A thick black L-shaped frame surrounds the text. The top-left corner is a horizontal bar extending to the right, and the bottom-right corner is a vertical bar extending upwards. The text is centered within the open space of the frame.

# PHENOMENOLOGY & THE FLOW STATE

Introduction to Expertise

# Why Flow States?

- Several of you asked in the quiz question 3: Why flow? What does this have to do with cog sci?
- So far we've discussed types of learning, the mechanical and biological constitutions of the mind, behavioral and learned traits, the mental architecture of language, etc.
- What we have yet to discuss is *the human experience* of these theories.
- When we are interested in the science of cognition and mind, it's not enough to catalogue what is experienced. We also ought to also catalogue and understand *how* it is experienced. For instance, we might ask....
- What is the quality of having a mind, or to use our minds to be in the world? What lessons can we learn from *how* others do it? These are important questions because the mind is not merely something that generates experience, but *has it* as well.
- It's an interesting curiosity to understand the inner machinations of mind, and a whole other endeavor to bring those machinations to life in our own experience.
- And who better to learn these sorts of lessons concerning *how* to be in the world than from those who do it best: experts.
- Flow is a window into expertise.

# What is Expertise?

Just Do It



Cognition In Action



# What is Expertise?

Just Do It



# Just Do It

It is popularly believed that when we are at our very best (performing as would an expert), we become lost in our actions. Our bodies and minds are absorbed into our surroundings as if we were one with the world about us. We lose our sense of self, of time, and of ego – finding instead an immediacy of being in joyful activity without thought or worry beyond the afforded requirements of the task at hand.

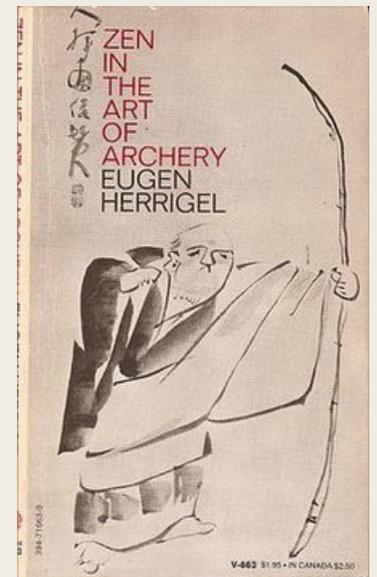
Many of you defined Flow states in this way on the quiz: as a “feeling”



The Yips



Navigation



“The bow shoots itself”

# Where Just Do It Goes Wrong...

- Experts end up thinking *a lot*
  - *Climbers planning routes, recognizing markers for success while climbing*
- Experts need to know when to follow rules and when to *break them*
  - *Chess Mastery and breaking rules to win games*
- Experts need heuristics to get better
  - *Performance is an opportunity for practice*
- “No plan survives first contact with the enemy” Von Moltke...
  - *The complexity of activities differs in the need for in-moment deliberative cognition*

# Cognition In Action



Coaching



Feedback

“Recent formulations describing the development of expertise suggest that most of us fail to develop beyond a hobbyist level of performance precisely because we settle into automaticity at a level of skill that we find enjoyable rather than continuing to improve our skills. Hence, automaticity is more a false ceiling than a measure of excellence.” (Yarrow 2009, p. 588)

Many of you defined flow states in this way on the quiz as a “cognitive state”



Vladimir Horowitz Breaking Rules, Making Mistakes, and Reacting

# Where Cognition in Action Goes Wrong...



- Reports of expert phenomenology
  - *“I didn’t plan that” - King*
  - *“I don’t remember the first 30 seconds of the route” - Ondra*
- Split-second decision making
  - *There’s no time to think, only react*
- Fine grained actions, habit, and automaticity
  - *Experts rely on what they can do automatically to succeed overall.*

# Automaticity and Expertise

What's the relationship between conscious cognition and automaticity in skilled action?

When does automaticity work *for* experts, and when does it act as a glass ceiling?

When does thinking get in the way of doing, and how do experts cope with the need to act quickly and fluidly in order to succeed?

