

CHAPTER 15: Conscious Thought, Unconscious Thought

The Cognitive Unconscious

- ▶ **Definition**—not Freud’s “unconscious”; the activity that makes cognitive processing possible, but of which we are unaware
- ▶ **Conscious products**—we are aware of the products created within our minds, but unaware of the processes that lead to them
- ▶ **Mistakes**—trying to be introspective about the unconscious products can result in errors
 - Causal attribution** reasoning about what we attribute to causing a feeling, product, or fact
 - Mistaken introspections** some cognitive processing feels conscious, even though there are unconscious influences
 - After-the-fact reconstruction** trying to find a way to explain one’s cognitive behavior
- ▶ **Unconscious guides that influence our cognitive products**
 - Sets** assumptions and definitions that guide our search for a problem’s solution
 - Frame** the way a situation is phrased
 - Context** guides one’s understanding and action of a conscious idea
- ▶ **Unconscious cognition**—people with amnesia and with blind sight claim they cannot remember or see, but actually do better than chance when asked to guess, suggesting they do remember/see even if they are not aware of it

The Disadvantages of Unconscious Processing

- ▶ **Nature**—we gain insight into consciousness by learning about activities we can perform without consciousness
 - Well-established routines
 - Relying on habits
- ▶ **Limits**—if we rely on habits and well-established routines, we risk using these habits even when we don’t want to
- ▶ **Advantages**—mental tasks run more quickly and resources are freed up for other tasks

The Function of Consciousness

- ▶ **Neural correlates of consciousness**
 - Neuronal workspace hypothesis** workspace neurons connect the domain-specific neurons in the brain so that there is a single, seamless, conscious experience, instead of disjointed chaos
 - Attention helps unify, amplify, and sustain relevant activity, relying on the prefrontal cortex (PFC)**
 - Competition among the different brain processes suggests limited resources**
 - Anterior cingulate cortex (ACC) acts to resolve conflict among habitual responses and goal-directed behaviors**
- ▶ **Function of Workspace**
 - Bind conscious experience together
 - Maintain mental representations in an active state over time
 - Compare activity in different neural systems
 - Avoid relying on habit when habitual responding is suboptimal
 - May help understand the difference between “sleep” and being “awake”

(continued)

▶ **Consciousness as justification**—some argue that consciousness experience provides the necessary justification for action or believing one's own thoughts; this may be why blind-sight patients fail to reach, or amnesiacs think they don't remember

What Is Left Unsaid

▶ **Attention**—there may be little difference in many circumstances between “paying attention” and consciousness

▶ **Disagreements**—there are still several issues about consciousness on which psychologists disagree, including whether it should be understood from a subjective, first-person experience, and whether there are various “parts” of consciousness

▶ **Types of consciousness**—several researchers have suggested consciousness should be further segmented

Block a distinction between “phenomenal” and “access” consciousness

Pinker three-way distinction

▶ **Phenomenal**—subjective experience of being conscious

▶ **Access**—functional consequences of consciousness

▶ **Sentience**—subjective feeling of experiencing something in that moment

▶ **Access to information**—ability to use and report on one's own mental experience

▶ **Self-knowledge**—awareness of oneself as an individual, including memories