

LSU PHIL 4941 Philosophy of Mind / Spring 2018  
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Intro Lecture, Wednesday January 10

The course will have 4 basic sections:

Intro will be Louise Barrett's book, *Beyond the Brain*.

Section 2 will be "Classic Texts in Analytic Philosophy of Mind"

Section 3 will be "Nonhuman Cognition" (bacteria, plants, and nonhuman animals)

Section 4 will be "Human Cognition: Social, Emotional, Enactive"

Today I'm going to give you a roadmap of some basic concepts. THIS IS ONLY A FIRST APPROACH TO THE TOPICS. THERE ARE MANY IMPRECISSIONS WE WILL FIX LATER.

#### INTRODUCTION LOUISE BARRETT, *BEYOND THE BRAIN*

We'll start with this book as it offers a good intro to the bottom-up and outside-in approaches to cognition that will be a counterpoint to some analytic approaches, and allow us to appreciate the nonhuman cognition section.

From here: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4883471/>

"in addition to looking at things from the *bottom up* (simple to complex), Barrett's approach also looks at things from the *outside in*, emphasizing the important role of the environment in shaping and maintaining complex behavior. Barrett's position on cognition is summed up well here: "In a distributed or extended approach to cognition, then, actions in the world are not merely indicators of internal cognitive acts, but are cognitive acts in themselves" (p. 217).

... perception is not to be understood in the traditional sense, as internal screening mechanisms, but as actions in the world:

*Perception is not "in" us and it doesn't happen "to" us; it is something in which we actively participate...whatever "cognition" is taking place, it is taking place not solely in the animal's head, but out in the world: action in the world can, justifiably, be considered to be just as "cognitive" as things that happen inside an animal's head. (p. 108)*

[Reminiscent of] J. J. Gibson's ecological approach to perception and cognition, and indeed, Barrett pays an intellectual debt to Gibson in several places in the book. ... A key concept for Gibson is that of an *affordance*—a stimulus event that *affords* action. This definition implies an inextricable connection between environment and behavior; environmental events are meaningful only to the extent that they permit action.

Gibson's views are contrasted with the orthodox representational views—i.e., that the world is an illusion that can only be known indirectly via interpretation. The representation is the internal surrogate of the environment. But why, Barrett asks, should we appeal to internal surrogates of the world when we have direct access to the world itself?

... biologically, such representational views are badly out of step with evolutionary thinking. It would be incredibly costly in terms of internal machinery to carry complexity around in the head. It would be far more efficient to "offload" to the environment, as Barrett notes:

*If there is information freely available in the environment, why would natural selection go to the trouble of building in internal mechanisms that do exactly the same job?" ...[T]his isn't quite the same as saying that no internal activity takes place. Instead, it's an argument for giving the external environment as much attention as the inside of an animal's head when we are investigating their cognitive capacities. (pp. 110–111)*

Forcing complexity into the head places enormous cognitive burdens on the brain. It is much simpler and more evolutionarily sound to assume that complexity lies in the environment.

According to Barrett, perception and cognition are *embodied* actions in relation to the world, not static representations of the world."

## SECTION 2: CLASSIC ISSUES IN ANALYTIC PHILOSOPHY OF MIND

### MIND-BODY RELATION

#### 1. Dualism

- a. Substance dualism
  - i. Interactionism (Descartes)
  - ii. Parallelism (Leibniz: God's pre-established harmony)
  - iii. Occasionalism (Malebranche: God's continual action)
- b. Property dualism:
  - i. Emergentism (Broad): properly organized matter gives rise to psychological events, but not a separate substance
  - ii. Epiphenomenalism (Huxley): mental events are causally ineffective
  - iii. Non-reductive physicalism
    1. Anomalous monism: Davidson:
    2. Biological Naturalism (Searle):