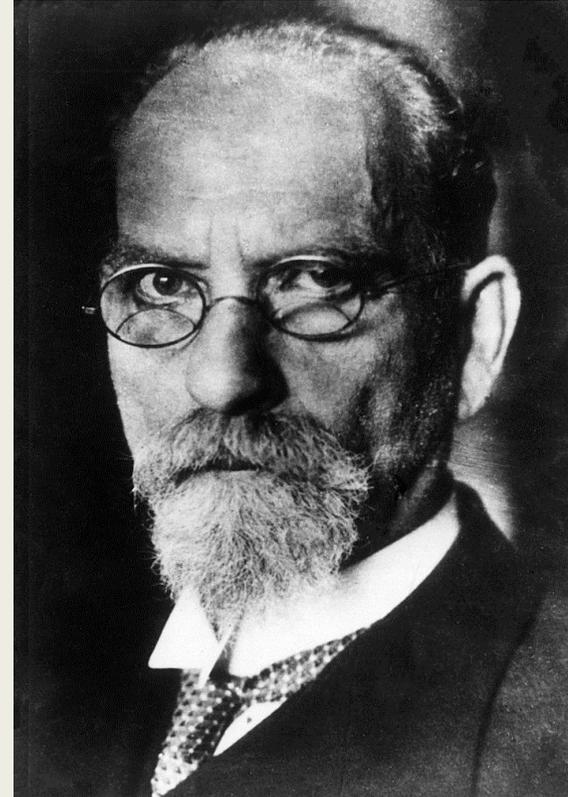
We'll use Flow States as a case example to help give us insight into possible answers to this question.

..... but before we do.....



# Phenomen-what? Phenomenology

- Phenomenology is a philosophical tradition pioneered by Edmund Husserl ~1913 (and others) which endeavored to make a science out of human experience.



# Phenomen-what? Phenomenology

- Phenomenology is a philosophical tradition pioneered by Edmund Husserl (and others) which endeavored to make a science out of human experience.
- If you would like a brief guide on how to perform this science, please see the corresponding chart:
- In contemporary lingo, it's enough to know that phenomenology means the '*what it's like*' of an experience. (What is it like to be a bat?)
- Every experience, whether acquired through the senses or through intellection, has particular character – a quality of what it's like to be experiencing *that* as you do.
- Can anyone think of why using phenomenology as a scientific datum might be challenging or controversial?



