Leading and Managing Change

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November, 2015
Plan for Our Time Together

• Introduce myself
• My approach to teaching and learning
• Leading and Managing Change
  – The Psychology of Getting Things Done
• Framework
  – A “User’s Guide” to People With Brains
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”The hard stuff is easy; it’s the soft stuff that is hard.”
Ray Stata, founder Analog Devices
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Basketball!
One reptilian legacy is that as our eyes sweep across the field of view, they make tiny jumps. At the points between where the eyes alight, what reaches the brain is blurry, so the visual cortex sees the neural equivalent of jump cuts. The brain nevertheless creates a coherent perception out of them, filling in the gaps of the jerky feed. What you see is continuous, smooth.

Newsweek article “In Our Messy, Reptilian Brains”

Our visual system’s bandwidth is about 1Mb/sec. (slower than speed of a cable modem [10mb])

Biological basis for “Inattentional blindness”? (Gorilla video)
The Phenomenal Power of the Human Mind

I cdnuolt blveiee taht I cluod aulaclty uesdnatnrd waht I was rdanieg.

The phaonmneal pweor of the hmuan mmind! Aoccdinng to a rscheearch at Cmabrigde Uinervtisy, it deosn't mttaer inwaht oredr the ltteers in a wrod are, the olney iprmoatnt tihng is taht the frist and Isat ltteer be in the rghit pclae. The rset can be a taotl mses and you can sitll raed it wouthit a porbelm. Tihs is bcuseae the huamn mmind deos not raed ervey lteter by istlef, but the wrod as a wlohe. Amzanig huh? Yaeh, and I awlyas thought sipeling was ipmorantt.

And This One?

- 7H15 M355463 53RV35 70 PR0V3 H0W 0UR M1ND5 C4N D0 4M4Z1N6 7H1N65! 1MPR3551V3 7H1N65!
- 1N 7H3 B361NN1NG 17 W45 H4RD BU7 N0W, 0N 7H15 L1N3 Y0UR M1ND 15 R34D1N6 17 4U70M471C411Y W17H 0UT 3V3N 7H1NK1N6 4B0U7 17,
- B3 PR0UD!
What do you call a tree with acorns?

An Oak

What’s Roberto’s favorite beverage?

Coke
What do you call a funny story?

A Joke

What’s another word for a cape?

A Cloak
What does a fire produce?

Smoke

What do you call the white part of an egg?

Egg white
Why the Emphasis on Brains?

- Because you have one!

Key Ideas

- The structure of the “original equipment” affects our behavior in predictable ways
  - Shortcuts economize mental energy
    - Our brains run on 20 watts of power

- Regularities
  - Not rational
  - *There is a pattern to the irrationality*
    - PREDICTABLE

- Our ability to guide change depends on understanding the raw material
Universal?

• Toys

Charlie Chaplin

http://www.wired.com/2009/04/schizoillusion
Culturally Universal?

(A)     (B)

Culturally Universal?

(A)     (B)     (C)
Dan Kahneman  
Amos Tversky

Intellectual Background

• **Cognitive Psychologists**
  – Amos Tversky, Daniel Kahneman (2002 Nobel winner)
  – Flesh out the ways in which we are incapable of being rational

• **Show ways in which the mind actively constructs reality**
  – To a large extent, we see what we expect to see...

A B C
B A C
D B A
Intellectual Background

• ...And do not see what we do not expect (think Gorillas)
• ACTIVE: Do NOT think of white elephants...
  – “The jury shall disregard…”
  – “Failure is not an option…”

Our “Original Equipment”

• Before our very eyes...
### Dimensions of Neural Functioning
Camerer et al. J Econ Lit 2005;XLIII:16

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### The Curse of Expertise

- **“Autopilot” responses**
  - In BP, in mining disasters...overriding the automatic alarms
    - Duct tape over the annoying alarm button
  - Normalize deviance...No longer mindful
  - Who are the More Mindful?
    - New people – people who do not share your assumptions
    - NSA – High School Students!!!
### Limbic System
From: Purves et al. Neuroscience

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**Volitional vs. Emotional Smile**

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Trust

“Oxytocin increases trust in humans”


http://www.nature.com/nature/journal/v435/n7042/abs/nature03701.html

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Cinnabon

http://online.wsj.com/news/articles/SB10001424052702303468704579573953132979382
Retailers Deploy Cinnamon, Chamomile and Bread in Hopes That Smells—and Customers—Will Linger

All Cinnamon, All the Time
The bakery chain serving cinnamon buns puts ovens at the front of its stores. "It's a whoa-and-wow," one franchisee says.

