The two books I look at this time have little in common, except that each provides a fresh angle on a theme that I have addressed in earlier columns. The first shares valuable information about how to hire knowledge workers. The second seeks to shed light on the way our brains support consciousness.


In How Would You Move Mount Fuji?—Microsoft’s Cult of the Puzzle (IEEE Micro, Jan.-Feb. 2004), William Poundstone describes Microsoft’s hiring strategy: Disqualify anyone they are not completely sure about. This strategy works for Microsoft because the number of highly qualified job applicants vastly exceeds the number of available positions.

Hiring managers at other companies, however, face many different situations. Rothman shows how to analyze your own situation and devise and execute a hiring strategy that is right for you.

Rothman obtained simultaneous bachelor’s degrees in English literature and computer science. Later she obtained a master’s degree in systems engineering. She writes on her Web site:

I consult, speak, and write on the issues of managing product development—specifically as a project management consultant, risk management consultant, and people management consultant for software or IT products. I help take the pain out of managing people and projects.

Gerald Weinberg is a highly respected consultant in the area of software project management (IEEE Micro, Jul.-Aug. 2001). Rothman has worked with Weinberg for many years. Weinberg wrote a foreword for this book, stating that he can think of no way to improve it. He calls it essential reading for practically everyone.

In Amplifying Your Effectiveness: Collected Essays, (see Micro Review, Sept.-Oct. 2002), an essay by Rothman, “The Perils of Parallel Projects,” quantifies the degree to which context switching reduces effectiveness. A person working on five projects, according to Rothman’s numbers, spends 75 percent of the time on context switching and 5 percent on each of the projects.

In the same collection, Rothman’s essay, “It’s Just the First Slip,” tells you to listen to your project. The first slip is a whisper: “Your expectation is not matching my reality. Listen to me. I can tell you my reality.” By the fourth slip, it’s yelling, “You’ll pay for this!”

I’ve focused on Rothman’s background and examples of her work, because this book so strongly reflects her way of thinking. Rothman provides an overall roadmap and many procedures and checklists. Nonetheless, the flavor of the book is generally practical and anecdotal. Her mingling of systematic and pragmatic material makes this book unlike most management books. I especially like the boxed anecdotes, each labeled “a true story,” that appear throughout the book.

If a central theme underlies this book, it is that knowledge workers are not fungible. Of course, every typist or assembly line worker is also unique. Nonetheless, cookie cutter hiring techniques tend to be more successful with such workers than they are with, say, programmers or technical writers.

Thus, Rothman advocates tailoring your hiring strategy and tactics to each specific situation.

One of the most appealing aspects of this book is that Rothman does not try to push you into doing things the way you ought to do them. In one of her true stories, for example, she describes a situation in which a “considerate, empathetic, consensus driven” group of testers hired compatible people, only to find that many of the new hires left soon after being exposed to the two main development managers, who were loud and argumentative. Her solution was to include the development managers as part of the hiring team. Rather than trying to change the behavior of the development managers—the right thing to do—she accepted them as a part of the environment. She made the ability to tolerate the development managers one of the qualifications for the job.
Another example of Rothman's flexibility involves multitasking. In the essay mentioned earlier, Rothman shows that multitasking is inefficient. In the hiring process, however, she suggests exploring that subject with applicants to find out how well their working styles mesh with the company's. If the company believes in multitasking, regardless of how inefficient it is, it then can make willingness to multitask a qualification of the job.

Despite Rothman's emphasis on tailoring each hiring project to the specific situation, she does provide an end-to-end procedure for acquiring and keeping good workers. Rothman lays out the tasks and the issues, then addresses actual situations that might arise. She covers the entire subject thoroughly.

In the July-Aug. 2003 issue of IEEE Micro, I reviewed Waltzing with Bears—Managing Risk on Software Projects by Tom DeMarco and Timothy Lister. That book made me much more sensitive to risk management issues than I once was. As a result, I’m especially happy to see Rothman address risks, contingency planning, and mitigation actions in the hiring process. For example, she includes a helpful discussion of what to do if you can't find the right person for the job.