# To be fair to phenomenology....

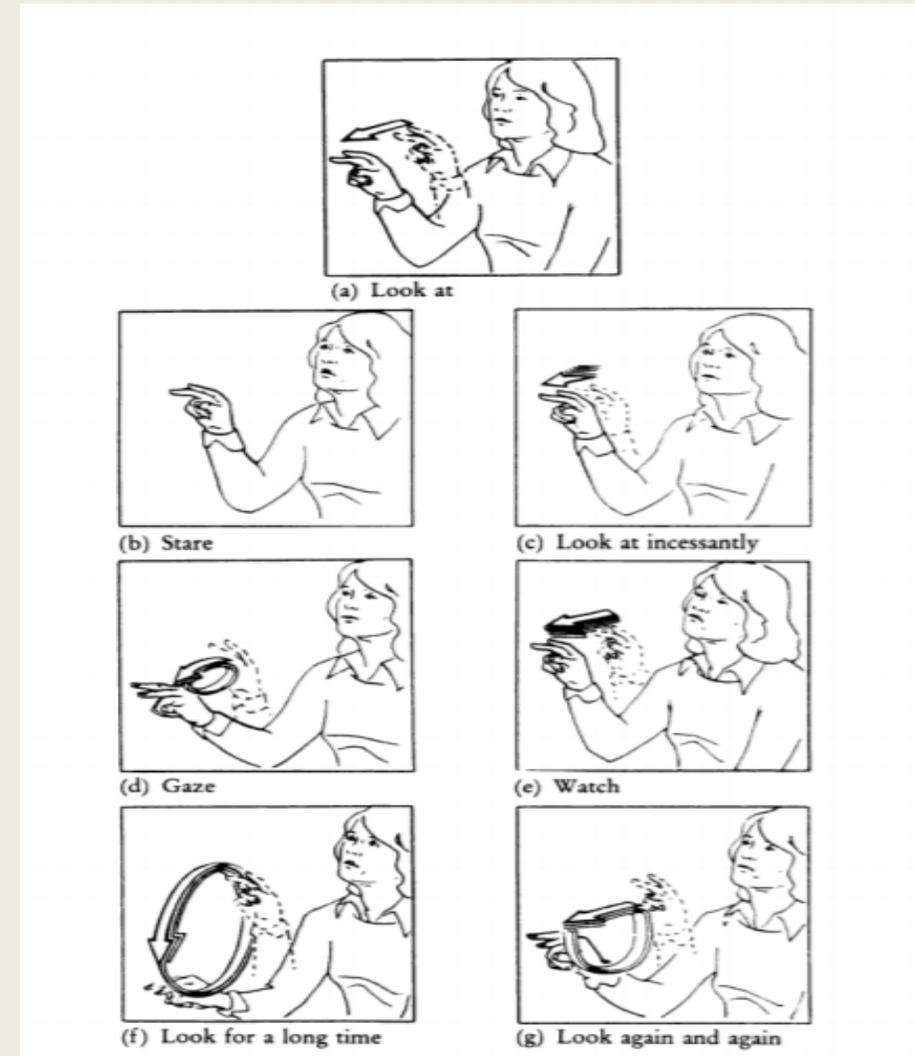


- Phenomenology wasn't, strictly speaking *invented* by Husserl – he just (attempted to) create a 'science' of it.
- 350 years prior Descartes used a phenomenological tool to prove his existence (and all the rest of science + Christian theology...)
- Cogito: I think
- Ergo: Therefore
- I am: Sum

There are all sorts of ways that phenomenology can be used deductively as well as empirically.

# Phenomen-what? Phenomenology

- Phenomenology is a philosophical tradition pioneered by Edmund Husserl (and others) which endeavored to make a science out of human experience.
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- Every experience, whether acquired through the senses or through intellection, has particular character – a quality of what it's like to be experiencing *that* as you do.
- Can anyone think of why using phenomenology as a scientific datum might be challenging or controversial?
- The Flow State Literature is, by and large, a practice in attempting to make phenomenological data scientifically sound. We'll see if it's successful...



# The Flow State

- Csikszentmihalyi (1960's)
- Saw that artists would spend *days* forgoing food and drink and creature comforts to complete paintings... then when the painting was complete throw it in a dusty corner and begin the process again.
- What's going on with this behavior?
  - *Motivation in the moment*
  - *Motivation between moments*
- C. begins interviewing artists!



# An Argument



What's wrong with this argument???

The activity and quality of flow state experience *completely* confound this argument. In fact, attention in skilled action is better able to be sustained in high-skill/challenging situations than easy ones!

1. Attention is a limited resource (empirical premise)
2. As we force ourselves to attend, we become worse at continuing to focus (empirical premise)
3. The more challenging an activity or task, the more attention we need to pay to it. (premise)
4. Challenging activities deplete attentional resources faster than easy activities (1, 3)
5. Therefore we ought to be far less capable performing challenging actions at length (2, 4)

