

When Change is Constant: Global Leadership in the 21st Century

- An examination some of the new ideas leaders will need to successfully deal with change in the next millennium
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The Role of Leadership

- “To Find the Future.”

JB

- “To recognize the future.”

Jack Welsh. GE

- “To secure the future.”

H. Riaz, Citicorp

Need for Leadership

- “During turbulent times, it is difficult to see the future; therefore the greatest leverage will be gained by those who can anticipate.”
– Peter Drucker

Assumptions for the Day

- I have been studying complex systems and the role of leaders
- There are important lessons from those studies
- Our targets for the day are:

Key Leadership Targets:

- The pattern of complexity
- The advantages of complexity
- The New competition
- The importance of speed
- Mutualism
- The Role of the Marketplace
- The new leadership
- Trust & Truth

Definition of a leader

- **A leader is someone
you will follow to a place
you would not go by yourself.**

Purpose of a Leader

- In the 21st century the most important role of leaders will be *to make sense* of the unfolding future.

The Leaders Speak

- “Few corporations are able to participate in the next wave of technology, because they are blinded by the business at hand.”

Edson deCastro, 1978

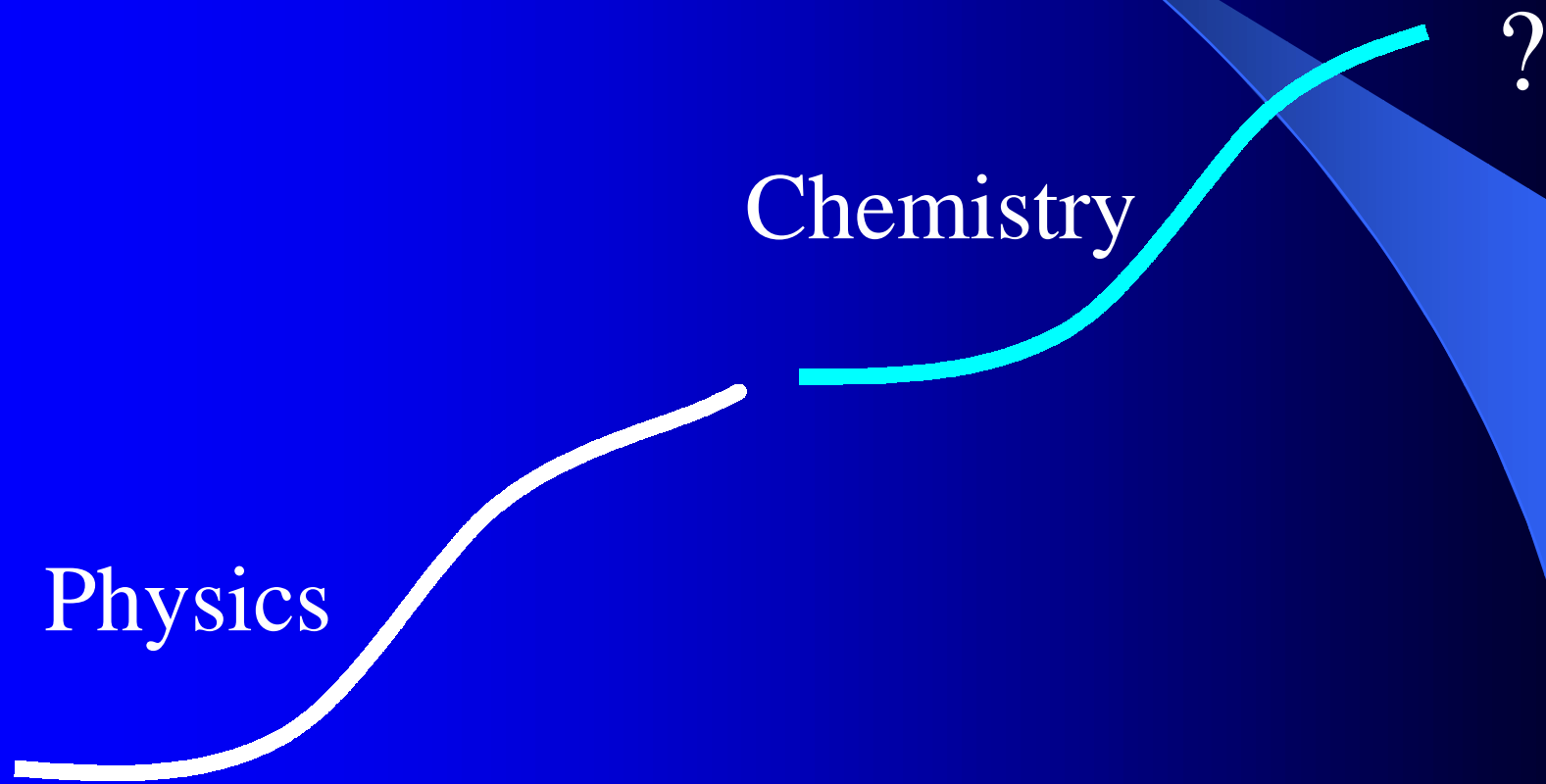
To Put It Another Way

- **If you cannot see,
You cannot lead.**

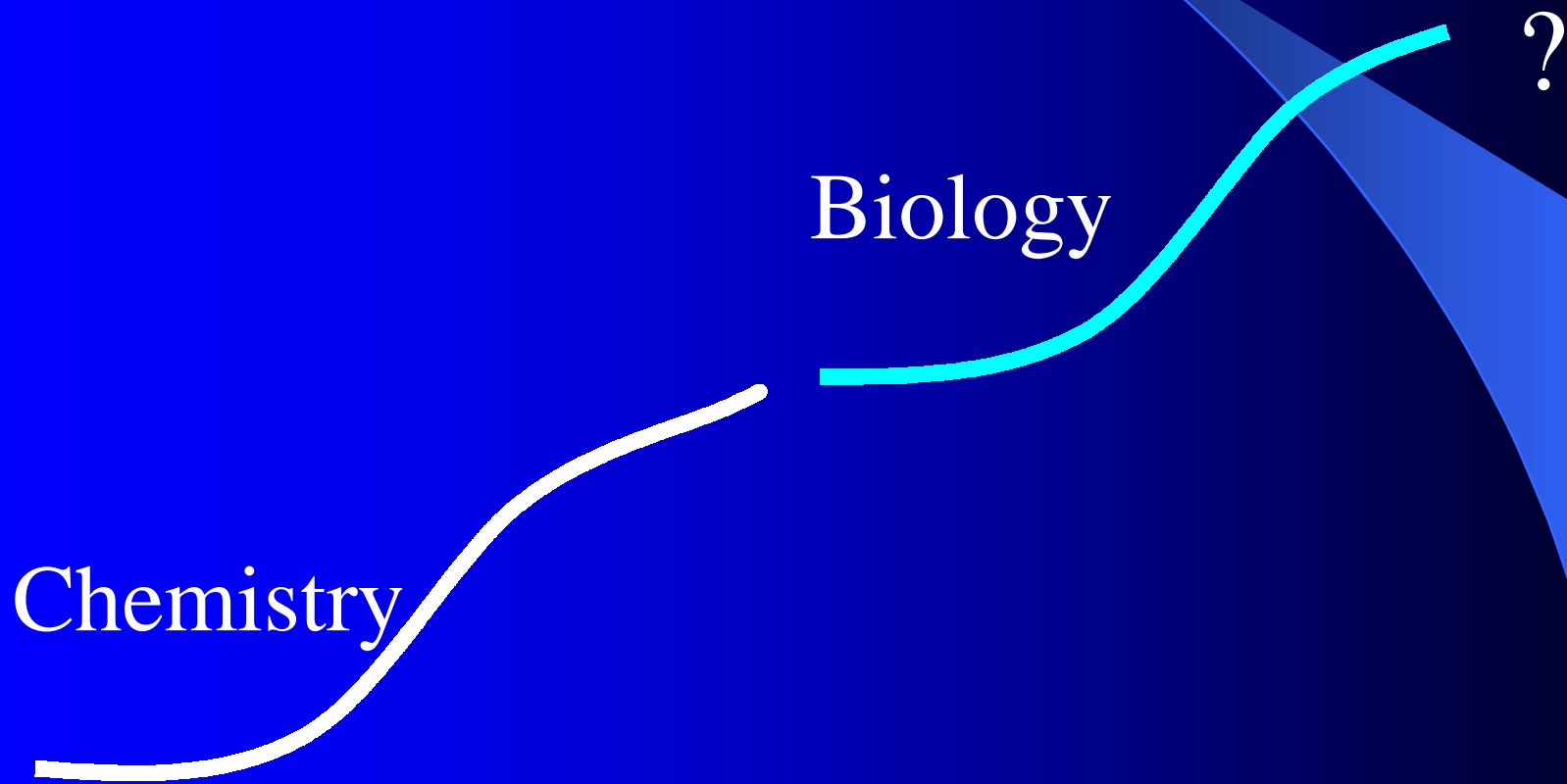
Complexity

- Ilya Prigogine won a Nobel Prize for his studies of complexity
- *Order Out of Chaos* with Isabelle Stengers
- Characterized all systems and the nature of their growth

