

On Teaching

Key Summary ideas from my website
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Key Ideas – On Teaching

- Don't self-identify your very worth as a person with ideas whose truth is outside your control.
- The safest and surest policy towards psychological health is simple – ***"I just want to know what the Truth is"***.
- **"When the facts change" – change your judgments! Stay flexible as new learning happens**
- **Be conscious** of the MESSAGE, whether implied or explicit, of an instructor
- Ideas have no "feelings" to hurt. Reject them when they fail the test of evidence
- Unbiased Teaching = Teaching with fair and faithful conveyance of the Weight of Evidence for ideas presented. It is NOT to give uncritical equal-credibility to all ideas out there. In fact, this false notion of "unbiased" can be used by agenda-driven people who know their claims cannot be defended by the weight of evidence

Why have Humans come to be the dominant species on Earth?

- Beyond our brain, it's our ability to TEACH, and to LEARN
- It allows the discoveries of a few, to be rapidly transmitted and learned by millions
- It therefore puts the new generation out at the frontiers of knowledge while they're still young enough to make their own discoveries and push the frontiers even farther
- So, How do we learn?...

The “Light Bulb” Experience

- See [Chapter 0](#)

Let Go of Ego-Attachment to the notion “I must never make a mistake or be wrong”

- Never attempt to base your self-respect on something outside your control – such as the truth or non-truth of “facts”
- Instead, realize your self-respect lies in a proper orientation. On a commitment. On cultivating a genuine desire –
- That commitment: ***“I will align myself with only one thing - with a #1 priority to discover what is the Truth”***
- Period. You need nothing else. All else will follow from this

Wrong Ideas

- Nature requires you to be right with Her, if you are to have an optimal life
- So wrong ideas must be uncovered, and quickly dismissed
- Wrong ideas have no “feelings” to hurt, and require no tip-toeing around, before you reject them!

So what is the tip-toe'ing around wrong ideas really about?

- It's about tip-toeing around PEOPLE who have over-identified their very souls with ideas that they dare not question.
- You do them no favors by buying into their refusal to take a clear-eyed look at the idea and whether it agrees with the evidence.
- And you do yourself no favors either.
- Tip-toe'ing only inhibits the process of getting from wrong ideas to right ideas

Good News! If Only...

- If only, somehow, you were able to communicate the idea to these people that there is **no need for such dogmatic attachment to ideas they dare not question!**
- If only they could hear you – and receive the good news! The news is - **Don't Self-Identify**
- They only need commit to one thing – a fluid commitment to sincerely WANT to ALIGN with the TRUTH, however it turns out to be

By Self-Identifying – you turn yourself into a slave, an automaton. Your mind's made up, and you refuse ever to learn anything new on that subject

- A great quote from early 20th century economist John Maynard Keynes....
- ***“When the facts change, I change my mind. What do YOU do, sir?”***, said at a party where he was being confronted by a particularly dogmatic and non-listening person who accused him of “flip flopping” on an economic issue.

Learn to enjoy the adventure, of opening the door to a new intellectual adventure when you discover you're mistaken on a key idea

- I've experienced it, and it's an exciting and transformative moment. Suddenly, the tension of barely noticed contradictions relying on that mistaken idea fall away, and you're left in a new landscape.
- In a sense, you're a child again (in the best sense of the word!), now open to the pleasures of new discoveries

Judgment by the Weight of Evidence

- Science takes time, work, effort, and it's hard to be sure you've truly ruled out ALL other possible explanations for a set of phenomena
- A teacher MUST present how solid is the “weight of evidence” for a scientific claim.
- I've seen instructors who have a perverse desire to smuggle in an idea which does NOT pass muster, conflicts with the weight of evidence, who WANT you to believe something is true when it is far more likely it is not.
- They will smuggle in their bad idea with notions of “fairness” and of being “unbiased”, and even claiming that reaching a scientific consensus is akin to religious zealotry and is ANTI-scientific (!)

“Well, you can’t PROVE that...XXX”

- Ever heard this one? It’s a common maneuver by those who want to dogmatically attach themselves to ideas that VIOLATE the evidence
- Science can DISprove ideas, by showing a clear violation with a logical implication of the idea in the evidence. It can rule out ideas in clear conflict with the supported idea (see Chap 0 on open and closed systems)
- But science may not be able to “PROVE” an idea, and instead only lay claim that the idea is supported by all evidence, and must therefore be on the “short list” for the Truth. If the evidence allows assembling a good case for an idea, we say the idea is a solid theory **and deserves respect by the Weight of Evidence**.

Bias

- The proper definition of “bias”, in the meaning we have here, is to say this –
- **To be UN-biased in your teaching, is to faithfully convey to your students what is the actual Weight of Evidence for an idea.**
- Is it strong and comprehensive evidence? Is it instead only weak and suggestive, but still the best we have?
- Or maybe it’s actually significantly Unsupported by the evidence, while another idea IS strongly supported

To Fail to Convey that the Weight of Evidence leans heavily against an idea

- ...is to manipulate your students into giving credibility to an idea which IT HAS NOT EARNED
- And worse, to do so with pious appeal to “fairness to other peoples’ opinion”, is to further manipulate your students into accepting an idea that the evidence says is probably wrong
- And worst of all – it is to do this injustice while insuring “plausible deniability” to their actions (so they’re covered in case students complain!)
- It’s cowardly, and I have no respect for this.

Every word, every image, every phrase in an instructor's presentation...

- ... is chosen to deliver a *message*
- You, as student, should be alert to the message, and to whether it is a valid one.
- **Stay Conscious of the message!** Keep your “BS detector” in good working condition
- Challenge your instructors if you think they're trying to smuggle in a message which fails the weight of evidence
- Including me! My goal is to encourage your Nature-given mind in its desire to grasp understanding of Reality. I'll explain what we know of the evidence supporting my teachings.

Notice when an instructor...

- ...shows impatience toward students who ask for reasoned evidence
- ...delivers a message only by implication, leaving “plausible deniability” as an “out” for themselves
- ...gives a defensive, deer-in-headlights look when you ask them a question they should, but cannot, answer (did you know – **less than half of high school science teachers even have a college degree minor in science** ([NAE 2013](#)), and much worse still in the lower grades)
- ...has a clear “agenda” to deliver conclusions which are not supported by evidence

I've seen...

- ...Instructors try to smuggle in the idea that Global Warming isn't human-caused, that climate scientists are no better than “religious zealots” for their strong conclusion that global warming IS human-caused, and who slander good scientists w/o evidence
- ...Instructors uncritically retreat from confronting students with the evidence, just because some dogmatic people won't like to hear it
- Whether their motives come from a lack of courage, or from an agenda, or some other unsavory motive – the point is this...
- **Their motive is Not Truth-Driven!**
- **Give respect and/or graceful responses to Truth-Driven teaching, and ONLY to truth-driven teaching, whether correct or incorrect**

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