

Growth mindset: Why views of intelligence & talent matter for women in academic medicine



<http://blog.mimio.com/>

Lourdes Alemán, Ph.D.
MIT's Office of Digital Learning

Activity:

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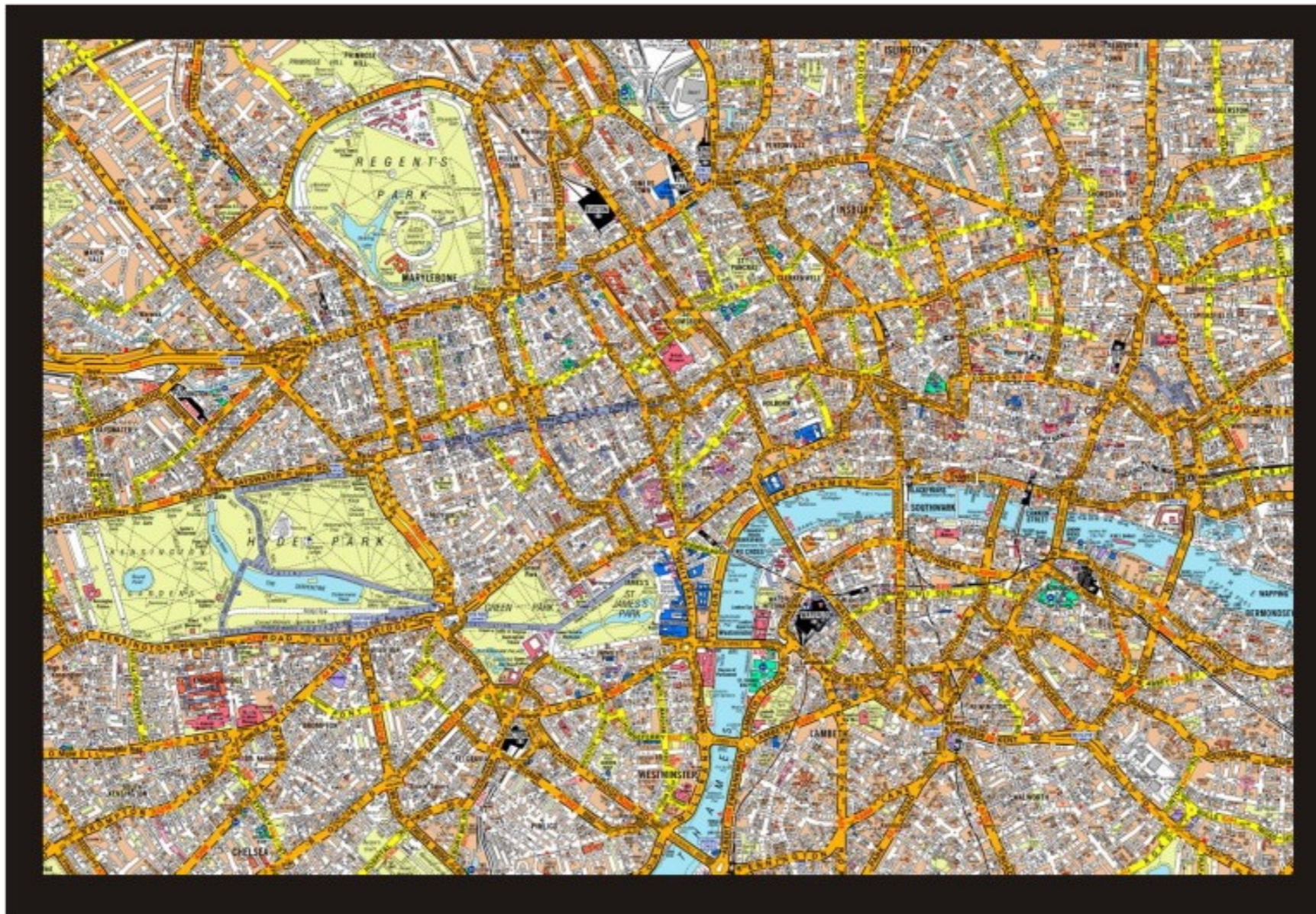


