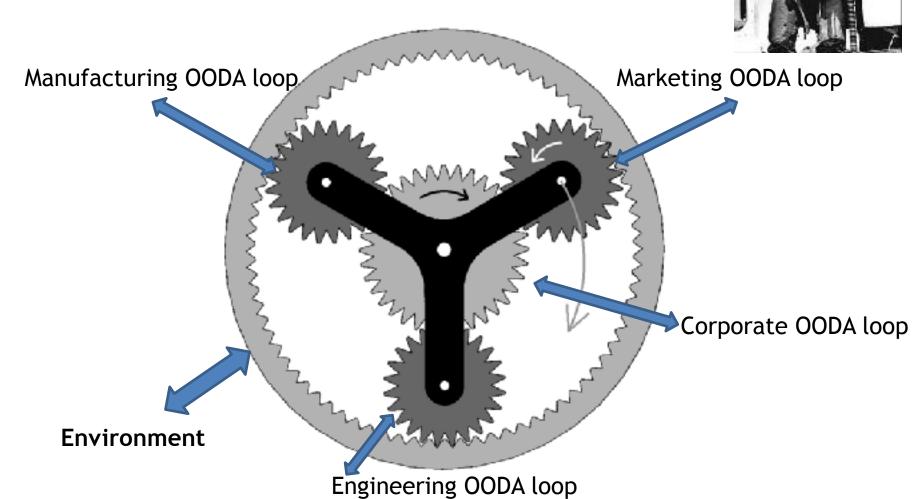
"Plans are Nothing, planning is everything"
- Dwight D. Eisenhower



This process of planning, of turning the OODA loop again and again IS the important part because it creates a creative, problem solving mental tapestry in its possessor.

Finding Unique Solutions (Synthesis):

Think of a planetary gear system



Finding Unique Solutions (Synthesis): First we fail



Real World Application: CRH of North America: 2006



2 years; no joy

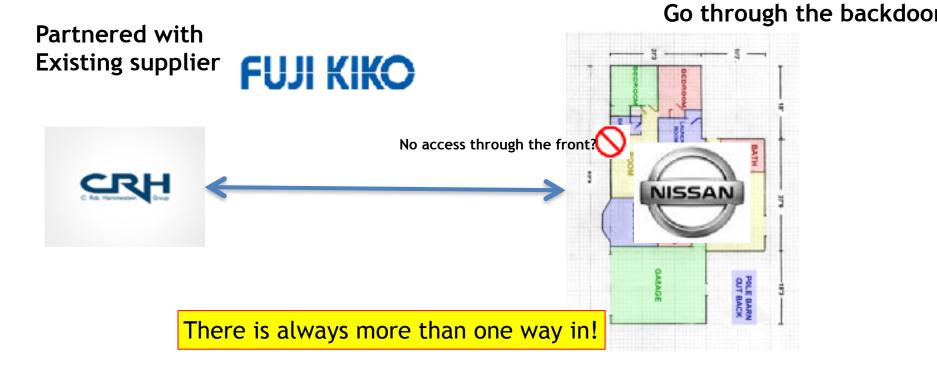


HONDA

Finding Unique Solutions (Synthesis): Winning using a Flanking Maneuver



Real World Application: CRH of North America: 2006





Part 6: Leadership

- 1. Leadership and Decision making
- 2. Encouraging Initiative
- 3. Providing a Coherent Strategy

Part 1

1. Leadership and Decision Making

Postulates:

- Business is War Japanese Proverb
- Most wars have an economic impetus
- Most business conflicts have a economic impetus
- The lessons of military leadership can be applied to busines



1. Leadership and Decision Making



More Postulates:

Leadership is, first and foremost, **about DECISION MAKING** and when, and when not to make a decision.

Decision making requires not only a system that includes the Boyd cycle, it also requires a management philosophy and practice which drives the right to make decisions down as far into the organization as possible.

1. Leadership and Decision Making

Good Grief More Postulates:

In a global setting only a decentralized organization can have a fast Boyd cycle. If players have to wait as the inputs they collect are transmitted up and down the management chain, with secondary requests for more "perfect" information called for, so that the ideal decision may be reached, the Boyd cycle is going to be far too slow.

