UNIVERSITY OF COPENHAGEN
CENTER FOR SUBJECTIVITY RESEARCH

Philosophical Issues in Psychiatry V:
The Problems of Multiple Levels, Explanatory Pluralism, Reduction and Emergence

# Discussant for Kendler Lecture: "Faculty Psychology, Psychological Causation and the Impact of Understanding on Psychiatric Nosology"

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# 1) Folk Psychology

"The mission of scientific psychiatry and clinical psychology is to make progress in the classification, explanation, and treatment of disorders. None of these missions requires reading philosophy books."

Zachar (2014)*

* a philosophy book

# 1) Folk Psychology

Kendler:

"During the formation of psychiatric nosology during the 19th century, faculty psychology played a strong role in the conceptualization of diagnostic categories.
These systems were largely the work of philosophers."

"I argue that it is nearly inevitable as clinicians struggled with trying to develop classifications of psychiatric disorders, that they would use their common-sense folk faculty psychology to 'reverse engineer' the disorders they were seeing."

# 1) Folk Psychology

A. Is there a true reality out there, or only culturally determined notions, captured in our folk psychology, evolving with our culture?

- A longstanding debate
- Recommended: Zachar (2014): *A Metaphysics of Psychopathology* - much to say about truth, reality, folk psychology, and social construction of mental illness

B. Are we able to escape our cultural context, and that of those from whom our work descends?

- Of course not
- …though we constantly forget this and need reminding
- …whether or not there is "really" a reality out there

C. Do western science methods move us toward that reality, whether or not ever fully reachable?

- We're counting on it
- Ken worries that our methods, necessarily culture-bound, get in the way of finding (biological and psychological) truth about mental illness

# 1) Folk Psychology

In the late 20th century, we became enamored of neuroscience

So we created the Decade(s) of the Brain (now in Decade #3)

To what extent is our faith in neuroscience
a fine example of a kind of folk psychology
driving our science of mental illness?

# 1) Folk Psychology

If mental disorders are real, what kinds of things are they?

- NIMH Director Hyman (1998): “Mental illnesses are real, diagnosable, treatable brain disorders.”

- NIMH Director Insel (2010): “the RDoC framework conceptualizes mental illnesses as brain disorders”

- NIMH Director Gordon (2017): “When we say biological, we include psychological.”

Kendler, Zachar, & Craver (2011) considered 4 answers and choose 1, emphasizing mechanistic properties:

“psychiatric disorders are objectively grounded features of the causal structure of the mind/brain.”

→ need to unpack that “/”

# 2) Premise: Cognition ≠ Emotion

Wyman (1830) as quoted by Ken distinguished:

> "a corresponding division of mental diseases –
> diseases of the intellect and diseases of the passions"

Kellogg (1897) as quoted by Ken distinguished:

> "Disorders of the intellect [and] Disorders of the emotions"

With such a conveniently clear differentiation between cognition and emotion, we can ask questions like:

After onset of a salient "emotional" stimulus, which happens first: cognition or emotion?

- 1980s debate between Richard Lazarus and Robert Zajonc
- 1990s Jerry Clore: "emotion as information" (to the self, about the self)
- Many other examples

# 2) Premise: Cognition ≠ Emotion

Assumptions about the causal primacy of cognition or emotion are very common in our literature (folk psychology again!)

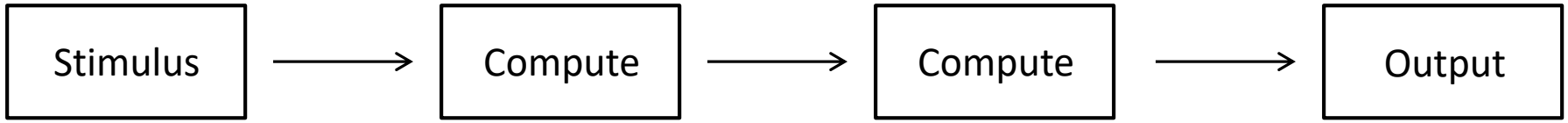
Fortunately, in the lab, in the clinic, and in daily life, we can model emotional stimuli as if dropped into a quiescent pond

And, fortunately, processing of emotional stimuli is a single-threaded process – no feedback, no recursion, no “second thoughts”

So a simple, linear model suffices, including for understanding cognition and emotion in mental illness

