

# CHAPTER 2

## Thinking socially

Humans are deeply social animals. Our beliefs, desires, and behaviors are affected by social preferences, our relationships, and the social contexts in which we live and make decisions. We are “group-minded individuals” who see the world from a social as well as an individual perspective; we understand what is in the minds of others and often act as if our brains are networked with the brains of other people (Tomasello 2014).

Human *sociality*—the tendency among humans to associate and behave as members of groups—affects decision making and behavior and has important consequences for development.<sup>1</sup> Our social tendencies mean that we are not purely selfish and wealth-

### Policies can tap people’s social tendencies to associate and behave as members of groups to generate social change.

maximizing actors, as many economic models and policies assume; rather, we value reciprocity and fairness, we are willing to cooperate in the attainment of shared goals, and we have a tendency to develop and adhere to common understandings and rules of behavior, whether or not they benefit us individually and collectively. Since what we do is often contingent on what others do, local social networks and the ideas, norms, and identities that propagate through them exert important influences on individual behavior (see figure 2.1).

A key consequence of sociality for development is that groups and even entire societies can get stuck in collective patterns of behavior—such as corruption, segregation, and civil war—that arguably serve the

interests of no one. Yet by the same token, temporary interventions can have large and lasting positive effects on a community by shifting a pattern of social interactions from one suboptimal self-reinforcing arrangement (or “equilibrium”) to another arrangement that better promotes well-being and becomes self-sustaining (see spotlight 1, on fighting a social norm tolerating corruption). Sociality is also a lever for new types of development interventions that harness the tendencies of individuals to seek social status, to build and maintain social identities, and to cooperate with others under certain conditions.

Policy makers often underestimate the social component in behavior change. The purpose of this chapter is to summarize recent findings on the social microfoundations of action and their implications for development policy. To demonstrate that there is a fundamentally social component to thinking and decision making, the discussion begins by examining “*other-regarding*” preferences—including the innate human desire for social status, tendencies to identify with groups and help others, and propensities to cooperate with others who are cooperating—and their implications for institutional design and development interventions. Because social networks are the key pathway through which social influences are transmitted, the chapter then considers how social networks affect the development process and interventions that leverage networks to spur social change. Finally, since sociality leads to the informal rules known as *social norms* that coordinate behavior, the chapter examines some of the social outcomes that such norms create and the policies that take account of norms to better achieve development objectives.

Human sociality is like a river running through society; it is a current that is constantly, if often

---

**Figure 2.1** What others think, expect, and do influences our own preferences and decisions

Humans are inherently social. In making decisions, we are often affected by what others are thinking and doing and what they expect from us. Others can pull us toward certain frames and patterns of collective behavior.



imperceptibly, shaping individuals, just as flowing water shapes individual stones in a riverbed. Policy makers can either work with these social currents when designing interventions or ignore them and find themselves swimming upstream. Just as a dam taps a river's kinetic energy to generate electricity, interventions can tap sociality to facilitate cost-effective social change. This chapter offers examples of how sociality can serve as a starting point for new kinds of development interventions.

## Social preferences and their implications

### Social recognition and the power of social incentives

Everyone knows that economic incentives can influence behavior.<sup>2</sup> What is less commonly recognized is that social incentives can also exert a powerful effect on behavior. In fact, social rewards, such as status and recognition, can motivate people to exert effort and

can even substitute for monetary rewards in some situations. In a field experiment in Switzerland, for example, researchers disentangled the economically relevant (“instrumental”) and economically irrelevant (“noninstrumental”) aspects of social rewards by showing that individuals’ performance improved on a one-time data entry task when they were told that the two people who put in the most effort would be rewarded with a congratulatory card and a personal thank-you from the managing director. These noneconomic rewards increased performance by 12 percent, the equivalent of a hypothetical wage increase of 35–72 percent, according to previous studies of output elasticity in gift-exchange experiments (Kosfeld and Neckermann 2011). Similarly, salespeople in a U.S. company were willing to trade off approximately \$30,000 in income to achieve membership in the firm’s “club” for top performers—the benefits of which were a gold star on their name card, companywide recognition, and an e-mail from the chief executive officer (Larkin 2009).

Development interventions can harness the human desire for status and recognition. In a field experiment in Zambia, hairstylists and barbers recruited by a public health organization to sell female condoms in their shops were randomly assigned to one of four groups receiving different awards based on condom sales (Ashraf, Bandiera, and Jack, forthcoming). People in the control group received no rewards, while people in the treatment groups received one of the following: a 90 percent margin on condom sales; a 10 percent margin on condom sales; or a nonfinancial reward in the form of stars stamped on a publicly displayed chart to represent each condom sale. The “star treatment” was designed to make social impact salient by publicizing the stylist’s contribution to the health of his or her community. After one year, hairdressers in the star treatment had sold twice as many condoms as hairdressers in any other group, on average. For this group of individuals, the marginal utility of public recognition was higher than the marginal utility of money.

When should social awards be used, and how powerful and enduring are they really? Status awards may be especially useful when the quality of individual outputs is difficult to measure precisely (Besley and Ghatak 2008) and when financial resources are scarce. Thus many noneconomic organizations, including political parties, religious groups, the military, and educational institutions, use status awards to achieve solidarity and elicit contributions to collective goods (Hechter 1987). Firms use employee-of-the-month clubs alongside traditional salaries to recognize and incentivize contributions to organizational goals that

are advantageous and exemplary but often difficult to quantify. In fact, humans may have an innate, unconscious tendency to reward strong contributors to group goals with esteem, which helps groups overcome barriers to collective action (Willer 2009).

A study of contributions to Wikipedia (an online encyclopedia produced through voluntary efforts) illustrates how bestowals of status may contribute to the production of collective goods. Contributors who were randomly awarded peer esteem in the form of a “Barnstar” (an editing award that is publicly displayed) were 60 percent more productive over the course of the 90 days following the receipt of the award than members of a control group, on average (Restivo and van de Rijt 2012). The informal rewards are free to give and carry no immediate material benefits but have a substantial effect on productivity and may play a key role in sustaining volunteer effort over time.

Prestige can incentivize countries, too. When states’ different values and norms inhibit cooperation, status awards in the form of participation in international summits and strategic partnerships may be more effective than conventional strategies of containment and integration for achieving cooperation on global governance initiatives (Larson and Shevchenko 2010). Chapter 9 on climate change examines the use of status awards and indicators to motivate policy makers and firms.

Ranking schemes, which bestow status on exemplary states and shame underperforming ones, may be a cost-effective means of shifting state actions. Numerical indicators, such as the World Bank’s Doing Business rankings and the United Nations’ Gender Empowerment Measure, do not simply provide performance information, but they also serve as “psychological rules of thumb” (Sinclair 2005) that simplify and frame information (chapter 1) according to an ideology of what a “good society” looks like. Indicators enable comparisons that motivate a variety of actors, including citizens, nongovernmental organizations (NGOs), elites, bureaucrats, and governments (Davis and others 2012). The U.S. “Trafficking in Persons Report,” for example, played an important role in spurring states to criminalize human trafficking, even though the ranking system is “hardly scientific” (Kelley and Simmons, forthcoming). In a world in which national control over policy is valued and information is becoming ever cheaper to collect, analyze, and disseminate, indicators may become important tools for shifting state action.

