7.0: Prelude to Thinking and Intelligence

Skills to Develop

- What is intelligence, and how does it vary from person to person
- What is high-level cognitive processes

Why is it so difficult to break habits—like reaching for your ringing phone even when you shouldn’t, such as when you’re driving? How does a person who has never seen or touched snow in real life develop an understanding of the concept of snow? How do young children acquire the ability to learn language with no formal instruction? Psychologists who study thinking explore questions like these.

Figure \( \PageIndex{1} \): Thinking is an important part of our human experience, and one that has captivated people for centuries. Today, it is one area of psychological study. The 19th-century Girl with a Book by José Ferraz de Almeida Júnior, the 20th-century sculpture The Thinker by August Rodin, and Shi Ke’s 10th-century painting Huike Thinking all reflect the fascination with the process of human thought. (credit “middle” : modification of work by Jason Rogers; credit “right”: modification of work by Tang Zu-Ming)

Cognitive psychologists also study intelligence. What is intelligence, and how does it vary from person to person? Are “street smarts” a kind of intelligence, and if so, how do they relate to other types of intelligence? What does an IQ test really measure? These questions and more will be explored in this chapter as you study thinking and intelligence.
In other chapters, we discussed the cognitive processes of perception, learning, and memory. In this chapter, we will focus on high-level cognitive processes. As a part of this discussion, we will consider thinking and briefly explore the development and use of language. We will also discuss problem solving and creativity before ending with a discussion of how intelligence is measured and how our biology and environments interact to affect intelligence. After finishing this chapter, you will have a greater appreciation of the higher-level cognitive processes that contribute to our distinctiveness as a species.

References


Atkins v. Virginia, 00-8452 (2002).


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