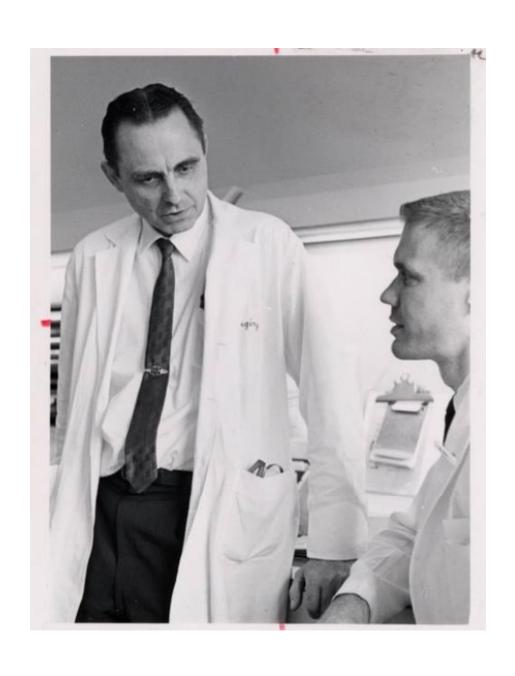
# Character Matters: A Reflection on Personal Formation for the Surgeon

John Mellinger
Krippaehne Lectureship
Oregon Health & Science University
September 20, 2021





#### WILLIAM KRIPPAEHNE, MD (OHSU CHAIR 1964-84)



- Profoundly dedicated
- Committed to teaching
- Integrity
- Kind and compassionate
- Surgeon's surgeon

#### SOME OF MY OHSU HEROES











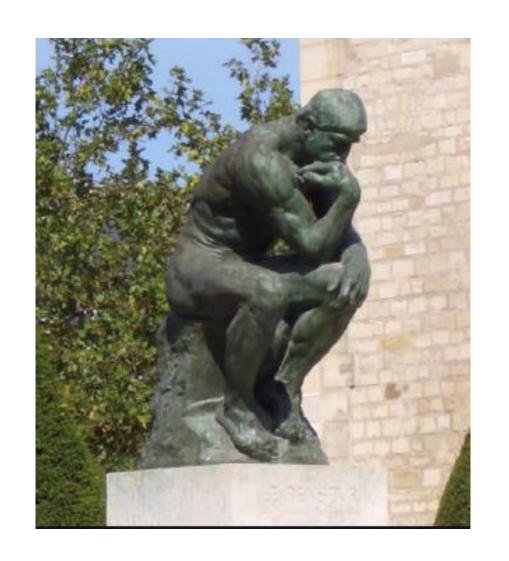






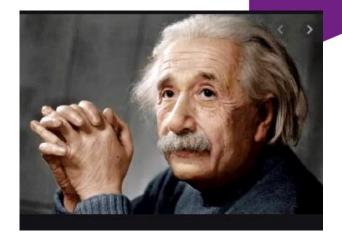
#### **DISCLOSURE**

No financial interests to disclose





#### MODERN PROPHETS: PROCESS VS. PURPOSE





- Albert Einstein
  - "The proliferation of tools and confusion of goals is characteristic of our age"

- T.S. Eliot
  - "...(people are) constantly trying to escape the darkness outside and within by dreaming of **systems** so perfect that no one will need to be good."



### MODERN PROPHETS... WHO VS. HOW?

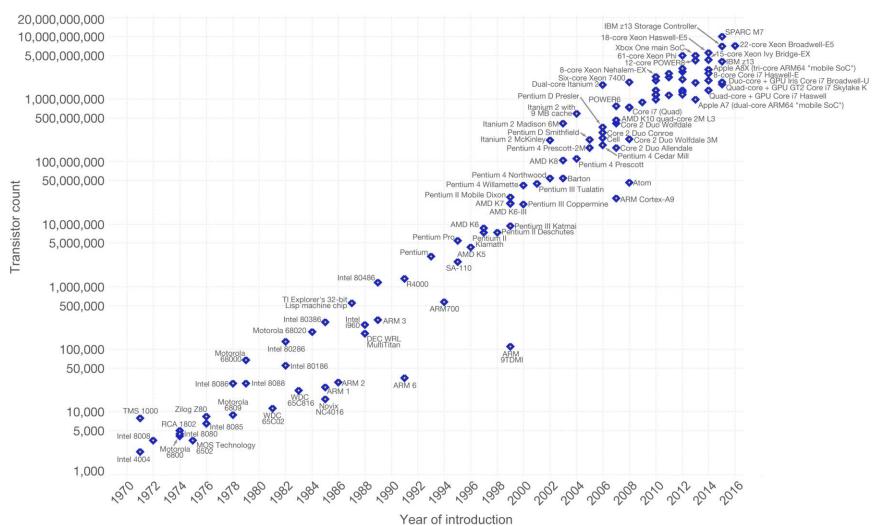


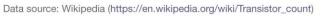
- CS Lewis
  - "For the wise men and women of old, the cardinal problem had been how to conform the soul to reality, and the solution had been knowledge, self-discipline, and virtue...
  - For...applied science...the problem is how to subdue reality to the wishes of men; the solution is a technique."