### **Altruism, identity, and group dynamics**

Some humans genuinely care about others’ well-being, and few of us are selfish all the time. This aspect of

sociality has been investigated by economists using an experimental tool called the “dictator game.” In the game, the dictator gets to decide how much of an initial endowment (say, \$10) he would like to give to the second player (in some versions, the dictator’s choices include taking some of the other player’s endowment). Economic theory predicts that the dictator will always make the most self-interested choice. But in experimental situations, fully selfish behavior is the exception, not the rule (Forsythe and others 1994; List 2007).

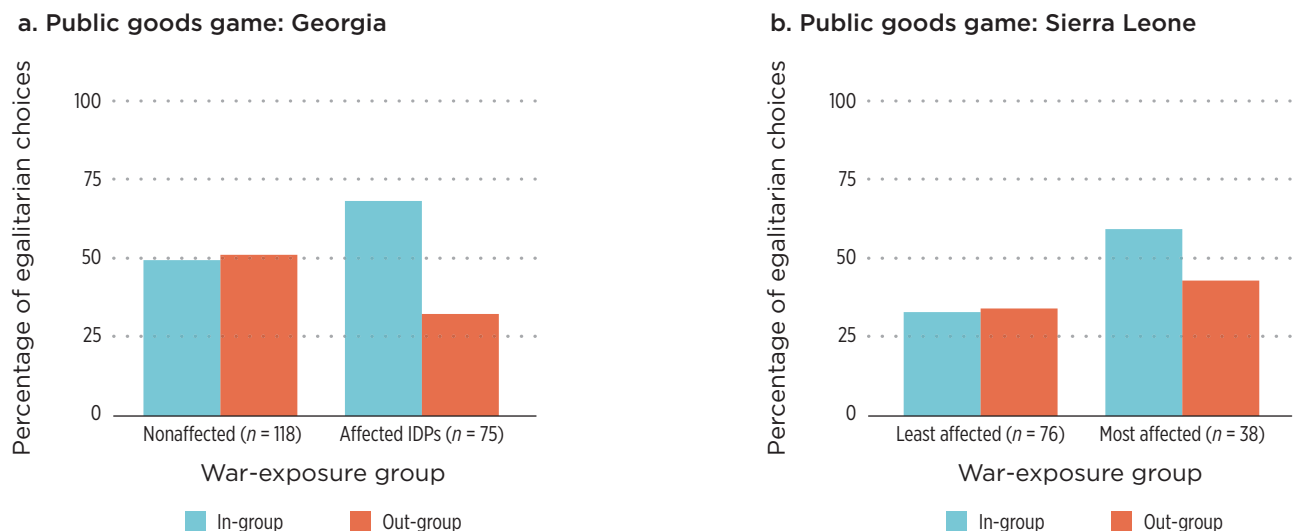
What determines whether someone acts generously or selfishly? Expressions of altruism and other socially beneficial behavior often depend on the social setting. In the game, dictators are much more generous when they are giving to a charity. They also give more to welfare recipients who express strong rather than weak desires to work (Eckel and Grossman 1996; Fong, Bowles, and Gintis 2006). In Uganda, members of coffee-producer cooperatives played the dictator game and allocated more resources to anonymous members of their farmer co-ops than to anonymous covillagers (Baldassarri and Grossman 2013).<sup>3</sup> The study controlled for the effect of social proximity, demonstrating the independent effect of group attachment in which identification with a group causes individuals to perceive even unknown members of the group more positively

than nonmembers. In addition, individuals holding a formal leadership position in either a farmer group or a village group were more generous toward members of the group in which they were a leader. Experiments indicated that group members hold leaders to a higher standard of caring for fellow group members.

While altruism and group identification can support mutual prosperity, they can also set the stage for the in-group favoritism and out-group hostilities that contribute to social unrest. For instance, a recent study indicated that exposure to war between the ages of 7 and 20 was associated with a lasting increase in people’s egalitarian motivations toward their in-group. The children and young adults most affected by civil wars in Georgia and Sierra Leone were more willing to sacrifice their own self-interest in a social choice task to improve equality within their group (thought to enhance group cohesion and cooperation) than were people who were least affected by violence (see figure 2.2; Bauer and others 2014). Exposure to war-related violence can also heighten preferences for military solutions as opposed to negotiations, according to the findings of researchers studying the attitudes of former combatants (Grossman, Manekin, and Miodownik, forthcoming). Such “war effects” may help explain why conflict becomes a persistent state of affairs, although

**Figure 2.2 Children and young adults most affected by war are more likely to favor members of their own group**

Children and young adults in postconflict societies played games in which they chose how to share money. Individuals least affected by war behaved in similar ways toward in-group and out-group members, whereas those most affected by war were much more likely to choose the egalitarian option when playing with an in-group member than an out-group member. In both countries, exposure to war increased in-group favoritism.



Source: Bauer and others 2014.  
 Note: IDPs = internally displaced persons.

scientific understanding of the link between exposure to conflict and group dynamics is limited.

If identities are malleable rather than fixed, interventions may be able to target social identities as a means of changing behavior. In Liberia, a local non-profit organization randomly selected three groups of poor young men with high rates of crime and anti-social behavior to receive cognitive behavioral therapy, a cash transfer, or both (Blattman, Jamison, and Sheridan 2014). Researchers found that the combined treatment was associated with large and sustained decreases in antisocial behavior such as crime and violence, as well as modest long-term improvements in savings and reduced homelessness, while the cash transfer had a short-run but no persistent effect on poverty. The intervention was designed to promote future orientation, self-discipline, and new norms of nonviolent, cooperative behavior; it was not about delivering information but about helping individuals adopt a new “socially aligned” identity and a related set of skills and behaviors.

Cognitive interventions can also help address the psychologically destructive consequences of negative social identities. In India, female sex workers often face considerable stigma and social exclusion, which can lead to self-defeating behavior and attitudes that contribute to the persistence of poverty. Working with an NGO, researchers designed an eight-week training program in which participants met once a week for discussion sessions aimed at building women’s self-esteem and increasing their sense of agency (Ghosal and others 2013). The randomized experiment showed that the intervention improved self-reported measures of self-esteem, agency, and happiness among members of the treatment group and improved workers’ future-orientation: women who participated in the program were more likely to choose a future-oriented savings product and to have visited a doctor, even though the training program included no specific mention of health issues.

### **Intrinsic reciprocity and the attainment of collective goods**

A key assumption in standard economics is that public and collective goods are problematic because everyone prefers to take advantage of (free ride on) the efforts of others. Yet experiments show that many people are willing to reward others who cooperate, and punish those who do not. There are two different motives that can explain this behavior: instrumental reciprocity and intrinsic reciprocity. Responding to kindness with kindness in order to sustain a profitable long-term relationship is an example of *instrumental reciprocity*. In contrast, *intrinsic reciprocity* is an intrinsically moti-

vated willingness to reward or punish the behavior of others, even at a cost to oneself (see Sobel 2005).

