

Inquisitive Minds Want to Know

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Here are three theses about the role of questions in cognition:

Inquisitive Content. The propositional contents of cognitive attitudes are partly individuated by the question they are about. (Yablo, Yalcin, Berto...)¹

Zetetic Learning. Cognitive attitudes like knowledge and belief are formed as answers to the questions we pursue in inquiry. (Peirce, Friedman, Hookway...)²

Question-Responsive Action. Cognitive attitudes guide decision-making by addressing the questions our choices confront us with. (Hoek 2022)

All three of these views can be summed up with the slogan that our cognitive attitudes are answers to specific questions:

- ▶ According to the first view, they are our answers to questions in a *semantic* sense.
- ▶ According to the second, they are our answers to questions in a *genetic* sense.
- ▶ According to the third, they are our answers to questions in a *functional* or *active* sense.

Each view can be held without the others, and in spite of their affinity the first one has largely been defended and developed independently from the others.

This talk will explore some ways in which *these views are stronger together*: each has its problems or gaps that the others can fix.

Some clarifications & background:

- ▶ By *cognitive attitudes*, I mean attitudes like belief, knowledge, credence, supposition, suspicion etc.
- ▶ The label '*Inquisitive Content*' signals an affinity with inquisitive semantics, but I have a broader family of views of propositions in mind.
 - ▶ *Inquisitive Content* is a version of the view that cognitive contents have *aboutness* or subject matter.
 - ▶ This is held to be a hyperintensional semantic property of propositions.
 - ▶ *Inquisitive Content* is also closely related to *awareness* models of cognition (Fagin and Halpern 1988, Fritz and Lederman 2015), to the view that cognitive contents are *truthmaker* propositions (Yablo 2014, Russo ms), and to the view that cognitive content

¹ Yalcin 2011, 2018, 2021; Yablo 2014, 2017, fc; Koralus and Mascarenhas 2013, 2015; Hawke 2016; Hawke Özgün and Berto 2019; Drucker 2020; Holguín 2022; Koralus 2023.

² Hookway 2006; Hintikka 2007; Whitcomb 2010; Friedman 2013, 2017, 2019, 2019a, 2020; Lawlor 2014; Carruthers 2018, 2020, 2024; Kelp 2020, 2021; Fleisher 2022, 2023, 2025; Flores & Woodard 2023; Teague 2022, 2023; Thorstad 2021, 2024; Beddor 2024; Nagel 2024.

is *contrastive* (Dretske 1970, Schaffer 2008).

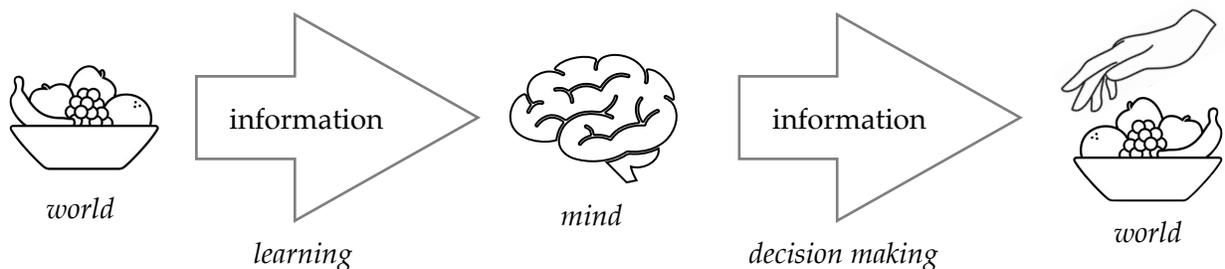
- ▶ The zetetic view of learning goes back at least to C.S. Peirce in *The Fixation of belief*.
 - ▶ It also has affinities to classic treatments of value-of-information (Hosiasson 1931, Good 1967, Pettigrew 2024).
 - ▶ It also has affinities with the literature on Questions under Discussion (QUDs), which understands conversations as structured by the aim of resolving questions (Roberts 1996/2012).
- ▶ In a way, standard-issue decision theories embody a question-responsive view of choice in the sense of incorporating world state partition (Savage 1967, Joyce 1999).
- ▶ The literature on Questions under Discussion also foreshadows a question-responsive view of choice, in that practical goals are understood to constrain the questions agent's are seeking to resolve in conversation (Roberts 2012, Van Rooij 2003, Nagel *fc*).
 - ▶ So this is one place where a synthesis is already happening.

