

Research
Next to Godliness
By Jessica Ruvinsky

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HEALTH CARE

Lucrative but Deadly

► For a rural coffee grower in Colombia, rising global coffee prices should be nothing but good news. Grow more beans, make more money. So Grant Miller, a health economist at Stanford University, was surprised to discover what else higher prices herald: Sicker kids. It turns out that “child mortality rates go up when prices go up,” says Miller. The opposite is also true: Child mortality decreases—fewer infants and children die—when prices slump.

Miller and his coauthor examined average annual coffee prices from 1970 to 2006. Three events during that time led to huge price shocks: Brazil’s crop-devastating frost in 1975 and drought in 1985 increased the price of coffee dramatically; the collapse of the International Coffee Agreement in 1989–90 decreased it. They compared these sudden price changes to indicators of child health and mortality such as immunization records, prenatal care, population size, and acute disease to come up with their counterintuitive conclusion that a better economy can be hazardous to children’s health.

“Things that are important for your health are often not expensive, but take a lot of time,” Miller explains. Competition for time is much stronger when coffee prices are high, as the value of tending to the household coffee plot goes up. Breastfeeding, kitchen hygiene, and securing clean drinking water can be very time intensive. So can access to primary health services in rural

Colombia, which are cheap but may be over the mountain and have a days-long wait. “If you’re a coffee grower, you can earn more money in a high-price year by working harder on your coffee plot. But that comes at the cost of other things that you’re spending your time on less, including taking care of



your kids,” says Miller.

Does this mean fair trade initiatives, which aim to lift farmers out of poverty, are having some serious unintended consequences? Not necessarily, says economist Christopher Ruhm of the University of North Carolina at Greensboro, who finds similar effects on health in the United States and western Europe.

“We’re talking about pretty short-term changes in income. If coffee prices were permanently higher, you might see a quite different response,” Ruhm says. “My prediction would be that things that make your life more secure, more stable—like longer-term increases in incomes—would be very good for health.”

Broad development objectives may not be the fastest way to fight disease in emerging economies like Colombia, however, because “money is not the principal obstacle to people doing things that are good for their health,” Miller says. “Measures that improve access to health technologies and services are much more likely to have important immediate effects than a focus on general economic devel-

methods of viticulture and a trailblazer for new varieties and blends. Exports grew from a few million dollars in 1990 to \$480 million in 2004. Critics raved.

The transformation happened in only one of two neighboring winemaking provinces, however. Although San Juan received more investment, “Mendoza begins to take off,” says Gerald McDermott, a professor of international business and politics at the University of South Carolina. “They’re the pioneer, and by 2001 they’re 90 percent of exports of wines.” The two provinces sit side by side; their provincial capitals are an hour or two apart by car. They have the same climate, the same number of civic associations per capita, the same political parties, says McDermott. The usual explanations about socioeconomic endowments—“you either have it or you don’t”—don’t hold.

What, then, fostered innovative capacity in Mendoza but not in San Juan? McDermott credits the creation of new public-private institutions, jointly governed partnerships between industry associations and government agencies “that function as social and knowledge bridges between different producer communities.” McDermott developed new methods to “map the knowledge networks, how knowledge flows, and who the key actors are for promoting learning and the diffusion of new knowledge.” These local bridges were vital to Mendoza’s success. Competitors “started to construct ways of finding common strategies and weren’t just after each other’s jugular.”

opment.” Since “being healthy is not necessarily about being wealthy, poor but healthy is a feasible state of the world.” ■

Grant Miller and B. Piedad Urdinola, “Cyclical Mortality, and the Value of Time: The Case of Coffee Price Fluctuations and Child Survival in Colombia,” *Journal of Political Economy*, 118, 2010.

GOVERNMENT PARTNERSHIPS

Fermenting Innovation

► All through the 1980s, Argentina’s wine industry produced vast quantities of (mostly bad) wine and sold it only to Argentinians. By the end of the 1990s, Argentina was an innovation success story—a pioneer in new

Businesses often impugn governments as barriers to innovation, but in the wine-growing regions of Argentina, government policies really made sure the grape industry grew. “Government has the ability to help bring together a lot of private knowledge that would stay separated normally, and in doing so they can create much more innovative resources,” says McDermott. Within five to eight years the public and private sectors had together created sophisticated training systems, databases, export promotion systems, and extension services for agriculture, things no single winery could have done alone. “You put things that are separated together, and you may get something new out of it.”

In fact, government-fostered cooperation is not unprecedented. “Smart governments are always looking to figure out ways to incentivize and encourage firms to do what they can’t do by themselves,” says Richard Doner, professor of political science at Emory University. “In any kind of innovation there are all kinds of market failures and market imperfections. There are huge risks in moving into new areas. You may not even know what you need; there may be new approaches to wine processing and wines marketing that you’ve never heard of.” In the United States, the Department of Agriculture has been supporting networks of innovation-spreading organizations for years. “American agriculture is what it is because of [government] ag extension [programs],” says Doner. ■

Gerald A. McDermott, Rafael A. Corredoira, and Gregory Kruse, “Public-Private Institutions as Catalysts of Upgrading in Emerging Market Societies,” *Academy of Management Journal* 52, 2009.



