





Original title → ***Mentorship Matters***  
SAU Dallas January 21, 2023

David A. Bloom  
University of Michigan  
Department of Urology

Official title → ***"Cultivating residents & fellows as teachers & leaders: best practices."***

RISD. Penelope Umbrico, *Flickr Sunset Pictures 8/8/2011*

1

**Assertions/Disclosures:**

I have no conflicts, contracts, side deals, or scams to report (or even to conceal).  
I am no social scientist or statistician,  
- merely a vaccinated superannuated pediatric urologist.  
I am a white guy, usually called *he* or *him*. I have no hacks.

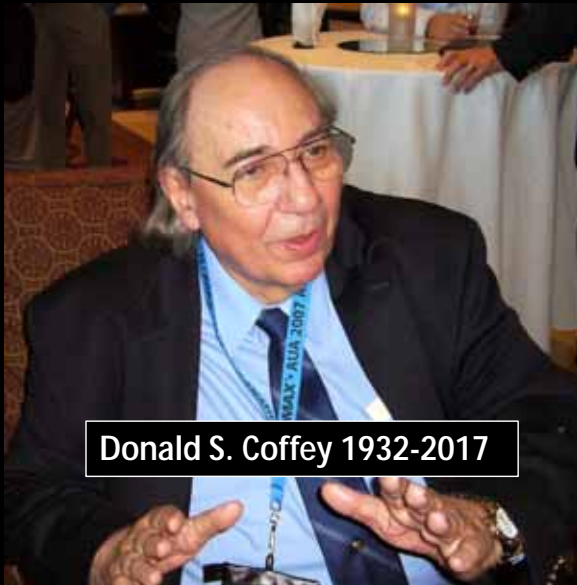
2

## My belief: *the truth matters*

The arc of the civilized world is globalized, diversified, & democratic.

*Diversity is playing out (slowly) in society-at-large in spite of centuries of structural social impediments. One certain way to speed up the overdue process is through deliberate pipelines, programs, and mentoring.*

3



Donald S. Coffey 1932-2017

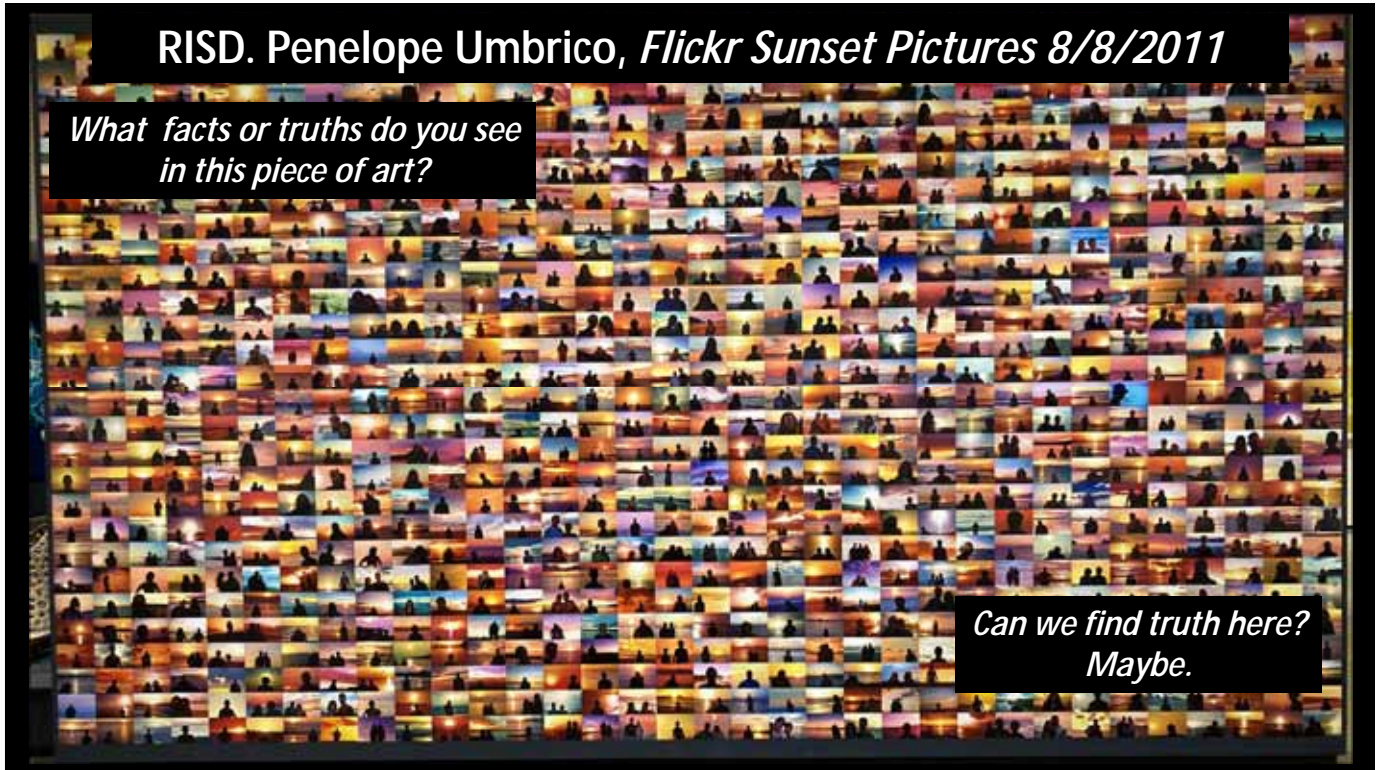
Human destiny: ***Build civilization***

## Don Coffey's Admonition

*"Learn to tell the difference between facts and true facts."*

Bruce Stewart Memorial Lecture:  
*Human Destiny*  
NCS 1985, Palm Beach, The Breakers

4



5

## Truth

The property of being in accord with facts or reality.



One actual specific truth:  
 $E_5 = 659 \text{ hertz}$

Tuning fork = an acoustic resonator vibrating at a specific constant pitch with a pure musical tone once high overtones fade out.

$$f = \frac{1.875^2}{2\pi l^2} \sqrt{\frac{EI}{\rho A}}$$

6

## The truth has a pleasing harmony

whether in science, history, visual art, music, literature, performance, ... even politics.

Euclidean truth



Artistic truth



*Mona Lisa*

1503

Leonardo da Vinci

7

**Truth** can be elusive & frighteningly temporal, changing as new facts emerge, values are understood.

Urologists (and all world citizens) should approach truth with caution & humility, cautious of those who claim certainty in their truths.

*Truth: a work in progress*



*My opinion: THE TRUTH*



8

Discovery → new facts,  
truer facts.



"When the facts change,  
I change my mind. What do you do, sir?"  
Attrib. John Maynard Keynes 1883-1946

Deliberate false facts →

Propaganda, malicious  
lies, myths, tropes.

Deep fakes, e.g.  
*Synesthesia* – Italian  
digital experience  
company (video AI  
avatars)

*These impair our natural efforts  
to understand the real state of affairs.*

9

Truth is out there,  
but good luck finding it.



TOOLS: Skepticism, evidence, critical thinking, collaboration,  
experiment, analysis, debate, testing, corroboration

10

# What I hope to tell you (Key points)

A. *Truth* is elusive ■  
 Facts are usually conditional  
 Mis-facts (lies) are malicious.

B. *Our biological purpose:*  
*perpetuate our successors &*  
*civilization. (Mentorship)*

C. Diversity, equity, &  
 inclusion (DEI) build better  
 teams & better societies.

References: Kwame Appiah,  
*Cosmopolitanism.*  
 Jenna Bednar, *Robust Federation.*  
 Scott Page, *The Difference.*  
 James Surowiecki, *Wisdom of Crowds.*

11

# We have limited time *to fulfill our purposes*



3,600 weeks  
 70 years (3 score & 10)  
 2.5 billion heartbeats  
 500 million eyeblinks



Images  
 Wikipedia [whattoexpect.com](http://whattoexpect.com)  
 Nicolaes Maes Old Woman Dozing (Royale Mus Belgium)

12

The measure of a full human experience  
 ☞ *around 70 years*

The first civilizations formed merely *70 linear human experiences ago* when agriculture led to surplus food & stable communities.