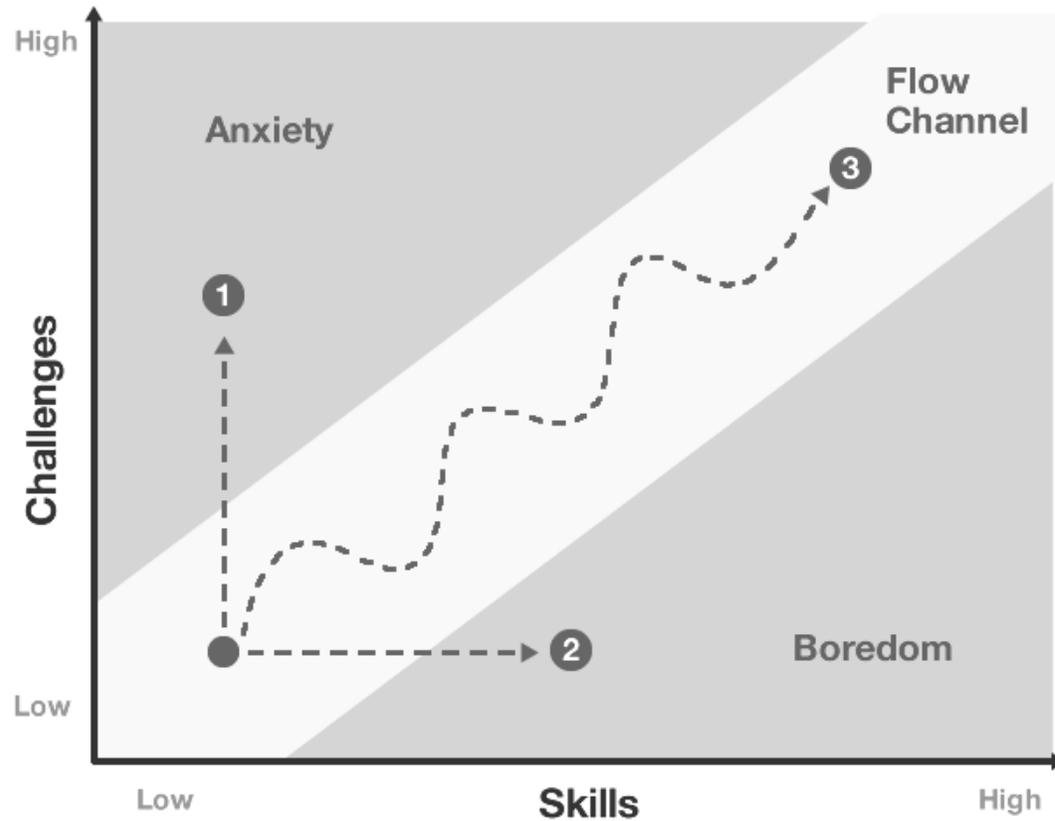
# The Flow State

- **Phenomenology:** The character of one's personal experience
  - *"what it is like to experience X"*
- C. began to see common phenomenological motifs in the surveys taken by these artists
- Later these same motifs would be reproduced in rock climbers, bikers, factory workers, and many other domains... *around the world*

1. Intense and focused concentration on one's activity in the present moment
2. Merging of action and awareness
3. Loss of self-reflective consciousness
4. A sense that one was in control of one's actions – that regardless of what might come, they would know what to do.
5. Distortion of time
6. Experience of intrinsic reward for an activity