#### 2. Monisms

- a. Neutral monism / panpsychism: there is a single ontological type, but it has both mental and physical properties
  - i. Spinoza (*Deus sive Natura*: one substance with infinite attributes, of which we can access two: mental and physical)
  - ii. Russell: physics only reveals structure; not internal experience; we however are natural beings with internal experience; physics cannot rule out internal experience in other natural beings.
- b. Idealism: mind is the fundamental stuff
- c. Materialism / Physicalism: matter is the fundamental stuff
  - i. Realist monism panpsychism (Strawson: builds on Russell)
  - ii. Analytical behaviorism (classically attributed to Ryle): a mental state is disposition to behave in a certain way in a certain situation; it's shown by looking to the history of behavior of a person.
  - iii. Identity theory:
    1. Type-identity theory: Psychological types are identical with types of brain processes. Slogan: "Pains are C-fiber firings"
    2. Token-identity theory: Specific mental events are identical with specific brain events
  - iv. Functionalism: Mental events are individuated by their functional roles in a cognitive system

## CONSCIOUSNESS

- Chalmers distinguishes an easy problem from a hard problem. The easy problems are things like "how does perception work: what information is being processed in what parts of the eye / brain?" The hard problem is "why is there an experiential side of mental activity?"
- Block will distinguish A-ness from P-ness. Access consciousness = having information accessible for report and for global rational control; it is an information-processing term. Phenomenal consciousness is "qualia" or the "what is it like" side of experience.
- Will we ever close the explanatory gap here, between 3<sup>rd</sup> person scientific explanation and 1<sup>st</sup> person experience?

## PROPOSITIONAL ATTITUDES

Beliefs and desires are attitudes toward propositions (or intentional objects on other readings). "I believe that P," "I hope that P," "I want it to happen that P," ...

- Eliminative materialists think such folk psychology (explaining human behavior by means of belief-desire psychology) is becoming outdated and will / should be replaced by brain language. "I believe that P" should be replaced by "There is firing at neural sites 34.9.A.1 and 42.7.B.6."
- Fodor thinks this replacement would be the worst intellectual disaster to ever hit the human race. He thinks thoughts are sentences in the LOT (language of thought). So he's a realist about propositional attitudes.
- Dennett is an instrumentalist here. He thinks we can and should adopt an "intentional stance" (positing beliefs and desires) with regard to explaining behavior of some creatures (as opposed to a "physical stance" and a "design stance" for other beings.)

## EXTERNALISM

- Meaning externalism: "meanings just ain't in the head." Sense and reference determined by external factors, not by subjective intention. This fits with a causal theory of reference whereby a thing gets a name by an initial act, and subsequent uses of that name can be traced back in a causal chain: everybody who calls me "John" learned it from someone (or some document) in a chain stretching back to my parents' naming of me.
- Vehicle externalism or the extended mind: some extra-neural and even extra-somatic materials can be the subvenience base for cognitive events.

## SECTION 3: NONHUMAN COGNITION

Much exciting new work here. If cognition is directed action of an organism in its world (the basic enactivist position), then we should find "mind in life" all the way down. We'll look at work on bacteria, plants, and non-human animals.

## SECTION 4: HUMAN COGNITION

### SOCIAL CONTEXT MATTERS

- Satz and Ferejohn will externalize rational choice theory: look to environmental constraints producing behavior *as if* there were rational psychological calculators
- Henrich looks at bio-cultural evolution (especially imitation abilities) to explain evolution of prosociality (altruism and altruistic punishment). “in the novel social environments left in the wake of these cultural evolutionary processes, natural selection is likely to favor prosocial genes that would not be expected in a purely genetic approach.”

### LISA FELDMAN BARRETT’S CONSTRUCTIVIST THEORY OF EMOTIONS

Between corporealism and cognitivism we find constructivist theories of emotion, which will insist upon the contribution of semantic factors alongside somatic changes, as in Lisa Feldman Barrett or Joseph LeDoux. LeDoux’s allows some reference to specific neural circuits, such as the subcortical defense reactive circuits that are added to other inputs in his “recipe” for fear and anger (LeDoux 2015, 93-112). Barrett (2017), however, insists on a strong neural globalism, which, with her insistence on holism, emergence, and degeneracy (same outcome from different mechanisms), results in a strong nominalism, such that no “fingerprint” of necessary circuits can be identified for either emotion instances or even emotion categories (2017, 35-41; see also Pessoa 2017 for a similar distributed network approach to emotions).

