adoption and fertility medicine are gener-
ally paid out of pocket. “But if I had really
paid the price it cost me to deliver my two
boys the old-fashioned way, it would have
cost as much as adopting my daughter.”

The market segments for sperm and
eggs also function differently. “It’s very
easy to donate sperm and very difficult
to donate eggs, so you would expect eggs to
be more expensive,” says Spar. “What’s
intriguing is how differently we treat
eggs.” Eggs are sold with pictures and
personal profiles, while sperm is sold by
basic genetic characteristics. Because
there are genes for hair color and height
but not for piano playing and volleyball,
notes Spar, “there shouldn’t be a pre-
mium for Harvard eggs, [which have gone
for] $35,000 or $50,000. Harvard sperm
does not get a premium!”

The most complicated segment of the
market is surrogacy, which Spar says
used to mean purchasing “a ‘bundle’ of
eggs plus pregnancy and a womb.” For a
price, a woman agreed to be inseminated
by a man and bear his child. Because the
surrogate was the genetic and birth
mother both, the procedure led to a few
“horrific” custody fights, such as the in-
famous Baby M case of 1985, and people
shied away. But IVF solved this problem.
“Instead of buying the bundle, you can
now buy the eggs from one source and
the womb from another,” Spar explains.
The surrogate is no longer the genetic
mother, so “people presume that her
links to the child are diminished.” This
has opened up the surrogacy market—
with interesting results. Commercially,
consumers “want different things from
their eggs than they want from their
wombs. They want their wombs to not
smoke, not drink, and just behave and
carry a healthy baby, which many
women can do. But they want their eggs
to have particular genetic characteris-
tics.” That meant the “price of wombs
actually stabilized, and the price of eggs
went up.”

Spar hopes her work empowers people
to enter the baby market not as victims of
infertility, but as consumers with op-
tions. “People don’t want to think of
themselves as being in a commercial rela-
tionship, so they don’t think in terms of
substitutes,” says Spar, but sex, ART,
and adoption aren’t all that different.
Yet she also worries about encourag-
ing a consumer mentality. “There is
the risk that people will behave too
much like consumers and say, ‘Well
dee, I’m paying all this money, why
can’t you guarantee me a child?’ Because
it’s not a market in that sense, that anyone
can promise a child.”

~HARBOUR FRASER HOODER

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M.B.A. FICTION FIX

Questions of Character

WHAT are readings from Sopho-
cles, Chinua Achebe, and
Joseph Conrad doing in a Har-
vard Business School course? And why
is the professor talking about students’ “in-
ternal struggle?” After all, during the past
several decades, many American business
schools have gained academic stature by
privileging scientific research over voca-
tional training, and by turning out stu-
dents who can master a spreadsheet.
Leading professors publish their work in
scholarly journals that emphasize com-
plex economic and financial analysis,
statistical multiple regres-
sions, and laboratory psychology. Stu-
dents arrive prepared for the mathemati-
cal rigors of an M.B.A. because most
majored in business or accounting as un-
dergraduates and subsequently worked in
investment banking or management con-
sulting before enrolling.

The result has been legions of technical
experts, but not necessarily well-round-
ed leaders capable of facing the trials of
the corporate world or providing a moral
compass for their organizations. Increas-
GARLIC MUSTARD, Alliaria petiolata, a European native, immigrated to the United States in the 1800s, says Kristina Stinson, “perhaps accidentally with animal feed.” Other sources (viz., the online Invasive Plant Atlas of New England) suggest that settlers planted it for food and medicinal purposes. Stinson allows that it is “potentially edible” and directs culinary explorers to the Internet for garlic-mustard pesto recipes. She is kind enough to say that the plant is “sweet-looking, with cute white flowers,” but notes that it isn’t as attractive, for instance, as the trilliums that it has elbowed aside in its aggressive and menacing march through forests across much of the United States and Canada. Garlic mustard is a thug.

Most non-native invasive plants establish themselves in disturbed soil—beside railroad tracks, for instance. Garlic mustard does that, but it also has demonstrated an unusual capacity to proliferate within intact North American forests. There, under the canopy of mature native hardwood trees, it outcompetes with their seedlings, such as those of sugar maples, red maples, and white ashes. Through an indirect mechanism, garlic mustard threatens infant successor trees, and if that process continues, the weed could change the composition of North American forests.

Stinson, a research associate at the Harvard Forest in Petersham, Massachusetts, is lead author of “Invasive Plant Suppresses the Growth of Native Tree Seedlings by Disrupting Belowground Mutualisms,” in Public Library of Science Biology (www.plosbiology.org). Most plants (but not garlic mustard) form symbiotic relationships with arbuscular mycorrhizal fungi in the soil, and many depend on this association for their survival. Thus, microscopic fungi will become part of the feeding roots of a sugar maple, for example, effectively enlarging the tree’s root system and promoting growth. The fungi pass nutrients from the soil to the tree and get carbon in return.