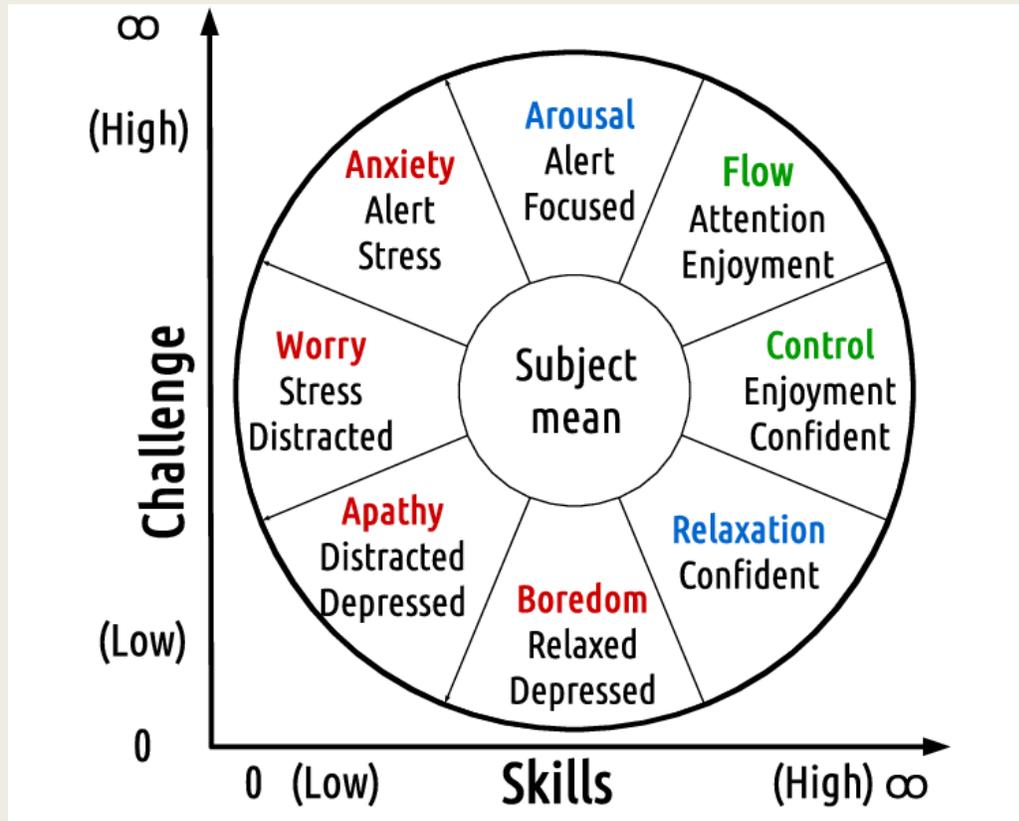
# The Flow State



## How do they happen?

- Between *boredom* and *anxiety*
- When (subjective) skill and challenge find themselves perfectly matched, agents are more likely to report having been in a flow state

# The Flow State



## How do they happen?

- Between *boredom* and *anxiety*
- When (subjective) skill and challenge find themselves perfectly matched, agents are more likely to report having been in a flow state
- What allows this state to occur when the right conditions are met?
  - Attention.

# An Argument



What's wrong with this argument???

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# The Flow State



If flow states are associated with a lack of reflective self consciousness, then they must be intrinsically motivated! Extrinsic motivation requires self-referential and future oriented reflection. Even so, how is intrinsic reward motivating in the right way if we're out-of-ego?