Economists use a tool called the “ultimatum game” to study intrinsic reciprocity. The game begins with two players being shown a sum of money, say, \$10. One player, the proposer, is instructed to offer some dollar figure (ranging from \$1 to \$10) to the second player, who is the responder. If the responder accepts the proposer’s offer, the money is shared according to the offer. But if the responder refuses the offer, each player gets nothing. The self-interest hypothesis suggests that the proposer should offer the minimum (\$1) and the responder should accept it—\$1 isn’t much, but it is still a gain.

However, only a minority of people behave in this manner. Average proposer offers are often one-third to one-half of the overall amount, and low offers are routinely rejected by responders (Gintis and others 2005). This finding can hold even as the sums grow quite large: when the game was played in Indonesia, proposers continued to make sizable offers when the amount was approximately three times the participants’ average monthly expenditures (Cameron 1999). An interesting twist on the game reveals why this may occur: low offers randomly generated by a computer rather than a person are rarely rejected (Blount 1995, cited in Gintis and others 2005), indicating that it is uncooperative intentions rather than particular outcomes that trigger a desire to punish. Similarly, brain imaging studies show that punishing norm violators activates neural pathways associated with reward processing (de Quervain and others 2004). Language also captures the idea; many cultures have proverbs expressing the feeling that “revenge is sweet.”

Another experimental tool, the “public goods game,” shows how critical punishment opportunities are for achieving broader-scale cooperation. The game begins with each player privately choosing how much of his or her individual endowment to contribute to a public fund. Contributions are then multiplied such that the public good payoff is maximized when players contribute their entire endowments. At first, researchers set up the game so that there was no way for players to punish low contributors (Fehr and Gächter 2000). In the first round of play, approximately half the participants contributed to the public fund. But over time, cooperation unraveled as people realized that others were not “doing their share” and stopped contributing themselves. The result was a very low level of cooperation after 10 periods. However, when researchers introduced opportunities for players to award noncontributors “punishment points” (the laboratory equivalent of being able to scold or ostracize a free rider), things changed. Although punishing was personally costly

for the individuals doing it, contributions to the public good immediately increased, and behavior converged to almost its full cooperative potential after another 10 periods. Figure 2.3 shows the strikingly different patterns of cooperation under the two regimes.

The key implication from this body of work is that many people are *conditional cooperators* who prefer to cooperate to the degree that others are cooperating. Figure 2.4 contrasts the assumption from standard economics—that everyone is a free rider—(panel a) with the actual distribution of free riders versus conditional cooperators observed in eight countries, including Colombia and Vietnam, when subjects played public goods games (panel b) (Martinsson, Pham-Khanh, and Villegas-Palacio 2013). Although the proportion of cooperators varies substantially by country, in no country do free riders make up a dominant share of the population. In other words, the canonical model of human behavior is not supported in any society that has been studied (Henrich and others 2004).

To investigate whether conditional cooperation could help support management of a commons, Rustagi, Engel, and Kosfeld (2010) studied 49 forest user groups in Ethiopia. Combining experimental measures of conditional cooperation and survey measures of monitoring activity, they showed that the percentage of conditional cooperators varied per group, that groups with a higher share of conditional cooperators were more successful in managing forest commons, and that costly behavior monitoring was a key means by which conditional cooperators enforced cooperation. In line with theoretical predictions, the conditional cooperators spent the most time conducting forest patrols, spending on average 32 hours per month monitoring—1.5 times more than free riders spent. The study demonstrates that voluntary cooperation can be an important element of commons management.

Voluntary cooperation is fragile because individual willingness to cooperate depends on expectations about the cooperation of others. However, research indicates that people will select into institutions with like-minded cooperators and use efficient punishment to sustain cooperation when they have a chance to do so (Güerker, Irlenbusch, and Rockenbach 2006; Fehr and Williams 2013). The implication is that policy makers should take into account not only selfish but also cooperative instincts when considering interventions and societal institutions. Building in opportunities for people to observe others’ behaviors—for instance, by making behaviors more public—may be a useful means of bolstering the expectations and therefore the practice of cooperation.

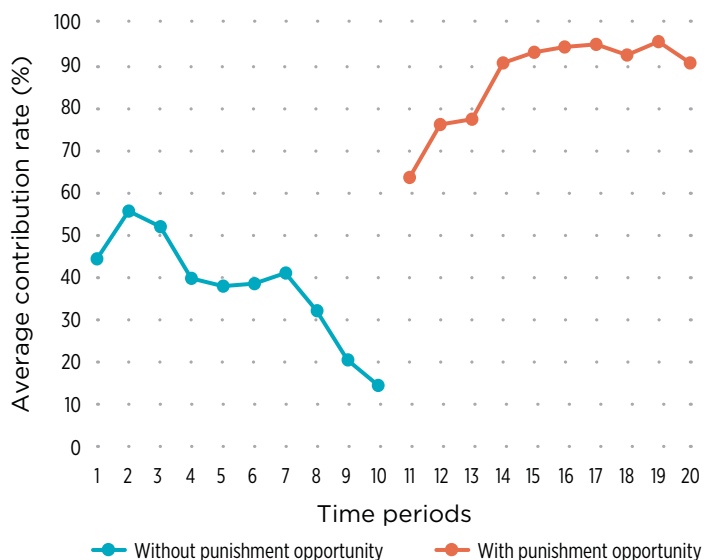
To see why, consider what happened when researchers created the illusion of “being watched” at an honor

beverage bar (that is, where the consumer is expected to be on his or her honor and pay for drinks reliably) in a university department in England (figure 2.5). Researchers alternated pictures of watchful eyes with pictures of flowers above the price list for tea, coffee, and milk pasted on a cupboard each week and observed how monetary contributions to the cash box varied over 10 weeks (Bateson, Nettle, and Roberts 2006). The results were striking. The contributions per liter of milk consumed (the best available measure of total beverage consumption) were much higher in “eye weeks” than in “flower weeks.” Every time the picture was changed to a pair of eyes, contributions for the week soared. The precise nature of the mechanism responsible for the effect is unclear: the eyes might have reminded people about the cooperative nature of the honor bar, or they might have triggered a concern for individual reputation. Either way, however, the study points to the influence that perceived observation has on behavior.

This dynamic may help explain why in Nepal, among 200 irrigation systems studied, farmer-managed systems achieved higher agricultural yields and more equitable distributions of water and were better maintained than government-managed systems. Farmers in farmer-managed systems were about twice as likely as farmers in government-managed systems to report that rules were observed and that

**Figure 2.3 Opportunities to punish free riding increase cooperation**

Cooperation quickly unravels in a public goods game when individuals cannot punish free riding. The introduction of costly punishment opportunities immediately increased cooperation, which converged to almost its full potential after 10 rounds of play.



