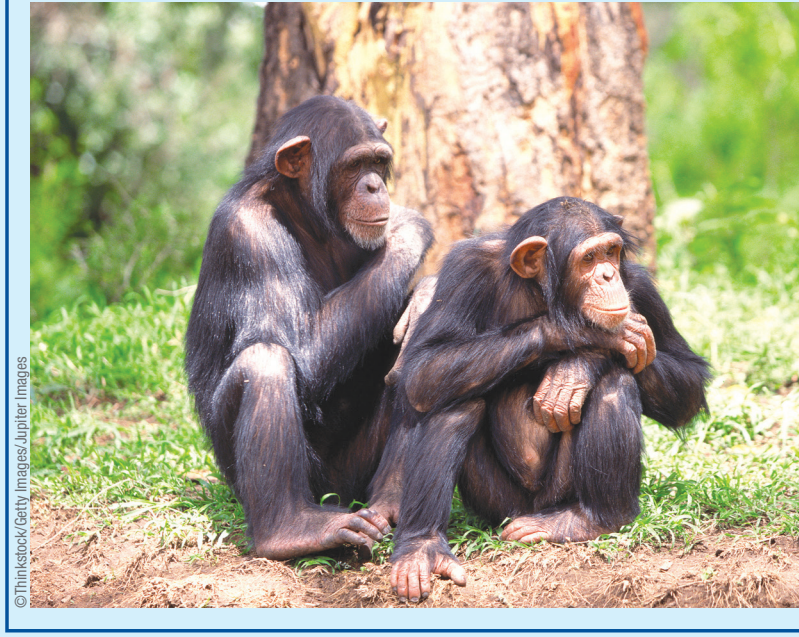


Language use is intimately connected to cognition. Much of the information we receive comes from spoken or written (or signed) language; we use language to ask questions, explain conclusions, clarify problems, and so on (Damian, 2011; Fox, 2007; Sandler & Lillo-Martin, 2006). Like perception or memory, then, language seems to be a crucial cognitive ability so easily used that we typically overlook its complexity.

In this chapter, we will first look at the structural elements of a language: the pieces or aspects that go into the elaborated, rule-governed, and creative communication systems we recognize as different human languages. We will then examine models of language comprehension and production: how we understand and create spoken discourse and written material. Finally, we will consider the relationship between language and other cognitive processes.

Continuing themes from earlier chapters, we will see that some language processes are bottom-up, or driven by incoming data, whereas others are top-down, or driven by the listener's or speaker's expectations. Some language processing appears to be automatic, carried out without awareness or intention. Other language processing, of course, is performed intentionally



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■ **Photo 10.1:** Although these animals are clearly communicating, there is little evidence that their communication system forms a true language.

and with effort. Thus, processing language is very clearly constrained by other cognitive processes we have studied—perception, attention, and memory, in particular. At the same time, language is used in cognitive processes described in later chapters—thinking, planning, reasoning, and making decisions.