

#### Why is there no physics of carpets?

- The property of "being a carpet"
- Properties of carpets:
  - Being softer than the floor
  - Having colors and patterns

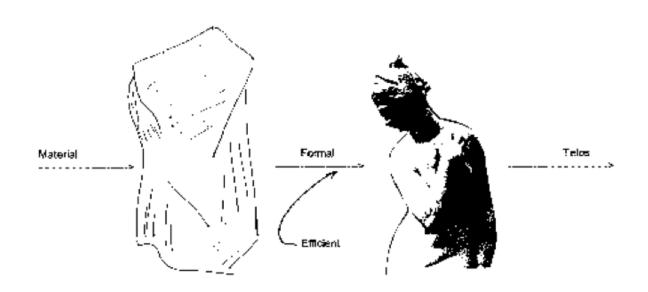


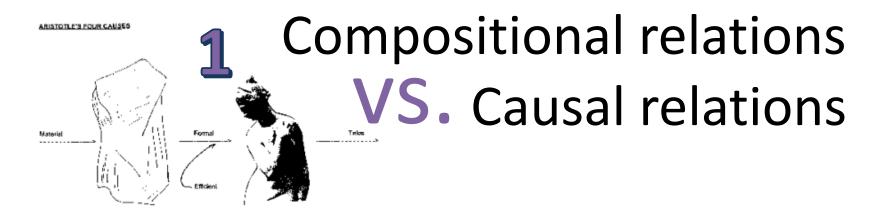
THE REDUCTIONIST: "Great then, let's us biomedically-inclined researchers stop talking about mental disorders, and focus on the underlying causes of the *real* problems – psychopathological signs and symptoms!"

BUT, ET tells us, "I don't believe any analysis or method unless it is capable of concluding that high level [explanations are] best"!

# 1 Compositional relations VS. Causal relations

#### ARISTOTLE'S FOUR CAUSES





- What is the account of causation here?
  - in terms of the production of effects
  - as the transfer of power from agent to patient
  - As based on counterfactual manipulation



The huntingtin gene is a composite, not a cause, of HD

What would the interventionist say?



My worry is that ET does not give principled grounds for distinguishing causal relations and compositional relations in accounts of multilevel entities, rendering the guide impractical

### Why so gloomy?

Psychiatry needs to find kinds about which it can make generalizations, and it seems like these won't level of the diagnostic category

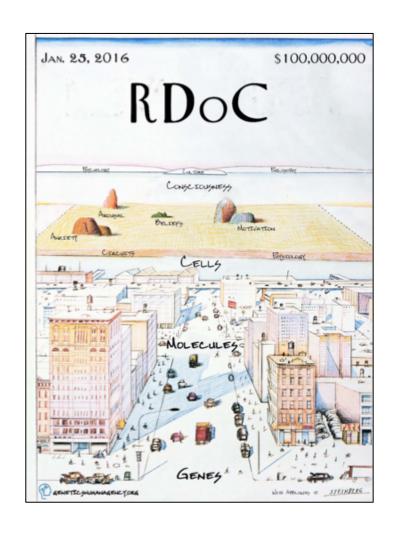
# 2 Why so gloomy?

"all the spirochaetes and aphasias have already been found"

why not causal thickets?

why not patchy reductions?

WHY SO GLOOMY?



Maybe because it's a zero sum game....

# 2 Why so gloomy?



But what if it's a zero sum game....

#### Recall...

Since Insel's strategic plan was implemented, the NIMH's spending on basic science has gone up by 28%, while the budget for research into epidemiology, treatment, and health services has gone down by 16.7%

This might give grounds something we could call "prudential pessimism"

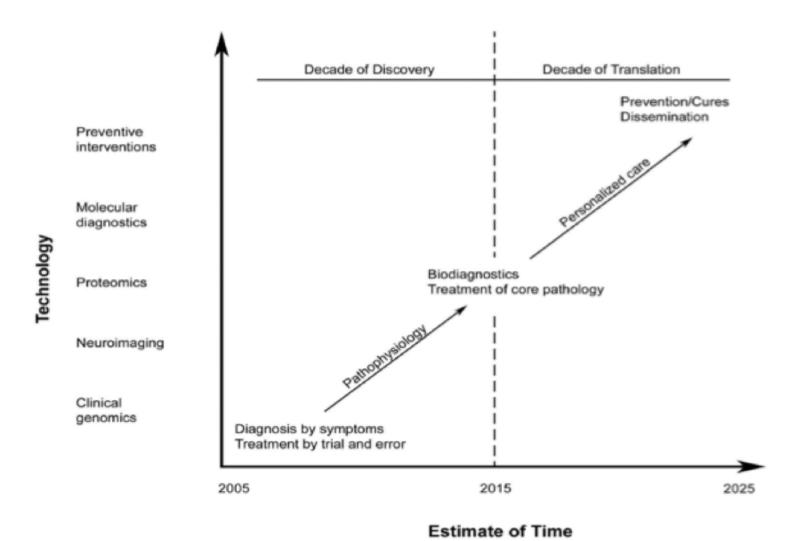


Figure 1. A Vision for Mental Health Research

Pathophysiologic descriptions of mental disorders will permit diagnoses validated by biological measures and treatments aimed at core pathology. Care will become personalized via an understanding of individual risk, allowing for strategic approaches to prevention and treatment. These ambitious goals require application of genomics and proteomics to mental disorders.





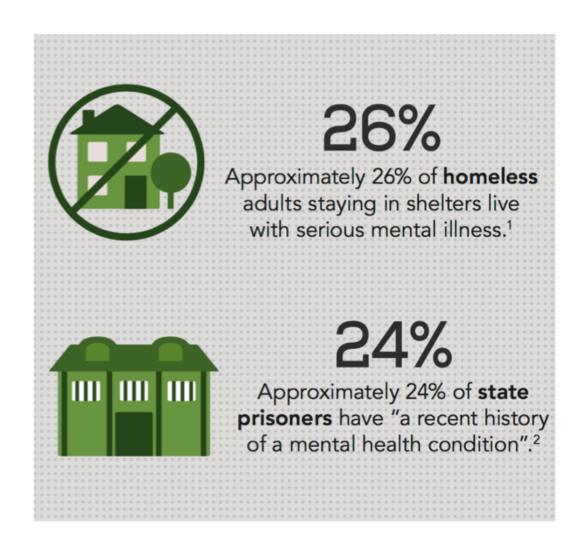
Nearly 60% of adults with a mental illness didn't receive mental health services in the previous year.4



Nearly 50% of youth aged 8-15 didn't receive mental health services in the previous year.<sup>1</sup>



African American & Hispanic Americans used mental health services at about 1/2 the rate of whites in the past year and Asian Americans at about 1/3 the rate.<sup>1</sup>



#### As ET notes, we already know CBT helps!

not to mention basic income assistance, psycho-pharmacology, steady employment, psychodynamic therapies...

The search for lower-level causes in psychiatry is not metaphysically senseless. But it may, prudentially speaking, be too much of a gamble, because of the low odds that any given discovery will lead to better healthcare outcomes.

In other words, successful manipulations at the level of the gene or the neural circuit may cost us *better* clinical interventions.