Character Matters: A Reflection on Personal Formation for the Surgeon

John Mellinger
Krippaehne Lectureship
Oregon Health & Science University
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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.”
Moore’s Law – The number of transistors on integrated circuit chips (1971-2016)

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. Licensed under CC-BY-SA by the author Max Roser.
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

[Fixed time (?), variable outcome model]

1978

[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
Table 4. Mean Adjusted Adverse Event Rates by Residency Program Tertile*  

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean Adjusted Adverse Event Rate (SE), %</th>
<th>Absolute Difference (SE), Tertile 3 - Tertile 1</th>
<th>Relative Difference (SE), (Tertile 3 - Tertile 1)/Tertile 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All procedures</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Death</td>
<td>0.476 (0.0004)</td>
<td>0.480 (0.0002)</td>
<td>0.483 (0.0004)</td>
</tr>
<tr>
<td>Complications</td>
<td>9.68 (0.08)</td>
<td>10.31 (0.02)</td>
<td>10.79 (0.06)</td>
</tr>
<tr>
<td>PLOS</td>
<td>16.76 (0.03)</td>
<td>17.12 (0.02)</td>
<td>17.60 (0.03)</td>
</tr>
<tr>
<td>FTR</td>
<td>2.68 (0.02)</td>
<td>2.82 (0.01)</td>
<td>2.98 (0.02)</td>
</tr>
<tr>
<td><strong>Emergency appendectomy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Death</td>
<td>0.0910 (0.0001)</td>
<td>0.0917 (0.00003)</td>
<td>0.0924 (0.0001)</td>
</tr>
<tr>
<td>Complications</td>
<td>3.14 (0.03)</td>
<td>3.36 (0.01)</td>
<td>3.53 (0.02)</td>
</tr>
<tr>
<td>PLOS</td>
<td>11.82 (0.03)</td>
<td>12.09 (0.02)</td>
<td>12.45 (0.02)</td>
</tr>
<tr>
<td>FTR</td>
<td>1.14 (0.01)</td>
<td>1.20 (0.003)</td>
<td>1.27 (0.01)</td>
</tr>
<tr>
<td><strong>Elective pancreatotomy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Death</td>
<td>2.386 (0.002)</td>
<td>2.403 (0.001)</td>
<td>2.421 (0.002)</td>
</tr>
<tr>
<td>Complications</td>
<td>25.40 (0.20)</td>
<td>26.75 (0.05)</td>
<td>27.75 (0.13)</td>
</tr>
<tr>
<td>PLOS</td>
<td>12.44 (0.03)</td>
<td>12.72 (0.02)</td>
<td>13.09 (0.03)</td>
</tr>
<tr>
<td>FTR</td>
<td>6.31 (0.03)</td>
<td>6.63 (0.02)</td>
<td>7.00 (0.04)</td>
</tr>
</tbody>
</table>

Abbreviations: FTR, failure to rescue; PLOS, prolonged length of stay.  
* 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 (0, 1). Therefore, these values may differ in magnitude from the observed rates owing to the heterogeneity of the population. This technical issue does not affect the ordering of the adjusted adverse event rates.  
** Standard errors computed via bootstrapping with 100 resamples.  
*** Difference between tertiles, $P < .001$.  

• “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.”
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

• Compassion* for patients
• Integrity*
• Engagement (willingness to help…)
• Commitment* to lifelong learning
ARISTOTLE AND MODERN SURGERY TRAINING

COGNE

TECHNE

ARETE

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

Jonathan Stock, MD, Yale Univ. Transitional Int. Med. Program
• 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.”
The affective foundations of high-reliability organizing