Scratch plow  
 “trigger of civilization”  
 (Egyptian tomb)



Civilization allows  
 human experiences  
 to accrue

13



14

# 110 billion

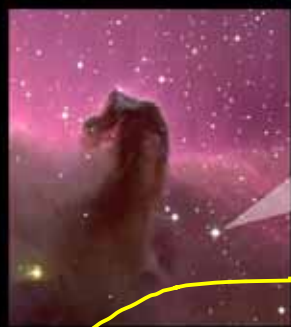
The number of people who have lived before us.



(Not counting our hominid cousins, e.g. *Australopithecus sediba*)

15

## Taxa of Human Knowledge

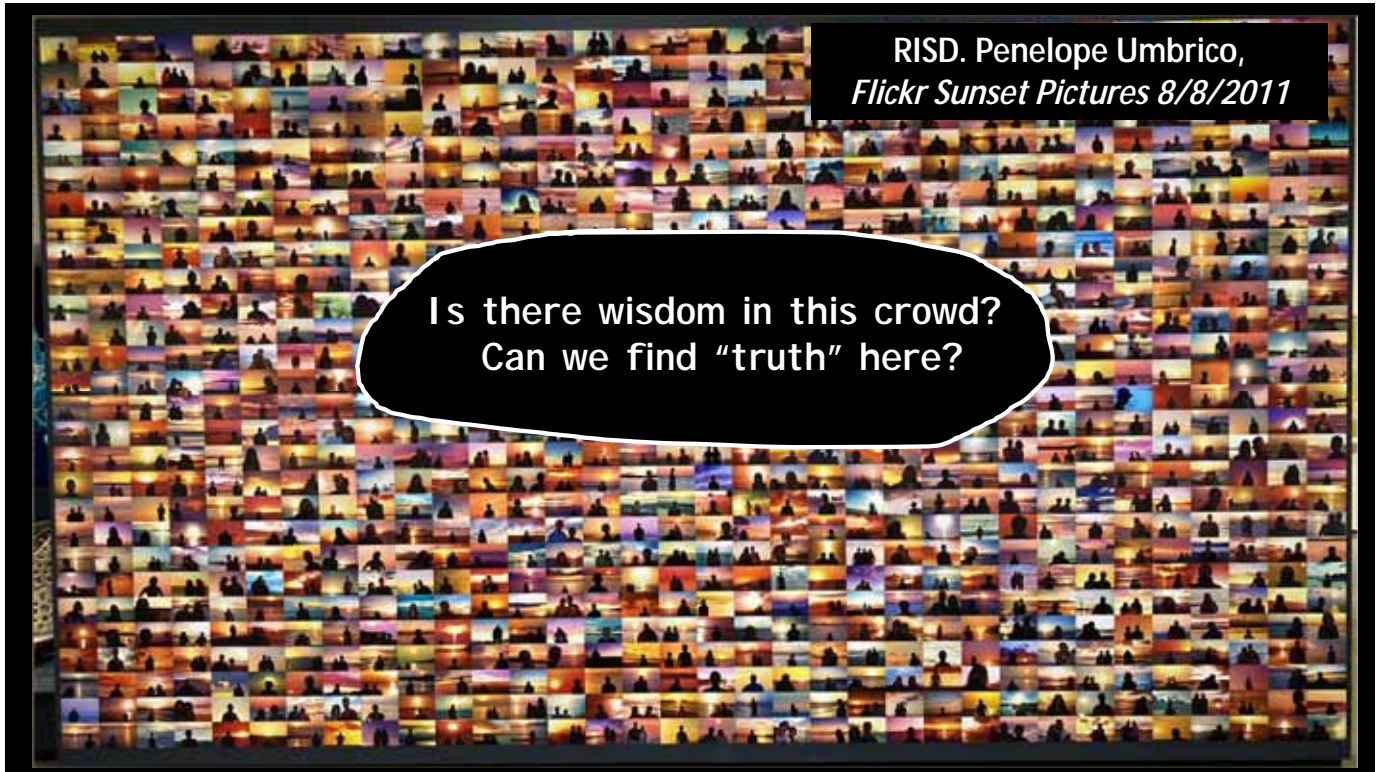


DEI  
a new area  
of study  
(and a set of  
values)

Our place

16





19

**Diversity, equity, inclusion (DEI)**

Understand identities different or alternative (*from your own*): phenotypes, characteristics, points of view, abilities/disabilities, etc.

Helen Keller  
Annie Sullivan

Steven Hawking

Trevor Noah

20

“A decision market is an elegant and well-designed method for capturing the collective wisdom.”

Surowiecki, *The Wisdom of Crowds*.



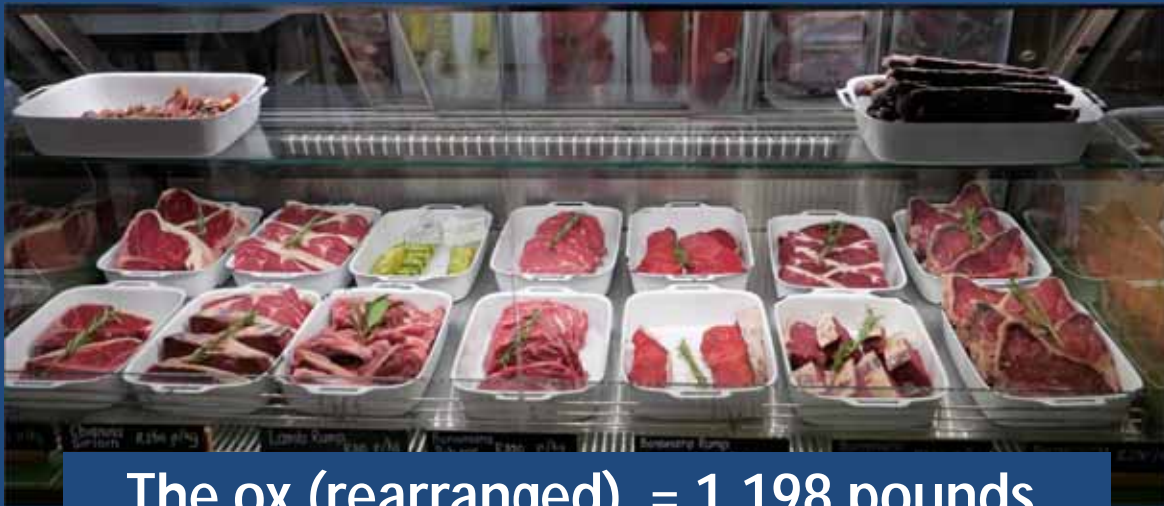
Francis Galton  
1882-1911

Annual West of England  
Fat Stock & Poultry Exhibition  
Plymouth, England  
1906



Durham Ox

21



**The ox (rearranged) = 1,198 pounds**  
(one pound more than the 787 averaged bets)

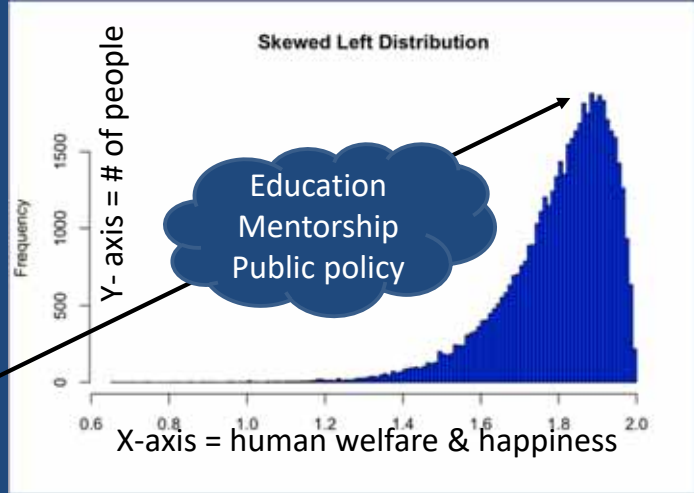
22

The stochastic world  
(Galton's wager analysis)