“The moment we believe that success is determined by an ingrained level of ability, as opposed to resilience and hard work, we will be brittle in the face of adversity”

Josh Waitzkin

Changes in adult **human** brains due to learning:

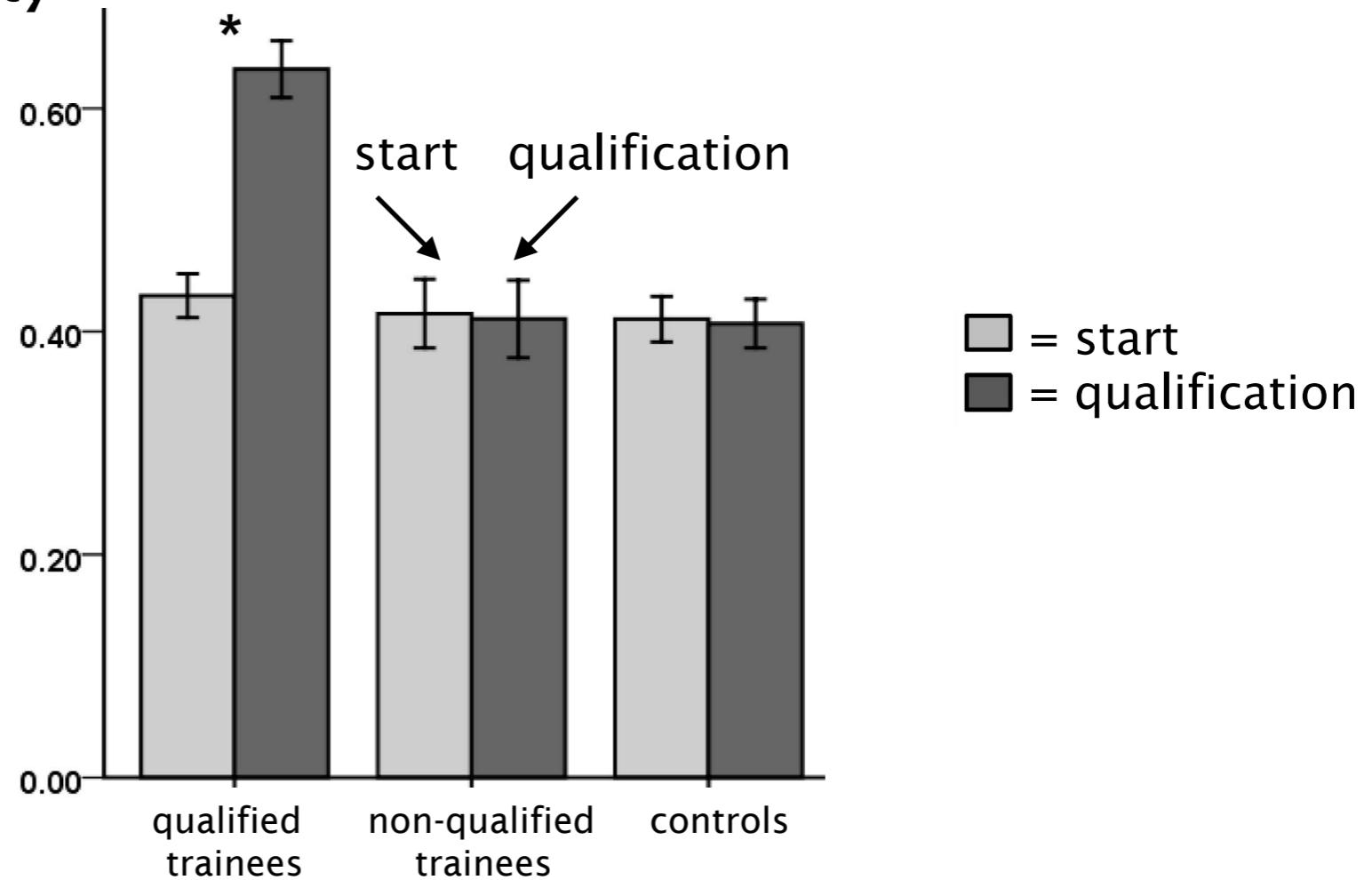
London cab drivers: “The Knowledge”