Zetetic Learning

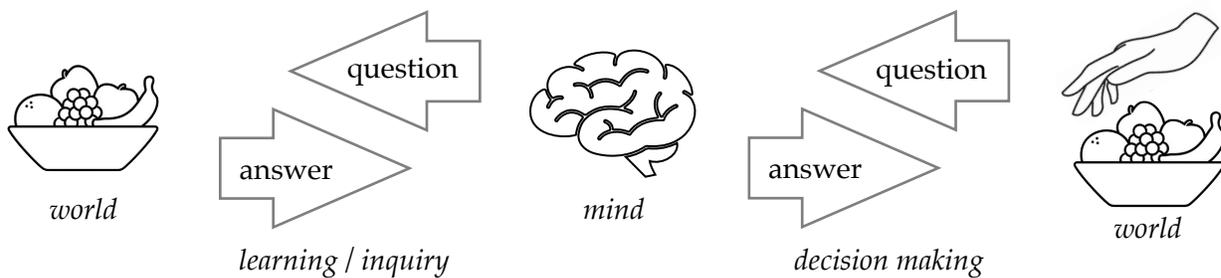
Recap of the zetetic view of learning:

- ▶ Cognition does not begin with information absorption / belief or knowledge acquisition. Rather, these are the *culmination* of a process of inquiry.
- ▶ Inquiry is prompted by a *question*. We bear an interrogative attitude to that question: *wondering, curiosity, pondering, investigating, suspension*. These attitudes are 'open'
- ▶ When we do find an answer that satisfies us, we *settle* the question and close the inquiry. In doing so, we acquire knowledge or (full) belief or certainty or sureness. These attitudes are 'closed'.

"Doubt is an uneasy and dissatisfied state from which we struggle to free ourselves and pass into the state of belief; while the latter is a calm and satisfactory state which we do not wish to avoid, or to change to a belief in anything else." (Pierce 1877, 5)



THE CLASSICAL PICTURE OF COGNITION



THE INQUISITIVE PICTURE OF COGNITION

How Inquisitive Content Helps the Zetetic View of Learning

The contrast between *open* and *closed* attitudes is key to this picture of learning: the cognitive states at the end of inquiry must have the capacity to sate and eliminate the ‘thirst’ for answers that drives inquiry.

A particularly striking and telling case of this is when an agent checks something again (Friedman 2019, 86; cf. Woodard 2022):

CONSTANT CHECKING “A re-checker starts settled with respect to a question Q (e.g., you turned the stove off after breakfast and at that point formed the belief that the stove was off, settling the question, ‘Is the stove off?’). At that point they know Q or at least believe an answer to Q (It’s off). Then, soon after, they open Q again (Is it off?) and collect more evidence on the matter (e.g., look at the dial). Then they settle the question again as a result of the check (It’s off).”

In these cases, an agent *gives up* their satisfied state of knowledge or belief in order to be able to inquire.

The trouble is that, given a standard, informational view of belief contents, inquiring seems to be compatible with knowing the answer (Friedman 2017, 309-10):

ALICE ABROAD “I know that my colleague Alice is on leave in Paris this term, she told me last month that she would be. Still, yesterday I seemed to have no memory of that conversation with Alice and I wondered why she hadn’t been to the talk last week; today I remembered. Yesterday I knew why Alice hadn’t been to the talk, and yet I wondered why she’d not been there at the same time.”

Friedman’s response to this problem is to retreat to the position that (*ideally*) *rational* agents don’t believe and inquire. But this seems unsatisfactory, and in tension with Friedman’s treatment of re-checking. So philosophers have wanted to go for a stronger incompatibility. E.g. Stanley 2011; Teague (2023, Ch. 3) goes for an inconsistency between *occurrent* belief and *occurrent* wondering.

If we go for a question-directed view of content, we can have our cake and eat it: Jane knows the answer to *What is Alice doing this semester?* but not to *Why she wasn’t at the talk?*. She is not lacking information, she is lacking an *answer*. It is the thirst for *answers* that drives inquiry.

How Zetetic Learning Helps the Inquisitive View of Content

Inquisitive Content implies that cognitive content is hyperintensional: it is individuated more finely than its truth conditions. This raises the question: where does the question-component of a belief's content come from. Here's an example:

MISSING MUNCHIES. Daria opens the biscuit tin to find out that *Slawa ate the last biscuit*. What question does Daria's newly formed belief answer? Is it the question *Who ate the last biscuit*, the question *What did Slawa do wrong* or the question *Did Slawa leave any biscuits*? The information Daria discovered answers all of these. So why should her new belief be directed at one of these questions over the others? What is stopping Daria from just answering all those questions at once?

We have a good grasp of what it is for evidence to carry (intensional) *information* — what it is for evidence to rule out certain possibilities, say, and to confirm or disconfirm them. But it is less clear that evidence has aboutness, or any hyperintensional features. Smoke may indicate that fire is present. But it is a stretch to claim that smoke is about fire.

This exposes a broader issue:

The Problem of Intensional Evidence. If cognitive contents have hyperintensional properties, how did they come by those properties? What determines, say, the subject matter of a newly formed belief when the information on which it is based is intensional and has no subject matter?

