Neuroethics, Sudoku, and Monks

By Steve Lawler

The sciences do not try to explain, they hardly even try to interpret, they mainly make models. By a model is meant a mathematical construct which, with the addition of certain verbal interpretations, describes observed phenomena.

—John von Neumann

Hardly a week goes by without a new model of some primary area or domain. New economic models, investment strategies, cyber technologies, fuel options, and medical practices are offered as either the next new thing or an update to what’s seen as tired, out-of-date, or even dysfunctional.

Research and practice in ethics is no exception. One might hold that the golden rule or the Ten Commandments are irreplaceable, but lately the field of ethics has developed new insights and models, some surprising and some not.

Let’s start with a basic definition of ethics. For our purposes, ethics describes the identifying, describing, analyzing, systematizing, and recommending of right and wrong—often called moral—behaviors. We are most interested in the ways that theoretical work in ethics plays out in practice. This is called practical ethics, and all professional ethics are necessarily practical ethics.

Three trends are worth tracking for those who wish to practice the highest personal and professional ethics.

1. The emergent area of neuroethics
2. The long-standing tradition of rules-based ethics, for which Sudoku is a metaphor
3. Cenobitism, or the study of monks and monasticism

Each of these models presents ethical practice in a particular way. Each offers something useful for personal and professional ethical reflection and practice.

Neuroethics

Neuroethics is the category of bioethics concerned with neuroscience and neurotechnology. As a discipline it encompasses “ethical problems raised by advances in functional neuroimaging, brain implants, brain-machine interfaces, and psychopharmacology as well as by our growing understanding of the neural bases of behavior, personality, consciousness, and states of spiritual transcendence.” Neuroethics holds immense interest for researchers and practitioners alike, but it still is an emergent field and best thought of as the shape of things to come. Of note are three neuroethical research areas: neuroimaging, pharmacology with regard to cognition and mood disorders, and personal responsibility.

Neuroimaging. Certain areas of the brain are centers for certain types of activities. With the increased sophistication of brain-imaging technologies comes the ability to pinpoint not only the area of activity but the level of activity that accompanies each behavior. This sounds merely interesting until you consider research that shows how the brain behaves when one is lying and the fact that lie detection through brain scanning has an even higher rate of validity than traditional methods. Again, this is merely interesting until you consider research that shows how the brain behaves when one is lying and the fact that lie detection through brain scanning has an even higher rate of validity than traditional methods. Again, this is merely interesting until you consider research that shows how the brain behaves when one is lying and the fact that lie detection through brain scanning has an even higher rate of validity than traditional methods.

Pharmacology. Advances in treatment of disorders with neurobiological components seem almost exponential. Attention-deficit disorder (ADD), depression, bipolar disease, and similar conditions often are treated with prescription drugs. These treatments raise numerous issues, and the common concerns of bioethics—safety and social impact—head the list. Safety concerns arise from the lack of long-term studies on the effects of these drugs, but it is social impact that is of interest to us here.

Allow me this personal story. In talking with my son, a recent graduate of a top-tier university, about my research in this area, he told me about the brisk trade in medications on campus that precedes finals, professional board examinations, and the GRE, MCAT, and GMAT exams. In exploring this, I found it to be an acknowledged national trend, which provides the occasion to contemplate some troubling and likely scenarios.

• One scenario has Team A using a popular ADD drug to be more competitive preparing and delivering a pitch for a big project; Team B is working on the same pitch but using no such drug.
• Another scenario has a candidate for advancement using a selective serotonin reuptake inhibitor to manage performance during the selection process.
• A third scenario has an individual who uses mood-altering drugs to gain a personal edge performing an important analysis and making a judgment error because the drug mutes natural anxiety and the individual doesn’t pick up on the cues that signal unacceptable risk.
These scenarios are made more troubling by the fact that regular workplace drug testing does not screen for these drugs and that some of these drugs may go from prescription to over-the-counter, making them more available for self-medication.