Changes in adult human brains due to learning:

London cab drivers: “The Knowledge”

Gray matter density
(means \pm 2SE)



What is mindset?



Carol Dweck, Ph.D.
Professor of Psychology (Stanford)

A framework for understanding how we view intelligence & ability



fixed



growth



fixed

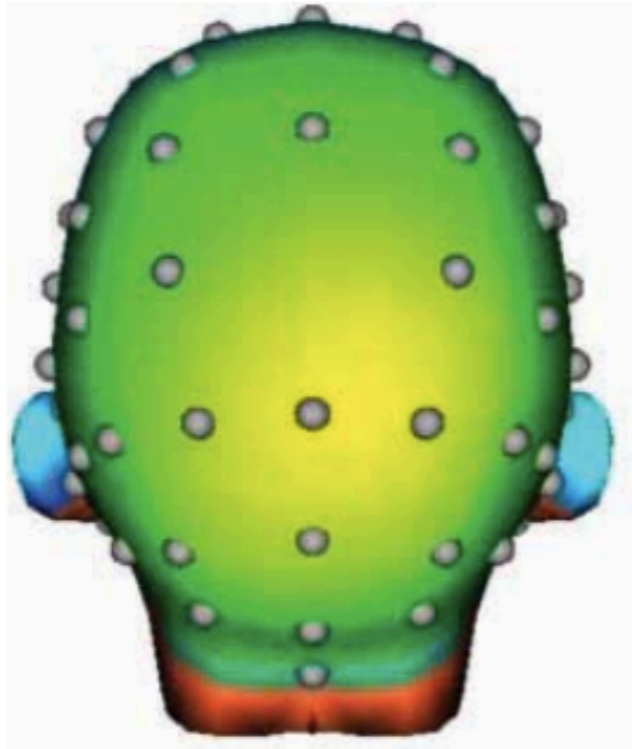


growth

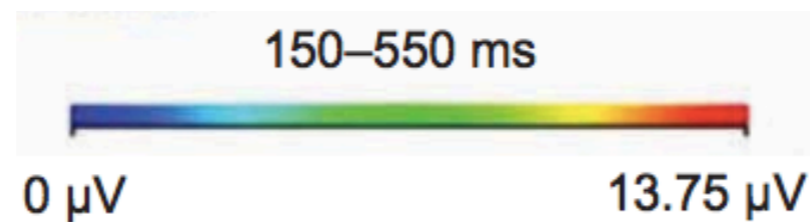
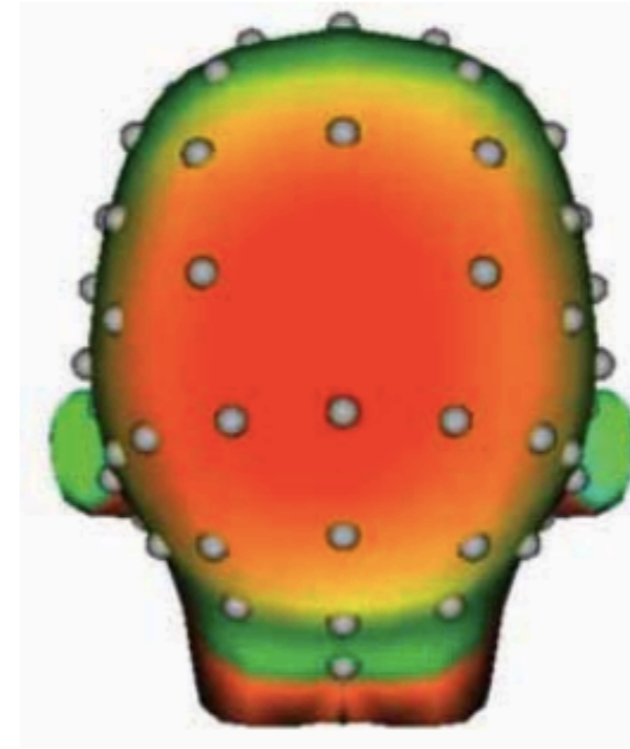
views on effort	seen as sign of weakness	seen as an important component of learning
goals	performance goal: picking challenges you know you can meet	learning goal: picking increasingly more difficult challenges
attribution of failure	not enough ability or blames others & situation	not enough effort or preparation, ineffective strategies
strategies	helpless or persevere with the same strategy	doubling down on effort, try new things, asks for help
feedback	avoids it, acts defensively	seeks it
results	lose interest/withdraw, self-sabotage	finds ways around it