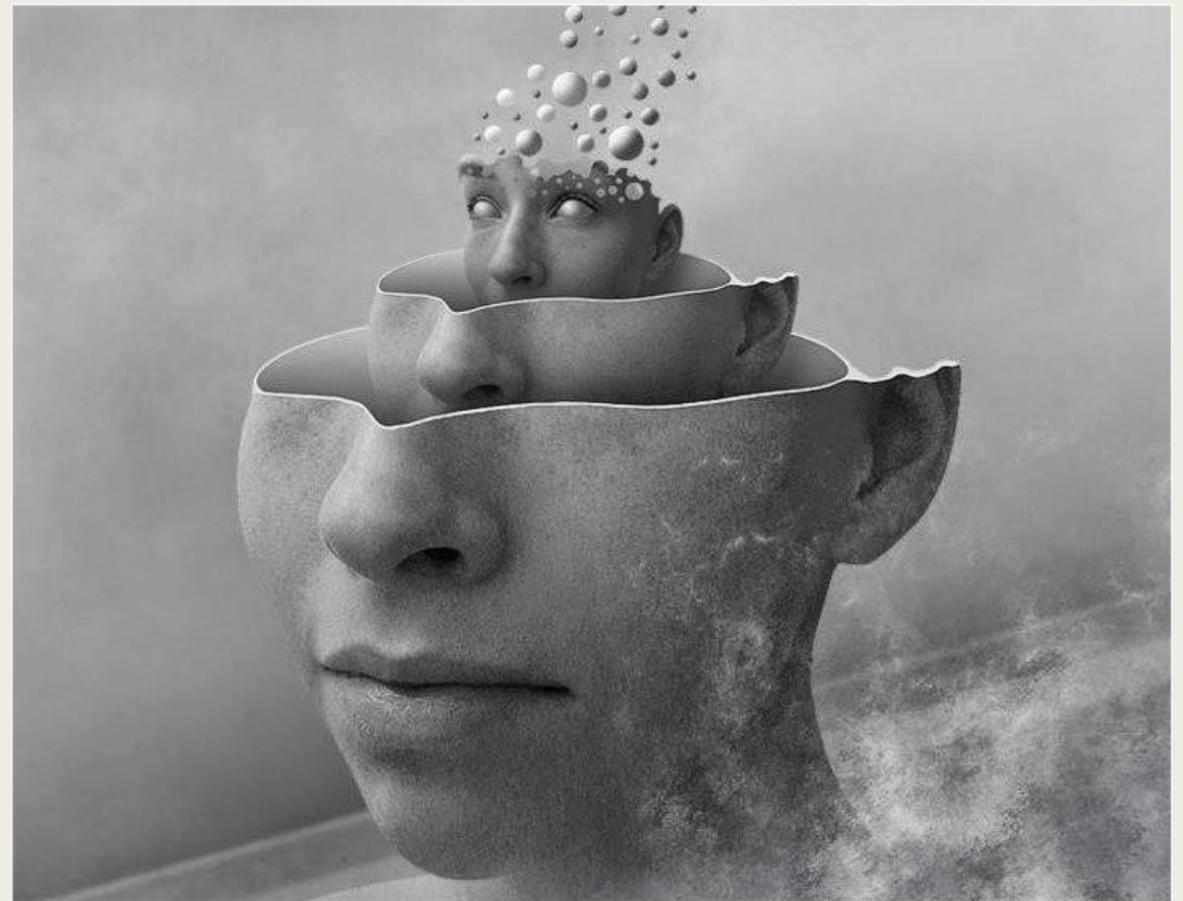
## Motivation and Attention

- The distribution of attention is essential to entering into and sustaining a flow state
- Attention is a limited resource, especially when we deliberately use it (think trying to pay att'n to this lecture)
- But when we are in the flow, the resource feeds itself – by attending wholly on the present, the feedback of success from our environment draws energy back into the system, giving us the fuel and motivation to continue attending. Attending in such states is said to be *effortless*.

# The Flow State

## Flow and the self

- How do we make sense of one's experience of a *lack of self consciousness* or the dilation of time, or of the automatic and effortless production of action while in a flow state?
- Do we become *automata* when in the flow?
- Are the actions be *ours*?



As the story goes, flow states are *critical* to healthy self development. When we enter into a flow state, we return on the other side and recognize ourselves as having been capable of the action performed. We grow in confidence of our capabilities without inflation of the ego.

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## Flow and the self

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Do you think that motivation happens during gaps in the flow, or during a flow experience?



“The self emerges when consciousness comes into existence and becomes aware of itself as information about the body, subjective states, past memories, and the personal future.”

# The Flow State

## The Autotelic Personality

Auto – of its own

Telic – end/goal oriented

Autotelic: A person who is intrinsically motivated to engage in activities; a person who generally enjoys doing things for their own sake rather than for some external goal

**Being autotelic helps one to enter into flow states more reliably, but entering flow states also tends to produce autotelic characteristics in people over time!**

- Autotelic people engage them
- Autotelic persons are typically more active and receptive to new experiences
- They are curious
- They are open to challenges and readily seek out high skill, high stress activities



# Your Experience



Have you experienced “the flow” ?

When? What was it like?

Have your experiences been different than what’s been described here?

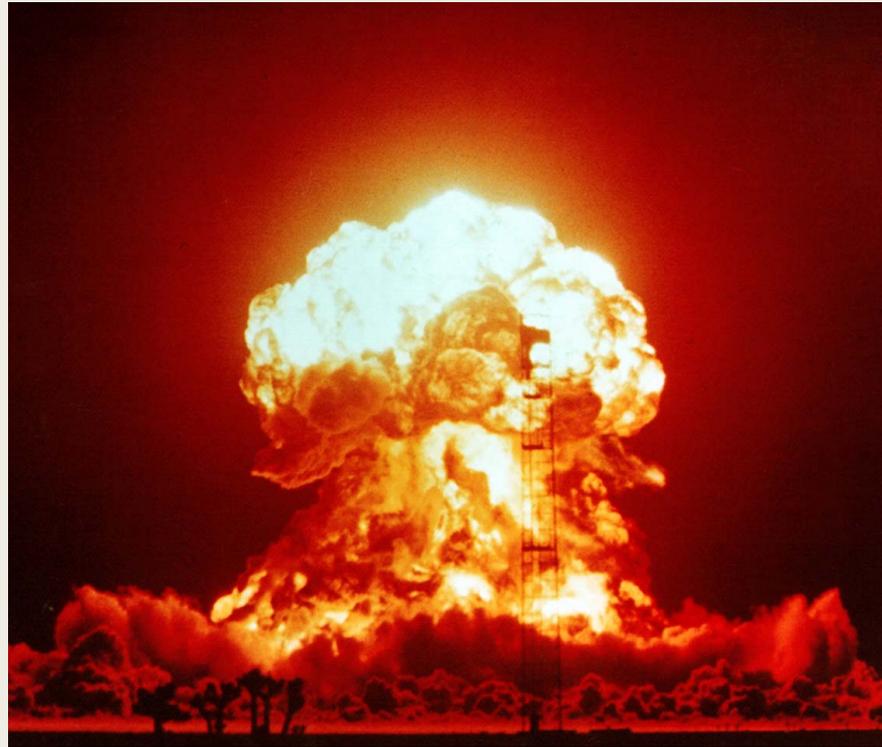
**CLASS POLL:** Remember how we started the lecture?  
Expertise as “just do it” or “cognition in action” ...  
By show of hands who thinks that flow states are an example of ---

# Issues, Problems, Worries.

1. What counts as a flow state?
2. Flow is good... right?
3. Phenomenology (on the) rocks! And other self-reporting worries.
4. Priorities in Education and Development. (i.e. do we educate to create autotelic students, or do we educate to imbue knowledge.. Can we?)