# 2) Premise: Cognition ≠ Emotion

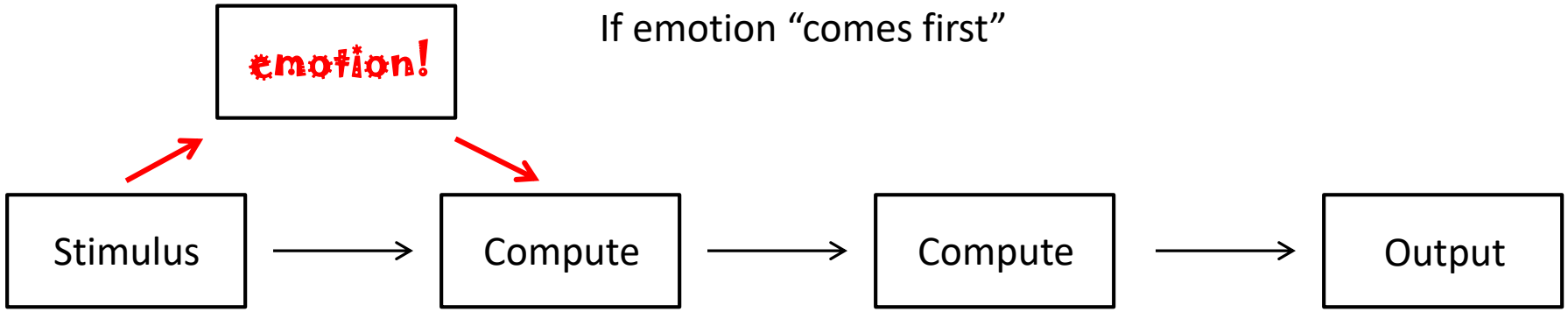
Cognition at work



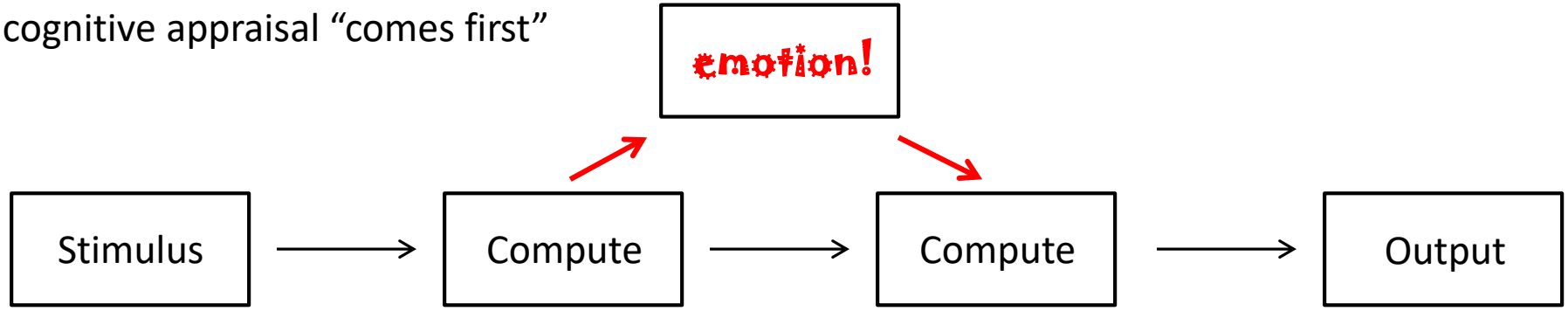

"Emotion" would be a box somewhere off-axis – a discrete, disruptive input into the cognitive processing stream

# 2) Premise: Cognition ≠ Emotion

If emotion “comes first”




If cognitive appraisal “comes first”




That’s not now cognitive and emotional symptoms play out clinically

# 2) Premise: Cognition ≠ Emotion

Ken's history shows that the cognition/emotion distinction permeated 19th-century thinking about "insanity"

In studying cognition and emotion…

- Why assume different psychological mechanisms?
- Why assume different biological mechanisms?
- Why assume different brain processes?
- Why assume different brain regions?

Why assume that cognition and emotion are separate realms, which we need to model (and diagnosis, and treat) with distinct concepts, mechanisms, brain regions?

Let's see how far we get modeling them with a single set of mechanisms

# 3) “Levels”

Each occasion of “underlying” in Ken’s talk caught my eye, such as:

- “if my thesis is broadly correct, is it reasonable to assume that our nosology could or should match **underlying** brain mechanisms?”
- “given that there is a discernable **underlying** neuroscience level explanation for our major psychiatric disorders”

Levels underlying levels leads to me wonder

- What’s the logical relationship between levels?
- What’s the mechanistic relationship between levels?
  - What underlies what?
  - Can psychological phenomena underlie biological phenomena?
    - Less common in our literature, but present

What’s lost if we just delete “underlying” each time?

# 3) “Levels”

“Levels” carries baggage

- An implication about what’s more fundamental
- An implication about what might suffice (via eliminative reductionism)
- An implication about what’s more real (mental illness isn’t “mental” illness)

An intentional choice of RDoC leadership: RDoC Matrix columns are “units”, not “levels”

- To avoid implying that biological phenomena are more fundamental than psychological phenomena
- RDoC is agnostic about what underlies what – even about whether “underlie” is the right relationship
- RDoC aspires to develop hybrid constructs, with biology and psychology integrated

I invite the present session to resolve questions about what “levels” are, whether we need them, and if so how to use them

# 4) Has the Time Come for Computational Psychiatry?

Ken: "We could have decided on all the key variables, collected a huge amount of data and applied some multivariate statistical model (e.g. latent class analysis) to get our diagnoses.

Not historically realistic – not the way medicine has worked.

But, see potent quote from Mayr about biological classification:

> 'Eventually, it became clear that it was futile to attempt to salvage downward, divisional classification by modifying it and that the only way out was to replace it by a completely different method: upward or compositional classification …'"

This fits NIMH Director Josh Gordon's enthusiasm for "computational psychiatry" using big data (psychological and biological)

"Computational explanations are mechanistic too." Piccinini & Craver (2011), Synthese, p. 303

Questions for this group:

Feasible? Sufficient? A good strategy for the new mechanists?