Growth mindset is associated with enhanced attention to corrective feedback following errors

fixed



growth



Activity:



fixed

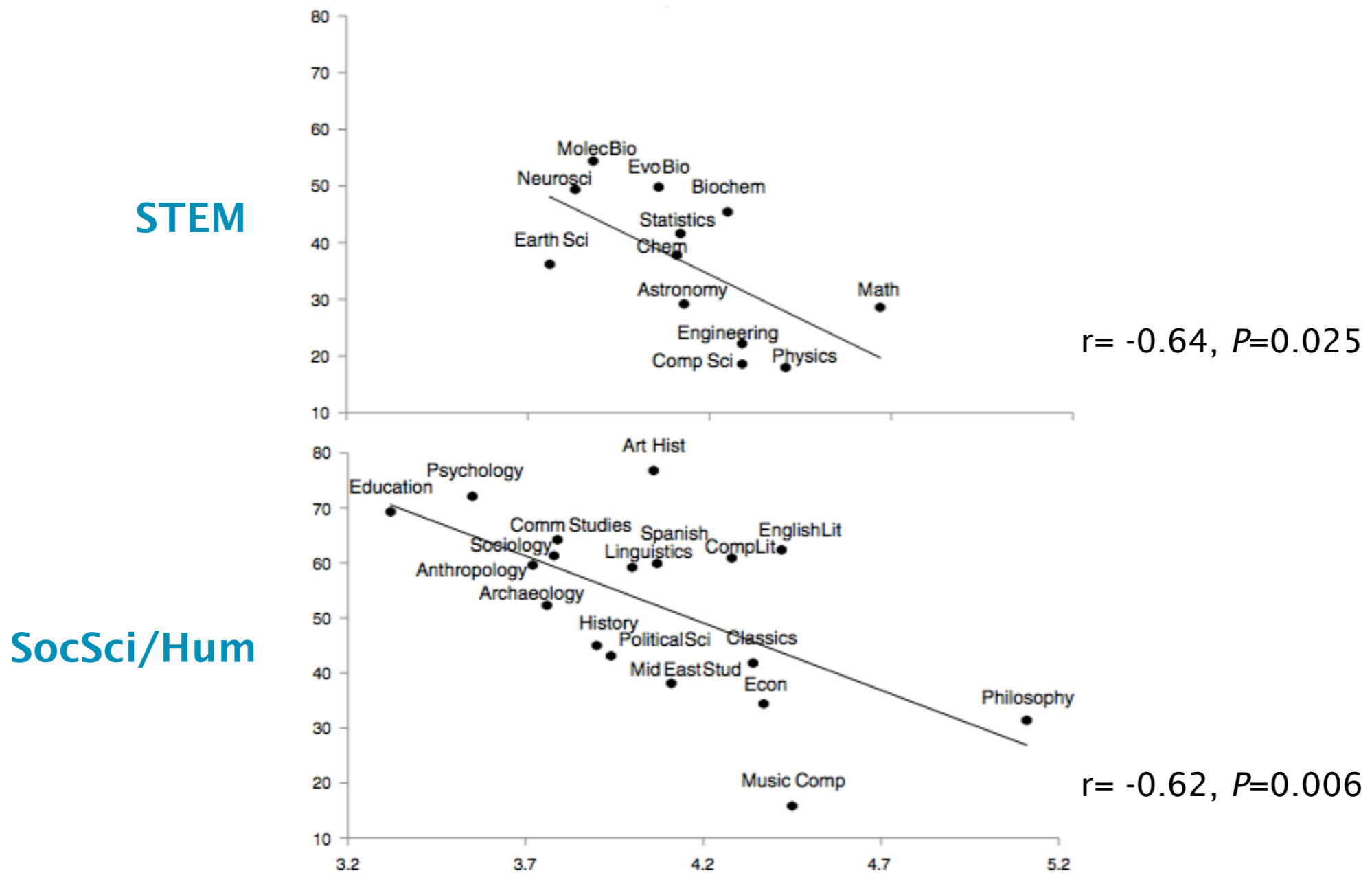
vs.