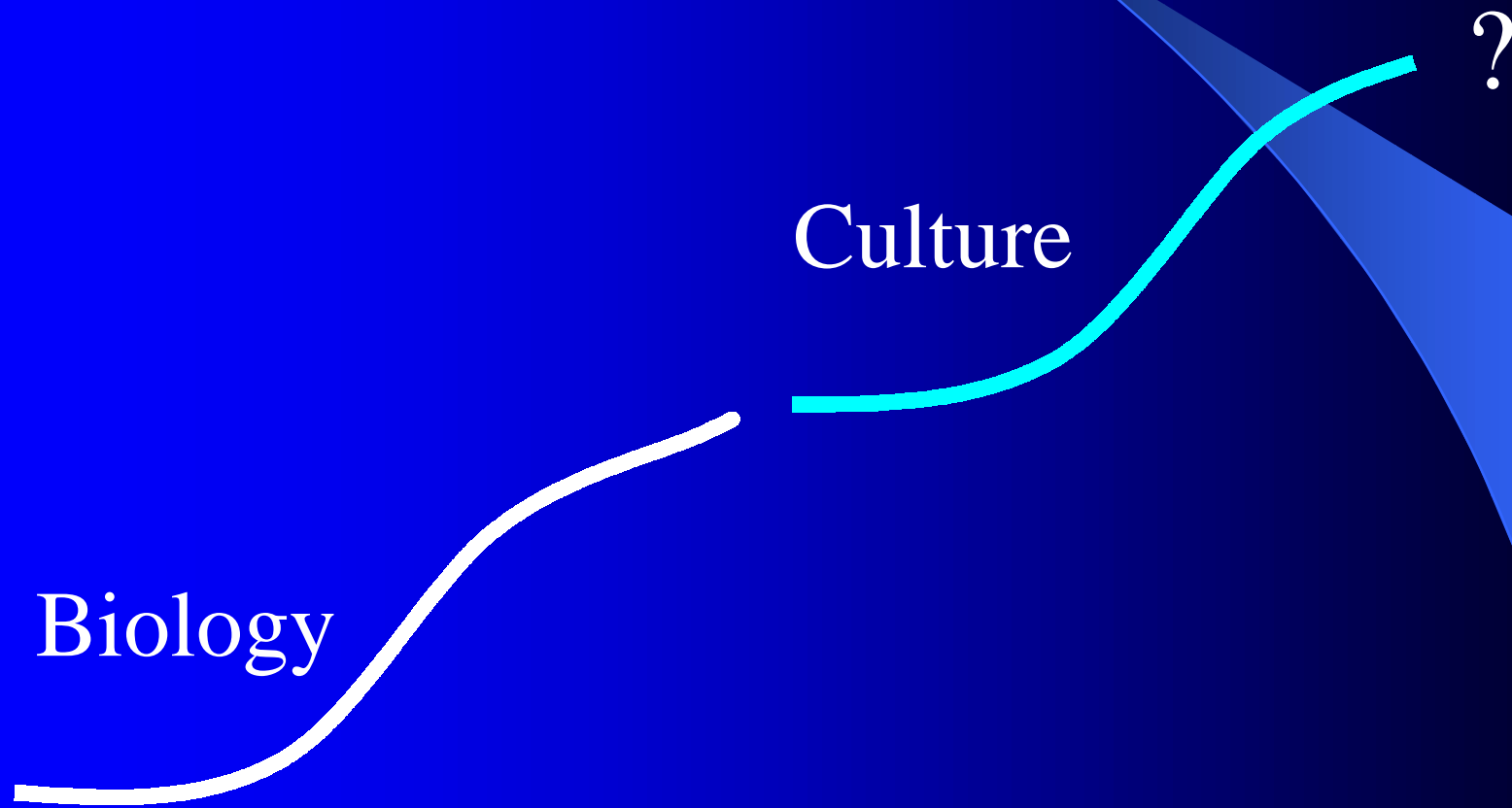
The Complexity Curve



The Complexity Curve



The Complexity Curve



Prigogine Insight #1: the Direction of Complexity

- In an energy rich area of the universe, complex systems always evolve toward more complexity, not less.
- Therefore complexity/diversity is the natural direction of the universe.
- As long as there is excess energy, it never “grows” simpler.

A Vial Example

- Small Vial filled with nutrients and one kind of bacteria--*Pseudomonas Fluorescens*
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- *Science* 10/17/97 p. 360

A Vial Example

- Small Vial filled with nutrients and one kind of bacteria
- Shaken not stirred and set in a place not to be disturbed
-

A Vial Example

- Small Vial filled with nutrients and one kind of bacteria
- Shaken not stirred and set in a place not to be disturbed -- stratification of nutrients
- 10 days later--fundamentally different sets of bacteria

Vial Conclusion

- Even in so simple an environment, the natural tendency is to differentiate and increase in complexity
- Other research substantiates this drive to differentiate

Complexity & Diversity

- Diversity—differentiation-- comes with complexity
- We see that at each increase in systems complexity, we also become more diverse in the number and nature of elements existing and interacting