#### TOOLS...

#### Moore's Law – The number of transistors on integrated circuit chips (1971-2016) Our World in Data

Moore's law describes the empirical regularity that the number of transistors on integrated circuits doubles approximately every two years. This advancement is important as other aspects of technological progress – such as processing speed or the price of electronic products – are strongly linked to Moore's law.





The data visualization is available at OurWorldinData.org. There you find more visualizations and research on this topic.

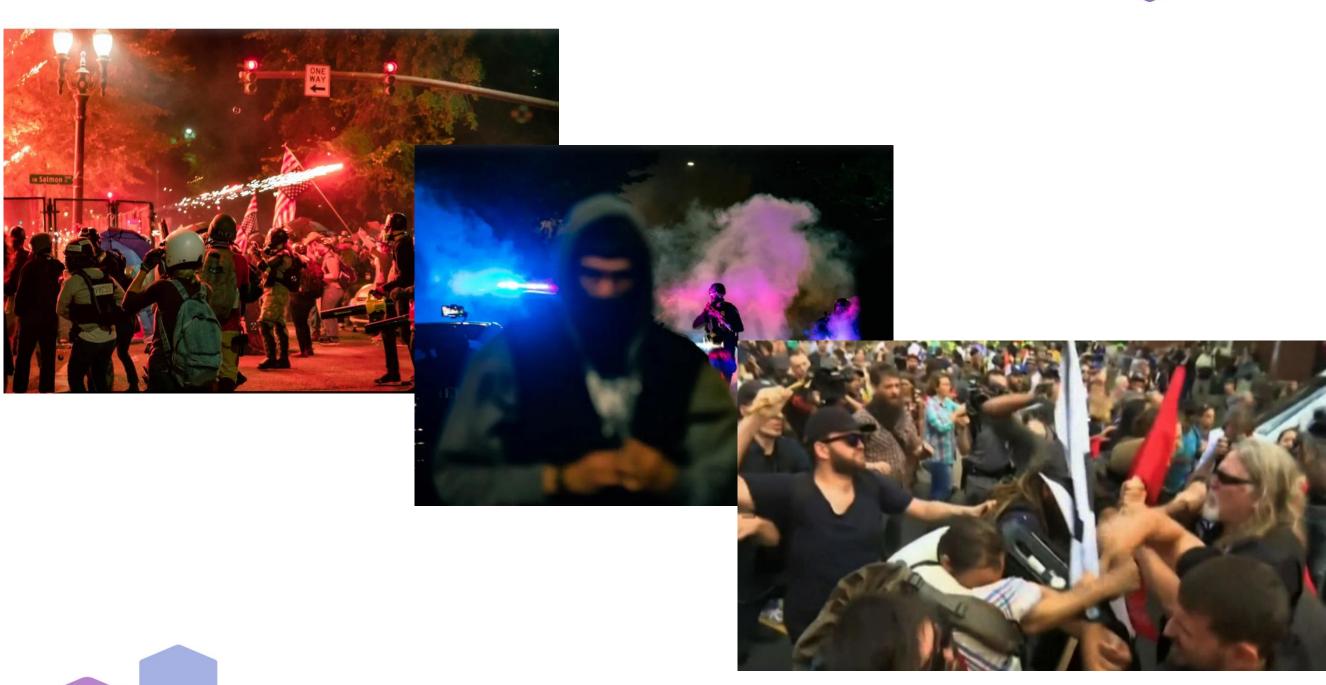






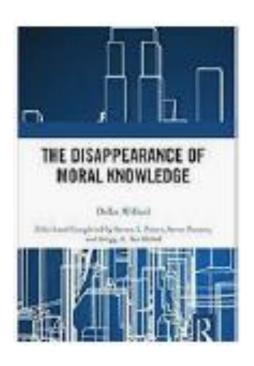
#### ARE WE LEARNING TO BE GOOD?





### CULTURAL AND PHILOSOPHICAL RAMIFICATIONS

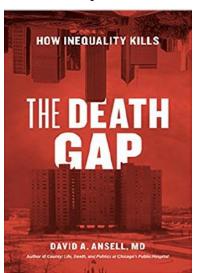
- Attempted transition to 'science' of ethics and morality
- Methodologic focus has led to cultural and academic rejection of idea that we can know what is good or right
- Loss of the gerundive

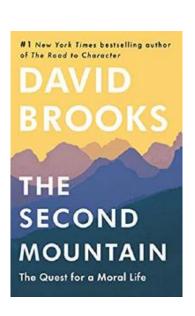


#### **HEALTHCARE: ARE WE DIFFERENT?**

- Chicago: 20-minute commute decreased life expectancy (LE) by ~20 years
- US Counties: 30-35 year LE gap between highest and lowest
  - > gap between US average and Haiti
- LE decreased 3 consecutive years in US 2016-18
  - Last happened 1916-18 (WWI, flu pandemic)