The environment is far too complex, the distances are far too great, and the fear of making an imperfect decision is far too paralyzing.

1. Leadership and Decision Making



- Modern international business enterprises cannot be governed by the actions or decisions of a single individual in any one place but must to a major degree emerge from the collective behavior of all the individual parts in the system interacting locally in response to local conditions and incomplete information.
- The success of an international business enterprise cannot be in the monolithic execution of a single decision by a single entity but necessarily involves near countless independent but interrelated decisions and actions being taken simultaneously throughout the organization.
- Efforts to fully centralize business operations and controls by a single decision maker are *inconsistent* with the intrinsically complex and variable nature of the global business environment.



Precise, but not Accurate

1. Leadership and Decision Making

Embracing this approach requires that we will sacrifice some level of precision in analysis in favor of speed.

Accurate, but not Precise

Precise and Accurate

The state of the stat

Precision vs. Accuracy

Not Precise or Accurate

Works for me!

Part 2

2. Encouraging Initiative

- We must not stifle boldness or initiative and we must continue to encourage both traits, on the other hand, we should deal severely with errors of inaction or timidity.
- Consequently, trust is an essential trait among leaders; trust by seniors in the abilities of their subordinates and by juniors in the competence and support of their seniors. Trust must be earned; any actions which undermine trust must be met with strict censure.
- Trust is a product of confidence and familiarity. Confidence among colleagues results from demonstrated professional skill. Familiarity results from shared experience and a common professional philosophy.

Google's Project Aristotle found that if people felt "Psychologically Safe", that is, if they could trust each other, even if they made a mistake or said something controversial,

that this was the single common characteristic of sucessful teams

2. Encouraging Initiative



But What Does this mean? How do we build trust?

This means that we must allow for a certain amount of mistakes.

In order to minimize the pernicious effects of mistakes created by making decisions with imperfect data at high rates of speed, we must be certain that our personnel are **properly equipped and trained** to deal with their environment and their span of responsibility and control in the best manner possible

2. Encouraging Initiative



But What Does this mean?

Practitioners of fast maneuver conflict methods accept that it is preferable to have **well trained** associates who exhibit high levels of initiative with the attendant ability to turn a Boyd cycle quickly, even if this means that acceptance of some mistakes is inevitable.

This is important because for a fast maneuver organization to be successful, we need to develop these traits.

Therefore you have to commit to a system of training and education that allows you to develop associates who are simply better than the competition and have the confidence to trust each other and act on what they encounter.

2. Encouraging Initiative



But What Does this mean?

It means that if you have the best people, properly trained, ready to take the initiative, and who trust each other, your life will be much easier.

If you have the right team, it will be difficult to fail.

If you do not have the right team, it will be difficult to succeed.

"I would rather go down the river with 7 studs than with 100....."

Col. Charles Beckwith

Part 3



3. Providing Coherent Strategy

The third element of Leadership is for that Leadership TO PROVIDE a COHERANT STRATEGY SUFFICIENT TO IMPEL THE ORGANIZATION IN A DIRECTION DESIGNED TO ASSURE ITS SURVIVAL.

3. Providing Coherent Strategy

Lessons from the master

"Strategy is a mental tapestry of changing intentions for harmonizing and focusing our efforts as a basis for realizing some aim or purpose in an unfolding and often unforeseen world of many bewildering events and many contending interests."

John Boyd



3. Providing Coherent Strategy

- Strategy is not a given plan for a given set of circumstances.
- It must support the creation of a fast moving organization that is very sensitive to and is sensible of, changes in its environment.
- The organization must be built to respond in an elegant manner to constant environmental changes.
- Furthermore, the organization must be be designed in a manner which will allow it to take as much advantage of these changes as possible, quickly, while losing as little energy as possible.
- In short, the strategic roadmap should produce operations and tactics sufficient to design an organization which will truly thrive on chaos.