growth

Expectations of brilliance underlie gender distributions across academic disciplines

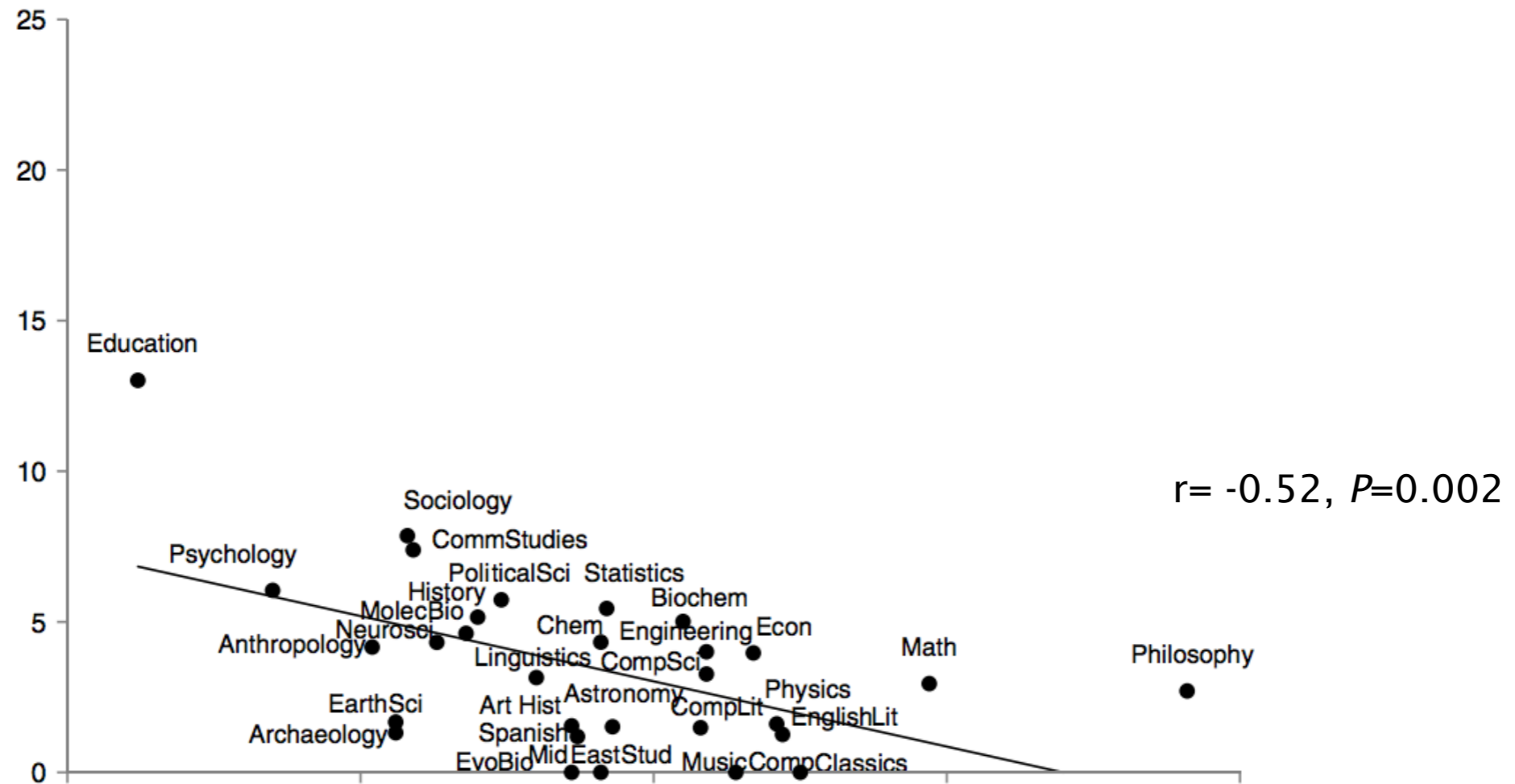
% of U.S. Ph.D.'s who are female



Field-specific ability beliefs
(higher # indicates greater emphasis on brilliance)

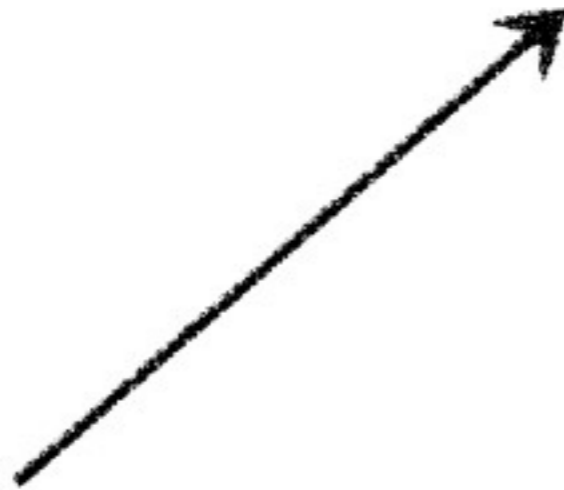
Expectations of brilliance underlie gender distributions across academic disciplines