#### TIMELINE CBRE: THE MED ED VERSION OF **TOOL PROLIFERATION?**























1892 1910

1978

1990's

2000's 2010's 2020

[Fixed time (?), variable outcome model]

[Fixed outcome, variable time model]

#### **PRESSURES**

- EMR
- Robotics
- Quality and safety
- Duty hours
- Faculty productivity
- Decreased research funding
- BBA-directed GME caps
- Workforce shortage
- Rural care deserts
- Malpractice
- Burnout
- Moral injury



#### EDUCATION IS FORMATION; JAMA SURG 2016



Table 4. Mean Adjusted Adverse Event Rates by Residency Program Tertile<sup>a</sup>

	Mean Adjusted Adverse Event Rate (SE), %b			Absolute Difference (CE)	Delative Difference (CC)
Characteristic	Tertile 1 (Best)	Tertile 2	Tertile 3 (Worst)	Absolute Difference (SE), Tertile 3 - Tertile 1 <sup>b</sup>	Relative Difference (SE), (Tertile 3 - Tertile 1)/Tertile 1 <sup>b</sup>
All procedures					
Death	0.476 (0.0004)	0.480 (0.0002)	0.483 (0.0004)	0.007 (0.001) <sup>c</sup>	1.50 (0.11)
Complications	9.68 (0.08)	10.31 (0.02)	10.79 (0.06)	1.10 (0.10) <sup>c</sup>	11.41 (1.24)
PLOS	16.76 (0.03)	17.12 (0.02)	17.60 (0.03)	0.83 (0.05) <sup>c</sup>	4.97 (0.30)
FTR	2.68 (0.02)	2.82 (0.01)	2.98 (0.02)	0.31 (0.02) <sup>c</sup>	11.41 (0.96)
Emergency appendectomy					
Death	0.0910 (0.0001)	0.0917 (0.00003)	0.0924 (0.0001)	0.0014 (0.0001) <sup>c</sup>	1.50 (0.11)
Complications	3.14 (0.03)	3.36 (0.01)	3.53 (0.02)	0.39 (0.03) <sup>c</sup>	12.33 (1.24)
PLOS	11.82 (0.03)	12.09 (0.02)	12.45 (0.02)	0.62 (0.03) <sup>c</sup>	5.28 (0.26)
FTR	1.14 (0.01)	1.20 (0.003)	1.27 (0.01)	0.13 (0.01) <sup>c</sup>	11.62 (0.98)
Elective pancreatectomy					
Death	2.386 (0.002)	2.403 (0.001)	2.421 (0.002)	0.040 (0.003) <sup>c</sup>	1.47 (0.11)
Complications	25.40 (0.20)	26.75 (0.05)	27.75 (0.13)	2.35 (0.23) <sup>c</sup>	9.25 (0.86)
PLOS	12.44 (0.03)	12.72 (0.02)	13.09 (0.03)	0.65 (0.04) <sup>c</sup>	5.24 (0.28)
FTR	6.31 (0.03)	6.63 (0.02)	7.00 (0.04)	0.69 (0.05) <sup>c</sup>	10.94 (0.93)

Abbreviations: FTR, failure to rescue; PLOS, prolonged length of stay.

heterogeneity of the population. This technical issue does not affect the ordering of the adjusted adverse event rates.

<sup>&</sup>lt;sup>a</sup> Models were developed separately for each outcome measure. These calculations were performed on the log-odds scale (negative infinity to positive infinity) and then converted to probabilities (O, 1). Therefore, these values may differ in magnitude from the observed rates owing to the

bStandard errors computed via bootstrapping with 100 resamples.

<sup>&</sup>lt;sup>c</sup> Difference between tertiles, *P* < .001.

### DAVID LEACH "EXIT INTERVIEW" NOVEMBER 2007 ACGME BULLETIN

- "We teach who we are."
- "...although (the residents') journey is full of external drama
  - it actually proceeds from the inside out and is about character development."
- "Residents model behaviors and values; they especially value faculty who 'live divided no more,' i.e., whose external behavior is always aligned with deeply held inner truths."



#### WHAT ENDURES? JACS 2021



Check for updates

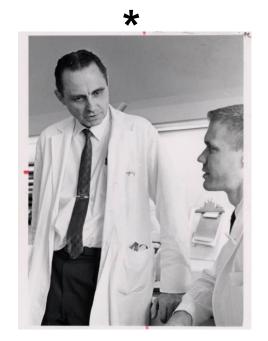
# Have the Characteristics for Success as a Surgeon Changed? A Century of Perspective Through the American College of Surgeons

Katelyn A Young, BS, Samantha M Lee, MHS, Matthew D Adams, MS4, Christie L Buonpane, MD, Sarah A Hayek, MD, MEd, Mohsen M Shabahang, MD, PhD, FACS, David A Rogers, MD, MHPE, FACS