Stinson and colleagues—working in Petersham, Ontario, Montana, Indiana, and Germany—performed a series of greenhouse experiments that for the first time confirmed what had only been hypothesized: garlic mustard, probably by releasing poisonous antifungal chemicals, interferes with the formation of these symbiotic relationships and reduces native plant performance. It is a disruptive presence in the forest, where fungi and tree roots, left alone, get cozy.

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Right Now

erary “case studies”—works of fiction that highlight some of the moral hazards of high-stakes leadership—that he outlines in a recent book based on his course, *Questions of Character: Illuminating the Heart of Leadership through Literature* (HBS Press). In Achebe’s novel *Things Fall Apart*, for instance, the tragic downfall of the Nigerian tribal chief Okonkwo illustrates the dangers of rigidly adhering to traditional codes in the face of unprecedented external challenges—in this case, the onslaught of colonial forces. “To have a sound moral code,” Badaracco says, “a leader needs to engage in an open and ongoing way the moral and practical life that surrounds him.”

When leaders encounter complex crises, Badaracco argues, flexibility may be more important than firmness. In his book, he cites the example of a high-powered executive who joined a friend’s firm in order to straighten out the company’s management problems. When the executive discovered fraudulent accounting, he chose to step down rather than participate in unethical practices; his resignation—morally admirable on the surface—in turn sparked suspicion in the markets, causing the company’s stock price to plummet and the firm to declare bankruptcy. Badaracco contends that a harder course for the executive would have been to give the president and the board a choice: they could either accept his resignation or agree to make critical changes—“to restate the company’s financial statements, introduce strict financial controls, restructure its operations to conserve cash, and focus solely on its most promising markets.” This approach would have given the company at least a chance to survive.

The nearly 2,500-year-old play *Antigone* offers students another view of the tragic consequences that may ensue when leaders fail to weigh the many sides of an issue. “Sophocles strongly suggests that good reflection, for individuals and especially for leaders, is the equivalent of sitting at the center of a spider’s web and vigilantly sensing what is happening along many different dimensions of a situation,” Badaracco writes.

Badaracco’s course also explores the dangers of success—an enduring and useful theme for students in today’s winner-take-all economy. In Louis Auchincloss’s novel *I Come as a Thief*, the protagonist, Tony Lowder, provides an example of the personal costs of failing to distance oneself from the pressures and seductions of success: “Victims of success ‘don’t know their inner lives have shriveled and their healthy instincts have grown dull.’”
Imagine the brain as a giant filing cabinet. The puzzle of deciphering the labels on the drawers has occupied many a scientist and philosopher, all the way back to Plato, who theorized in his dialogue Cratylus that human speech is made up of nouns and verbs that are, in turn, made up of letters and sounds.

The noun-verb divide is a common theoretical motif, and now Kevin Shapiro ’00, an M.D.-Ph.D. candidate in medicine and psychology, has found hard evidence that nouns and verbs do indeed occupy different drawers. By using magnetic resonance imaging (MRI) to track oxygenated blood flow in the brains of his test subjects, Shapiro isolated one area that became active only during tasks involving nouns, three areas that lit up only during tasks involving verbs, and several areas that responded to both.

Although he warns that questions remain about when and why the brain developed in this way, Shapiro points out that the activity shows up in intriguing places. One of the “verb spots,” for instance, is in the left frontal lobe, adjacent to the so-called motor strip (precentral gyrus), which contains the neurons that generate movement throughout the body; the adjacent area is involved with planning motion. (In the brain, each bulge in the gray matter is called a gyrus; each crevice that divides two bulges is a sulcus.)

Shapiro had already amassed some evidence for the “drawers” theory. In an earlier study, he found that when he used a magnetic current to interrupt brain activity in the left frontal lobe temporarily, his subjects were slower at completing sentences with verbs, as compared to those with nouns—suggesting he had found a “verb area.” This finding held even when the assignment was to conjugate a made-up verb (“he wugs”/“they wug”). “We thought that was pretty good evidence that they’re not actually retrieving stored meanings of words,” says Shapiro, “that it’s something to do with grammatical function that’s being represented, at least in that part of the brain.”

In the recent study, Shapiro used 10 subjects, five of each sex. All were right-handed adults, from 19 to 25 years old, native speakers of English who had at least 14 years of education and no history of neurological or psychiatric illness. There were also 18 controls who performed the same tasks without MRI scanning. Shapiro showed each subject a two-word phrase and then provided a different cue word, asking the subject to fill in the blank...

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