Personal responsibility. Given what we know about brain centers and behavior, the inevitability of discovering the brain activity that allows some people to commit heinous crimes becomes a foregone conclusion. But our system of jurisprudence is based on the assumption of individual free choice and responsibility. Because certain forms of mental illness qualify a defendant for an insanity plea, what happens when science can prove that an individual's brain is incapable of discerning right from wrong? Take this a step further, and what if it can be proven that one's beautiful, bouncing baby boy has the neurobiology of a mass murderer? Do you incarcerate him now and save the future innocent victim? To ratchet this down a notch, what happens to our assumptions of individual agency and rationality in economics when neurobiology becomes a more accurate way of understanding behavior? Would you then need to attach a copy of your brain-scan report to your vita when you meet with a prospective client?

What does this mean for you, an IMCA member? It means three things:
1. The advancements in protocols, technologies, and drugs that fuel growth in neuroscience are worth your attention.
2. If you manage an organization or team, you should be aware of the potential impact these advancements may have on the determination of new hires or promotions.
3. Although you may not now be a candidate for a drug therapy, new protocols and increasingly focused neurobiological interventions may in the future enhance your own performance and mental health.

Sudoku
The number of Sudoku books available at every airport newsstand evidences this puzzle’s popularity. The name comes from the Japanese phrase, “Sūji wa dokushin ni kagiru,” which translates to “the numbers must occur only once.” Sudoku puzzles vary in difficulty with size and complexity, and complexity depends on the requirements for a successful solution.

Sudoku is an apt metaphor for the ethical domain familiar to people whose work involves compliance. In ethical discourse, this approach is called duty-based or deontological ethics, and it draws on the work of philosopher Immanuel Kant. This area of ethics assumes a duty to play by the rules, no matter the consequence or context. Duty-based ethical training focuses on ensuring that people know and follow the rules—that individuals comply. IMCA members certainly are familiar with these types of expectations.

Research in this domain focuses on two key questions: “What is the relationship between individual behavior and group norms?” and “Under what circumstances are rules applicable?” The first question concerns how the individual/group dynamic influences hiring, compensation strategies, and career progress within firms. The second question is engaged through ethical training and allowing a safe way for employees to respond when the firm’s roles and expectations create situations that require revisiting the rules.

Most importantly, it no longer is enough to simply have a program in place. Quality and depth of training is considered in a legal case.

I often think of a meeting I had with a chief executive officer who pulled out a one-page document that he said all employees had signed. In his mind, this covered ethical behavior in his company. Two years later his firm paid a significant fine because regulators found that the company had not engaged “significantly” in ethics training.

Behavioral economics and behavioral finance have raised strong questions about the notion of rationality in choice making. The effectiveness of a rules-based ethics system therefore depends on factoring human psychology into the design and delivery of any firm’s ethics training program.

Monks
Cenobitism, the study of all things monastic, covers the practices, philosophies, and organizational structure of monastic communities. The areas of organizational structure and individual identity provide the richest insight for ethicists.

Monastic communities generally are organized in one of two ways: vertically around the founder, guru, rule, or set of teachings; or horizontally, with members working out what it means to be members.

Think of a business run by partners versus one organized around a market and a set of offerings. In each approach, all aspects of life are shaped by the way the community is organized.

An old saying has it that “in a monastery everyone knows who steals bread.” In a business sense, this means that the more connected associates and clients are through shared values and practices, the harder it is to stray from the norms unnoticed.

Research into organizational psychology and social constructs shows that behavior results more from context and shared practices than an individual actor’s character or disposition. A social construct “is any phenomenon ‘invented’ or ‘constructed’ by participants in a particular culture or society, existing because people agree to behave as if it exists or follow certain conventional rules.” The key is that the core values and practices of the community are agreed upon, taught, and rewarded comprehensively and consistently. While this may seem obvious, organizational audits show that it is a rare organization that does this well. A thorough look at ongoing organizational
formation and identity is a natural extension that broadens and deepens one’s commitment to ethics.

When I presented this talk to a group of IMCA members as a continuing education class, I said it would be successful if my talk sent them to a bookstore. Because this simply is an introduction to the areas covered, my hope remains the same: that this article will spark some interest. I close with a suggestion for books in each domain.

**Ethics**


**Neuroethics**


**Sudoku**


**Monks**


**Endnotes**

1 Definition from “Neuroethics,” a resources site of the University of Pennsylvania, http://neuroethics.upenn.edu.


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