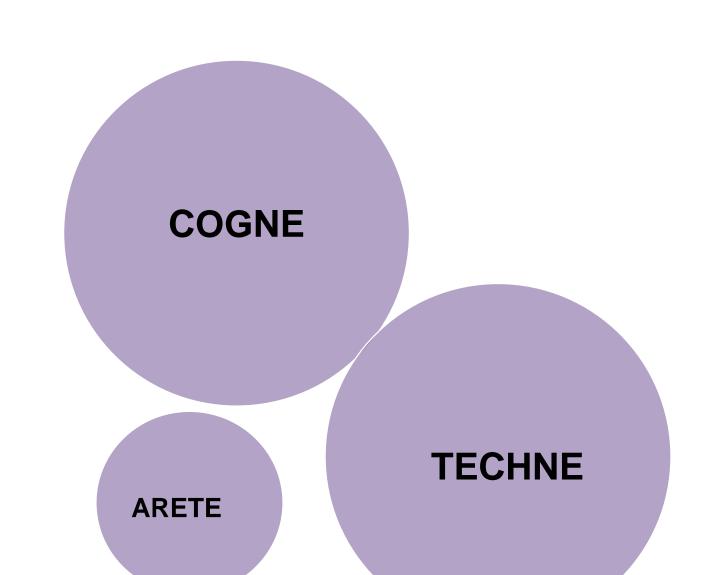
### CHARACTERISTICS THAT MATTER OVER TIME; JACS 2021; 232:203-9.

- Compassion\* for patients
- Integrity\*
- Engagement (willingness to help...)
- Commitment\* to lifelong learning





#### **ARISTOTLE AND MODERN SURGERY TRAINING**



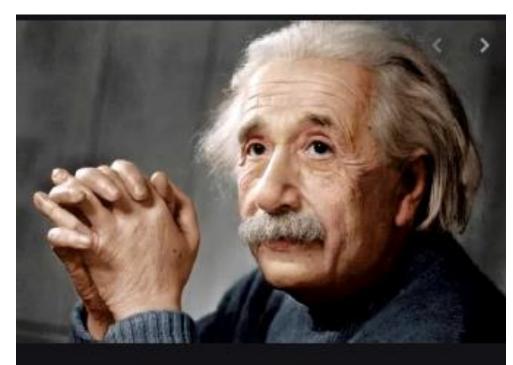


Mellinger, JACS 232(2):209-10; Feb 2021

# ALBERT EINSTEIN AND THE HISTORY OF THE THEORY OF GENERAL RELATIVITY

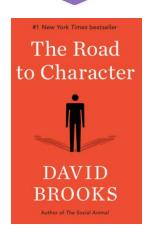
 "Most people think it is the intellect which makes a great scientist. They are wrong. It is their character."

"The greatest blunder of my life."



#### JAMA INT MED FEB 9, 2018 "...THE ACADEMIC ARMS RACE"

- Adam I: ambitious, achievement-oriented, reflected in CV
- Adam II: inner wholeness, moral depth, reflected in character



- "The tragedy is that the increasingly desperate pursuit of Adam I comes at the opportunity cost of the truly enriching endeavors anchored in the values of Adam II, which do not fit neatly into the categories of a curriculum vitae. We are sacrificing the experiences and reflections that make us who we are."
- "We have all chosen a moral and virtuous profession, and it is through deliberate cultivation of our inner character that we may truly become the best version of ourselves, not only for us but for our patients. This...brings meaning to our work and to our lives."



#### WAYNE ET AL (FEINBERG), SCI ADV 2020



- Medical education lessons learned from COVID...the importance of:
  - "...resilience, grit, and tolerance of uncertainty on the front lines of patient care. We must continue to select for these qualities..."
  - "...actions of HCW currently treating patients with COVID 19 reaffirm professionalism and community service as core attributes of a well-taught student."



#### HIGH RELIABILITY ORGANIZATIONS





Journal of Organizational Behavior, J. Organiz. Behav. 35, 592–596 (2014)

Published online 8 February 2014 in Wiley Online Library (wileyonlinelibrary.com) DOI: 10.1002/job.1922

### The affective foundations of high-reliability organizing

TIMOTHY J. VOGUS<sup>1</sup>\*, NAOMI B. ROTHMAN<sup>2</sup>, KATHLEEN M. SUTCLIFFE<sup>3</sup> AND KARL E. WEICK<sup>3</sup>



<sup>&</sup>lt;sup>1</sup>Vanderbilt Owen Graduate School of Management, Nashville, Tennessee, U.S.A.

<sup>&</sup>lt;sup>2</sup>College of Business and Economics, Lehigh University, Bethlehem, Pennsylvania, U.S.A.

<sup>&</sup>lt;sup>3</sup>Stephen M. Ross School of Business, University of Michigan, Ann Arbor, Michigan, U.S.A.