Scent-Free
American Apparel calls scents distracting. The chain decided against using one for its in-store marketing.

Grapefruit and Chamomile for Miles
Lush removes some of the smell of its fragrant beauty products from stores using an exhaust system.

The Dough Also Rises
Panera Bread Co. stores the bread baking from the eight-shift to daytime, so consumers could smell the aroma and watch bakers work.

When Aromas Collide
Starbucks CEO Howard Schultz decided how the smell of espresso overpowers the aroma, leading the chain in 2008 to temporarily halt sales of breakfast sandwiches.

Musky Smell of Teens
Stores in apparel chains Abercrombie & Fitch are recognized by their landmark smell, musky lighting and strong musky scent.

Basement - The Scentee
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### Body Language
Facial Expressions

• Paul Ekman found that 7 facial expressions appear to be universal

• Anger, Disgust, Fear, Interest, Joy, Surprise, Sadness

Which Baby is Which?
Anger, Disgust, Fear, Interest, Joy, Surprise, Sadness
Which Baby is Which?
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“Anxious Eyes,” James Stanfeld 1987
Dr. Zbigniew Religa

• The picture of Dr. Zbigniew Religa was taken by James Stanfeld in 1987 and appeared in the National Geographic Magazine that year. Titled “Anxious Eyes,” it depicts the exhausted yet vigilant surgeon after 2 heart transplant operations within 24 hours in antiquated conditions, monitoring his patient, and his exhausted assistant asleep in the corner. Dr. Religa died a few years after this picture was taken.
A second photograph appeared in the National Geographic years later. This picture captures the patient pointing to the picture of himself on the operating table – having outlived his surgeon by almost two decades.
• A second photograph appeared in the National Geographic years later. This picture captures the patient pointing to the picture of himself on the operating table – having outlived his surgeon by almost two decades.

• It is this laser-like emphasis on near heroic self-sacrifice to enable long, fruitful and happy lives in our patients which takes the best from our existing culture and makes it tangible and relevant to this project.
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### Endowment Effect

- **Once you have something, you value it more**
  - Thaler randomly gave out free Coffee Mug
  - Buying price: $2.75
  - Selling price: $5.25
- **Sloanes:**
  - 2000  | SpringFall | $3.37 | $2.62
  - Avg. purchasing price:  |  |  |  |
  - Avg. selling price:  | $10.87 | $9.62
Endowment Effect

- Once you have something, you value it more
- Fact of owning something makes it more valuable to the owner
- How quickly?
- Buying a car...

Buy In

- Ownership experiments
  - Cake mixes and IKEA
- Implications?
Social Psychology

• Fundamental Attribution Error
  – Lee Ross
• Fish
• What is going on with the blue fish?
Mirror Neurons
Subliminal Sociality

• Contagious sociality
  – Mirror Neurons

Social Proof

• People follow the lead of similar others
  – Elevated pressure
• Especially under conditions of uncertainty
  – For example...
Ultimatum Game

• Two players ... One has $10, makes an offer to split it with the second person
  – If Accepted: both keep the $
  – If Rejected: Neither get anything
  – Alan Alda
  – It is irrational to ever reject...Free money!

Fairness

• fMRI shows that emotional centers of the brain light up with splits of $7 / $3 or worse.
Oxytocin and Fairness

Figure 1. Oxytocin and generosity. UG offer minus average minimum acceptable offer) for those receiving OT or placebo. Generosity is 80% larger in the OT group ($p = 0.005, N = 68$).

Fairness

- Our not so distant relatives too...
**Wrap Up**

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Resistance to Change

- In many ways, innovation and change are **psychologically unnatural**
- Structure of Our Brains
  - Cognitive Biases
- Biology
  - Amygdala and fear, Trust, Mirror Neurons
- Social Psychology
  - The group as a lever

Habits

[Escalator]
THANK YOU!!

ASIA School of Business

In Collaboration with MIT Sloan School of Management

Prof. Roberto Fernandez MIT