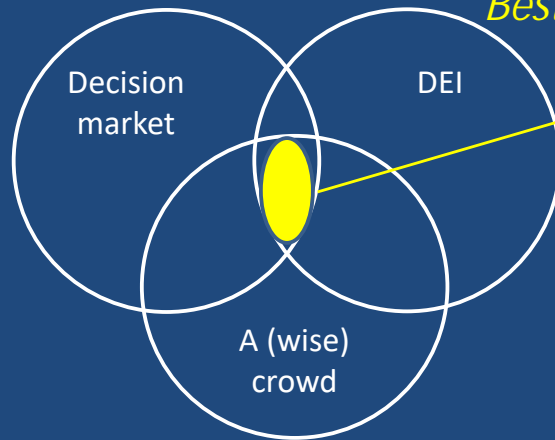
*Isn't this much of "the meaning of life?"*

A better human society



23

John Venn  
1834-1923



*"Truth"*  
*Best solutions to problems*

*Democratic constitutional republic*  
*"Robust Federation"*

*How do we get there – to achieve a better world?*

24

**"We all breathe the same air.  
We all cherish our children's future.  
And we are all mortal."**

*JFK - American University in Washington, D.C.  
Commencement Address June 10, 1963*

25

**"You are not *you* without me.  
And I am not *me* without you."**

Attributed to Kempton Bunton, in *The Duke* 2022

**Me = 1  
"You" = 8 billion fellow humans**



26

*So, whom do you choose to mentor ?*



**Middle:** Carol Guzy, *Kosovo Refugees*, Wash. Post (M. Williamson, L Perkins) 2000

**Right:** Faith Ringgold, *American People Series #20*, 1987

27

## Build pipelines

“And the migrants kept coming.” Jacob Lawrence  
*The Migration Series #60.*



We don't inherit the Earth for ourselves,  
we borrow it from future generations.  
Let's help them do their jobs & mentor them.

28

29

“The desire, the need to teach, is as old  
as the profession of medicine.”  
Victor Johnson, Dir. Mayo Foundation 1964. Memoir.

*As excellent physicians practice,  
they teach and attract disciples.*

30

## Mentorship

*Perhaps this is our ultimate responsibility*

*Whom do you deliberately choose to mentor?*



*There is an  
innovator in  
everyone*

31

## Social media & medical misinformation

Dhruv Khullar, *JAMA* 328(14): 1393

**“The sheer volume of information sharded, often without relevant context, can make it difficult for people to know what to focus on and how to separate fact from falsehood.”**

32

## Hippocrates (sort of said)

Vita brevis  
 Ars longa  
 Occasio **praeceps\***  
 Experimentum periculosum  
 Ludicium difficile

Life is short  
 Art long  
*Opportunity disproportionate*  
 Experiment perilous  
*Judgement difficult*

\*Short-lived (*and also inequitable*)

33



Previous top: RISD. Penelope Umbrico, *Flickr Sunset Pictures* 8/8/2011

Left: Carol Guzy, *Kosovo Refugees*, Washington Post (M. Williamson, L Perkins) 2000

Right: Faith Ringgold, *American People Series #20*, 1987

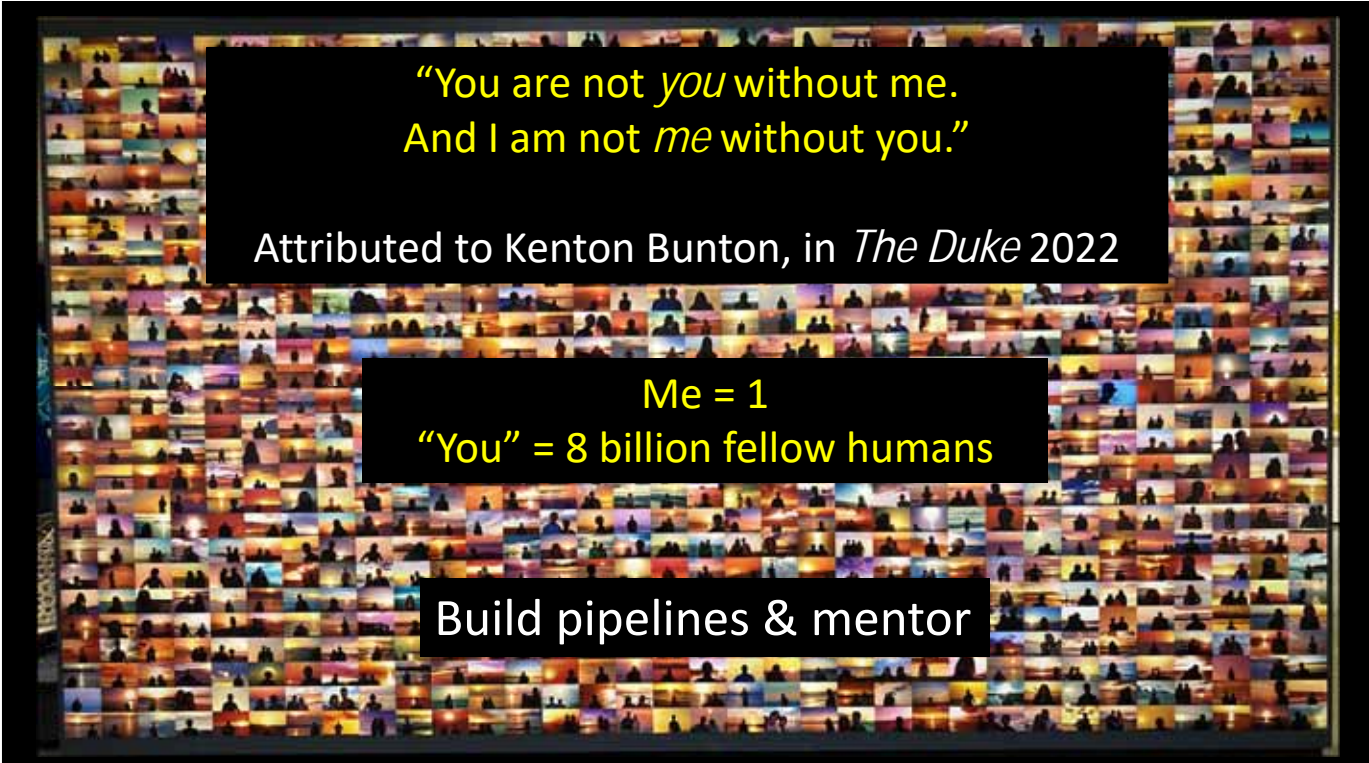
34

“You are not *you* without me.  
And I am not *me* without you.”

Attributed to Kenton Bunton, in *The Duke* 2022

Me = 1  
“You” = 8 billion fellow humans

35



“You are not *you* without me.  
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Attributed to Kenton Bunton, in *The Duke* 2022

Me = 1  
“You” = 8 billion fellow humans

Build pipelines & mentor

36

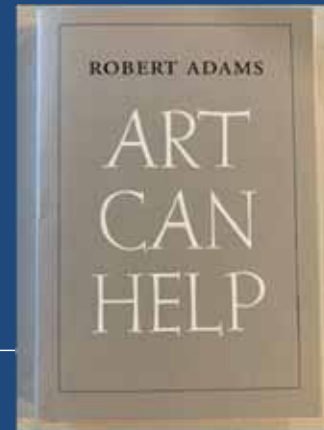
## A very short bibliography of Truth

Harry Frankfurt: *On Truth* (Knopf, 2006),

*On Bullshit* (Princeton, 2005)

R. Rorty & P. Engel: *What's the Use of Truth?* (Columbia, 2007)

R. Adams: *Art Can Help*. →  
(Yale Press, 2017)



37

People find all sorts of reason to deny opinions, facts, and perceptions of others:

Experience  
Evidence  
Ideology  
Implausibility  
*Paycheck* →

*"It is useless to argue with a man whose opinion is based upon a personal or pecuniary interest; the only way to deal with him is to outvote him."*

William Jennings Bryan, 1893

*"It's difficult to get a man to understand something when his salary depends on not understanding it."*

Upton Sinclair, 1934

38

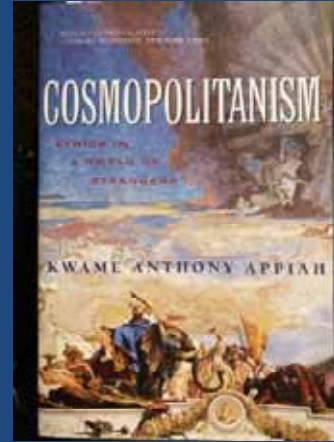
## Cosmopolitan = a citizen of the world



Magazine  
since 1894



Cocktail  
"Cosmo"  
c. 1930s



Book  
Kwame Appiah 2006

39

## A cosmopolitan matter

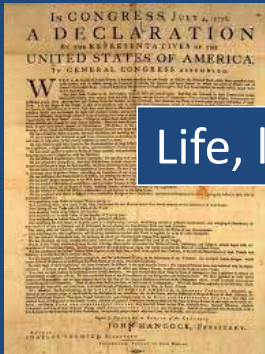
The fundamental  
shared human values  
in global civilization.