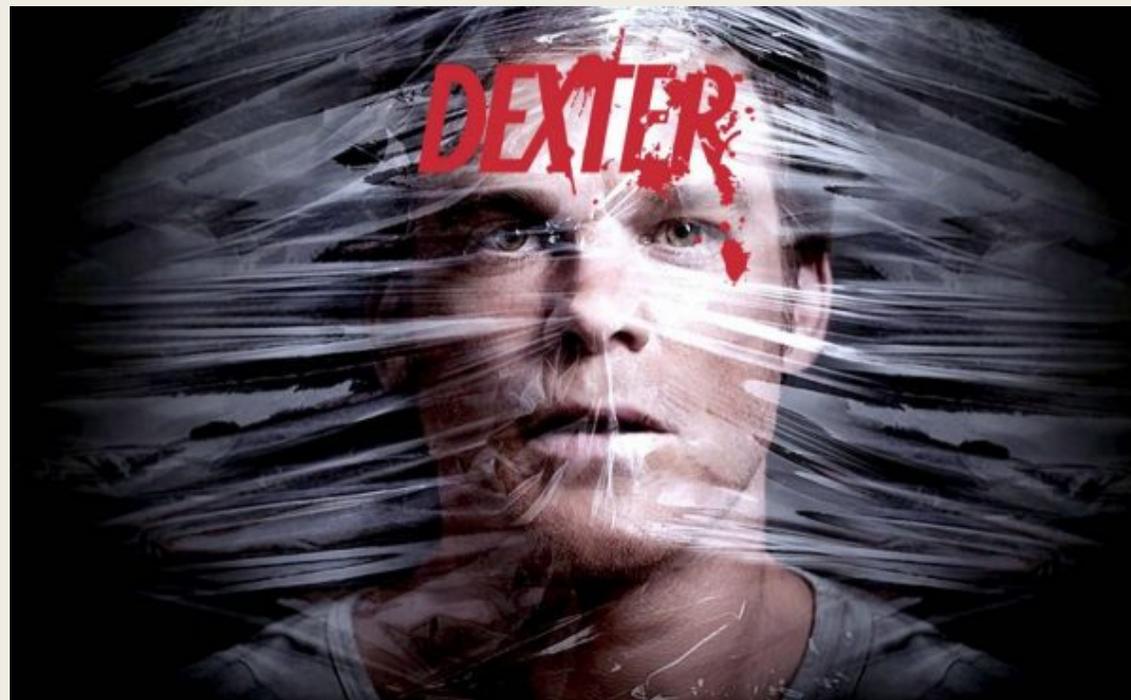
# What counts as a flow state?



Microflow

... Conceptual Explosion?

Flow is good... right?



# Phenomenology (on the) rocks! And other self-reporting worries.

- We are terribly unreliable narrators of our own experience.
- Cognitive penetration can become an issue
- And either we report as we act, causing strange, unnatural conditions – Or we report after the fact, when we are no longer perfectly capable describers of our experience.
- Our memories are awful and become worse the more we look back on them



# Priorities in Education and Development.

- Do we educate to create autotelic students, or do we educate to imbue knowledge.. Can we?
- We can prioritize proper behavior, or we can prioritize a proper education.
  - *But if flow states are value neutral, then is producing a 'flowy' population really actually good for that population?*

Montessori School



# Group Activity

- Get together in groups and come up with an activity or strategy that could be used in *university* classes to incorporate flow in the lesson plan.
- What would be some hang-ups to your proposal? How would you sell it anyways?

**Alternatively: Construct an argument why flow-activity ought not to be made a part of a university class' lesson plan**

If the best (my favorite) plan is doable, I'll implement it. If an argument against wins, then... I won't do anything different anyways.

When you have to complete a group project but you're the only one working on it