If you are a hiring manager in a high-tech field, you must read this book.


Over the years, I have reviewed several books that deal with human consciousness. The most notable of these is Daniel Dennett’s Consciousness Explained (IEEE Micro, Apr. 1992). On the back cover of Lloyd's book, Dennett says:

I had dreamed of writing a book like this someday, and Lloyd has done it, taking us backstage and explaining how the brain plays its tricks creating the benign illusions of consciousness.

As Lloyd hints in the subtitle to the book, he has built his argument around a novel, a mystery in the film noir style. His hard-boiled detective is Miranda Sharpe, a graduate student in philosophy, who investigates the disappearance of her thesis advisor. This leads her to Dan Lloyd—the author-turned-protagonist—who helps her discover a virus designed to modify all of the world's computers. The modification replaces pointers to Web sites dealing with consciousness and phenomenology with pointers to exact duplicates of those sites.

The novel provides the underlying examples that help explain Lloyd's theory of consciousness. But Lloyd largely avoids the trap that most didactic novels fall into. He doesn’t stop to explain everything. Instead, he divides the book into the novel, told from Miranda's point of view, and his own philosophical essay. This allows the novel to move quickly. It is, in fact, a real page-turner.

One of the delightful aspects of the novel is Lloyd's frequent use of allusions and unexpected connections. This ultimately ties in with Lloyd's theory, but it also makes the book fun to read. For example, at one point a famous but shallow self-help expert engages in a consultation in which she sounds exactly like Joseph Weizenbaum's famous 1966 computer program, Eliza the therapist. At another point, in the midst of a farcical climactic encounter, there is a knock at the door and Lloyd says, "That'll be the Car Talk guys." You'll have to read the book to see what that line is so funny. And I haven't even mentioned Boris Badenov.

When it comes to Lloyd's theory, the book is no longer a page turner. Perhaps an example from popular fiction can help explain the problem Lloyd is trying to address. In the Harry Potter books by J.K. Rowling, the world's preeminent wizard, Albus Dumbledore, is headmaster of Hogwarts, the wizardry school that Harry attends. Dumbledore has a storage device, called a pensieve, for his thoughts. He places his wand tip into his hair, and when he draws it out, wisps of thought adhere to it like threads. He places them into the pensieve, where he can sort them and access them.

On one occasion, Dumbledore leaves Harry in his office while he goes to attend to an urgent matter. While Dumbledore is gone, Harry’s curiosity leads him to investigate the pensieve. Harry is drawn into a large courtroom and sees Dumbledore sitting and watching the proceedings. Nobody seems to notice Harry's presence, so Harry concludes that he is experiencing one of Dumbledore's memories. Harry, however, does not know what is going on. He experiences the scene as a movie. Events proceed sequentially in time, but Harry imbues them with his own—rather than Dumbledore's—knowledge and feelings. Soon the scene shifts to a different proceeding in the same room. Then the new sequence of events unfolds. Harry remembers the first scene as he experiences the second.

Lloyd is a phenomenologist. He does not see mind and body as separate. He recognizes the importance of time sequences, but he explains that your memories must be as you experienced them, not as an external observer would see them. And each memory carries with it all of the past memories that helped to shape it. This superposition of memories upon memories leads to a recursive model—perhaps an allusion to Douglas Hofstadter’s Gödel, Escher, Bach: An Eternal Golden Braid (Basic Books, 1977).

Lloyd goes into plenty of detail about his theory, but I won't. One interesting point about it is that he uses data from functional magnetic resonance imaging studies to support his conclusions. You can visit his Web site (www.trincoll.edu/~dlloyd/) to see some of the images that play an important role in the novel and in his theory.

Even if you’re not interested in consciousness, Radiant Cool is fun to read. If you are interested in consciousness, you’ll find Lloyd’s ideas stimulating.

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