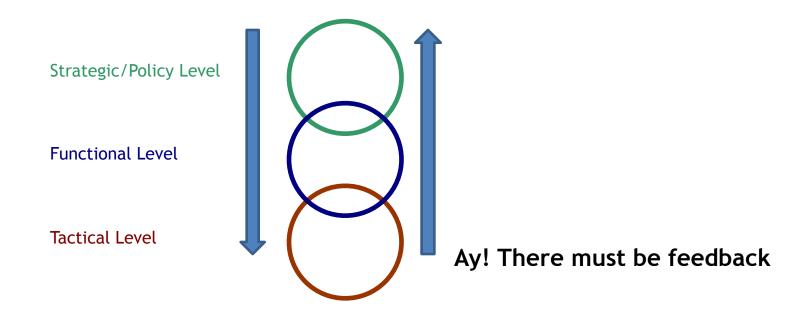
3. Providing Coherent Strategy

Yet there is always the following caveat. When a plan is written down, after the final sentence you must consider all that you have done in light of the immortal Publius Syrus who said:

"It is a bad plan which cannot be changed".



3. Providing Coherent Strategy



To be successful, the policy must be deployed into the functional and tactical levels



3. Providing Coherent Strategy

Strategic/Policy Level



First, we start with strategy at the highest level, the strategic policy level

- Policy must be deployed in an intelligent manner and must serve the companies goals, which are almost always growth and increased profitability.
- But strategic policy deployment must also be achieved in a manner consistent with our capabilities.
- The strategic policy deployment goals must, therefore, always include a provision for the enhancement of our capabilities.



3. Providing Coherent Strategy

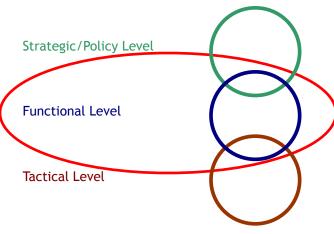
The Functional level links the strategic to the tactical levels and it is here that most of the intellectual heavy lifting will be done.

It is at this level that the planning, budgeting analysis of constraints and the defining of the campaign will be done.

It is here that we define the actions and the resources required to support such actions that will take place as well as specific asks to be implemented at the tactical level.

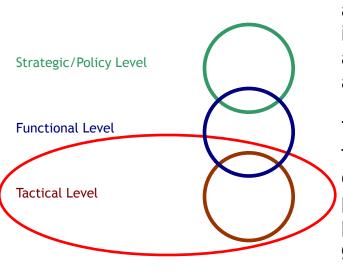
It is here the analysis of the environment is made and the relationships to other organisms can be considered.

Customers, competitors and suppliers must be considered in terms of predation, symbiosis or parasitism.





3. Providing Coherent Strategy



The Tactical level refers to the nuts and bolts of how we achieve a specific task that we consider important to address an immediate need or goal that supports a higher level operational assignment which in turn addresses a strategic policy which we are in the process of implementing.

Tactical actions might involve a control room in each of our factories, a new training program to improve responsiveness to customer requests for quotation or the development of a new program financial review procedure or the purchase of a new piece of capital equipment to increase available capacity for a growing market, etc.



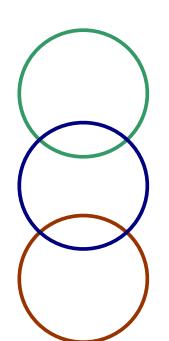
3. Providing Coherent Strategy

Like creating a symphony

Strategic/Policy Level

Functional Level

Tactical Level









Compose

Score

Perform



3. Providing Coherent Strategy

- The strategic system which is proposed here depends upon maneuver.
- Maneuver means not only moving, but also transitioning from one level or plan or state to another rapidly and with minimal loss of momentum. The better the organization, the faster the transition and the lower the loss of momentum.
- The underlying imperative is to generate speed and a fast decision loop. If we are able to effect the compression of the strategic/operations/tactical planning time required by a fast maneuver organization, this is the result:

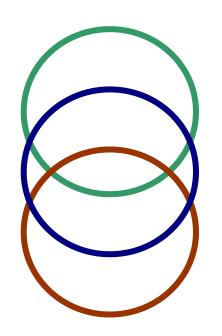


3. Providing Coherent Strategy

Strategic/Policy Level

Functional Level

Tactical Level

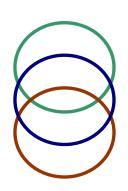


We desire
Compressed organizational
levels and functions where
there are intersections from
the Strategic to the Tactical,
with lots of interactions and
feedback.