The Requirement of Diversity

- New research in several areas has uncovered the profound power of diversity

The Ecological Lessons

- Study of the relationship to diversity and sustainability
- Minnesota Project--best research in the world--Dr. David Tilman
- Compared 500 prairie plots near Cedar Creek with variations on 24 prairie species

Minnesota Findings

- Complex eco systems are robust over a much wider range of conditions
- After major shock, complex eco systems return to vigor, recover much faster, than simple systems

Minnesota Findings

- Complex eco systems are much better at withstanding and defeating disease and pests
- Complex eco systems utilize available resources much more efficiently than simple systems

Minnesota Findings

- Both the system and individuals within the system do better when the system is complex.
- Complex eco systems, therefore, are much “wealthier” than simple systems over any long period of time!

Minnesota Findings

- In the complex plots, all participant species gained greater stability
- Performance of the complex plots were more predictable against greater variation in the environment

Obvious Benefits

- Diversity and Complexity generate many benefits that can be harvested if leaders understand these relationships.
- Those organizations and nations who are not diverse in their structures and markets are at a horrific disadvantage to those who are!

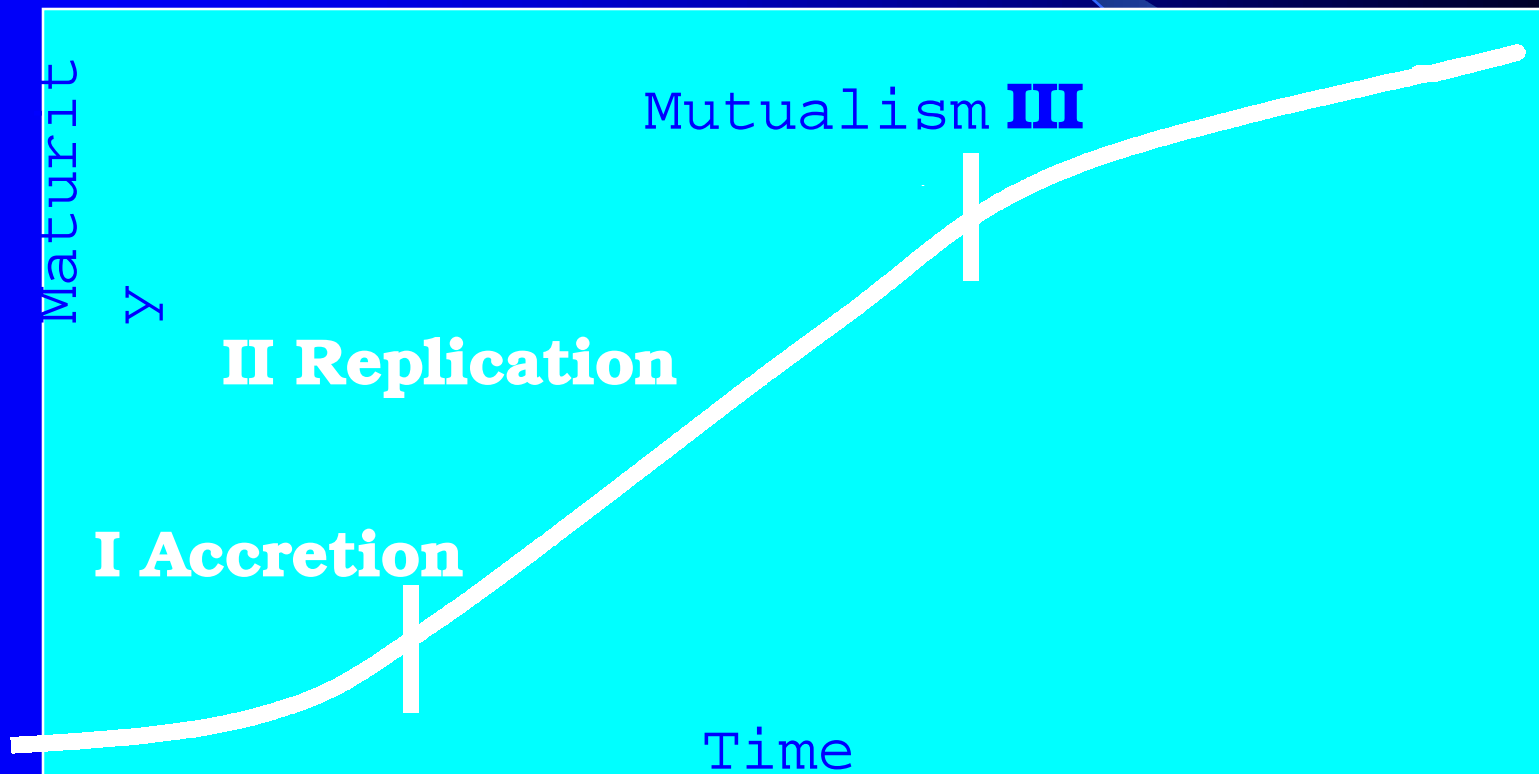
Complexity's Dilemma

- If the world is going to get more and more complex, then how do we deal with the challenges that come with all that complexity?
- Where do the answers come from that we will need to function in a more complex world?