ENVIRONMENT

Local Warming

▶ Although people living in poverty are among the most vulnerable to a warming planet, some of the world’s poor could end up winners in the climate change shuffle. As heat and drought drive crop yields down, basic commodity prices will go up. That will harm some—and help others.

“There are really very different effects on poverty depending on which poor people you look at,” says David Lobell, an assistant professor of environmental earth system science at Stanford University. “Farmers are getting hit with lower yields, but the prices of the things that they’re selling go up enough that they actually become less poor as a result.” The effects could be large enough to lift many agriculture-specialized households in Asia and Latin America out of poverty.

And it could happen quite soon. “It’s not implausible that even in the next 20 years, climate change could drive prices up considerably.”

These projections differ from most in that Lobell and colleagues consider a range of possible productivity scenarios instead of just the most likely one. As an agricultural ecologist, Lobell compiled plausible yields for six different crops in the year

2030. He used as the worst case scenario not what happens “if things go really, really, really, really bad, but just if things go a little bit worse than we expect.” He and his coauthors then fed these scenarios into the Global Trade Analysis Project general equilibrium model to see what happens to food markets around the world. “What we found was that there’s a pretty big range of potential price impacts of climate change,” Lobell says. It is most likely that effects 20 years from now will be small, “but there could be as large as 30 percent increases” in the price of cereals.

The researchers then used these price impacts to model what happens to incomes, cost of living, and net poverty levels for poor households who make their living in different ways. A poor Indonesian rice farmer would take home more money if the price of rice went up. In Bangladesh, on the other hand, most of the poor who work in agriculture are wage laborers, not landowners. So when prices go up, most people get poorer.

“Climate change could be a major driver of poverty change even short term. It’s something that should be on the radar screen of most people thinking about development and poverty,” says Lobell, but understanding where to prioritize efforts is

not easy. “It’s not necessarily just going to be where the yield changes are the biggest, or where the overall poverty levels are the biggest.”

Flexibility is important. “You need to have the capability of responding to a variety of potential climate impacts, and not just one,” says Gary Toenniessen, a managing director of the Rockefeller Foundation who leads the strategic direction for the foundation’s initiatives in agricultural development. “What we’re trying to do is help African agricultural research and development institutions build climate change resilience into their routine agricultural research work.” ■

Thomas W. Hertel, Marshall B. Burke, and David B. Lobell, “The Poverty Implications of Climate-Induced Crop Yield Changes by 2030,” *GTAP Working Paper* 59, 2010.

ECO-FRIENDLY GOODS

Evil Green

▶ Australian company AussieBum just launched a new line of eco-friendly underwear. It’s manly, lightweight, and made of banana fiber—the perfect match for a sustainable lifestyle. The company’s marketing material touts the environmental benefits of banana underwear. What it doesn’t mention is that owning a pair may make you behave badly.

New research shows that buying green products makes people more likely to cheat and steal. Although the mere presence of eco-friendly options tips consumers’ subconscious toward cooperation and generosity, actually buying them does the opposite. “After having purchased green products as opposed to conventional ones, people shared less of their money with an anonymous other person,” says lead author Nina Mazar, experimental psychologist at the University of Toronto. “They became more selfish, less altruistic.”

Mazar and her coauthor designed two online storefronts. One of them carried mostly green goods, such as compact fluorescent lightbulbs and organic potato chips, and the other carried mostly conventional products—incandescent bulbs, Pringles, and the like. Students who volunteered for the study got \$25 to spend, and the researchers sat them down in front of one of the two online storefronts. After shopping, the volunteers had to decide how much of a \$6 gift to give away to an imaginary (although they didn't know it) partner. Participants who had been assigned to the green store were stingier than those who had been assigned to the conventional store.

In a second experiment, participants shopped in the green or conventional store and then played a game “where they had

opportunity to be dishonest as well as actually steal money from us,” Mazar says. It turned out that green purchasers did both. First, they cheated on some data gathering for monetary benefit; then they paid themselves more out of an envelope on the table than they had actually earned. “It was real money that was involved,” Mazar says.

The effect is called “moral credentialing,” explains Benoît Monin, professor of psychology at Stanford University. “Having bought the green products, people feel that they’ve established to themselves and to others that they’re good people. Then when later the opportunity to make a few extra dollars comes around, they’re less concerned about cheating because they can look back and say, well, I’m a good person, I buy green toilet paper, and as a result they are more le-

nient in applying the moral standards,” Monin explains. “It’s okay for me to cut some corners here, because I’m a good person after all.”

You may fear that environmental marketers are creating a scourge of the evil green, but Mazar has hope. Moral credentialing should apply only in cases where do-gooders experience a moral glow, she says. If saving the planet were the norm, rather than proof that one neighbor is better than another, it would not license subsequent bad behavior. Her results have not stopped Mazar from purchasing organic food and energy-efficient lightbulbs. Does it make her cheat and steal? “I don’t know. I hope not, but at the end of the day I’m also just human.” ■

Nina Mazar and Chen-Bo Zhong, “Do Green Products Make Us Better People?” *Psychological Science*, published online on March 5, 2010.