The Japanese call this "Hoshin Kanri"

3. Providing Coherent Strategy

Strategic/Policy Level
Functional Level
Tactical Level





As we can see, the intersections and entanglements of the respective levels increase in area, the goal being that at some point the actual tactical aspects are considered at the strategic level.

This is analogous to the concept of simultaneous engineering where the goal is, at the moment a product is designed, to solidly understand more or less exactly how it will be fabricated and assembled.

This requires that a solid understanding of how things work at a tactical level be possessed by those making the strategic decisions.

By implication, a large staff structure of persons without actual front line experience and management by a mandarin class of professional managers without actual detailed knowledge of the specific business and products is anathema to a fast maneuver approach as these will slow down the decision loop.

3. Providing Coherent Strategy



Real World Application: CRH of North America: 2009

Background:

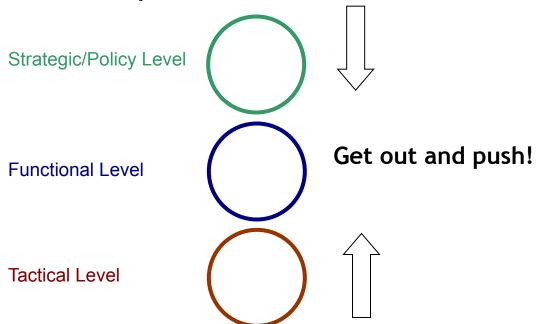
- 2009: The catastrophic global meltdown in full cry
- Management at CRH of North America took a "finance driven" approach
- Plants were losing money
- Customers were angry, no new business awards forthcoming
- Spending over \$1mio in expedited freight
- Remaining staff angry, dejected and depressed.



3. Providing Coherent Strategy

Real World Application: CRH of North America: 2009

The sets had become separated



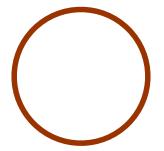


3. Providing Coherent Strategy

Real World Application: CRH of North America: 2009

Task 1: Stabilize the Factories: Triage

Tactical Level

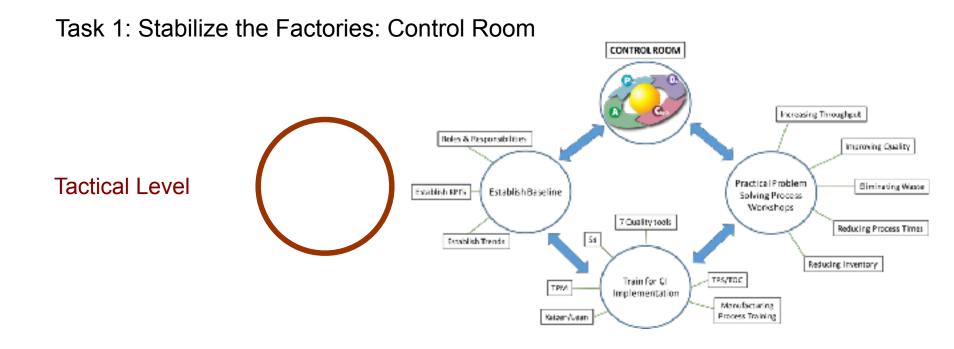


- Moved Management team to Mexico
- Walked all lines and processes
- Focused on Materials Management
- Reactivated PM system
- Layouts of all Fixtures and WPC's