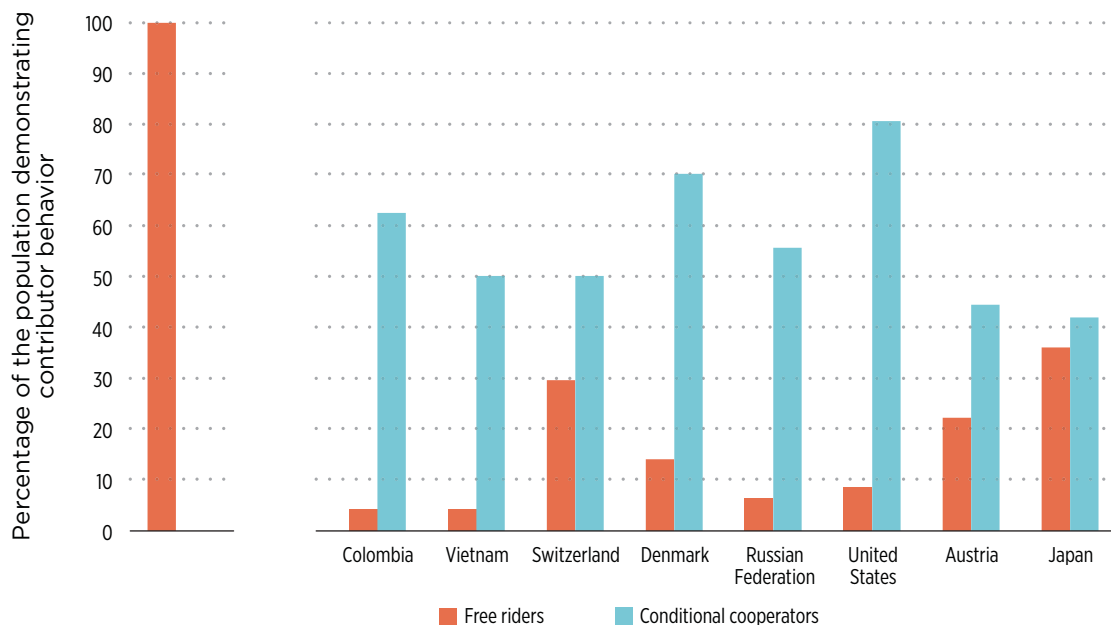
Source: Fehr and Gächter 2000.

### Figure 2.4 In experimental situations, most people behave as conditional cooperators rather than free riders

The standard economic model (panel a) assumes that people free ride. Actual experimental data (panel b) show that across eight societies, the majority of individuals behave as conditional cooperators rather than free riders when playing a public goods game. The model of free riding was not supported in any society studied.

#### a. Behavior predicted in standard economic model

#### b. Actual behavior revealed in experiments



Source: Martinsson, Pham-Khanh, and Villegas-Palacio 2013.

Note: Other players did not fit into either of the two categories, which is why the bars do not sum to 100 percent.

rule infractions were recorded, and farmer-managed systems were more likely to impose fines for misbehavior (Joshi and others 2000, reported in Ostrom 2005). Thus placing control of a resource system and associated sanctioning powers in the hands of beneficiaries rather than the government may improve outcomes by harnessing people's natural instincts to monitor others and respond to watchful observation by those around them.

Similarly, in Uganda, parental participation in a social accountability process proved more effective than a process that was more top down. Researchers tested two variants of a community monitoring intervention involving a school scorecard (Serneels, Zeitlin, and Barr 2014). In one variant, a monitoring committee was given a scorecard designed by researchers in conjunction with the Ministry of Education. In the second variant, committees designed their own scorecards in a participatory process. Although the scorecards were substantively similar, the participatory variant signifi-

cantly improved student learning, student presence, and teacher presence compared to the government-led process, which had no impact. An experiment indicated that the participatory process succeeded by increasing parents' willingness to contribute to a shared good—improved school performance. Here, altering the institutional environment was a low-cost means of eliciting socially beneficial behavior and improving school performance. Programs that harness cooperative motivations in this manner may represent an alternative to more traditional incentive programs for school performance.

#### Policies to “crowd in” rather than “crowd out” cooperation

The apparent ubiquity of preferences for cooperation raises questions about the appropriate role of incentives in policy. Many policies rest on the assumption that external incentives must be used to induce people to contribute to collective goods. But what if people

are motivated to cooperate out of altruism or intrinsic reciprocity, as the previous section suggested that many are? A body of research examining this question indicates that incentives and other institutional arrangements can both “crowd out” and “crowd in” innate preferences for cooperation (see Bowles and Polania-Reyes 2012 for a review of this literature; a meta-analysis of relevant studies is Deci, Koestner, and Ryan 1999).

The crowding-out phenomenon is illustrated by a study of day-care centers in Israel that began fining parents who arrived late to collect their children. While the intent was to deter tardy pickups, the program increased the number of late-coming parents. What happened? The program put a price on what had previously been a moral behavior (punctuality); it reframed late pickups from a morally inappropriate action into an economically legitimate one in which parents could simply “buy” extra time in a consensual exchange (Gneezy and Rustichini 2000). Relatedly, paying people to participate in the communal task of cutting grass in a schoolyard in Tanzania diminished their satisfaction compared to those who simply volunteered (Kerr, Vardhan, and Jindal 2012).

The crowding-in phenomenon was illustrated in figure 2.3. In that case, giving Swiss students the ability to punish (fine) noncooperation “crowded in” preferences for cooperation by penalizing free riding and reassuring people that cooperation was likely to prevail.

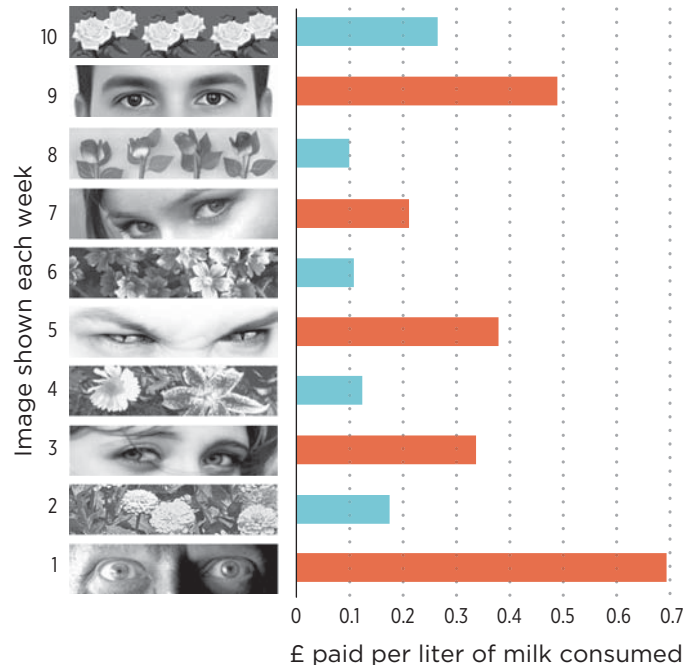
Thus incentives and social preferences are sometimes complementary and sometimes substitutes, in part because incentives do not simply change prices; they also carry social meanings that depend on the relationships among the actors and their preexisting cultural frameworks (Bowles and Polania-Reyes 2012). In addition, because preferences for altruistic contributions and altruistic punishment vary across individuals and societies, the optimal policy response may include targeting different behavioral types with different interventions (Herrmann, Thöni, and Gächter 2008). The implication for policy makers is twofold. First, predicting the effect of an incentive is challenging—meaning that testing incentive programs in the population where they will be deployed is likely to be an important step in getting a program right (chapter 11). Second, altering the institutional environment to nurture social preferences can be a means of motivating contributions to a collective good.