*Cosmopolitan.*  
(noun) a person of the world, a cocktail, a magazine;  
(adj.) a world view as  
contrasted to a provincial view.

40

## Cosmopolitanism 1.0

*What are the fundamental shared human values  
in global civilization?*



Life, liberty, & the pursuit of happiness

41

## Cosmopolitanism 1.0

*What are the fundamental shared human values  
in global civilization?*

Life, liberty, & the pursuit of happiness  
Fairness, safety, opportunity,  
food security, health.

Freedom of thought, expression, education, jobs, independence.  
Freedom to seek comfort, personal meaning, & beauty. **DEI \***

42

## Epistemology (noun)

*The study of the method & grounds of knowledge with reference to its limits & validity.*

**W.F. Buckley:** “In an age of relativism one tends to look for **flexible devices** for measuring this morning’s truth. →

43

→ Such a device is **democracy**; and indeed, democracy becomes epistemology: *democracy will render reliable political truths just as surely as the marketplace sets negotiable economic values.*”

WF Buckley, Jr.,  
The Lexicon, 1996.

Truth matters

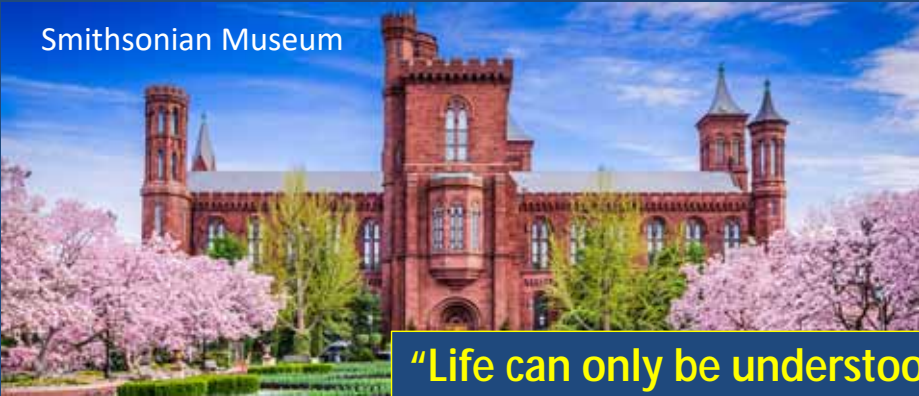
44



Ajax, John Curry  
1936-1937  
SAAM

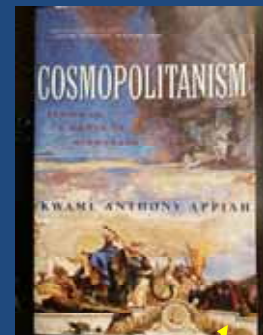
45

Smithsonian Museum



**“Life can only be understood  
backwards, but it must be  
lived forwards.”**

Soren Kierkegaard  
1813-1855, Danish philosopher



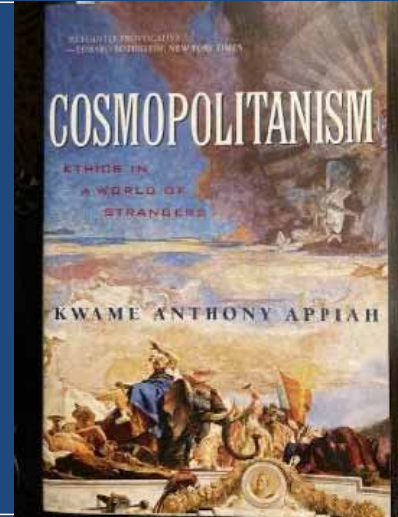
or  
Tribalism

46

## Coherent Past/Cosmopolitan Future

**Past** has been predicated on coherency.

**Future** will be constructed on cosmopolitanism: diversity of ideas, technologies, stakeholders, & talents (it is already happening).



47

## The world of humanity has been turbulent

*Australopithecus sediba*



Old World map 820 CE  
Author- en>User:Carlude  
Wikimedia Commons



48

## Ancient Indian political ideologies



Indian castes



- Brahmins
- Kshatriyas
- Vaishyas
- Shudra
- Adivasi
- Dalits (untouchables)



*Manusmriti, ancient Hindu law c. 1000 BCE*

49

The world is more complex.

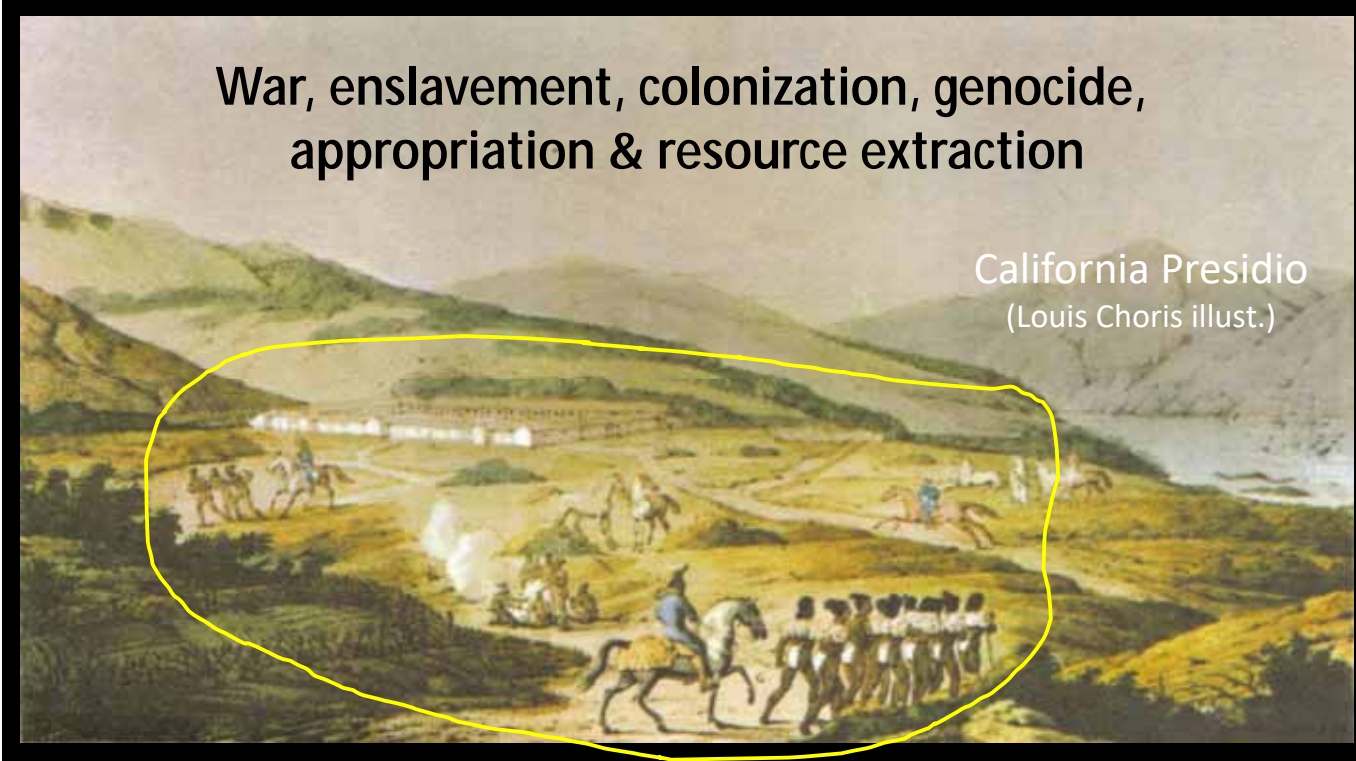



In 1996 world population was under 6 Bn. (now it is 8 Bn)  
 Air travel passenger flights 1996 1.4 Bn  
 In 2018 4.6 Bn., even with Covid in 2020 1.8 Bn)

50

# War, enslavement, colonization, genocide, appropriation & resource extraction

California Presidio  
(Louis Choris illust.)