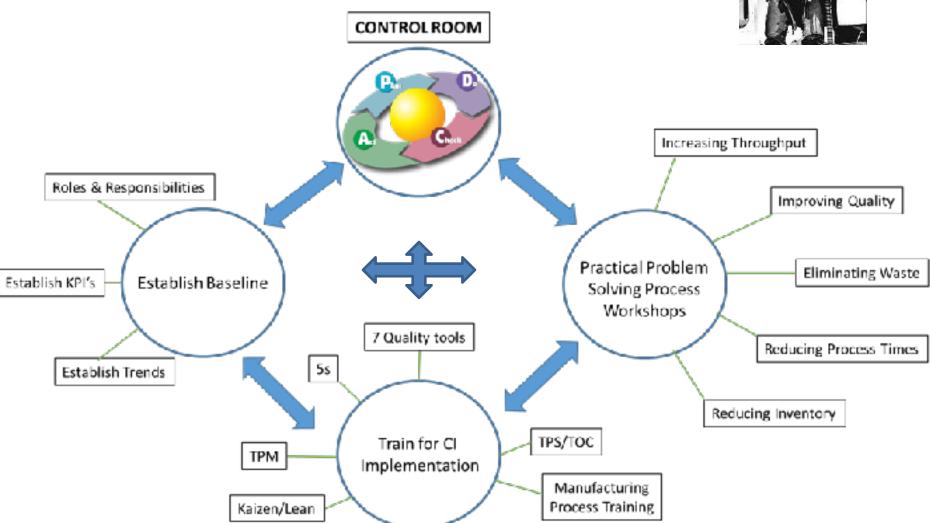


3. Providing Coherent Strategy

Real World Application: CRH of North America: 2009



3. Providing Coherent Strategy







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Real World Application: CRH of North America: 2009

Task 2: Stabilize the Customers:

Strategic/Policy Level

Market research

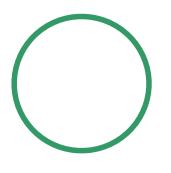
Engineering analysis

Manufacturing trends

X, Y, Z analysis

Targeted Business list

Marketing and sales plan



We then used a basic "toolkit"
To develop a new coherent strategy and re-establish our position and Standing with the customer

Base.

Within six months we had won our First new contract since 2007

3. Providing Coherent Strategy:



Strategic/Policy Level

Market research

Engineering analysis

Manufacturing trends

X, Y, Z analysis

Targeted Business list

Marketing and sales plan

Functional Level

TOC

Process Analysis

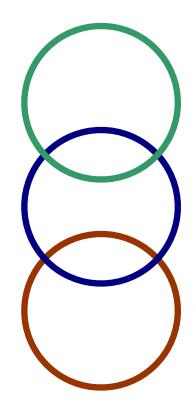
Hoshin Kanri

Tactical Level

Control Room

Kaizen

TPM



At the Functional level
We focused on "right sizing"
Functional groups and
Analyzing each process looking
For redundant or non value
Adding steps (you'd be surprised)
And we formalized Hoshin Kanri
As a method of playing "catchball"
Between the three sets



However, maneuver systems are susceptible to attrition

You must close and end it quickly or.....



Real World Application: CRH of North America: 2010

The main thing that John Boyd gave as a goal was "to reduce your opponent to the point where he was only sure of one thing, the inevitability of his own defeat". The ability to so compose the mind of the opponent so that he just gives up is, I believe, the ultimate expression of the Colonel's system.

It was therefore, absolutely delightful for me to sit at a meeting between the head of a Tier 1 "Automotive Experience" with my owner at the beginning of 2010 and listen to him offer us all of his NAFTA metals and mechanisms plants.

The owner however, decided to hold out for ALL of the Tier 1 metals and mechanisms plants worldwide. The head of Tier 1 automotive said that he would get back to our owner on this.



Real World Application: CRH of North America: 2010

The Gentlemen walked away and got back to his headquarters and with six months was convinced by his management team to make an offer to purchase both CRH and Keiper (if you can't beat'em, buy 'em).

So great was the offer, and so far over the actual market value of CRH, that it can only be described as obscene.

If maneuver conflict tactics have a weakness it is that they are, in the end, susceptible to attrition. If someone gets a hold of you, brute strength can overcome elegance and agility. Faced with a payday of biblical proportions, our owner sold CRH in 2011.

Within the year, the formally profitable CRH plants were losing money, all of the CRH senior management had gone, and the inmates were running the asylum.

Over 20 people from CRH have come to Fisher Dynamics. I could tell you what we are up to, but I won't. Suffice it to say that John Boyd still informs our approach.



And Remember, People, Ideas, Technology..... IN THAT ORDER!



Thank You for Listening