Research
The Call of Violence
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HIGHLIGHTS FROM SCHOLARLY JOURNALS / **BY JESSICA RUVINSKY**

TECHNOLOGY

The Call of Violence

From texting to Twitter, modern communication technologies have garnered plenty of buzz for their potential to improve transparency and political accountability. But new research shows such technologies can be powerful tools for change in more ways than one. In Africa, at least, "the expansion of cell-phone coverage goes hand in hand with more violent events," says Florian Hollenbach, a doctoral candidate in political science at Duke University.

Cell-phone coverage spread rapidly across the continent of Africa over the past 20 years. And political violence has often followed in its wake, according to Hollenbach and Jan Pierskalla, a postdoctoral candidate at the German Institute of Global and Area Studies, who co-authored a recent study on this subject. In 2008, for instance, organized violent conflict was more likely to unfold in areas where coverage had existed in 2007 than in areas where it hadn't. The overlap between cell-phone coverage and conflict is especially clear in Algeria, the Democratic Republic of Congo, Kenya, Nigeria, Uganda, and Zimbabwe. (To track the incidence of political violence, the researchers drew on the Uppsala Conflict Data Program, a widely recognized source for such information.) Data for subsequent years confirm the pattern—a pattern that is not just a by-product of (for example) income level,

population density, ethnic tension, or the distribution of natural resources such as diamonds, gas, and oil.

Instead, Hollenbach speculates, what explains this pattern is the removal of barriers to violent action. Good communication enables rebel networks to become more tightly integrated and to share information more quickly. It's not that mobile technology will suddenly make a peaceful group turn violent. Instead, Hollenbach explains, "there's already the motivation for conflict, and with the expansion of cell-phone coverage, [rebel groups] may be better able to organize. Fighting then becomes more likely."

That finding would come as no surprise to government leaders who have tried to restrict access to mobile technology. (Witness the Mozambique government's attempt to block text-message traffic during protests in 2010, or the shutdown of cell-phone service in Mubarak's Egypt in 2011.) Still, this study offers some of the first empirical research on the question of how modern communication

technology helps shape political circumstances. "This is a much-needed development," says Nils Weidmann, a political scientist at the University of Konstanz in Germany. Too many people have declared cell phones and the like to be "liberation technologies," he suggests. "They say, essentially, [that these tools] have unconditionally beneficial effects," Weidmann says. "That needs some further scrutiny."

The final word on the subject is not yet in. Although the research in Africa shows that cell-phone coverage increases political violence, Weidmann's own work in Iraq yielded the opposite conclusion. "As you set up [cell] towers [in Iraq], the violence in a district or in the vicinity of a tower essentially goes down," Weidmann says. The contrast between these findings may reflect the different context in each case. Or it may reflect a difference in the methods used in the two studies. Information

on violence in Iraq came directly from US-led coalition forces, for example, whereas information on violence in Africa came primarily from news reports. One of those information sources, Weidmann suggests, is likely to be more limited than the other. "You're not going to learn about violence that happened outside the [cell-phone] coverage area [in Africa], because no reporter was there," he says. "A lot more research is needed on this topic." ∎

Jan H. Pierskalla and Florian M. Hollenbach, "Technology and Collective Action: The Effect of Cell Phone Coverage on Political Violence in Africa," *American Political Science Review*, 107, 2013.

CIVIL SOCIETY

The Power of Being Seen

To help stabilize the electrical grid in their area, some customers of Pacific Gas and Electric (PG&E) have agreed to give up control over their air conditioners. PG&E, through its SmartAC program, installs a radio-activated switch on the customers' thermostats, and that device adjusts air-conditioner use at times of peak demand for electricity. This past summer, the program helped avert three potential brownout or blackout events. To attract volunteers, the utility offers a small monetary reward.

But according to new research, more people would sign up for the program if PG&E offered nothing more than a way to improve their reputation. "Tapping into everyone's implicit desire to be seen well

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by the members of their community can be a very powerful force for changing people's behavior in a very cost-effective way," says David Rand, a psychologist at Yale University. Rand and his colleagues have found that the best way to entice people into signing up for the blackout prevention program is to let their neighbors know that they're doing so.

Working with PG&E, the researchers turned a routine marketing campaign for SmartAC into a multifaceted experiment. In standard marketing mailers, PG&E tells customers to sign up for the program online or by phone. But in this campaign, residents of multi-unit buildings received a mailer that instructed them to use sign-up sheets posted near their building's mailboxes. In half of these cases, the sign-up process was anonymous, requiring customers merely to enter a code printed on their mailer. The other sign-up sheets asked residents to write in their name and unit number as well. "We expected that making it so that people's neighbors could see what they did would make them more cooperative, but we were surprised by how big the effect was," says Rand. The rate of participation was three times as high in cases when volunteers' names were visible as in cases when they weren't.