51

# Human classification has a long ugly history



52

Human identities:  
polygenism/many races.  
Slavery/Eugenics.

*Homo sapiens.*  
a single species with many  
personal identities.  
**Democracy.**

Tribalism

Cosmopolitanism

[Badges for Prisoners in Protective Custody, Dachau.  
By permission, R.M. Ehrlich, photographs from International Tracing Service,  
*Arolsen Holocaust Archive*, 2021.]

53

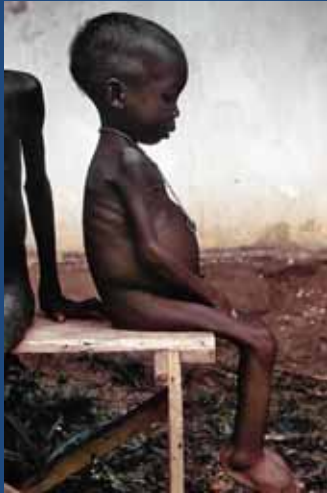
## South African political ideologies

Apartheid racial classes  
Native (Bantu)  
Coloured (mixed “race”)  
Asian  
White

F.W. de Klerk & Nelson Mandela  
Nobel Peace Prize 1993

*Apartheid: 1948 -1991*

54



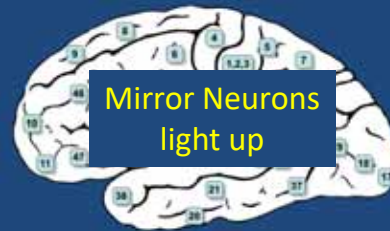
Malnourished Igbo child  
Biafran civil war 1967-1970



Alan Kurdi age 3  
Syrian Kurd drowned  
2 Sept 2015



“Son of Saddam”  
Children’s ward  
Kabul  
(PBS Jane Ferguson report)  
No. 8, 2021



55

## We have trouble classifying our selves.

### *University of Michigan GME records*

1850 - 1932: no identifying info

1932: first “Interne’s photo”

1977: “B S A O N”

1981: Am. Indian, Black, Caucasian, Oriental, Spanish

1986: photo alone (but not always)

1995: computerized records with *identifiers du jour*

56

“Racial categories included in the U.S. census questionnaire reflect a social definition of race recognized in this country and not an attempt to define race biologically, anthropologically, or genetically. In addition, it is recognized that the categories of the race item include racial and national origin or sociocultural groups. People may choose to report more than one race to indicate their racial mixture, such as ‘American Indian’ and ‘White.’ People who identify their origin as Hispanic, Latino, or Spanish may be of any race.”

[United States Census Bureau website: census.gov]

The OMB then required five minimum categories of self-identification:

- 1.) American Indian or Alaska Native, 2.) Asian, 3.) Black or African American, 4.) Native Hawaiian or other Pacific Islander, 5.) White.

In July 2021, in the midst of the COVID-19 Pandemic included questions on sexual orientation and gender identity in its *Household Pulse Survey* to try to understand how different people experienced the pandemic.

**The fine print  
gets complicated**

57

**You may be called  
upon to explain  
cosmopolitanism**



*Magritte Window Painting*  
Anatolii Varvarov  
Ukraine

58

## Explaining cosmopolitanism *taking stock of ourselves*

1. We are here by **chance** (stochastics)
2. We have **limits** (time, perspective, biases)
3. We value **justice** (empathic mirroring)
4. We = civilization (i.e. teams & wisdom of crowds which are built on **diversity**)

59



Biology



Geography

**1. Chance & circumstance determine fate in life**

*Caste, tribe, religion*

*Complexion, stature, ... appearance*

*Intellect /Ability -Disability*

*Geographic origin, political party, ...*

*Zipcode & family socioeconomic status*

60

## 2. Limitations: we don't have much time to get it right



3,600 weeks  
70 years (3 score & 10)  
2.5 billion heartbeats



Images  
*Wikipedia* [whattoexpect.com](http://whattoexpect.com)  
Nicholaes Maes Old Woman Dozing (Royale Mus Belgium)

61



Much in this world  
is imperfect

Irpin, Ukraine  
Lynsey Addario/*NYT*  
March 7, 2022

*Fleeing woman  
and 2 children  
with friend killed  
by mortar strike*

62

### 3. An underlying proposition is the expectation of fairness.

African Bush  
Elephant



Jacob Lawrence  
Migration Series

An elephant in the story is the idea of “race.”

*A social construct!*

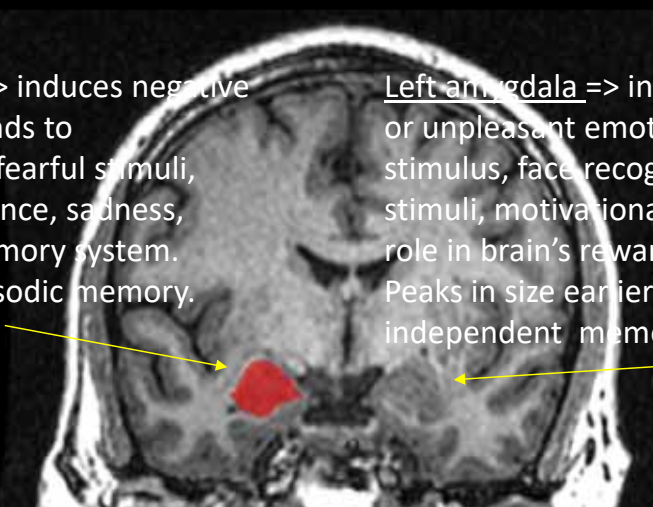
63

We are hardwired (mirror neurons)  
to expect fairness for ourselves & fellows .

Mirror neurons can be dampened by self  
interest or ideology.

Unfairness/inequality → social instability.