% of U.S. Ph.D.'s who are African American

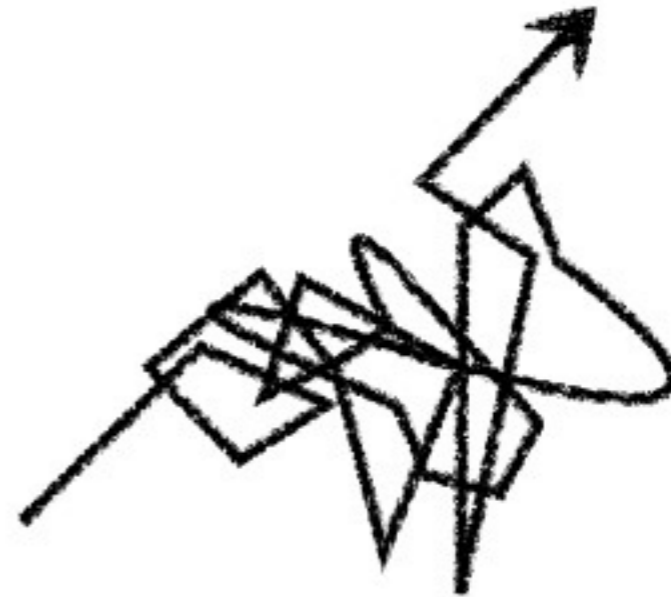


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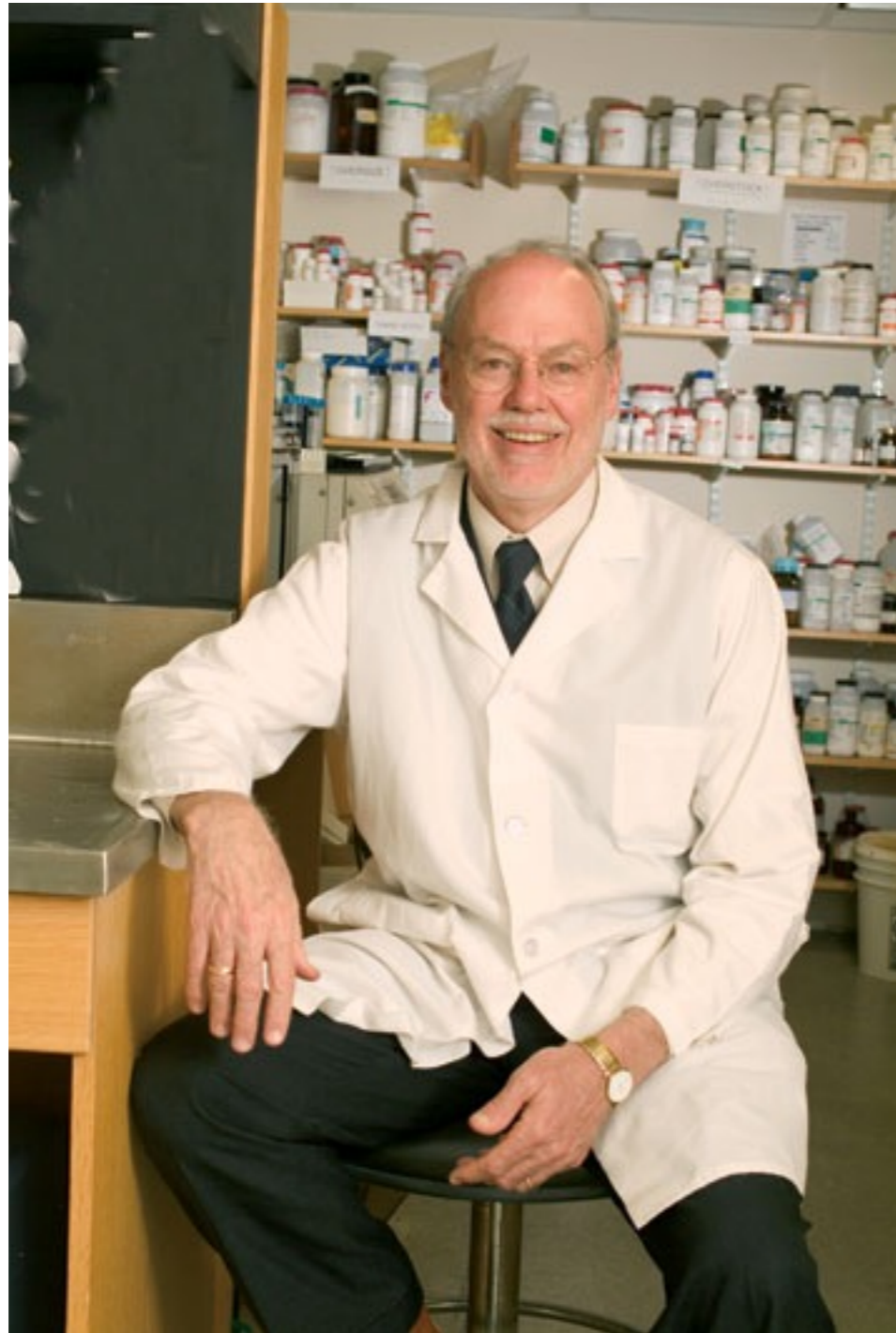
Success



what people think
it looks like



what it **actually**
looks like



Phil Sharp

*“Do people with this mindset believe that **anyone can be anything**, that anyone with proper motivation or education can become Einstein or Beethoven? **No, but they believe that a person’s true potential is unknown** (and unknowable); that it’s impossible to foresee what can be accomplished with years of passion, toil, and training.”*