George Land's Theory of Growth

- **His book: *Grow or Die*** is about the dynamics of growth and complexity
- Delineates a growth pattern that operates at all scales in the universe
- Has three stages of development.

George Land's Answer: The 3rd Phase



The Power of Mutualism

The joining together of elements that are different from one another to create new combinations to deal with the problems of the world

- You must have a diverse inventory in order for mutualism to occur

The Power of Mutualism

- The result: new combinations based on differences instead of similarities
- Mutualism can produce an almost infinite number of combinations to respond to the ongoing changes of our increasingly complex world as long as differentiation continues to occur.

Mutualism Trade-off

- From mutualism, something powerful should emerge that benefits the combination as well as each member.
- You always have to give up something to get the mutualistic benefit.
- Fungus response to being cut off...

Collaboration & Mutualism

- In almost all ecosystems, the level of collaboration is more than 90% of the activity
- Competition of the “tooth and Claw” variety turns out to be much less frequent than officially described

Mutualism Examples

- Mitochondria and human cells
- Grasshopper and the grass
- A orchestra
- A Healthy organization

Singapore

- 1965 beginning, it was armpit of the world
- huge potential for race riots
- today it is
 - fifth wealthiest per capita
 - most trusted nation
 - capable of working with broad range of cultures
- Mutualism was required

Mutualism Lessons

- If you don't have diversity, you can't practice mutualism
- But if you don't know how to be mutualistic, diversity's value is lost

Mutualism's Scale

- An interesting observation: You never see a “merger” in nature. Instead, all large projects are collaborations of many independent species who mutualize to gain the advantages of the scale
- Ecosystems!
- This is how smaller organizations and nations can challenge the larger.

3rd Phase Conclusions

- Mutualism is the process that converts diversity into new ideas!

How Important Is Speed?

- One of the major questions in the past 20 years is “How swiftly should we move on a new idea?”
- The dotcom catastrophe seemed to say that speed is not the answer
- Ecological research says otherwise

GAP Theory Revised

- Recent research in Panama proves wrong one of the most powerful ecological rules that was, until now, considered axiomatic
- Question: when a gap forms in the forest canopy, who captures the prize space?

The Old GAP Theory

- Obviously, the most competitive plants would grab the lighted space and make it their own.

The New GAP Theory

- It turns out, “most competitive” has nothing to do with it
- It has everything to do with *who is ready to respond to the opportunity at the moment it presents itself in the locality*
- In other words, **FIRST-IN** has enormous value and can, in fact, usurp the most competitive plants

The New GAP Theory

- This mechanism explains why one species doesn't ultimately become the whole forest, and, in fact, guarantees an almost infinite variety of options.

So Why Did Dotcoms Fail?

- Incomplete DNA
- They were never fully functioning organisms
- The marketplace tested them and they were faulty

New/Oldest Role of the Marketplace

- Old paradigm: its dominant purpose is to set prices
- New paradigm: it does that only as a last resort
 - It has a far more important role that it has been doing for a billion years
- It's most important role is to trigger innovation!!!

Verge-ual Reality

- Where does innovation happen?
- Old answer: in the richest part of the ecosystem
 - heart of the Congo
 - The corporate laboratory

The New Answer--at the Verge

- A verge is where something and something different meet
- In ecosystems it is where two ecosystems collide
 - ocean and seashore
 - forest and prairie
 - Savannah and jungle
 - river and dessert

The Most Ancient Verge

- The Single cell soup
- Recently discovered that bacteria exchange plasmids by placing them into the free floating environment
- Bacteria test the new genetic material to see if it can confer an advantage
- This is a marketplace based on barter

The Richness of the Verge

- Having a strange environment very near triggers an organism to explore it for possible advantage
- In that exploration, it discovers that novel changes give it advantage, i.e. innovations
- Estuaries

The Human Verge

- We have had a working verge in all cultures for a long, long, long time
- We call our verge: the Marketplace
- Assemblage of differences
- Opportunity for re-combinations
- Wonderful place for mutualism to develop which fosters innovation