64

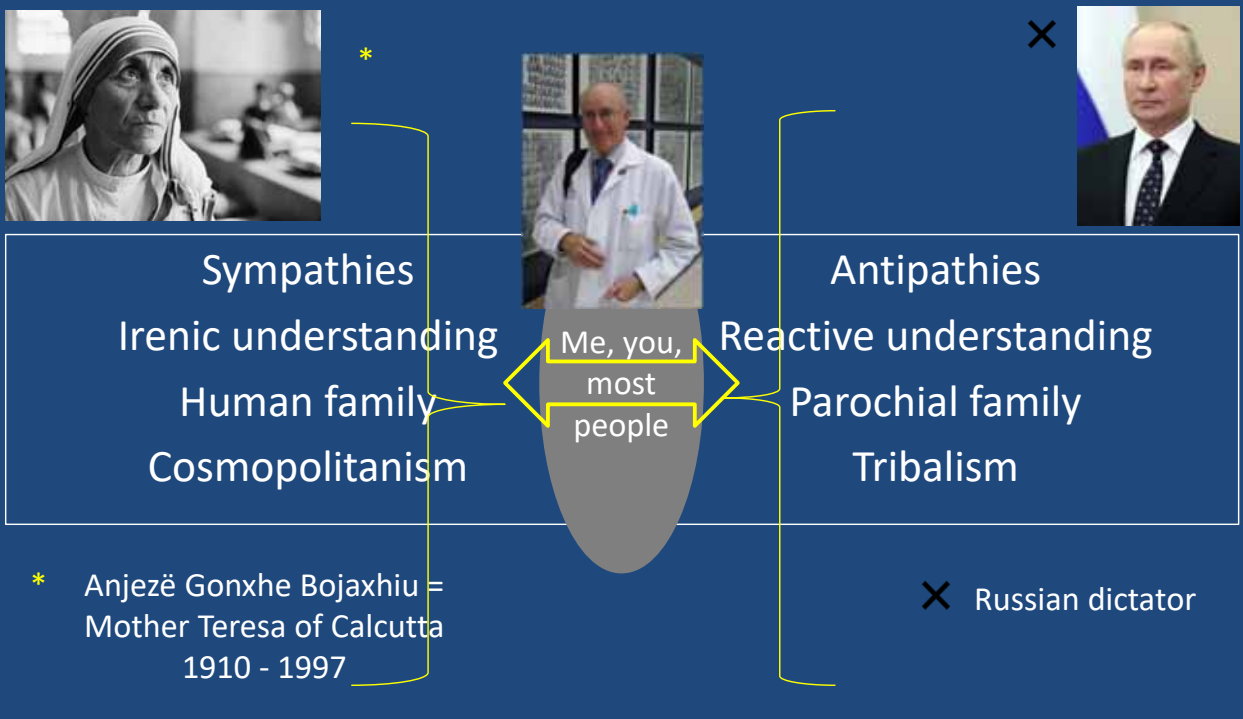


Right amygdala => induces negative emotions. Responds to face recognition, fearful stimuli, motivational salience, sadness, independent memory system. Declarative & episodic memory.

Left amygdala => induces pleasant or unpleasant emotions. stimulus, face recognition, fearful stimuli, motivational salience, sadness, role in brain's reward system. Peaks in size earlier than R. independent memory system.

**Amygdala** – one of two nuclei clusters in the temporal lobes with key roles in processing memory, decision making and emotional responses. Female amygdala Develops more quickly than male, but males achieve large size. Both are rich in androgen receptors.

65



**Sympathies**

- Irenic understanding
- Human family
- Cosmopolitanism

Me, you, most people

**Antipathies**

- Reactive understanding
- Parochial family
- Tribalism

\* Anjezë Gonxhe Bojaxhiu = Mother Teresa of Calcutta 1910 - 1997

✗ Russian dictator

66

1. We are here by chance (stochastics)
2. We have limits (time, perspective, bias)
3. We value justice (empathic mirroring)
4. We = civilization (i.e. teams & wisdom of crowds that are built on diversity)



*Crowdsourcing tends to produce the best decisions*



67

“A decision market is an elegant and well-designed method for capturing the collective wisdom.”

*Surowiecki, **The Wisdom of Crowds.***



Francis Galton  
1882-1911

Annual West of England  
Fat Stock & Poultry Exhibition  
Plymouth, England  
1906



Durham Ox

68

## The Quintuple Aim for Health Care Improvement

Population health improvement  
 Patient experience optimization  
 Cost reduction  
 Protection of workforce  
 Health equity



Jacob Lawrence, *Harlem Hospital*  
 Frieda Kahlo, *Henry Ford Hospital*

Nundy, Cooper, Mate. *JAMA*:327:521, 2022

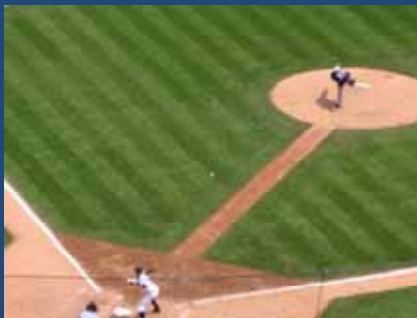
69

### STATISTICS

## The Index of Self-Destructive Acts

= the total number of hit batsmen, wild pitches, balks, and errors by a pitcher, per nine innings.

*[Bill James/Christopher Beha]*



70



## What do we need to remember?



*We humans come in many identities.  
Civilization requires recognition of this fact,  
with renewed discovery & empathy for each other.  
We are all biased; some biases are hardwired,  
but most are culturally taught, learned, or mislearned.\**

“Caste”  
Religious prejudice  
“Polygenesis/racial order”  
White/Aryan supremacy

\*

Xenophobia  
Gender & sexual identity  
Socioeconomic prejudice  
Ability judgements

ETC...

*Frieda Kahlo, Henry Ford Hospital*

*Jacob Lawrence, Harlem Hospital*

71

*We are who we are and where we are by an  
infinity of **random events** from our  
chromosomal lineage and the circumstances of  
our predecessors to the geography of our births  
and lives as well as the geopolitics, cultures, and  
environments swirling around us.*

72

(A little word play ...)  
Illness becomes wellness  
when *I*  
is replaced  
by *We*  
(Attr. Mitch Benson)

73

One immediate existential problem:  
*Democracy (deimocracy)*  
vs.  
*Autocracy & its variants*

74

## What I hoped to tell you (Key points)

- A. Distinguish **true facts** from **facts**. Is there such thing as *truth*?
- B. Explain the importance of **cosmopolitanism** for medical professionals (or any other “citizens of the world”).
- C. Consider how diversity, equity, & inclusion (**DEI**) build better teams, more robust democracies? \*

\* References: Jenna Bednar *Robust Federation*, Scott Page *The Difference*, James Surowiecki *Wisdom of Crowds*.

75

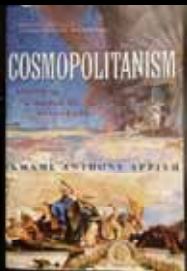
## The ultimate existential problem: *Planetary stability*



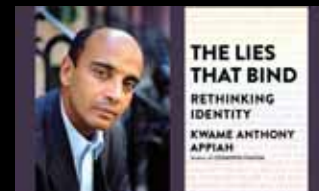
76

77

## Cosmopolitan Matters



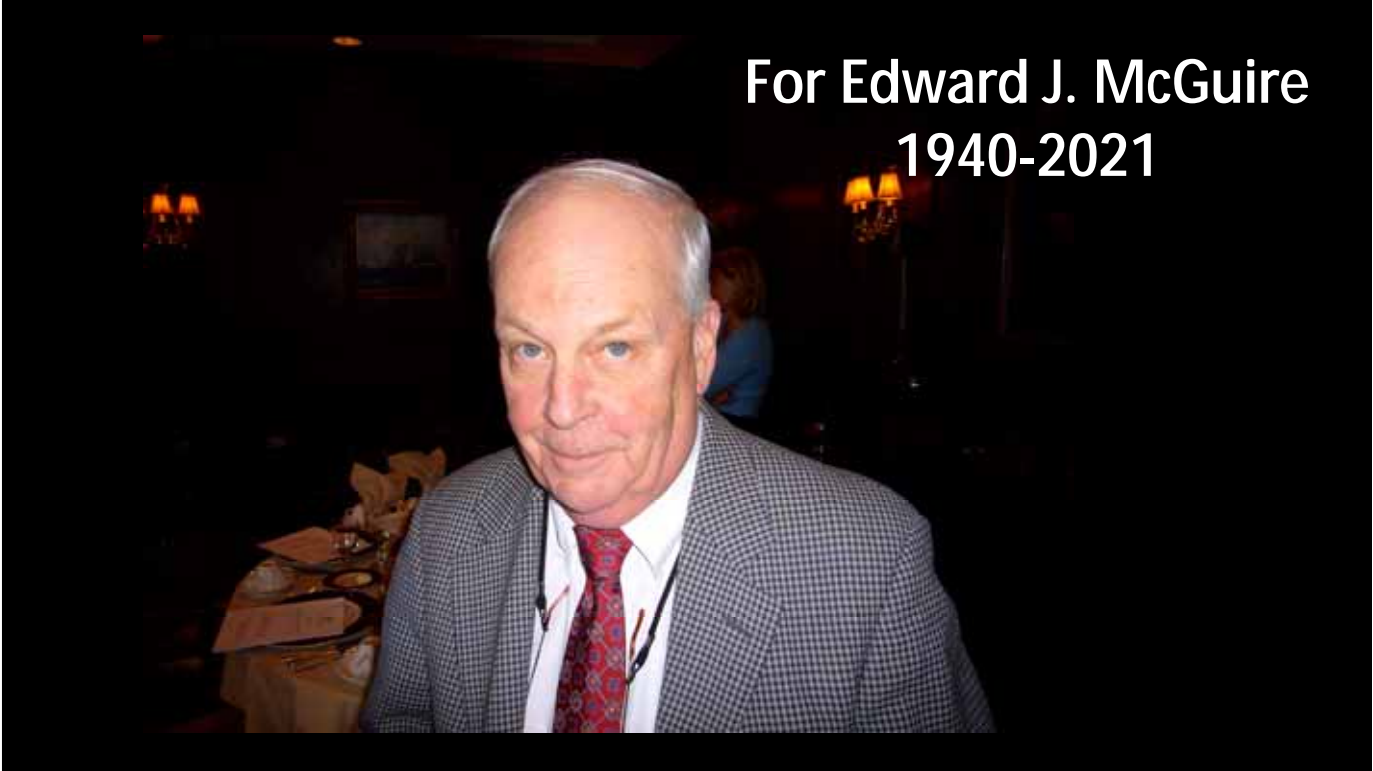
The fundamental  
shared human values  
in global civilization.