Carol Dweck

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3. Re-examine your experience of failure. Answer (**on the other side of index card**):

- what can I learn from that experience? How can I use it as a basis for growth?



fixed



growth

Growth mindset interventions have been shown to be effective in a broad variety of settings:

student performance

management practice

negotiation skills





fixed



growth

Applying a growth mindset

Approach: **commit to a learning mindset**

- **Embrace a learning orientation** —> focus on understanding and developing areas that need improvement
- **Set learning goals** —> seek challenging learning opportunities and set challenging learning goals.

Action: **create and capitalize on learning opportunities**

- **Engage in experiments** —> systematically engage in alternative approaches, set specific indicators of outcomes
- **Seek feedback** —> seek feedback about strengths and areas that could be improved. Take responsibility for one's performance and strive to understand what feedback suggests about how to improve.
- **Monitor fixed mindset thinking** —> monitor disruptive emotions

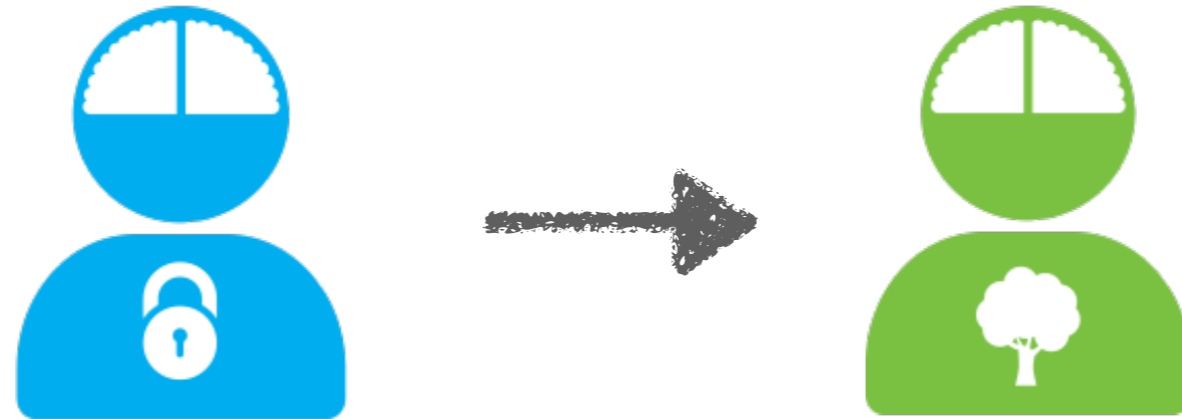
Reflection: **capture the lessons of experience**

- **Diagnose cause & effect** —> explore the role played by oneself, others as well as external factors in the outcomes attained
- **Consider how things could have gone better**
- **Distill lessons learned** —> document success and areas where improvements could make the biggest positive difference to future performance.

Activity: Monitoring fixed state

Trigger	Automatic thoughts	Alternative growth mindset interpretation
A colleague working on a project similar to yours has made much more progress than you during the last year	“He’s just more talented at designing and managing a large research project, and motivating his team”	“He has more experience than I do with large database work and I can learn from that” “He has sought out managerial advice regarding managing his research team and I can do the same”

Activity



Identify something that is holding you back in your current career trajectory or a skill set you would like to improve. Identify:

- **1 short-term strategy** you could implement this week to work towards this goal.
- **1 long-term strategy** you will continue to implement during 2017.

“Why waste time proving over and over how great you are, when you could be getting better? Why seek out the tried and true, instead of experiences that will stretch you? The passion for stretching yourself and sticking to it, even (or especially) when it’s not going well, is the hallmark of the growth mindset... it allows people to thrive during some of the most challenging times in their lives.”

Carol Dweck

Thank you!

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