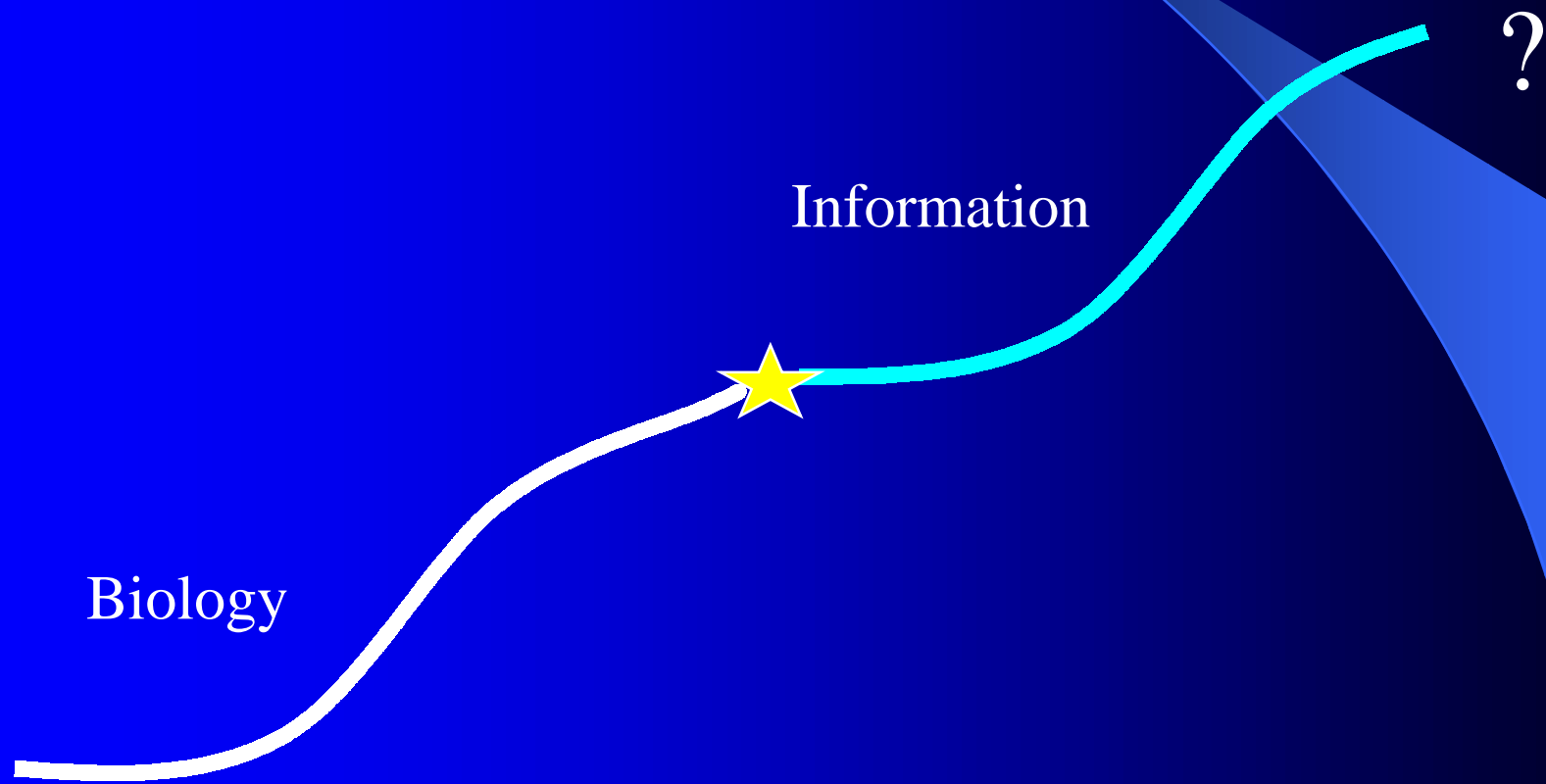
Innovation as Lever

- Intuitively obvious: innovation creates a natural monopoly and confers substantial competitive advantage
- That's why continuous improvement without continuous innovation is cannot succeed in the long term.

Two Leadership Insights

- Back to Prigogine
- Forward to Super-productivity

The Complexity Curve & Leadership



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Prigogine Insight #2

- During the transition from one system to another, single individuals will make all the difference in the shape of the next system.
- Statistics play no part in the influence of the next system
- True from atoms to complex social systems

Level I Transitional Influencers

- Jesus
- Mohammed
- Joan of Arc
- Lincoln
- Einstein
- Hitler
- Gandhi
- Gorbachev
- Thatcher
- Mandela

Level II Transitional Influencers

- Rachel Carson
- Ralph Nader
- Caesar Chavez
- Gloria Steinheim
- Ronald Regan

Prigogine Insight #3

- Because of the profound influence of individuals at crucial times, the new system *cannot be predicted* from the nature of the old system
- Two examples:
 - Telephone to Internet
 - USSR to Russia

Key Responsibility in the 21st Century

- Because of the global media and the nature of communications, leaders must be far more careful of their actions than ever before. George Bush has violated this responsibility several times already:
 - CO2 comments
 - Missile shield comments

Leadership and Productivity

- Professor Tor Dahl's landmark research
- Profound connection between your style of leadership and levels of productivity
- Tor Dahl built on Mehrabian and Russell's work

New Targets for Improvement

- Researchers concluded that it should be easy to free up 30% of time and resources!
- 60% was a legitimate stretch goal
- What do numbers like this do for your productivity?
- What would happen if you all got twice as productive as you are now?