#### **VOGUS ET AL**

- Such function is promoted by 'mindful organizing' = collective behavioral ability to detect and correct errors and adapt to unexpected events
- Requires function that is 'beyond the levels attained at psychological and cultural equilibria for human beings'





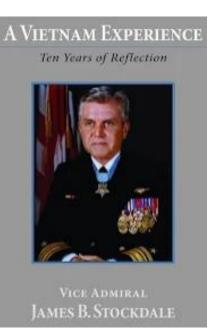
#### **VOGUS ET AL**

- These attributes require:
  - 'other orientation'
    - The desire to expend effort to benefit others
    - Emotional ambivalence—the ability to **simultaneously** harbor hope and doubt, and to be **open to the** perspectives of others



23 seconds before the landing, I asked Jeff a question.

15:30:21 Me: "Got any ideas?" 15:30:23 Jeff: "Actually not."



### The COVID-19 reset: lessons from the pandemic on Burnout and the Practice of Surgery

John Romanelli<sup>1</sup> · Denise Gee<sup>2</sup> · John D. Mellinger<sup>3</sup> · Adnan Alseidi<sup>4</sup> · James G. Bittner<sup>5</sup> · Edward Auyang<sup>6</sup> · Horacio Asbun<sup>7</sup> · Liane S. Feldman<sup>8</sup> on behalf of SAGES Reimagining the Practice of Surgery Task Force

### Importance of focusing on strategies to enhance wholeness and fulfillment rather than simply mitigating burnout:

- Values-based decision making
- Motivation science awareness (Pink: "Drive")
- Knowing and protecting restore points
- Eulogy and not just resume'
- Community
- Stockdale paradox optimism
- Growth mindset in response to challenges

- Timeless
- Relational
- Meaning orientation

### THE CHALLENGE OF DEALING WITH ADULT LEARNERS



#### • PGY 5

- Transferred in as PGY 2 due to attrition
- More "mature" individual
- Well spoken of in letters from another program
- Collegial, "nice guy"
- Challenges with work ethic, became more apparent as became more senior=>impact on juniors
- Repeated discussions by faculty and "chair time" with PD (yours truly)

#### **QUOTE FROM FACULTY MEETING**



• "Listen y'all, this boy's momma screwed up and you ain't never gonna' make him right!"



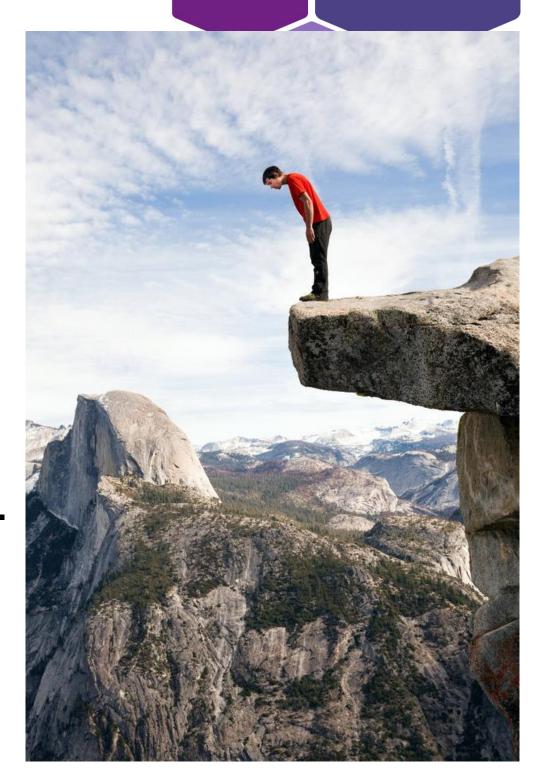
#### WILLIAMS ET AL: SURGERY 2009; 145:651-8



- 82% of problems identified in first year of training
- 94% identified by third year
- 22% of residents had a problem over 30-year period of study
- 88% of identified residents had persistent problems at completion of training
  - 65% involved professionalism issues

#### IS CHARACTER MALLEABLE?

- Essentially all influential figures in history have felt it can...
- History says it can even at a societal level, for better of for worse:
  - Nazi Germany, Cambodia
  - India, Poland, Philippines
  - Slavery, William Wilberforce, MLK Jr.
- The question is how...





### BEGINNING WITH DEFINITION: WILLARD ON HUMAN NATURE



- We make choices from an inner world of thoughts, will, and feelings
  - spirit, heart, mind, thought-life, consciousness
- We see and interpret reality from this inner world
- Our responses in word and deed to our environment from this inner world are amongst the most important things about us
  - Our 'character'



#### WE 'OWN' THIS...OSWALD CHAMBERS

 "No person is born with character; we make our own character...neither naturally nor supernaturally are we born with character. Character is what a person makes out of their disposition as it comes in contact with external things. A person's character can not be summed up by what they do in spots, but only by what that person is in the main trend of their existence."



