

# Intelligence: A Brief History (Excerpt)

By Anna T. Cianciolo and Robert J. Sternberg

In the now classic tale, three blind men approached an elephant and were curious about its nature. Having never encountered an elephant before, the men each had a different impression. For the man holding the elephant's thick legs, the elephant was like a tree. The elephant was snakelike to the man who had the elephant's lively trunk in his hands. The third blind man, feeling the elephant's sturdy side, exclaimed it was like a wall.

Who was right? And what does this story have to do with intelligence? Just like the blind men in our story, people exploring the nature of intelligence cannot see the object of their study and so have used metaphors to help them conceptualize intelligent behavior (Sternberg, 1990). In this chapter we describe some of the earliest notions of intelligence, which predate scientific study by hundreds, even thousands, of years. Next we present seven metaphors that underlie modern intelligence research: geographic, computational, biological, epistemological, sociological, anthropological, and systems. We briefly describe each metaphor, highlighting the major theories of intelligence associated with each one.

Source: Cianciolo, A., & Sternberg, R. (2004). *Intelligence: A brief history*. Hoboken, NJ: Wiley-Blackwell.

[FOR TEACHER  
REFERENCE ONLY]

## SAMPLE THINK-ALOUD

Lesson 2. Noticing the Conversation:  
Thinking Aloud

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In the now classic tale, three blind men approached an elephant

*OK, this is the first chapter of a history book. But it starts out with a legend or something. I didn't expect that. When something unexpected happens like this, I know I have to notice it. I call such things **ruptures**. Ruptures are one rule of notice. So I know that this little story is going to be something important.*

Tell students to mark this rupture with one of their colored pens.

and were curious about its nature. Having never encountered an elephant before, the men each had a different impression.

*So I'm thinking that maybe this book's going to be about different ideas about intelligence. I wonder if some people think that there's only one kind.*

For the man holding the elephant's thick legs, the elephant was like a tree. The elephant was snakelike to the man who had the elephant's lively trunk in his hands. The third blind man, feeling the elephant's sturdy side, exclaimed it was like a wall.

*Another thing I know is that you have to notice metaphors. And the description of the classic tale is going on for a bit. I know I need to notice whenever an author seems to provide undue attention. I'm going to call such things **calls to attention**.*

Have students mark this rule with a different-colored pen.

Who was right? And what does this story have to do with intelligence?

*Questions are another **call to attention**.*

Just like the blind men in our story, people exploring the nature of intelligence cannot see the object of their study and so

*"So" is a little word. But it often announces some kind of conclusion. I know that I should be on the lookout for anytime an author directly states a conclusion. I'll call those things **direct statements**. I wonder whether some people have more confidence in their ability to understand intelligence than these authors seem to.*

Tell students to mark this rule of notice with one of their colored pens.

(Continued)



## SAMPLE THINK-ALLOUD (CONT.)

have used metaphors to help them conceptualize intelligent behavior (Sternberg, 1990). In this chapter we describe some of the earliest notions of intelligence, which predate scientific study by hundreds, even thousands, of years.

Tell students to mark this rule with one of their colored pens.

*Wow, that's really interesting to me. I know whenever my interest is really piqued, I have to notice why. I'll call this rule of notice the reader's response. In this case, I find it interesting that these ideas existed before scientists studied intelligence. I wonder whether modern science is consistent or inconsistent with these early understandings. I'm going to read to find out.*

Next we present seven metaphors that underlie modern intelligence research: geographic, computational, biological, epistemological, sociological, anthropological, and systems. We briefly describe each metaphor, highlighting the major theories of intelligence associated with each one.

Ask students what rule or rules might be in operation in the preceding two sentences.

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