## The influence of social networks on individual decision making

All of us are embedded in networks of social relations that shape our preferences, beliefs, resources, and

**Figure 2.5** The power of social monitoring: Pictures of eyes increased contributions to a beverage honor bar

Voluntary contributions to a beverage honor bar increased when a picture of eyes placed on a cupboard suggested that individuals' behavior was being watched. The figure shows the amount of money contributed per liter of milk each week for 10 weeks, as pictures of eyes were alternated with pictures of flowers. Eye images were always associated with higher contributions.



Source: Adapted from Bateson, Nettle, and Roberts 2006.

choices (see, for example Simmel 1955; Granovetter 1985). *Social networks* are the sets of actors and relational ties that form the building blocks of human social experience. Networks provide scope for individuals to reinforce existing behaviors among one another, but they can also transmit novel information and normative pressures, sometimes sparking social change.<sup>4</sup> The ability of social networks to both stabilize and shift patterns of behavior means that they may be able to play an important role in social settings where formal institutions are lacking.

Social networks are a foundational—and often overlooked—basis of social order. They are a distinctive form of economic coordination with their own logic, in which price and authority—the coordinating mechanisms of markets and hierarchies, respectively—are downplayed, but social obligation and reputation loom large (Powell 1990). Networks also have implications for political and governance outcomes. In India, cities in which voluntary associations contained both Hindu and Muslim members experienced much less religious



violence in the latter half of the 20th century than cities where such civic links did not exist. Evidence from cities experiencing similar types of “conflict shocks” but different outcomes in terms of riots suggests that civic leaders’ interactions within ethnically diverse networks played a critical role in controlling tensions (Varshney 2001).

Social networks can both aid and undermine the achievement of development goals. The success of microfinance in developing countries, for instance, is often attributed in part to the close relationships among borrowers that channel social pressure to encourage repayment (see chapter 6). Yet development goals are also achieved with technologies such as commitment devices that encourage savings by insulating people from social demands for financial assistance (see chapter 4). In other words, interventions achieve their objectives by harnessing some social pressures and diminishing others.

## Taking the effect of social norms into account can lead to better policy design.

Complicating things even more is the fact that interventions can initiate broad changes in the social fabric that are difficult to foresee. Commitment devices, for instance, can increase savings among target individuals by reducing the social pressure to share financial resources with kin, but what if they do so by weakening broader sharing norms, thereby compromising individuals’ access to food and child-rearing assistance from others during tough times? The trade-off may not be worth it (Case 2007). In a similar vein, offering insurance to only those farmers who possess an insurable asset (common in developing countries) may actually increase the wage risk for landless laborers in Indian villages by increasing labor demand volatility (Mobarak and Rosenzweig 2013). In light of these studies, when policies that target social networks are being considered, policy makers must pay close attention to how interventions may affect social relationships in the population.

There are several promising policy interventions that harness the influence of social networks to spur social change.

### **Increasing interactions to support new behaviors and build civic capacity**

Some important traits of communities and groups—such as trust, social cohesion, and cooperation—reside within relationships more than in individuals. Increas-

ing the number or quality of interactions among people can build those qualities to support development. In India, researchers found that microfinance clients randomly assigned to meet weekly rather than monthly with their repayment groups had much more informal social contact with others in the group even two years after the loan cycle ended, exhibited a greater willingness to pool risk with group members at that time, and were three times less likely to default on their second loans (Feigenberg, Field, and Pande 2013).

Increasing social ties is also a focus of health researchers who have explored how relationships help shift health behaviors (see chapter 8). A new program in Lebanon is striving to increase breastfeeding by training female friends of new mothers to serve as “support mothers” and soliciting women in the community who have successfully breastfed to also serve in this capacity. These “social supports” are paired with informational breastfeeding classes before birth and professional lactation support to create a multifaceted approach to changing health behavior (Nabulsi and others 2014; for a review of the efficacy of community-based interventions for breastfeeding in low- and middle-income countries, see Hall 2011). Results are not yet available, but the program is a model of how a social network approach may be combined with standard informational interventions in an attempt to increase program success.

A network perspective suggests that increasing the density of social relations can also improve the civic culture or “social capital” of a community (Putnam, Leonardi, and Nanetti 1993; for an analysis of the limitations of this approach as applied to development, see Portes and Landolt 2000). Community-driven development (CDD) programs are a class of intervention founded on this logic. A recent review of CDD projects found that greater community involvement modestly improves resource sustainability, infrastructure quality, and the delivery of health and education services (Mansuri and Rao 2013).

Yet increasing social ties with the aim of transforming civic culture can be challenging for policy makers. For instance, an analysis of a field experiment in a World Bank program in Sudan aimed at increasing civic participation in the wake of a civil war found that the intervention did not increase altruistic and cooperative behaviors in lab-in-the-field experiments nor did it increase social network density (Avdeenko and Gilligan 2014). Researchers suggested that CDD programs too often involve social mobilizers telling citizens about the benefits of participation while failing to actually increase social interactions. Both theory and empirical research suggest that for CDD programs to be effective, practitioners must find ways to help

citizens actually engage with one another and ways to help those interactions continue after project incentives disappear (Mansuri and Rao 2013).

### Targeting specific individuals to lead and amplify social change

Targeting particular types of individuals within a network can make policies more effective and less costly because they tap into *social learning* processes that leverage social influence to shift behavior. People learn new ways of doing things from one another, and they often are more likely to change their behaviors when new practices are embraced by close associates or others who are most similar or most salient to them. A randomized experiment in China, for instance, showed that farmers were more likely to take up weather insurance when they had a friend who had participated in an intensive information session about the nature and benefits of the product first; the “network effect” was half that of attending an information session directly and was equivalent to decreasing the average insurance premium by 13 percent (Cai, de Janvry, and Sadoulet, forthcoming). The study suggests that social networks can amplify the effects of a standard information program to increase adoption of new products and services. Combining social network strategies with a traditional incentive approach is similarly promising. A recent experiment showed that offering farmers a small performance incentive to communicate to peers the benefits of a new seed technology was a cost-effective means of inducing adoption of new agricultural technologies in Malawi villages compared to deploying government-employed extension workers or strategically chosen lead farmers (BenYishay and Mobarak 2014).