### HOW WOULD RENOVATION OF OUR 'INNER WORLD' BE ACCOMPLISHED?

- Willard:
  - Vision
    - Role modeling
    - 'Caught/taught'
  - Intention
    - Commitment
  - Means\*
    - Behavioral disciplines/habits

Inner thought/will



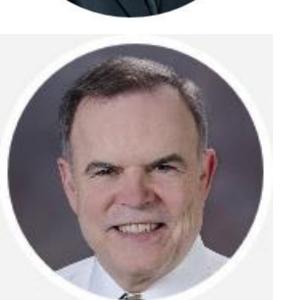
Outer actions



#### **VISION**







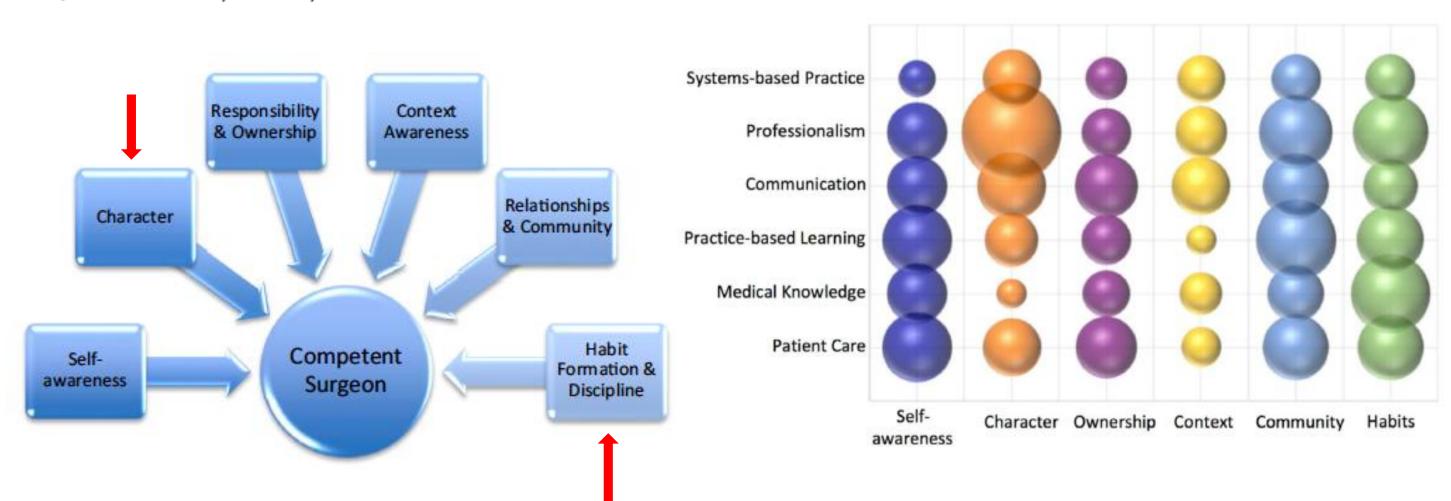






## An Appreciative Inquiry Approach to the Core Competencies: Taking it From Theory to Practice

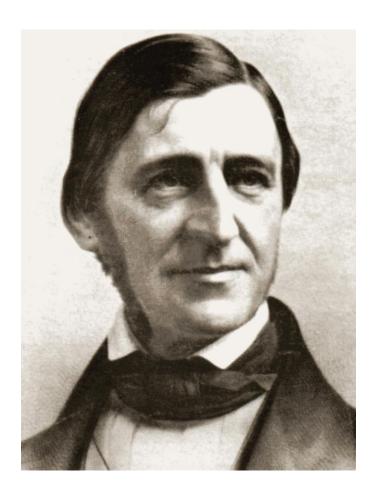
Emily C. Sturm, MD, \* John D. Mellinger, MD, \* Jeanne L. Koehler, PhD, † and Jarrod C.H. Wall, MB BCh, PhD\*



#### INTENTION: RALPH WALDO EMERSON

- Sow a thought...reap an action
- Sow an action...reap a habit
- Sow a habit...reap a character
- Sow a character... reap a destiny

- Ancient wisdom (Proverbs 23:7):
  - "As a person thinks in their heart, so they are."





#### **CONTEMPORARY EXAMPLES**





Violence at the Box Office: Considering Ratings, Ticket Sales, and Content of Movies

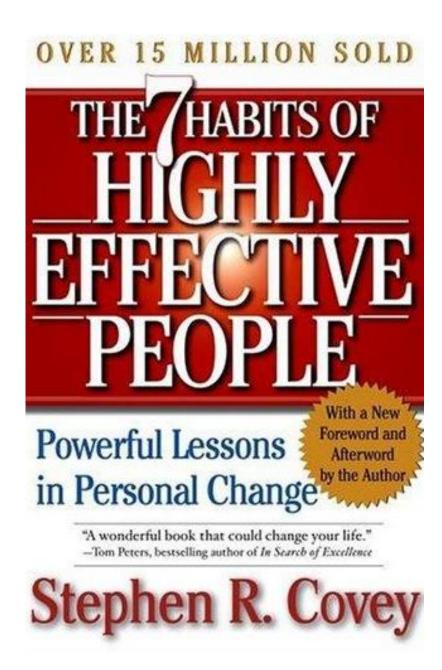
Raymond E. Barranco, Nicole E. Rader, Anna Smith

