

Inferences: schema, assumptions, biases

An inference is an informed guess. To be human is to make inferences. Daily, almost continually, we make informed guesses about things—situations, attitudes, relationships, motives. For instance, we guess (infer) someone’s state of mind or attitude by interpreting his tone of voice, facial expressions, and gestures. Since inferences are guesses, they may be correct or incorrect, but they are always based on some kind of supporting evidence.

Active reading is an immersive activity. Writers construct stories and arguments with great deliberation; readers uncover their hints and unravel the connections. Therefore, a crucial element of active reading is the ability to make inferences from the text. Proficient readers do this without thinking much about it, while developing readers may not realize they should do it.

Since in reading we don’t have the advantage of a face-to-face encounter, we have to use other evidence: various kinds of text evidence as well as our own [schema](#) (see definition below) and background knowledge. But schema is complicated. We bring not only known facts, but our personal assumptions and biases into the mix; they, too, are part of our schema. Nevertheless, understanding how we make inferences helps us read and think smarter and better and avoid misreading. Understanding how inference works can also keep us from falling for misleading or weak arguments.

Text evidence: words and connections

One kind of text evidence is the words themselves. Words have meanings—their denotation or definition. But beyond the definition, words also have emotional weight—their *connotation*. Some words have positive connotations, that is, a positive emotional sense; others carry a negative sense. To complicate matters, connotation is changeable and culturally determined. It can shift over time and change depending on the context, including audience. The difference between calling someone a liberal or a progressive, for instance, may be the difference between an insult and a conversational secret handshake. Would you rather be called religious or spiritual? Why? Conservative or right-wing? Sensitive or touchy? Rigid or principled? If you can tell what attitude a writer has about a subject just by the tone of her written “voice,” you may be picking up on these finely chosen connotative meanings. Try to put your finger on the exact words and phrases that clued you in—there’s your text evidence.

Another kind of text evidence is the way different parts of a text connect back and forth to each other. For instance, in *Seedfolks* by Paul Fleischman, a character observes a little girl moving cautiously in the vacant lot below her window. Ana notes she is black-haired and has Asian features. Ana makes an inference: she infers that the little girl is Chinese. The girl is actually Vietnamese; we are supposed to remember this from an inference we ourselves made in a previous chapter. Because Ana leaps to this false conclusion, we make a further inference: we infer that Ana doesn’t mix much socially with people whose backgrounds differ from hers. We find the hints to this on different pages and in different chapters of the book, but we are supposed to put them together, and together they shed more light on the experience and character of Ana.

Worldview: schema, assumptions, biases

Our schema is what we know from personal experience, from school, reading, listening to music, talking to people—all of our overlapping and connecting knots of experiences, factoids and feelings. When we make inferences, we bring all this stuff; we activate the schema we believe to be pertinent.

Our assumptions are part of our schema. When we make assumptions, we adopt beliefs about the world in order to make sense of events and streamline our decision making processes. For instance, I assume nature is good and that I coexist peacefully with it. That makes sense to me and helps me make decisions about how to move about in the natural world. Or conversely, I assume nature is hostile and that I am in a constant battle with it. If this assumption makes sense to me, I will make different decisions about how to live within nature. We seldom examine these assumptions; we just accept that they make sense because we are so immersed in our own schema. Our assumptions make sense *to us*.

Our tendencies to lean toward liking or disliking things are our biases, yet another component of schema. We judge things positively or negatively, either a little bit or with great energy. We judge our neighbors, co-workers, teachers, congress people, and celebrities. We respond emotionally to businesses like Walmart, FedEx, the local gym, and Bank of America. We judge organizations like churches, Black Lives Matter, the ACLU, the Republican party, and Habitat for Humanity. Few of us make these judgments in a completely neutral or even conscious manner. We can think of our combined schema, assumptions, and biases as our worldview.

Manipulating schema: inference and persuasion

Writers and speakers know they can persuade us on an emotional level just by activating certain areas of schema. How does that look? Well, suppose I read, “End government subsidies to processed food.” Bear in mind that I don’t know what a government subsidy is exactly, or precisely how it works in the case of processed food. *Subsidy* isn’t very well represented in my schema. This author doesn’t explain it either. I do know *processed food*; my schema around processed food includes facts about excess sodium, cancer, and obesity. I also carry a bias, a suspicion of government in general, so, for me, *government* carries a distinctly negative feeling. At the intersection of *processed food* and *government* it’s an easy baby step for me to infer that a *government subsidy* (whatever it might be and however it might work) is a bad thing. Without any firm facts at hand or any clear understanding of what the author’s recommendation means, based *almost entirely on inference*, I am indignant that the government is up to no good again, this time, somehow, in the area of processed food.

Unmasking ourselves: our schema, assumptions, biases

We want to cultivate our ability to make valid inferences, but we want also to become more aware of our assumptions and biases so we can avoid rash judgments and make more conscious and humane decisions about the people and world around us. Awareness of how our schema connects to our emotions can also inoculate us against the disinformation of fools and scoundrels.

Understanding how we form inferences can help us read more deeply and with greater comprehension. Examining our own assumptions and acknowledging our biases can help us communicate better with each other and avoid a mindless and unproductive clash of worldviews.

Contributed by Rosemary McKeever



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