

## George Polya

George Polya is a problem solver extraordinaire. From a mathematician one might expect stifling lectures with blackboards scratched full of equations. But with Polya, you would be surprised and delighted. Polya is a true original, the teacher who would take you beyond problem solving to the skill of plausible inference (i.e., the art of guessing). And he would teach you using stories about problem solving. Consider the tale of the mouse that got stuck in a caged trap. The mouse quickly tests each of the spaces between the bars to see if he can slip through to make a safe escape. The mouse is searching for Bateson's information—the difference that makes a difference. Problem solving is iterative seeking and the quality of this seeking can be enhanced through the disciplined development of key skills, such as recognizing helpful auxiliary problems, collecting clues from simpler analogous problems, and using heuristic short-cuts. The creative problem solver knows there is no substitute for a disciplined imagination.

Are you trained in the art of guessing? Have you dedicated yourself to acquiring the opposing skills (analytical vs. creative) necessary for developing a disciplined imagination?

Suggested Readings:

- 1. Polya G. How to solve it. 2nd ed. Princeton, NJ: Princeton University Press; 1954.
- 2. Polya G. Induction and analogy in mathematics. Princeton, NJ: Princeton University Press; 1954.
- 3. Polya G. Mathematical discovery: on understanding , learning, and teaching problem solving. New York: Wiley; 1981

Learn More about Polya:

http://en.wikipedia.org/wiki/Geroge\_P%C3%B3lya