TIMOTHY J. VOGUS1*, NAOMI B. ROTHMAN2, KATHLEEN M. SUTCLIFFE3 AND KARL E. WEICK3

1Vanderbilt Owen Graduate School of Management, Nashville, Tennessee, U.S.A.
2College of Business and Economics, Lehigh University, Bethlehem, Pennsylvania, U.S.A.
3Stephen M. Ross School of Business, University of Michigan, Ann Arbor, Michigan, U.S.A.
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’.
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.”
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)
• “Listen y’all, this boy’s momma screwed up and you ain’t never gonna’ make him right!”
• 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 or 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’
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
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.”
Violence at the Box Office: Considering Ratings, Ticket Sales, and Content of Movies

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

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Recent attention to the question of value in health care—the ratio of outcomes to long-term costs—has focused on problems of definition and measurement: what outcomes and which costs? Less attention has been given to an equally difficult but important issue: how do health care delivery organizations reliably deliver high value?

It would certainly simplify health care reform if we could show the superiority of a dominant delivery model (e.g., the accountable care organization or the medical home) and sell it nationwide, developing and proving new approaches to creating value only once. However, experience suggests that not only do new delivery models—for example, integrated networks—not necessarily live up to their promise, but they are surprisingly difficult to transfer, even when successful, those that succeed in one U.S. region haven’t always done well in another. Organizations considered to be among the nation’s highest performers, such as the members of the new High Value Healthcare Collaborative, often have unique personalities, structures, resources, and local environments. Given the health care sector’s mixed record of disseminating clinical innovations and system improvements, how do we learn from leading organizations?

Although high-value health care organizations vary in structure, resources, and culture, they often have remarkably similar approaches to care management. Specific tactics vary, but their “habits”—repeated behaviors and activities and the ways of thinking that they reflect and energize—are shared. This is important because experience suggests that such habits may be portable.¹

The first common habit is specification and planning. To an external observer, 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 clinical decisions, such as diagnosis, tests, or treatment selection, are based on explicit criteria. Criteria-based decision making may be manifest in the use of clinical decision support systems and treatment algorithms, severity and risk scores, criteria for initiating a call to a rapid-response team or triggering the commitment of a future resource (e.g., a discharge planner, preoperative checklists, and standardized patient assessments), and the patterns, shared decision making.

Specifications also apply to separating heterogeneous patient populations. For example, patients with specific characteristics (e.g., age, gender, race, smoking status, comorbid conditions) may need different care processes and interventions. The second common habit is continuous measurement of performance.

Continuous measurement is essential for true improvement and accountability. Without continuous measurement, it is impossible to know whether a process is being improved. Continuous measurement alone is not sufficient, however. The data must also be used to inform continuous improvement efforts. Without this feedback, continuous measurement is tantamount to remaining in the dark.

Continuous improvement is the fourth habit. This habit is not just about finding things that work better; it is about finding things that don’t work. This is critical because improvement efforts are often (inappropriately) focused on doing things better rather than doing the right things better. In other words, it is crucial to figure out what not to do as much as what to do. In reality, this third habit—identifying and controlling the right things—often requires much more attention than the second habit—improving the right things. In our experience, success using this habit requires a shift from within-organization accountability to shared accountability for health care outcomes in the community. This fourth habit also requires an understanding that improvements are not always direct and immediate.

The final common habit is openness. This is a difficult habit to practice because it requires admitting incompleteness and vulnerability to oneself and to others when one is an expert or the expectation that a better approach is possible. It is uncomfortable to open oneself up to criticism, and it is uncomfortable to open oneself up to feedback. The final habit of high-value health care organizations is the extension of this habit to organizational culture. This habit is difficult to practice because it requires a fundamental shift in thinking toward behavior that is open and transparent. We believe that this is not just a desirable characteristic of high-value health care organizations; it is a necessary condition for their success.
“A life that is perpetually involved in dealing with moral crises of action will inevitably be a failure. The problem with such crises, for Aquinas, is not that they are irresolvable, but rather that they tax the moral agent. The goal of moral training is the formation of moral habits because habit names the possibility of acting well without the exertion that is required of deliberative practical reasoning.”
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 (**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 
(\textit{hope})

• Communities make change believable 
(\textit{accountability})

• Willpower is self-reinforcing

• \textbf{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?