### The role of social norms in individual decision making

*Social norms*—broadly shared beliefs about what group members are likely to do and ought to do—are informal governance mechanisms that exert a powerful influence on individual decision making and behavior. Norms are the “glue” or “cement” of society (Elster 1989). Humans are hard wired to develop and adhere to norms; imitation is one of the key ways humans learn strategies for interacting in the world (Henrich and Henrich 2007), and young children quickly learn the “social rules of the game,” following norms and punishing violators (Rakoczy, Warneken, and Tomasello 2008). The human propensity to develop norms is so strong that norms emerge for almost every behavior: there are norms for “littering, dating, smoking, singing, when to stand, when to sit, when to show anger, when, how, and with whom to express affection, when

to talk, when to listen, when to discuss personal matters, when to use contractions, when (and with respect to what) to purchase insurance” (Sunstein 1996, 914).<sup>5</sup>

However, social norms are rarely chosen by those who are subject to them. Many social norms are the result of historical circumstances and accumulation of precedent and are self-reinforcing, regardless of whether they promote welfare or not (see also chapter 3). Consider a simple example regarding punctuality. Although we often think of punctuality and tardiness as innate traits of particular individuals or cultures, these behaviors are also just “best responses” to the expectations we have about others (Basu and Weibull 2003). If I expect you to be on time and to shame me for being late, I will arrive on time. But if I expect you to be 15 minutes late, then I may well prefer to use those 15 minutes to finish up some paperwork and arrive late myself.

Such so-called equilibrium behaviors can have very serious consequences for development. For instance, a society can settle into a discriminatory equilibrium in which immigrants do not assimilate because they expect systematic discrimination by the natives, and rooted natives are able to identify immigrants who have not assimilated and reveal their distaste for them (Adida, Laitin, and Valfort 2014). Although it might be that most individuals would prefer a society that fostered assimilation and equal treatment, neither the immigrants nor the rooted natives may have a reason to change their behavior, given their expectations about what others will do. In such a situation, the economic integration and success of immigrants remains limited.

In the examples above, inefficient social norms may be maintained simply because of the coordinating role they play in a society. Yet social norms are also maintained due to their “grip on the mind” (Elster 1989). Social norms can evoke strong emotions in people, and they often possess an expressive value in the communities in which they operate. As a result, breaking a social norm often creates shame and stigma for the person doing it (Goffman 1959).<sup>6</sup> In these ways, social norms can have large effects on both collective welfare and individual agency (Boudet and others 2013). For instance, social and legal norms around gender and sexuality strongly influence whether women and sexual minorities can be educated and employed, whether they can serve as leaders and participate in civic activities, and under what conditions they bring honor or shame to their families (Klugman and others 2014).

Altering social norms that contribute to undesirable social outcomes is an obvious policy goal. However, predicting how norms may interact with policy is difficult. In a recent field experiment, a civic education course in Mali actually widened the gender gap in

civic participation by increasing the salience of civic activity, which increased the social costs for females who participated in civic life (Gottlieb 2014). The intervention reduced knowledge gaps, but it exacerbated gender inequality.

Knowledge about the intersection of policy, social norms, and behavior is only just beginning to accumulate, and a great deal more research is needed. This section offers a glimpse of some policies that use an understanding of norms to generate social change.

### **Designing policy to “work around” the behavioral effects of social norms**

In some cases, policy makers may be able to bypass the behavioral effects of social norms. Consider the problem of where to locate public schools. In Pakistan, many girls who wish to attend school must cross two types of social boundaries: caste boundaries and gender boundaries. Low-caste girls may experience stigma and face discrimination if they attend a school dominated by high castes, and all girls are subject to *pardah*, a form of female seclusion that restricts women’s mobility and social interactions.<sup>7</sup> These social constraints limit educational opportunities for girls. Contrasting two hypothetical policies, Jacoby and Mansuri (2011) show that a policy of providing schools to hamlets dominated by low-caste individuals would increase enrollment by almost twice as much as a policy of placing a school in every unserved hamlet, and would do so at one-sixth of the cost.

### **“Marketing” existing social norms to shift behavior**

Some behaviors that are important for development, such as paying taxes and using toilets, vary within a population. And sometimes, people misperceive how common or how accepted certain behaviors are within their community. Where this is the case, “marketing” social norms can be an effective and low-cost means of increasing awareness of the number of people engaging in a behavior and correcting misperceptions about the frequency of a behavior. If people understand what others think and do, they may shift their understanding of existing social norms and in turn change their own behavior.

For instance, many policies aimed at increasing tax revenues are based on the assumption that people are wealth maximizers who will evade their taxes unless they face the right incentives, such as financial penalties and the possibility of jail time. Yet expected penalties explain very little of the variation in tax compliance across countries or over time (Cowell 1990). One reason is that taxpaying is a social norm involving conditional

cooperation, a phenomenon discussed earlier in this chapter (Frey and Torgler 2007). When people feel that the tax system is fair and that others are obeying the law, they are much more likely to comply with their obligations (Rothstein 1998). And since most individuals are reciprocators, their decisions in a collective setting feed on one another, setting a society on a trend toward either higher or lower tax compliance (Kahan 2005).

Viewing taxpaying through the lens of norm adherence, fairness concerns, and reciprocity provides an explanation for why standard tax policies sometimes fail and suggests the utility of new types of policies. Auditing crackdowns that emphasize penalties may have exactly the opposite of the intended effect, if the increased sanctions “cue” the idea that evasion is widespread (Sheffrin and Triest 1992). In contrast, policies that emphasize the extent of tax compliance and encourage the perception that tax evaders are deviants may be successful. Tax payments in the state of Minnesota increased when people were informed of high compliance rates, but did not increase when people were informed of higher audit rates (Coleman 1996). In the United Kingdom, compliance increased more when citizens received letters noting that most people in their postal code had already paid their taxes than when the letter did not contain this information about social norms (BIT 2012).

Policies that use brief communication interventions to correct misperceptions of other people’s behaviors and attitudes may be particularly useful in reducing risky behavior when the difficulty of observing a behavior makes it difficult to correctly estimate how common it is. In a township in South Africa, a country with one of the highest HIV infection rates in the world, men consistently overestimated the prevalence and approval of risky sexual behaviors and underestimated the prevalence and approval of protective behaviors. Since expectations about others’ behavior often play into personal decision making, such beliefs may constitute a public health concern that could be addressed by marketing the desirable social norms (Carey and others 2011).

### **Activating norms to shift behavior**

A powerful example of the utility of activating norms comes from an effort to reduce traffic deaths. Every year, about 1.25 million people die from traffic accidents—more than twice the number of victims from war and violence combined. Ninety percent of the road deaths occur in low- and middle-income countries (Lopez and others 2006). In Kenya, many of the people killed are passengers in minibuses, and people are aware of the danger: one-third of respondents to

**Figure 2.6 Stickers placed in Kenyan minibuses reduced traffic accidents**

*English translation of bottom sticker: Hey, will you complain after he causes an accident? BE AWAKE. BE STEADY. SPEAK UP!*



Source: Habyarimana and Jack 2011.

a passenger survey conducted before an intervention reported having felt that their life was in danger on a recent trip (Habyarimana and Jack 2011).