Leadership Discovery

- The style of your leadership can create high performance or low performance domains

The Emotional Lever

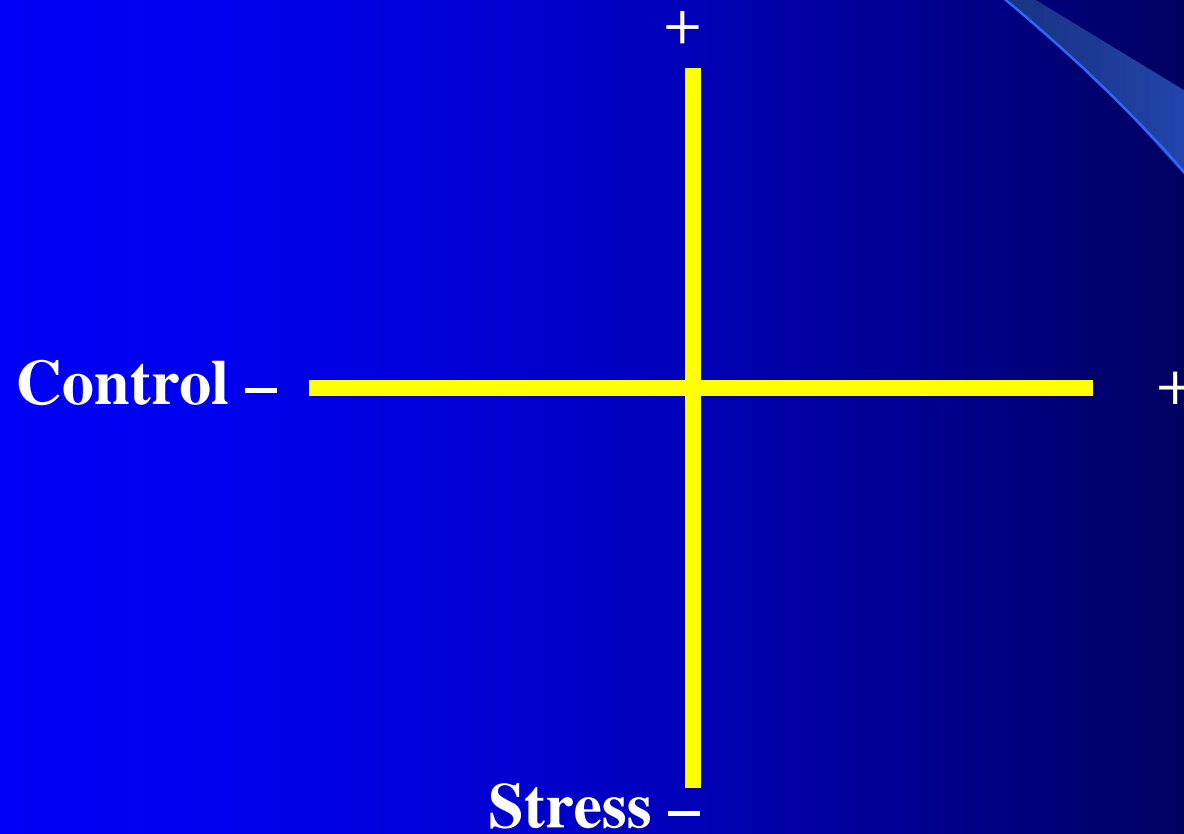
- “People change when they are involved, engaged, enthusiastic, and committed. All of these states are found in the affective(emotional) domain.”