Barrett’s work shows the relevance of Deleuzian ontology. For Barrett, emotion concept construction occurs via bottom-up summarizing of singular experiences, drawing on neural inputs from multiple brain sites mapping the body and other higher and lower intra-brain regions; each of these “core affect” experiences is tagged with culturally specific emotion terms. Hence there is a high-level, cortical / semantic component to emotion concepts, which are constructed from these multiple inputs. Such summarizing produces concepts as abstract but non-essential capacities that don’t exist as enduring, locatable, actual firings, but only insist as potentials for actualization. Given her strong holism, emergence, and degeneracy, concept creation is the progressive construction of a virtual field: virtual, because emotion concepts do not exist, but insist as potentials.

An emotional episode is the actualization of the potential concept. It occurs as prediction, a top-down simulation that “unpacks” concepts, constructing an instance of the concept that assembles its components from occurrent inputs and checks the assemblage against the prediction. This actualization occurs in a degeneracy mode, such that no single set of neural firings is necessary for each instance of the concept. Hence the concept is a virtual diagram with multiple mechanisms for the actualization of instances. In Deleuzian terms, it is an “abstract machine” with multiple machinic assemblages for its actualization / individuation / integration / differentiation.

## EVAN THOMPSON'S ENACTIVE APPROACH

To conclude the course we're going to read Evan Thompson's enactivism in *Mind in Life*, which has three main conceptual components: dynamic systems; autopoiesis, autonomy, and adaptivity; and embodied phenomenology. Thompson begins contrasting enactivism with brief sketches of the two dominant models of cognition: computationalism or cognitivism ("rule-bound manipulation of discrete symbols") and connectionism ("emergent patterns of activity in neural nets").

- **DYNAMIC SYSTEMS MODELING:** Dynamic systems models propose a "state space" with multiple dimensions, one for each relevant variable for the system being studied; the state of the system at time  $t_1$  is represented by a single point with values for each variable. Change in the system is modeled by a trajectory of points through the space at different times. Some systems display patterns ("attractors") and thresholds ("bifurcators"); some of these are characteristic of the type of system and are repeated throughout the history of the system. Some systems however develop new sets of attractors and bifurcators representing new behavior patterns and thresholds.
- **AUTOPOIESIS, AUTONOMY, AND ADAPTIVITY:** In an important moment in second-order cybernetics, Maturana and Varela came up with the concept of autopoiesis (= "self-making"). The paradigm is the living cell; the dynamics of the cell are such that metabolism and membranes pre-suppose each other: the metabolism produces the membrane, but the membrane must be there for the metabolism to work (otherwise the reactions are dispersed in the environment). Although autopoietic cells are thermodynamically open to the environment, they are "autonomous" in the sense that environmental events only perturb the cell, provoking restoration actions keeping the cell in its autopoietic equilibrium. In this way, the cell is "sense-making": it senses changes in the environment, makes sense of those changes relative to its maintenance needs, and then acts to restore its autopoietic equilibrium. Such sense making is autopoietic cognition, such that mind and life are co-implicating. However, this classic theory is caught in a binary of restoration or death; Ezequiel Di Paolo proposed that while autopoiesis is necessary for sense-making, it is not sufficient. Rather, autonomous cells must be "adaptive," that is, able to sense the direction and strength of perturbations to their metabolism so that their reactions can be calibrated to the environment and the cell's needs.
- **PHENOMENOLOGY:** Husserl, Heidegger, Sartre, Merleau-Ponty, Dreyfus, Wheeler, Zahavi, Gallagher, Thompson. For phenomenology, consciousness (or Dasein, or the lived body) is not a thing in the world, but that by which the meaning of the world is constituted. In its analyses phenomenology isolates structures of consciousness / Dasein / lived body: intentionality, temporality, embodiment, and so on. Hans Jonas proposes a phenomenology of living things whereby their situation is articulated in a temporal structure of "needful freedom."