

Special Student Seminar

4:15 p.m. Wednesday, February 2 • 331 Smith Hall
Reception Following • Hallway in front of 331 Smith Hall

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Critical Thinking

Abstract

We are all involved in making decisions on a daily basis. Some of these decisions are very important while many of them are not. Regardless of the nature of the decision, no one ever tries to make a bad decision. Yet, less than optimum decisions and unpleasant surprises happen all too frequently. Why is that? The goal of this talk is to help us realize why bad decisions can occur, and more importantly how can we lower the likelihood of making them. It turns out that all humans use similar, basic instincts to make most of our decisions. Contrarily to what most of us would like to believe, our decision-making (both good and bad) is a surprisingly emotional process. In fact, it turns out that people who are incapable of expressing emotions (due to brain injuries, for example) are also incapable of making decisions. This is because the path of decision making in our brain passes through the part of the brain that responsible for emotions. In addition to the way humans are “wired” for decision-making, there are two other major influences on our decision-making behavior. One of these is the “frame” each of us sees the world through—sort of the color of glasses through which we watch the world. The other big influence is group dynamics—we behave differently in groups than as individuals. There are several things we can do to lessen the likelihood of regrettable decisions. These all focus on understanding how we make decisions so we can either recognize heretofore hidden risks, or recognize the biases that keep us from being objective in our judgment.

Darrel F. Untereker, Ph.D.

Darrel F. Untereker, Ph.D., received his undergraduate degree from the University of Minnesota (1967) and a doctorate from the University of New York at Buffalo (1973), both in chemistry. He joined Medtronic, Inc. in Minneapolis, in 1976, and has held several technical and managerial positions over the years involving power sources, materials science and biomedical engineering of implantable medical devices. He is currently the Vice President of Corporate Research and Technology, and a Senior Technical Fellow. He has won many internal Medtronic awards and is a Fellow in both the Electrochemical Society (ECS) and the American Institute for Medical and Biological Engineering (AIMBE). He is a 2006 winner of the Charles W. Britzius Distinguished Engineer Award for lifetime achievement in and service to the profession of engineering. Darrel is a frequent reviewer for many technical journals and also spends a large amount of time as a mentor and volunteering for organizations like the American Society for Quality and First Robotics. He has more than 60 publications and 19 patents.