First Published November 26, 2015 Research Article https://doi.org/10.1177/0093650215614363





#### **MEANS: IMPORTANCE OF HABITS**





The NEW ENGLAND JOURNAL of MEDICINE



#### The Four Habits of High-Value Health Care Organizations

Richard M.J. Bohmer, M.B., Ch.B., M.P.H.

n ecent attention to the question of value in health **K** care — the ratio of outcomes to long-term costs — has focused on problems of definition and measurement: what outcomes and which costs? Less

organizations reliably deliver high-

health care reform if we could show the superiority of a domimedical home) and roll it out nanew approaches to creating value only once. However, experience suggests that not only do new to transfer, even when successful:

attention has been given to an in another. Organizations considequally difficult but important is- ered to be among the nation's sue: how do health care delivery highest performers, such as the members of the new High Value Healthcare Collaborative, often tures, resources, and local envi-

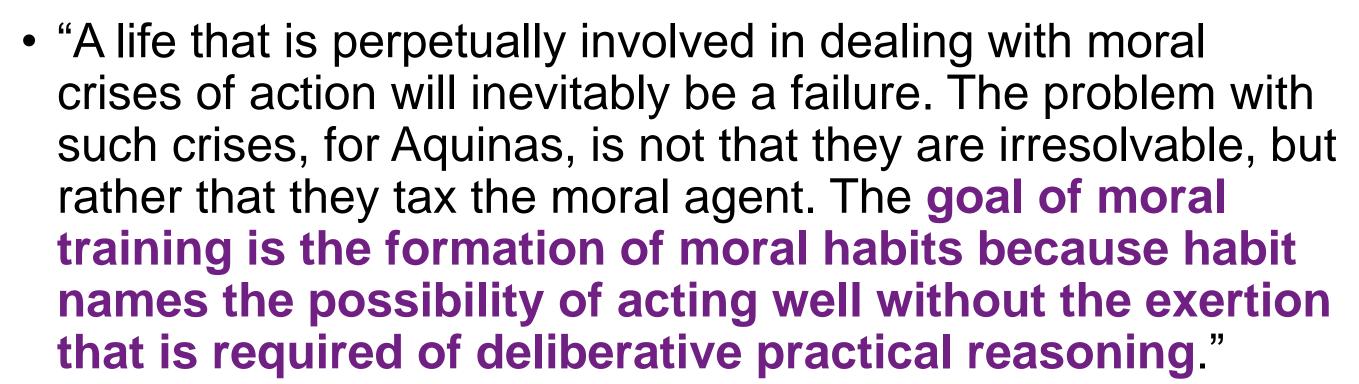
organizations vary in structure, a call to a rapid-response team resources, and culture, they often or triggering the commitment of delivery models — for example, have remarkably similar approach- a future resource (e.g., a discharge integrated networks - not nec- es to care management. Specific planner, preprocedure checklists, essarily live up to their promise, tactics vary, but their "habits" — and standardized patient assessbut they are surprisingly difficult repeated behaviors and activities ments), and for patients, shared and the ways of thinking that they those that succeed in one U.S. reflect and engender — are shared. region haven't always done well This is important because experi-

ence suggests that such habits may be portable.1

The first common habit is specification and planning. To an unusual extent, these organizations specify decisions and activities in advance. Whenever possible, both operational decisions, such as those related to patient flow (admission, discharge, and transfer criteria), and core clini-It would certainly simplify have unique personalities, struc- cal decisions, such as diagnosis, tests, or treatment selection, are ronments. Given the health care based on explicit criteria. Critenant delivery model (e.g., the ac- sector's mixed record of dissemi- ria-based decision making may countable care organization or the nating clinical innovations and be manifest in the use of clinical system improvements, how do we decision support systems and tionwide, developing and proving learn from leading organizations? treatment algorithms, severity and Although high-value health care risk scores, criteria for initiating decision making.

> Specification also applies to separating heterogeneous patient

#### KENT DUNNINGTON ON AQUINAS





#### WILL DURANT ON ARISTOTLE

• "We are what we repeatedly do.

Excellence then is not an act, but a habit."





#### WHAT IS A "DISCIPLINE"?



 "A discipline is an activity in our power to do that we engage in to enable us to do what we cannot do by direct effort."

#### --Dallas Willard

 Disciplines properly understood are a means for us to translate the motives and intentions of our inner world into outward behavior.



