

Metacognition is Knowing Your Mind

by Winston Sieck - February 13, 2013

<https://www.globalcognition.org/metacognition-is-knowing-your-mind/>

The very few people who have attempted to bring up “metacognition” in polite conversation have mostly been met with uncontrolled reactions. Eyes glaze over and mouths get dry. Vague associations with metaphysics and mysticism might be made. The quick-witted excuse themselves to pour another drink.

Is this “flight” reaction well-tuned? Should you be anticipating a metaphysical conversational experience in such rare moments?

No. Metacognition has a different relationship to cognition than metaphysics does to physics.

Cognition and metacognition are closely connected. Cognitive scientists study metacognition as one part of cognition. They increasingly find it to be important. Few physicists seem to feel that way about metaphysics. They tend to want metaphysics to keep its distance.

In an essay and review on [metacognitive development](#), Deanna Kuhn addresses three core issues that help shed some light on metacognition:

- What is metacognition?
- Where does metacognition come from?
- What does metacognition do for us?

Metacognition refers to what you know about your own thinking and learning. It is the part of cognition that monitors other cognitive processes, and makes adjustments to them. Several sources provide other good basic definitions and details:

- [Metacognition](#) - dictionary definition
- [Wikipedia entry on Metacognition](#)
- [Metacognition: An Overview](#)
- [Developing Metacognition](#)

As for Kuhn's conception, there is more than one kind of metacognition. You [know about *what you know about a topic as one type of metacognition*](#). For example, what do you know about cooking or physics? You can also talk about *how* you gain knowledge of a subject. Kuhn suggests that awareness of the [strategies you use to study and learn](#) may be the more useful of the two. It's an interesting idea, though I don't recall any specific studies that address it. Both are surely important.

Metacognition also applies to more than one kind of cognition. When it first started to be taken at all seriously by cognitive psychologists in the late 1970's, the research was really just about memory. Researchers tried to figure out a few things. What do people know about how their own memory works? What do people expect they will remember later, and how does that relate to what they really do

remember? What mnemonic strategies do they use? Do they make a difference?

Biting off that small chunk of cognition has paid off. The memory researchers learned more about memory by paying attention to its metacognitive aspects. They also learned a lot about what metacognition is, at least as it applies to memory. Metacognition gained some credibility.

Metacognition is now being used more broadly to help understand other aspects of cognition, such as comprehension and reasoning. Our own research has addressed the role of metacognition in everyday life, and even the [metacognitive strategies used in cross-cultural encounters](#).

Metacognition Develops

Scientists who experiment with college student metacognition tend to take it for granted. “There it is, let’s study it. How well does it work, and can we make it better in 20 min?” An implication of Kuhn’s paper is that they are sampling a small sliver of something that develops over years. A person gains greater awareness of their own cognition and can control it more effectively as they mature. Training also helps.

The beginnings of metacognition start early in life. Even young children have some understanding of mind. By age 3, they use words like *think* and *know* to talk about what’s in there. By 4 years, kids know that they and other people have beliefs and desires. They can compare what they know with what another knows, and note that beliefs can be wrong.

Kids also start to develop an awareness of *how they have come to know* something they believe. That is, they start to pay some attention to the sources of their knowledge. The [skill of evaluating sources](#) is an essential one for self-directed, adult learning. It’s also a good example of a cognitive skill that only a few people master on their own; yet folks improve on it with training.

Findings like these provide evidence that explicit training and education of metacognition is needed to bring it to full potential over the life-span.

Benefits of Metacognition

Metacognition is being seen as increasingly useful in educational applications. Practical research into the benefits of [learning strategies](#), such as [good questioning](#) and other [cognitive skills](#) is grounded in the concept of metacognition. I have written about the benefits of a good [reading strategy](#), the [test your memory study strategy](#), [critical thinking skills](#), a strategy to help with [how to make a decision](#), and others.

Kuhn argues that two important educational goals are to:

1. Know how to use strategies for processing information effectively
2. Enhance awareness and understanding of one’s own cognition

The idea is that you need training on specific strategies, but also on explicit knowledge of cognition in order to understand strategy application. The latter is important to enable you to transfer and adapt what

you have learned.

What is metacognition really good for? Kuhn reminds us that in 1979, John Flavell painted a broad vision that is yet being realized:

It is at least conceivable that the ideas currently brewing in this area could someday be parlayed into a method teaching children (and adults) to make wise and thoughtful life decisions as well as to comprehend and learn better in formal educational settings. (p. 910)

It's a far off goal we can feel good about working towards, though by no means does it stretch into the realm of Jedi mind tricks. Don't be bamboozled when metacognition makes its way into the conversation. Don't run away and don't conjure images of metaphysics. Wet your lips, reflect on your thinking, and join in the discussion.

Image Credit: [Caza No 7](#)

Flavell, J. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist*, 34 (10), 906-911 DOI: [10.1037//0003-066X.34.10.906](https://doi.org/10.1037//0003-066X.34.10.906)

Kuhn, D. (2000). Metacognitive Development *Current Directions in Psychological Science*, 9 (5), 178-181 DOI: [10.1111/1467-8721.00088](https://doi.org/10.1111/1467-8721.00088)

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