*Cosmopolitan.*  
(noun) a person of the world, a cocktail, a magazine;  
(adj.) a world view as  
contrasted to a provincial view.

78

For Edward J. McGuire  
1940-2021



79



80

## Art Can Help

Robert Adams, Yale Press, 2017

“It is the responsibility of artists to pay attention to the world, pleasant or otherwise, and to help us live respectfully in it.

Artists do this by keeping their curiosity and moral sense alive, and by sharing with us their gifts for metaphor. Often this means finding similarities between observable fact and inner experience – between birds in a vacant lot, say, and an intuition worthy of Genesis. ...

81

## Art Can Help

Robert Adams, Yale Press, 2017

..... More than anything else, beauty is what distinguishes art. Beauty is never less than a mystery, but it has within it a promise.

In this way, art encourages us to gratitude and engagement, and it is of both personal and civic consequence.”

82

## What are we actually talking about?

Diversity, equity, inclusion – *DEI*

## What does this mean?

(understanding different or alternative identities)

defining “socially -acceptable” categories)

helping/discouraging some)

83



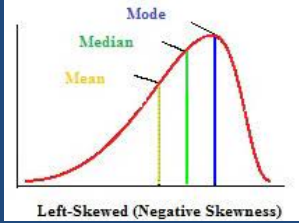
*We humans come  
in many identities.  
Civilization requires recognition  
of this fact, with renewed discovery  
and empathy for others.*

Frieda Kahlo, *Henry Ford Hospital*

Jacob Lawrence, *Harlem Hospital*

84

But much in this world is imperfect

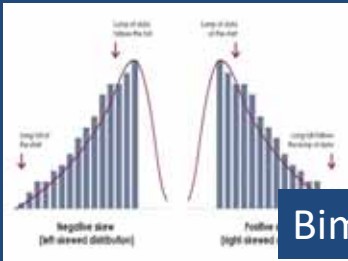


Skewed distributions



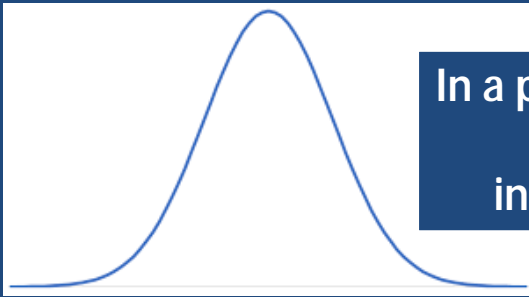
Irpin, Ukraine  
Lynsey Addario/NYT  
March 7, 2022

*Fleeing woman and 2 children with friend killed by mortar strike*

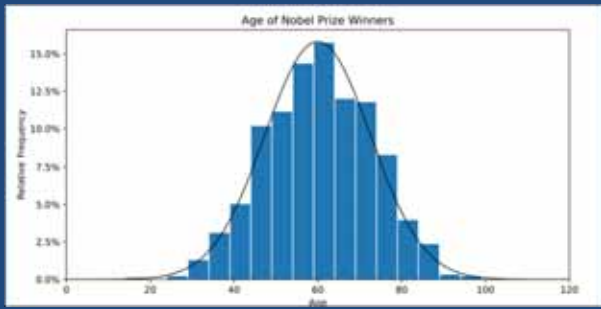


Bimodal distributions

85



In a perfect world, data and things are distributed in a perfect Gaussian fashion



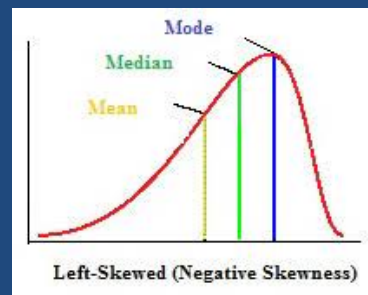
86

If you & I sit down for  
that drink  
we may learn something  
of each other - our  
identities, beliefs, &  
accomplishments.



87

If a **negative skew** demonstrates educational opportunity, childhood hunger, or life expectancy expressed on the vertical y-axis versus family income on the horizontal x-axis, does that strike you as shameful?



- 1.) If your answer is "No" – you can move on to another AUA session
- 2.) But if your answer is "Yes" – you can do brief thought experiments with other variables such as birth zip codes & opportunity in life, citizenship or immigration status, caste or skin color, gender, ability-disability, lifetime income, well-being, happiness, etc.

88

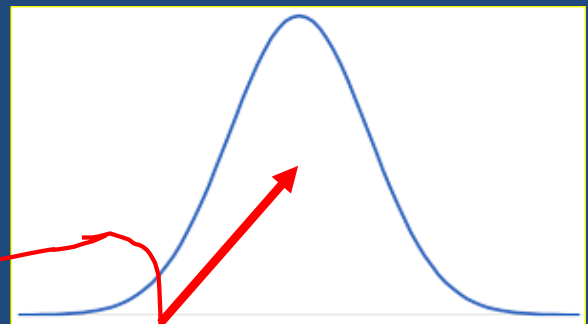
*We are here on this planet because of **chance** and the **choices** of other people.*

*Our chances in life are based greatly on those circumstances & based variably on our choices, the choices of others, & random events.*

89

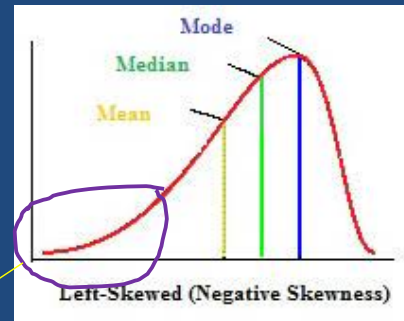
## Bartleby & Stochastics

*After the stochastics have played out, we are who we are and where we are by the **personal choices** we have made and continue to make.*

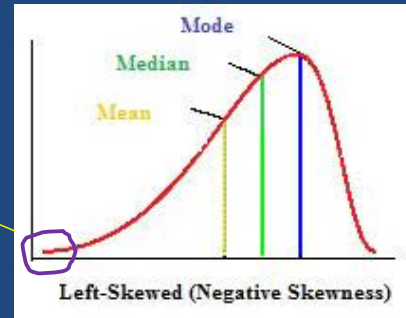
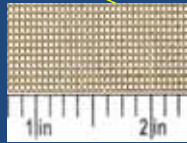


90

If you want to ameliorate a problem you view as shameful, where do you draw the line to help those unfairly positioned?

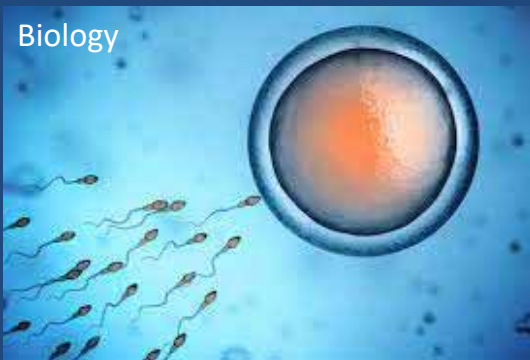


Assuming  $x$ -axis is Household income  
What is the size of the safety net mesh?  
Where is the poverty line?