Some of the mailers distributed by the researchers offered a $25 reward; others didn't. (PG&E

has since increased the reward to $50.) PG&E leaders believed that the financial incentive would be more powerful than the reputational incentive. But, as it turned out, giving volunteers credit for their good deed was seven times as effective as giving them money.

One theory of why people sometimes act unselfishly emphasizes the importance of reciprocity: If you help others, then they in turn may be more likely to help you in the future. Of course, that dynamic works only if other people are aware of your behavior—and only if they believe that they'll be interacting with you in a sustained way. In the SmartAC experiment, the researchers tested the effectiveness of the public sign-up method on customers who live in various kinds of dwellings. They found that the use of

public sign-up sheets increased participation more in multi-unit buildings (where neighbors can easily see the sheets) than in row houses or single-family homes (where those sheets are much less visible to neighbors). The researchers also found that participation increased more in buildings where residents own their units than in buildings occupied by renters. (Turnover is less frequent, and thus relationships tend to be longer-term, in owner-occupied buildings than in rental-unit buildings.)

Scholars in many fields have established that people are more likely to cooperate when their reputation is at stake. "Your grandmother could have told you that," says Daniel Fessler, an evolutionary anthropologist at UCLA whose own research shows that the mere suggestion of being watched makes people behave more generously. (In experiments, Fessler has demonstrated that briefly displaying the image of a pair of eyes will increase subjects' inclination to be cooperative.)

But the blackout prevention study makes this finding practical by applying it to a real-world, policy-relevant setting. And that approach is spreading. "We're working with people in the [US] Department of Energy to look at using the same sort of strategy to get people to do renovations that will make their homes more energy efficient," Rand says. "There's a really wide range of applications for this." ∎

Erez Yoeli, Moshe Hoffman, David G. Rand, and Martin A. Nowak, "Powering Up With Indirect Reciprocity in a Large-Scale Field Experiment," *Proceedings of the National Academy of Sciences*, 110, 2013.

SOCIALLY RESPONSIBLE BUSINESS

Off-the-Shelf or Do-It-Yourself?

When leaders think about adopting a corporate social responsibility (CSR) practice, where should they start? Ryan Raffaelli, an assistant professor at Harvard Business School, suggests that they should look closely at CSR practices that exist outside their organization.

CSR practices come in two basic flavors, according to Raffaelli and Mary Ann Glynn, professor of management and organization at Boston College, who co-authored a new study on CSR. Some practices—a charity walk-a-thon, say, or a weekend park cleanup—focus on "turnkey," day-of-service projects: An organization can implement them from an off-the-shelf template. Others involve "tailored" projects that leverage the skills of an organization's employees, as when Cisco Systems offers job training in network technology or Wells Fargo bank helps people prepare their taxes. Raffaelli and Glynn argue that a company's decision to adopt one kind of employee volunteering program or the other depends on its relational ties to certain kinds of external networks. They identify two kinds, in particular. First, there are cross-industry communities of practice. And second, there are networks that consist of industry peers.

The researchers collected data from public archives,

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interviews, and observations of corporate involvement in CSR conferences. They also conducted a survey of Fortune 500 companies. Using those data, they tabulated the rate of CSR practice adoption within each industry. In addition, they measured each company's participation in CSR communities of practice by noting whether the company had sent representatives to one or both of two leading CSR conferences (one hosted by the Committee Encouraging Corporate Philanthropy, and the other hosted by the Boston College Center for Corporate Citizenship). Of the 161 Fortune 500 companies that responded to the survey, about half had adopted an employee volunteering program of some kind (either turnkey or tailored). These adopters of CSR programs, moreover, tended to be companies in which people had attended one of the major CSR conferences. "Those that are engaged in these communities of practice are more likely to adopt CSR practices," Raffaelli says.

Conference participation

alone appears to be enough to support a company's decision to adopt an off-the-shelf, turnkey program. But taking on a do-it-yourself, tailored program seems to require the presence of an additional factor. Raffaelli and Glynn found that companies tend to adopt tailored programs only when they have ties to both kinds of external networks—to a conference-based community of practice and to a group of industry peers that also sponsor tailored projects.

Adopting a tailored program is harder and carries more uncertainty than adopting a turnkey program, Raffaelli explains. But the ability to take cues from industry peers that have developed similar programs can reduce some of that uncertainty. And tailored programs are worth the risk, he says: "They have a much higher reward, because they get to the heart of who you are and what you do as an organization."

Katherine V. Smith, executive director of the Boston College Center for Corporate Citizenship, notes that the experience of organizations that she has

observed largely bears out these findings. Companies "appear to go further, especially with skills-based volunteering programs, when they participate in these networks and, more specifically, when they seek out industry peers," she says.