Researchers decided to try an inexpensive behavioral intervention to reduce accidents. Buses were randomly divided into two groups. In one group, nothing was done. In the other group, passengers were reminded of their right to a safe ride on public transportation. Stickers posted in the buses encouraged passengers to “heckle and chide” reckless drivers (figure 2.6). The intervention was a remarkable success. Insurance claims involving injury or death fell by half, from 10 percent to 5 percent of claims. Results of a driver survey during the intervention suggested that passenger heckling played a role in improving safety (Habyarimana and Jack 2009). The cost per year for a life saved was about \$5.80, making the program even more cost-effective than childhood vaccination, one of the most cost-effective health interventions available.

### Changing social norms to shift behavior

Engineering shifts in social norms is a far from trivial task. Yet norms can and do change. One tool for shifting norms is law (Sunstein 1996). Law can change not only incentives for action but also the social meaning of actions. The social meanings and therefore the desirability of wearing a helmet, declining an invita-

tion to duel, and smoking cigarettes have been altered through various legal changes (Lessig 1995).

What is more, since people can come to value things they experience, legal changes that shift the short-term costs and benefits of action can actually contribute to longer-term and self-sustaining behavior changes. Recycling programs in North American communities often triggered a great deal of grumbling when they were first instituted, and people complied mostly to avoid the increased costs of not doing so. But over time, recycling has become a normative behavior in many places, even in areas with low enforcement. Thus behaviors and values can evolve together; formal policy instruments that temporarily change prices may have long-term effects on preferences and social norms (Kinzig and others 2013).

However, the efficacy of law for changing social norms has limits. Laws that are greatly at odds with existing social norms are unlikely to induce desired social changes. The majority of African countries have laws banning female genital cutting, for example, yet the practice remains widespread in many areas (UNICEF 2013).

Informal strategies can also be effective for changing norms. The use of mass media is one such strategy. In a randomized experiment, Rwandese communities listened to radio soap operas containing messages about

social conflict and resolution (the treatment group) or reproductive health (the control group). Results from interviews, focus groups, role-playing exercises, and unobtrusive measures of collective decision making indicated that the treatment program changed people's perceptions of social norms regarding the appropriateness of open expression and dissenting behavior (Paluck and Green 2009a). Interestingly, the intervention altered both perceptions of norms and individual behavior, even though individual attitudes were unchanged. The implication is that targeting social norms may be a more fruitful avenue for changing prejudiced behaviors than targeting personal beliefs, although the staying power of such interventions needs further investigation. Radio soap operas are especially interesting because they changed people's perceptions of norms in conflict areas, whereas an extensive review of the literature indicates that many other policies to reduce prejudices have been ineffective (Paluck and Green 2009b).

**Human sociality is like a river running through society; it is a current constantly shaping individuals, just as flowing water shapes stones in a riverbed. Policy makers can either work with these social currents or ignore them and find themselves swimming upstream.**

Some individuals and organizational actors may be well-suited to leading the charge to change a social norm. An actor who has a passionate interest in changing the status quo, who is well connected or highly central to a social network, or who has high status can play a key role in effecting broader change in a society. Such "norm entrepreneurs" can alert people to the existence of a shared complaint and suggest collective solutions (Sunstein 1996; see also chapter 8 for an example involving quitting smoking). If the norm entrepreneur is able to reduce the perceived cost of violating an existing norm, increase the perceived benefit of a new behavior, or create a persuasive new frame for action by naming, interpreting, and dramatizing social phenomena in new ways, social change can occur very quickly (see spotlight 5 for an example from Colombia).

A successful example was an intervention in the United States to reduce bullying in school. Highly connected students and "highly salient" clique leaders participated in a program designed to broadcast students' experiences with and reactions to harassment and to facilitate public discussion on the issue. The "social referents" wrote and read aloud essays about harassment, performed skits demonstrating the emotional effects of bullying, and sold wristbands signaling the wearers' commitment to reducing harassment. Changing the behavior of social referents changed peers' perceptions of schools' collective norms as well as actual harassment behavior through the mechanism of "everyday interaction" (Paluck and Shepherd 2012).

A key to success in many interventions is to identify the group or social network within which a relevant norm is enforced. Is it the family, the friendship group, the peer group, the neighborhood, or the entire community?

Although many developing countries seek to reduce birthrates, for instance, the success of economic incentives designed to achieve this outcome, such as free contraception, has been mixed. One explanation is that fertility is regulated by social norms, so that women tend to choose the same, socially approved reproductive practices as their most important social referents. The result is that either most women within a tightly connected social network choose to use contraceptives or very few do. In Bangladesh, the institution of *purdah*, which limits women's social interactions to other women within their religious group, meant that fertility shifts occurred at the level of these religious groups rather than across villages, in spite of common family-planning inputs across villages (Munshi and Myaux 2006). This evidence suggests that fertility transitions may be better viewed as a norm-driven process than as the aggregate outcome of autonomous decisions. Thus the researchers concluded that a program that encouraged women to meet at a primary health clinic, where they could discuss their options together, might have been more effective than the contraceptive program that delivered information and inputs to women individually in their homes.

## Conclusion

A great deal of economic policy relies on a model of human behavior that takes little account of human sociality. Yet humans are innately social creatures, and the fact that we are always "thinking socially" has enormous implications for decision making and behavior, and thus for development. This chapter demonstrates that recognizing the effect of social influences on action can help development practitioners understand

why standard policies sometimes fail and to develop new interventions to combat poverty and promote shared prosperity.

Human sociality has several broad implications for development interventions. First, economic incentives are not necessarily the best or the only way to motivate individuals. The drive for status and social recognition means that in many situations, social incentives can be used alongside or even instead of economic incentives to elicit desired behaviors. This is true for both individual and organizational actors. Moreover, economic incentives can both “crowd out” intrinsic motivations and “crowd in” social preferences. The role for incentives in policy is therefore more complicated than is generally recognized.

Second, we act as members of groups, for better and for worse. Sharing and reciprocity among group members and the other-regarding behavior of those who take on social roles such as “group leader” can contribute to the well-being of a community. Interventions that increase interactions or create groups among individuals who have a common interest in goals such as loan repayment and breastfeeding may facilitate the achievement of these objectives. Yet membership in marginalized groups can also lead to the development of negative social identities that affected individuals would likely not have chosen and would be better off without. From this perspective, cognitive interventions that change identities and self-perceptions can be powerful sources of positive social change.

Third, the widespread willingness of individuals to cooperate in the pursuit of shared goals means that institutions and interventions can be designed to harness social preferences. An important lab finding replicated across almost every society that has been studied is that most people prefer to cooperate as long as others are cooperating. This finding stands in contrast to the traditional assumption that people prefer to shirk social obligations. One implication is that making behavior more visible and “marketing” adherence to norms such as paying taxes or using condoms may be a cost-effective means of increasing contributions to collective goods.

Finally, human societies develop social norms as a means of coordinating and regulating behavior as well as expressing community values, and these informal governance mechanisms have profound consequences for societies. However, in contrast to an economic perspective in which social norms enhance the utility of the individuals who uphold them, this chapter suggests that societies can get stuck in collective patterns of behavior that arguably do not serve anyone’s interests; since social norms are often taken-for-granted aspects

of the environment, “optimizing behavior” by individuals can lead to very suboptimal social outcomes. As a result, norm change may sometimes be a necessary component of social change.