There is apparently nothing in Daria's *evidence* or in the *state of affairs* of Slawa eating that last biscuit that determines a question. Where does the question come from?

The zetetic view of learning provides us with a beautiful answer to this quandary:

Inquisitive Belief Formation. The attitudes obtained in the course of an inquiry into *Q* have answers to *Q* as their content.

In looking at Daria's evidence, we were looking at the wrong place: the question came from *Daria* not from her evidence: questions and answers go in opposite directions.

How Inquisitive Content Helps The Question-Responsive View of Choice

Consider the following case:

ROMEO RECALL: Juliet comes home to find a note that reads "*Somebody called for you — didn't catch a name but he sounded upset.*" There is a phone number below it: "529-6300". She instantly recognises Romeo's number and decides to go see him. When nobody answers the door, she rushes into a phone booth. She picks up the phone, only to realise she does not remember the number.

When reading the note and when in the phone booth, Juliet faces different questions: *Whose*

number is this? versus *What is Romeo's number?*. The question-responsive view of choice therefore seems perfectly poised to explain Juliet's behaviour. However it cannot do so if the same belief/piece of knowledge (*Romeo's number is 529 6300*) answers both. So we need to distinguish the answer Juliet has (*529 6300 is Romeo's number*) from the informationally/intentionally equivalent answer that she lacks (*Romeo's number is 529 6300*).

How Question-Responsive Choice Helps Zetetic Learning

One of the revolutionary upshots of zetetic epistemology is that cognition does not begin with information acquisition. So where does it begin? The zetetic story starts with a *question* or a *doubt* in the mind of the inquirer. But does that question come out of nowhere? Maybe: Dover 2024 emphasises the mysterious psychological origins of the questions that really fascinate us.

But inquiry is ordinary, as Friedman says (2024, 2), and when we look at the inquiries in everyday life, it is usually not hard to think of a reason:

VEXING VEHICLES Just before crossing a busy road, Victor looks left and right: he is inquiring into *whether any cars will drive through this particular pedestrian crossing in the next ten seconds*. Apparently Victor has acquired a sudden curiosity about this question. Once safely on the other side, Victor loses all interest in the question. He will soon forget his answer, and he will never wonder about it again.

Are these sharp shifts in Victor's interrogative attitudes just unaccountable intellectual *caprice*? Are these are inexplicable shifts in zetetic taste? Of course not: in Victor's shoes, you and I would be wondering about the exact same thing. Take another case:

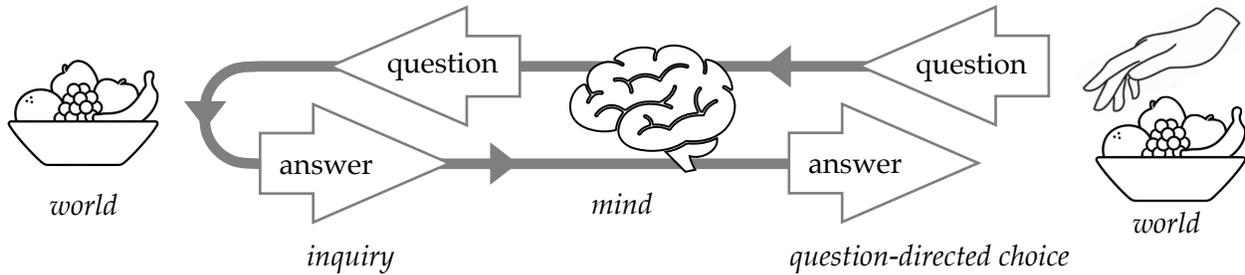
WANDERING WANDA. I am picking my niece Wanda up from school, awaiting her outside the main entrance at the appointed hour. The stream of children is starting to subside, and most have already absconded with their respective chaperones. But still no sign of Wanda! Of course I start to wonder: *Where is she? Did she get detention? Did her mom pick her up earlier and forget to tell me?* and so on.

These are all questions the agent *faces* or reasonably anticipates facing. This suggests:

Choice-Curiosity Connection. If an agent faces the question *Q*, or if they anticipate facing *Q*, this gives the agent reason to form interrogative attitudes towards *Q*.

Connecting the Dots: The Inquisitive Mind

A beautiful harmony emerges between the different aspects of the question-driven picture. A choice confronts an agent with a question. This rouses their curiosity. The agent now has a question which spurs an inquiry. If the inquiry is successful, it will lead the agent to the answer to their question. This answer is precisely what the agent needed to make the right choice in the decision problem where they first encountered this question. And thus we come full circle.