Raffaelli hopes that his and Glynn's research will advance the cause of corporate volunteer work. "One of the biggest challenges that organizations face, particularly in a nascent space like CSR, is that they don't have the tools to know which things are actually the next big practice, and which things are going to fade over time," he says. An awareness of how other companies are developing CSR practices is one such tool, Raffaelli suggests. ∎

Ryan Raffaelli and Mary Ann Glynn, "Turnkey or Tailored? Relational Pluralism, Institutional Complexity, and the Organizational Adoption of More or Less Customized Practices," *Academy of Management Journal*, 2013.

MICROFINANCE

Mapping Word of Mouth

To spread the word about a new service, the Indian microfinance institution Bharatha Swamukti Samsthe (BSS) approached leaders in 43 villages—teachers, shopkeepers, savings group leaders, and the like. The goal was to publicize the program by encouraging these leaders to tell their friends about it. But in some villages, only 7 percent of households eventually took out a BSS loan, while in other villages up to 44 percent did so. What

accounts for the difference?

According to a team of researchers who studied the BSS initiative, the choice of whom to tell first matters a lot. "There are very specific ways of measuring who the most influential people are in a society, in terms of spreading information," says Matthew Jackson, an economist at Stanford University. He and his colleagues have developed a new measure of social influence that's especially relevant in cases when word of mouth is an important medium of communication.
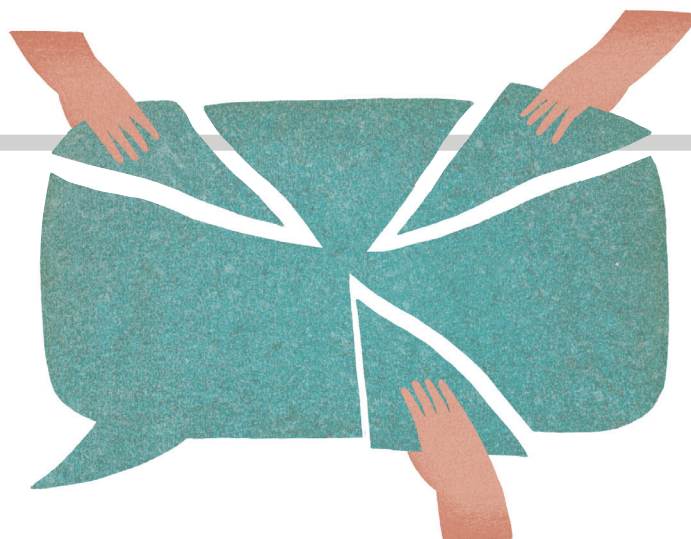
BSS entered the Indian state of Karnataka in 2007. Beforehand, Jackson and others on his team mapped the social network in each village that BSS intended to target. The researchers asked members of each household about their friends—the people whom they visit, pray with, lend rice and kerosene to, get advice from, and so on. Later, they used that information, along with data from BSS on which village leaders were initially introduced to the program and which households ultimately signed up for a loan, to model how the program spread.

Certain people had a greater impact on diffusion of the program than others. "In some villages, the teacher was very central" to a village network, Jackson says. "In other villages, the teacher wasn't." The researchers identified the characteristics of the most central village leaders—the ones who, in effect, were able to broadcast information farthest. And, as it turns out, those leaders don't just know people; they

know people who know people. It doesn't matter "whether the first person has more friends or fewer friends," Jackson says. "But how well connected that person's friends are makes a big difference."

By analyzing such diffusion patterns, the researchers were also able to tell whether any given villager's decision to join the microlending program increased the likelihood that others would adopt it, too. In fact, it didn't. The program did spread farther when more people took out loans—but only because those who participated in the program talked about it more than nonparticipants did.

There are problems to solve before policy makers and program implementers can use these findings. "The issue with implementing [the researchers' model] is that it's very expensive and difficult to map out a social network," says Jake Kendall, a senior program officer at the Bill & Melinda Gates Foundation whose work focuses on financial services for the poor. By the time one has surveyed all residents of a village about their friends, Kendall notes, one may as well have marketed a program to them directly. "That sort of erases the value proposition of targeting selectively," he says.

But knowing which villagers to approach first could soon help new programs spread faster and reach farther. Kendall, for instance has ideas on how he might adapt the researchers' model to promote financial services programs in Africa. Jackson and his colleagues, meanwhile, are testing methods that would provide a shortcut around having to map an entire village network.

Getting information to people in remote villages often requires using word of mouth. This new research, in short, may yield a way to make word of mouth louder. ∎

Abhijit Banerjee, Arun G. Chandrasekhar, Esther Duflo, and Matthew O. Jackson, "The Diffusion of Microfinance," *Science*, *341*, 2013.