91

*1. Chance & circumstance determine one's fate in life far more greatly than one's intellect, industry, or choices.*



92

### 3. The world of humanity is uneven. You can accept, exacerbate, or ameliorate it.



Old World map 820 CE  
Author- en>User:Carlude  
*Wikimedia Commons*

*We've been at the game of mapping each other's identities  
for millennia.  
It generally hasn't advanced humanity's greater good.*

93

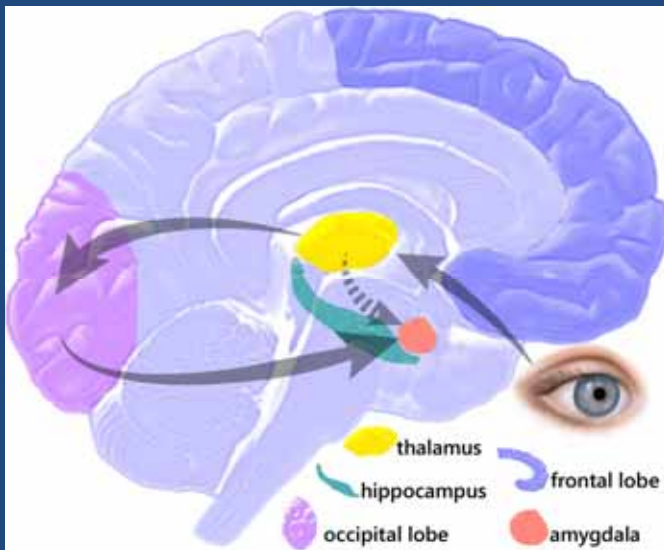


Adam Smith  
1723-1790

“How selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it.”

*The Theory of Moral Sentiments, 2<sup>nd</sup> Ed. 1761.*

94



Bias – conscious and unconscious

Amygdala (or other limbic) hijack

Heuristics – quick judgments

Manos Kefalas, Chair Wikipedia Community Schools Assoc, Greece

95

## 1977 - 1980: "B S A O N"

Black, Spanish surname, American Indian, Oriental, and "None."

"None" – the implicit xenophobic determination that *no unbecoming descriptors pertain.*; that the individual is close to passing for the American "everyman," with occasional gender exceptions.

96



I often think ill of people driving behind me with high beams or those who blink their high beams at me for no apparent reason.

We make judgments that may be totally baseless;

- a.) the driver most likely does not know his high beams are on, or
- b.) the driver may have passed over a speed bump that made it appear he “deliberately flashed his lights.

*We misjudge people based on their identities & our beliefs (and our fantasies).*

97



*A. Chance & circumstance determine one's fate in life far more greatly than one's intellect, industry, or choices.*

*B. The purpose of life: better lives for us, our families, & our human family. They are inextricably entwined.*

*C. For civilization to succeed we must recognize & understand the many personal identities of humankind – doing our best to embrace them all without judging them & building pipelines for the under-served.*

98



99



## *Stochastics*

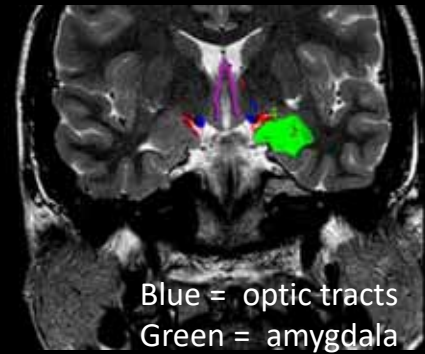


From Greek στόχος (*stókhos*) 'aim, guess.'  
*Indicates the property of being well- described  
by random probability distribution.*

100



## *Our choices*



Blue = optic tracts  
Green = amygdala

*Bartley's choice:*

*"I prefer not to."*

*(why does he keep saying this, what biases drove him to this odd choice?)*

Herman Melville, *Bartleby The Scrivener, A Story of Main Street*, 1853

101

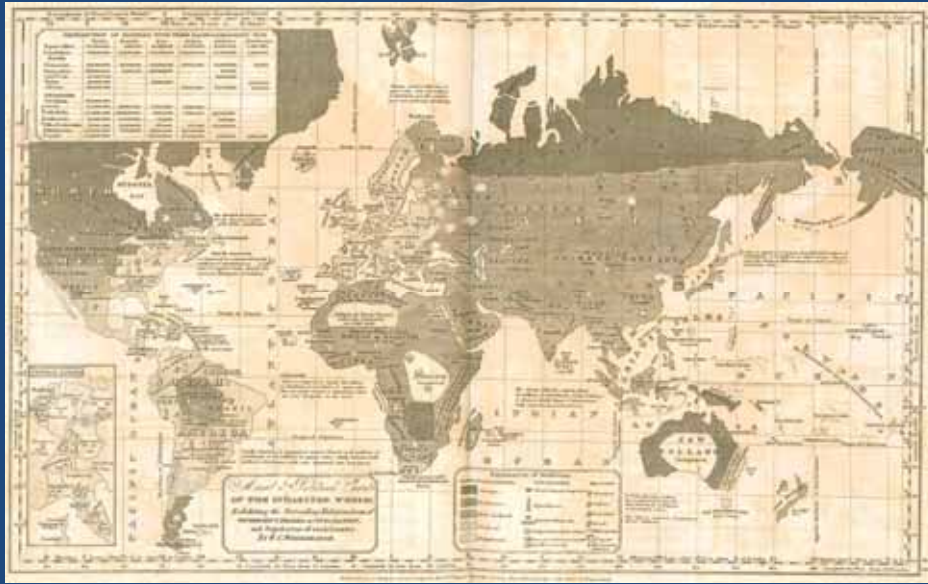
## Shameless antagonists of common sense

e.g. "postmodernists"

"... rebelliously and self-righteously deny that truth has any objective reality at all."

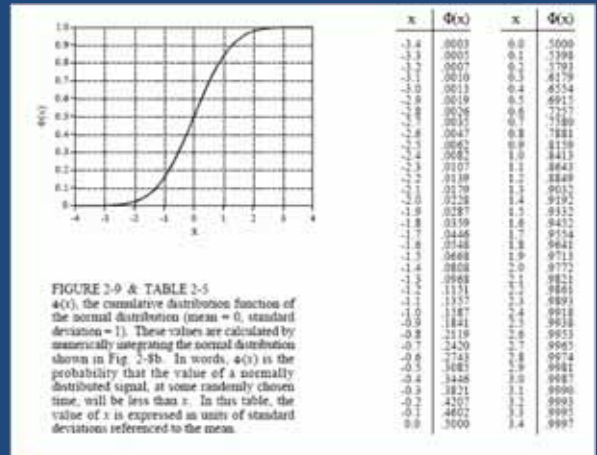
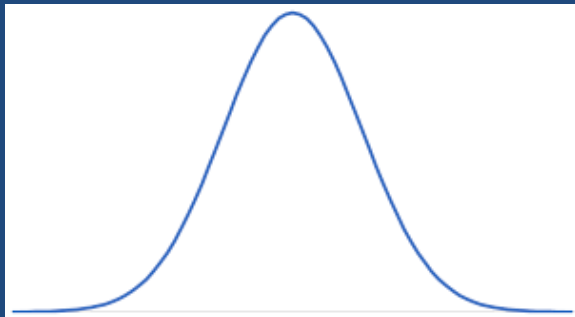
H. Frankfurt, *On Truth*, p. 19

102



William C. Woodgridge: *Modern Atlas* (1835)  
 Map designating “savage,” “barbarous,” and “enlightened” regions of the world. *The Newberry Library, Gift of Louise St. John Westervelt*

103



104

## What do we need to know? (about judgements of identities)



Linda McIntire  
UM Urology 2002  
Henry Ford Urology 2004

*Perhaps we should recognize  
and understand the many personal  
identities of humankind – and do  
our best to embrace them all  
without judging them.*