



## Jerome Bruner

From *On the Self-Renewal of Teachers*: J Vet Med Education, 2011

Of all of our teachers, Jerome Bruner would have the most to say about self-renewal. His aim—an ambitious one—is to achieve the perfectibility of intellect. One does this by compacting experience into mental models. Building effective mental models requires an ability to create categories. Categories are words; therefore, Bruner places language center stage in intellectual development. He sees language as mankind's intellectual prosthetic device—enabling us to manipulate our experiences so they make better sense to us, and to transmit to others what we have discovered. Forming rich mental models requires deep thinking. That is why education is most effective when students leap the barrier from learning to thinking. In the classroom, the teacher must decide whether to expose students to “flat declarations of fixed factuality” or instead teach the language of process—how we came to believe what we now believe and why today's most deep-seated beliefs will someday be added to the scrap heap of what we once held as truth. The best mental models prepare the mind for inquiry, spawning a steady stream of testable guesses that are neither too flimsy, nor too certain. To achieve this, Bruner would insist that we develop our sense of intuition, our ticket to deepening our pursuit of understanding. It takes a disciplined intuition to sense when to proceed intuitively, when to be analytical. Through the process of perfecting your intellect you develop a sense of promisingness—the ability to choose the most fruitful options among the innumerable possible paths.

It is common for people to pride themselves in how much they know. But Bruner would urge us to pursue the other side of certitude: Become the one who understands how much we don't know, then pursue the unknown with courageous intuition. It takes real courage to be so exposed, so surrounded by the unknown. But that known-unknown interface is precisely where we need to take our students. It is there that students can learn the art of problem finding—the ability to locate trouble, to find those regions of our “knowledge” that are in need of revision. Problem finding, not just problem solving, is the creative force that helps the scientist cultivate the growing edge of his field. Good problem finders keep themselves sensitive to opportunity and anomaly, focusing their openness on what is non-obvious but relevant. And once you have found your problem and conducted your experiment, the greatest gift of your intellectual maturity will be the ability to go beyond the information given. For example, the cancer researcher must develop a refined ability to go beyond his observations of tumor cells in a Petri dish to generate not-too-restrictive, optimally generic ideas that transcend the plastic dish so that he might achieve his goal of understanding a disease that kills people, not plastic. That is how we perfect our intellect: by successfully grasping the optimally generic meaning of each experience.

*Have you spent much time thinking about the current condition of your mental models? Are your students trained in the art of problem finding?*

### Suggested Readings:

1. Bruner J, Goodnow J, Austin A. A study of thinking. New York: Wiley; 1956
2. Bruner JS. On knowing: essays for the left hand. Cambridge, MA: Harvard University Press; 1962.
3. Bruner JS. The process of education. Cambridge, MA: Harvard University Press; 1963.

4. Bruner JS. Toward a theory of instruction. Cambridge, MA: Harvard University Press; 1966.
5. Bruner JS. The perfectibility of intellect. In: Gil A, editor. The relevance of education. New York: WW Norton; 1971. p. 3-19.
6. Bruner JS. The relevance of skill or the skill of relevance. In: Gil A, editor. The relevance of education. New York: WW Norton; 1971. p. 108-17.
7. Bruner JS. Beyond the information given. In: Anglin JM, editor. Beyond the information given: studies in the psychology of knowing. New York: WW Norton; 1973.
8. Bruner JS. The culture of education. Cambridge, MA: Harvard University Press; 1996.
9. Bruner J. Actual minds, possible worlds. Cambridge, MA: Harvard University Press; 1986.

Learn More about Bruner:

[http://en.wikipedia.org/wiki/jerome\\_Bruner](http://en.wikipedia.org/wiki/jerome_Bruner)