POLITICS

House Divided

► Some state legislation makes for game-changing, visionary public policy—developing highway systems, organizing state parks, establishing statewide systems of public assistance. Some is more modest in scope—say, building a trailside museum in the Jamaica Plain district of Boston, or temporarily protecting the raccoons and mink of Red River County, Texas.

What is it that leads lawmakers sometimes to craft policies with a broad impact and sometimes to focus on narrow, district legislation tailored to the interests of a specific village, city, or county? According to a new study, the first answer is fierce party politics. It may be hard to believe as one watches Republicans and Democrats rip

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one another to shreds and log-jam budgets, but political scientist Gerald Gamm of the University of Rochester finds that “in the absence of competitive party politics, you don’t see broad-based policymaking at the state level.”

“Party competition puts together coalitions of legislators who are all on the same team, and gives those legislators an incentive to show how they’re different from the other party,” explains study coauthor Thad Kousser, a political scientist at the University of California at San Diego. “It enables parties to become meaningful policy-based organizations that compete over different visions for the state as a whole.”

Counterintuitive though it seems at the moment, the idea that one-party politics “descends into regionalism and factionalism” has been in play since 1949, says Kousser. It is their second finding that really upsets the applecart. “One of the big arguments that’s been made over the last 30 or 40 years is that if you pay legislators more and give them bigger staffs, they’ll legislate more for the common good, be more professional, and be less focused on day-to-day district concerns,” says Gamm. “And what we’re showing is that’s not necessarily true. We’re finding that the better paid people are the ones who are most obsessed with district concerns, presumably because they’re most focused on getting reelected.”

Uncovering these influences took the researchers more than a decade. Gamm led teams of research assistants in poring over old and new legislative journals to code more than 165,000 bills, which cover 120 years in 13 different states. “It’s extraordinary. There’s no data

set like this,” Kousser says. There wasn’t even a record of when some of these legislatures met for most of their histories. “We basically had to create that record from scratch,” says Gamm. They also developed biographies of each of the people in each of the legislatures.

Because of the project’s scope, “these are the most general findings I think we’ve been able to generate as political scientists,” says Gamm. “They hold over lots of periods of time and in various kinds of states, so we assume they would apply to the House of Representatives and the Senate. But there are 101 chambers in the United States, and part of what we’re doing is calling attention to the extent to which important decisions about people’s lives are made in the remaining 99.” ■

Gerald Gamm and Thad Kousser, “Broad Bills or Particularistic Policy? Historical Patterns in American State Legislatures,” *American Political Science Review*, February 2010.

BENEVOLENCE

Next to Godliness

▶ Looking for the cleanest possible way to increase charitable donations? Spray citrus-scented Windex. According to new research, “people are more likely to engage in moral behavior when they are in a clean-scented room,” says lead author Katie Liljenquist, an assistant professor of organizational leadership at Brigham Young University.

A few years ago Liljenquist and her coauthor discovered that moral “purity” is more than a metaphor. “When people recall an unethical behavior, they feel literally dirty,” Liljenquist says, and try to “wash away their sins” with an antiseptic wipe. So the researchers set out to see if the reverse is true as well: Does



a clean smell make people clean up their acts?

To find out, they prepared a baseline and a virtuous-smelling space. For the scented condition Liljenquist would run into the center of the room and spritz a little lemon Windex just before the participant arrived. Participants then either played a one-shot anonymous trust game or filled out a survey requesting donations to and volunteers for Habitat for Humanity.

Game players learned that their (imaginary) partner had just very trustingly turned over his or her entire \$4 to the participant. The money would be tripled because of the partner’s brave move. The participants then had to decide how much of the resulting \$12 to share with the partner, who was now completely at their mercy. Windex-influenced people were “more fair and generous in returning an even share of the money,” Liljenquist says.

Among survey completers in the unscented room, 6 percent indicated they were willing to donate funds to Habitat for Humanity. That figure shot up to 22 percent in the clean-scented room. Windex also made participants more interested in volun-

teering. “It works, which is very refreshing,” says Liljenquist. “This research shows there may be a very subtle, cheap, unobtrusive way to promote more virtuous behavior.”

Alan Hirsch isn’t surprised. An expert in olfaction at the Smell & Taste Treatment and Research Foundation in Chicago, he says that spicy odors make people learn faster, jasmine increases their bowling score, and Nike shoes seem to be worth \$10.33 more in the presence of a floral odor. “The part of the brain that we think smells is actually part of the limbic system, or the emotional brain. So the quickest way to change somebody’s mood state or behavior—quicker than with any other sensory modality—is with smell.”

If you put this principle to work at the office, as a bonus your spick-and-span lobby will make visitors judge your employees to be more ethical. Just don’t advertise the new air freshener’s moral power. “To effectively exercise mind control, you can’t make it explicit,” Liljenquist warns, “or people have the tendency to react against it.” ■

Katie Liljenquist, Chen-Bo Zhong, and Adam D. Galinsky, “The Smell of Virtue: Clean Scents Promote Reciprocity and Charity,” *Psychological Science* 21, 2010.