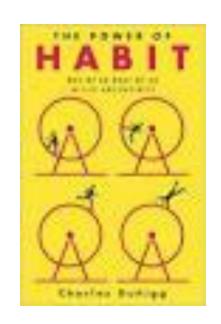
#### **DUHIGG (PARALLEL TO WILLARD)**

- Vision=developing focus on higher loves/goals
- This focus can reorder desires (intentions=will)
- Leading to altered behavioral responses (via habituation=means)
  - Correlate to 'deliberate practice'



#### THE IMPORTANCE OF HABITS: DUHIGG

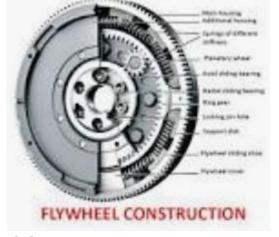
- Habits
  - Dictate 40% of our daily behaviors (Neal)
  - Can be formed in +/- 30 days
  - Can be mapped neurophysiologically (MIT)
    - Correlate to moral reasoning (fMRI)
      - 'Othering'
  - Can lead to exceptional performance (Dungy)
  - Can foster self-destructive behaviors
    - Addiction science

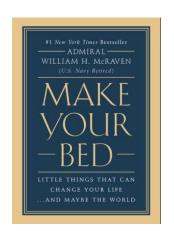




### LESSONS ABOUT HABIT CHANGE: DUHIGG

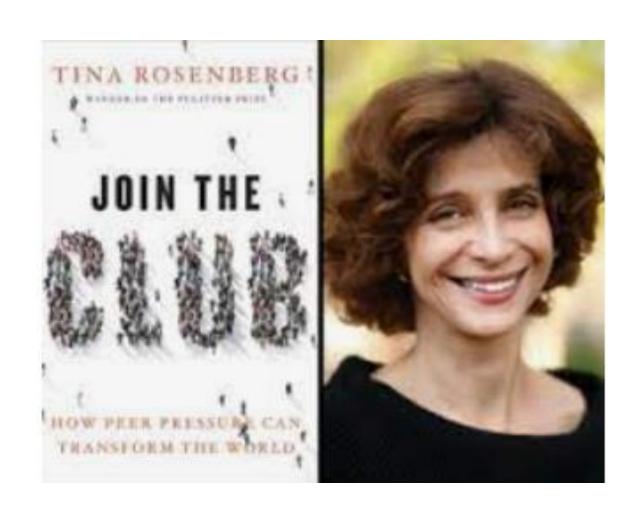
- Must be meaningful belief change can occur (hope)
- Communities make change believable (accountability)
- Willpower is self-reinforcing
- Keystone habits can have contagious effects
  - Remediation efforts with residents
  - Culture change in organizations





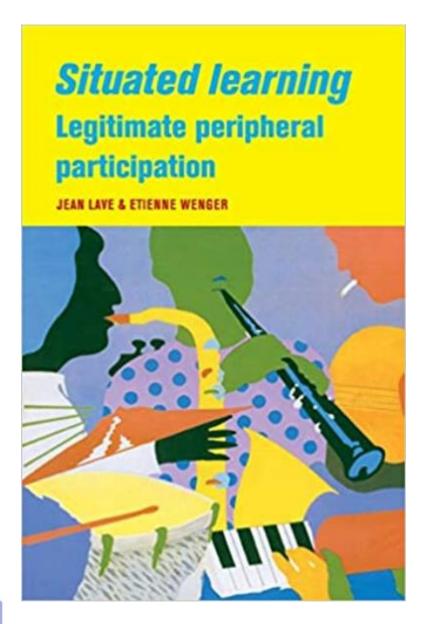


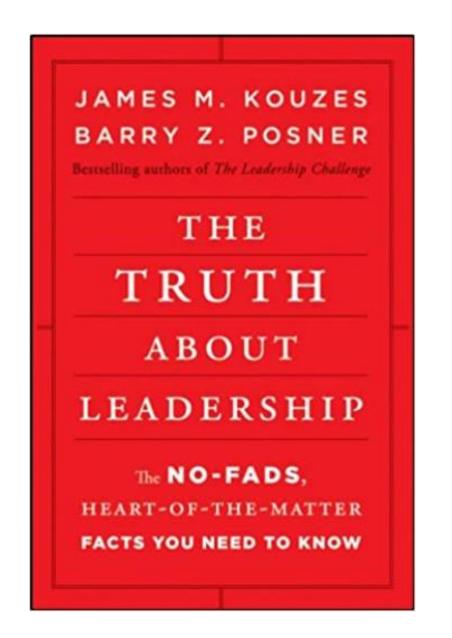
#### TINA ROSENBERG JOIN THE CLUB



- AIDS prevention
- UR student math performance
- Teen smoking
- Religious community formation
- Revolution (Serbia)
- Village health in India

### COMMUNITIES OF LEARNING: HOPE AND ACCOUNTABILITY





#### DISCIPLINES THAT HAVE BEEN HELPFUL: A PERSONALIZED CURRICULAR APPROACH

#### Inward reflection

- Gratitude
- Acknowledgment of failure
- Purposeful humility
   (= sound judgment)
- Focus on needs of others
- Acknowledgment of false appearances
- Solitude
- Reflective reading

#### Outward behavioral

- Apology
- Expressing thanks
- Service
- Community participation
- Creative adaptations
   (Willard example)

### A FINAL THOUGHT: WHAT'S IN YOUR BOX?