CONNECTING THE DOTS

References

- Carruthers, Peter, 2018, "Basic Questions." *Mind & Language* 33(2): 130–47.
- Carruthers, Peter, 2020, "Questions in development." In: Butler, Ronfard and Corriveau (eds.), *The Questioning Child: Insights from psychology and education*, 6-28. Cambridge: Cambridge University Press.
- Carruthers, Peter, 2024, "The contents and causes of curiosity." *British Journal for the Philosophy of Science*.
- Dover, Daniela, 2024, "Two kinds of curiosity". *Philosophy and Phenomenological Research* 108(3): 811-32.
- Dretske, Fred, 1970, "Epistemic Operators." *The Journal of Philosophy* 67(24): 1007-23.
- Drucker, Daniel, 2020, "The Attitudes We Can Have." *The Philosophical Review* 129(4): 591-642.
- Friedman, Jane, 2013, "Question-Directed Attitudes." *Philosophical Perspectives* 27(1): 145-74.
- Friedman, Jane, 2017, "Why Suspend Judging?" *Noûs* 51(2): 302-26.
- Friedman, Jane, 2018, "Junk Beliefs and Interest-Driven Epistemology." *Philosophy and Phen. Research* 97(3): 568-83.
- Friedman, Jane, 2019a, "Checking Again." *Philosophical Issues* 29: 84-96.
- Friedman, Jane, 2019, "Inquiry and Belief." *Noûs* 53(2): 296-315
- Friedman, Jane, 2024, "Inquiry in Epistemology: Doxastic Attitudes as Zetetic Attitudes." Manuscript dated May 24, 2024. To appear in the *Blackwell Companion to Epistemology*.
- Hawke, Peter, 2016, "Questions, topics, and restricted closure." *Philosophical Studies* 173(10): 2759-84.
- Hawke, Peter, Aybüke Özgün and Francesco Berto, 2020, "The Fundamental Problem of Logical Omniscience." *Journal of Philosophical Logic* 49: 727-66.
- Hintikka, Jaakko, 2007, *Socratic Epistemology: Explorations of Knowledge-Seeking by Questioning*. Cambridge: CUP.
- Hoek, Daniel, 2022, "Questions in Action" *Journal of Philosophy* 119(3): 113-43.
- Holguín, Ben, 2022, "Thinking, Guessing and Believing." *Philosophers' Imprint* 22(6).
- Hookway, Christopher, 2006, "Epistemology and inquiry: The primacy of practice." In *Epistemology Futures*, ed. Stephen Cade Hetherington, 95-110. New York: Oxford University Press.
- Koralus, Philipp, 2023, *Reason & Inquiry*. Oxford: Oxford University Press
- Koralus, Philipp, and Salvador Mascarenhas, 2013, "The Erotetic Theory of Reasoning" *Phil. Perspectives* 27(1): 312-65.
- Koralus, Philipp, and Salvador Mascarenhas, 2015, "Illusory inferences: disjunctions, indefinites, and the erotetic theory of reasoning." *Proceedings of the 37th Annual Cognitive Science Society Meeting*.
- Lawlor, Krista, 2014, "Exploring the Stability of Belief: Resiliency and Temptation." *Inquiry: An Interdisciplinary Journal of Philosophy* 57(1): 1-27.
- Nagel, Jennifer, 2024, "Natural Curiosity." In: *Putting Knowledge to Work: New Direction for Knowledge-First Epistemology*, eds. Arturs Logins and Jacques-Henri Vollet, 170-200. Oxford: Oxford University Press.
- Nagel, Jennifer, fc, "Common Knowledge and Its Limits." Forthcoming in *Themes from Williamson*, eds. Alex Burri and Michael Frauchiger. Berlin: DeGruyter.
- Roberts, Craige, 2012 [1996], "Information Structure: Towards an integrated formal theory of pragmatics." *Semantics and Pragmatics* 5(6): 1-69.
- Rooij, Robert van, "Questioning to Resolve Decision Problems." *Linguistics and Philosophy* 26: 727-63
- Stanley, Jason, 2011, *Know How*. New York: Oxford University Press.
- Yablo, Stephen, 2014, *Aboutness*. Princeton: Princeton University Press.
- Yablo, Stephen, 2017, "Open knowledge and changing the subject." *Philosophical Studies* 174(4): 1047-71.
- Yalcin, Seth, 2011, "Nonfactualism About Epistemic Modality." In *Epistemic Modality*, eds. Andy Egan and Brian Weatherson, 295-332. New York: Oxford University Press.
- Yalcin, Seth, 2018, "Belief as Question-Sensitive." *Philosophy and Phenomenological Research*, 97(1): 23-47.
- Yalcin, Seth, 2021, "Fragmented But Rational." In Borgoni, Kindermann and Onofri (eds.), *The Fragmented Mind*, 156-179. Oxford: Oxford University Press.

Curious for more? Stay tuned for my upcoming book: "The Inquisitive Mind: How Questions Shape Our Thoughts and Guide Our Actions." Manuscript copies available on request.