Tor Dahl

The Leadership Grid

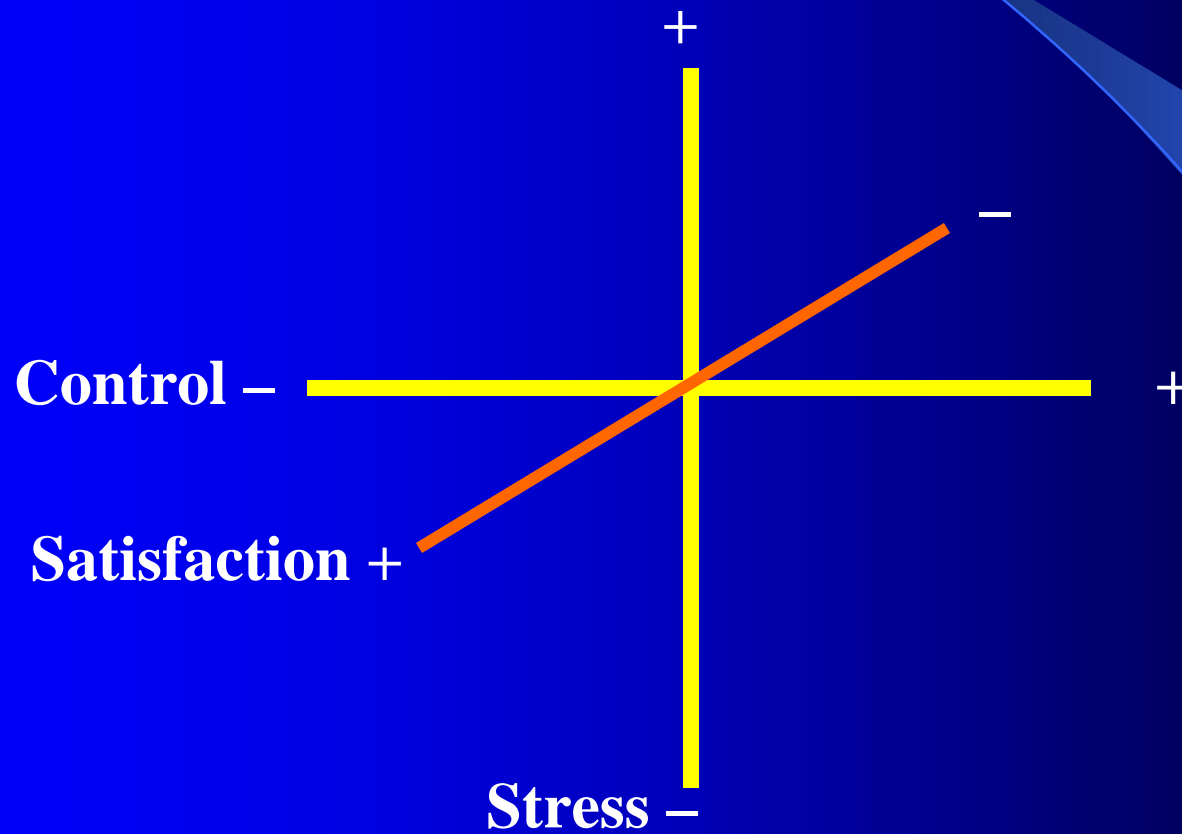
Control –  +

The Leadership Grid



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The Leadership Grid



Location, Location, Location

- Where you are on these three axes predicts what kind of productivity your followers will have!

Low Productivity Leader

- Bully leader--Sets impossible goals
 - controls negatively
 - through threats
 - rejection
 - Distressed
 - doesn't give you resources to be successful
 - Deep dissatisfaction--compliance only

High Productivity Leader

- Charismatic leader--Sets Challenging goals
 - Controls through
 - challenge
 - praise
 - shared decision making
 - Creates exciting stress
 - High satisfaction

Productivity Difference between Domains

- Highest productivity: Charismatic
- Lowest productivity: “bully”

The Difference

- 20 Times!
- It's all about people!

The Reasons are Obvious

- You hate your work
- You are constantly threatened
- You are not given the resources you need
- You have no control over your future

The Positive Contrast

- You are honored and challenged
- You know if you fail you will be given another chance
- You get the resources you need
- You have interacted in decision making

Leadership Conclusions

- There is no way a bully leader can compete, over the long term, with a charismatic leader
- This is a new paradigm
- If you want to lead change, how else would you do it?

Leadership & Trust

- Francis Fukuyama, author
- Studied the profound connection between trust in societies and wealth
- Two major trust structures:
 - “Trust only your family.”
 - Learn to trust human beings
- Only with #2 can you grow the best teams

Trust and Leaders

- Those societies who are the most trusting of those beyond their families are the wealthiest societies in the world
- Trust means not having to spend money to cover your back!
- Trust is engendered by leadership modeling

Two Profound Examples

- Mayor Daily of Chicago.
- Senior Minister Lee of Singapore.
- Because they did NOT enrich themselves, their followers could trust them and grow to greatness.

Leadership Thoughts

- Crisis Leadership: no big deal

Leadership Thoughts

- Crisis Leadership: no big deal
- **Follow me or you will die.**

Leadership Thoughts

**“Great Leadership is the ability
to perform miracles
in the absence
of a crisis!”**

Scott Sink, *The Leader*

So Where Are You Going?

- The great challenge to leaders
- The new messages are clear
 - Complexity/Diversity/Verges
 - Mutualism/Innovation
- Those that get it are going to have a great 21st century!

The Leadership Challenge

- The next level of change is not about things
- It is about people
- Any nation can lead the rest in the next 20 years regardless of your size or your past
- The simple question is: who is willing to step up and do it?