## Notes

1. Sociality, social networks, and social norms also support the *mental models* that are internalized—and often shared—representations of the world. Mental models are the primary subject of the next chapter. Although there is considerable overlap among the concepts explored in the two chapters, this chapter addresses the direct social influences on decision making, while chapter 3 focuses on internalized and enduring understandings of the world and self that often operate independently of immediate social dynamics.
2. Kamenica (2012) provides a review of how behavioral economics has shaped thinking about incentives. Madrian (2014) discusses uses of incentives informed by a behavioral approach in public policy making.
3. Researchers anticipated that subjects would exhibit a stronger attachment to their farmer group than to their village for several reasons: the cooperatives play a central role in individuals’ welfare; membership in farmer groups is voluntary rather than ascribed; member similarity within farmer groups in landholdings, income, age, and the like may promote bonding and identification.
4. See, for example, Munshi and Rosenzweig (2006); Conley and Udry (2010); Kandpal and Baylis (2013).
5. For book-length treatments of social norms, see Bicchieri 2006; Posner 2002; Hechter and Opp 2005; Brennan and others 2013.
6. Of course, some oppositional cultures define themselves by breaking the norms of a “dominant group,” but in such cases, norm breaking becomes itself a normatively prescribed activity.
7. For example, the Pakistan Rural Household Survey (PRHS-II) from 2004–05 revealed that among married women ages 15–40, 80 percent felt safe alone within their own settlement while only 27 percent felt safe alone outside it (Jacoby and Mansuri 2011).

## References

- Adida, Claire L., David D. Laitin, and Marie-Anne Valfort. 2014. “Muslims in France: Identifying a Discriminatory Equilibrium.” *Journal of Population Economics* 27: 1039–86.
- Ashraf, Nava, Oriana Bandiera, and B. Kelsey Jack. Forthcoming. “No Margin, No Mission? A Field Experiment on Incentives for Public Service Delivery.” *Journal of Public Economics*.
- Avdeenko, Alexandra, and Michael J. Gilligan. 2014. “International Interventions to Build Social Capital: Evidence from a Field Experiment in Sudan.” Policy Research Working Paper 6772, World Bank, Washington, DC.

- Baldassarri, Delia, and Guy Grossman. 2013. "The Effect of Group Attachment and Social Position on Prosocial Behavior: Evidence from Lab-in-the-Field Experiments." *PLoS ONE* 8 (3): 1–9. <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0058750>.
- Basu, K., and J. W. Weibull. 2003. "Punctuality: A Cultural Trait as Equilibrium." In *Economics for an Imperfect World: Essays in Honor of Joseph Stiglitz*, edited by Richard Arnott, Bruce Greenwald, Ravi Kanbur, and Barry Nalebuff, 163–82. Cambridge, MA: MIT Press.
- Bateson, Melissa, Daniel Nettle, and Gilbert Roberts. 2006. "Cues of Being Watched Enhance Cooperation in a Real-World Setting." *Biology Letters* 2: 412–14.
- Bauer, Michael, Alessandra Cassar, Julie Chytilova, and Joseph Henrich. 2014. "War's Enduring Effects on the Development of Egalitarian Motivations and In-Group Biases." *Psychological Science* 25 (1): 47–57.
- BenYishay, Ariel, and A. Mushfiq Mobarak. 2014. "Social Learning and Communication." Working Paper 20139, National Bureau of Economic Research, Cambridge, MA.
- Besley, Timothy, and Maitreesh Ghatak. 2008. "Status Incentives." *American Economic Review* 98 (2): 206–11.
- Bicchieri, Cristina. 2006. *The Grammar of Society*. Cambridge, U.K.: Cambridge University Press.
- BIT (Behavioural Insights Team). 2012. *Applying Behavioural Insights to Reduce Fraud, Error and Debt*. London: Cabinet Office, BIT.
- Blattman, Christopher, Julian C. Jamison, and Margaret Sheridan. 2014. "Reducing Youth Poverty, Crime and Violence: Experimental Evidence from Unconditional Cash Transfers and Behavior Change with High-Risk Men." Unpublished paper.
- Blount, Sally. 1995. "When Social Outcomes Aren't Fair: The Effect of Causal Attributions on Preferences." *Organizational Behavior and Human Decision Processes* 63 (2): 131–44.
- Boudet, Ana Maria Muñoz, Patti Petesch, and Carolyn Turk, with Angélica Thumala. 2013. *On Norms and Agency: Conversations about Gender Equality with Women and Men in 20 Countries*. Directions in Development Series. Washington, DC: World Bank.
- Bowles, Samuel, and Sandra Polania-Reyes. 2012. "Economic Incentives and Social Preferences: Substitutes or Complements?" *Journal of Economic Literature* 50 (2): 368–425.
- Brennan, Geoffrey, Lina Eriksson, Robert Goodin, and Nicholas Southwood. 2013. *Explaining Norms*. Oxford, U.K.: Oxford University Press.
- Cai, Jinh, Alain de Janvry, and Elisabeth Sadoulet. Forthcoming. "Social Networks and the Decision to Insure." *American Economic Journal: Applied Economics*.
- Cameron, Lisa A. 1999. "Raising the Stakes in the Ultimatum Game: Experimental Evidence from Indonesia." *Economic Inquiry* 37 (1): 47–59.
- Carey, Kate B., Lori A. J. Scott-Sheldon, Michael P. Carey, Demetria Cain, Regina Mlobeli, Redwaan Vermaak, Jacqueline Mthembu, Leickness C. Simbayi, and Seth C. Kalichman. 2011. "Community Norms for HIV Risk Behaviors among Men in a South African Township." *Journal of Behavioral Medicine* 34 (1): 32–40.
- Case, Anne. 2007. "Comment." In *Behavioral Economics and Its Applications*, edited by Peter Diamond and Hannu Vartiainen. Princeton, N.J.: Princeton University Press.
- Coleman, Stephen. 1996. "The Minnesota Income Tax Compliance Experiment: State Tax Results." Research Report. Minnesota Department of Revenue. [http://www.revenue.state.mn.us/research\\_stats/research\\_reports/19xx/research\\_reports\\_content\\_complnce.pdf](http://www.revenue.state.mn.us/research_stats/research_reports/19xx/research_reports_content_complnce.pdf).
- Conley, Timothy G., and Christopher R. Udry. 2010. "Learning about a New Technology: Pineapple in Ghana." *American Economic Review* 100 (1): 35–69.
- Cowell, Frank A. 1990. *Cheating the Government: The Economics of Evasion*. Cambridge, MA: MIT Press.
- Davis, Kevin, Angelina Fisher, Benedict Kingsbury, and Sally Engle Merry. 2012. *Governance by Indicators: Global Power through Classification and Rankings*. Vol. 1. Oxford, U.K.: Oxford University Press.
- Deci, Edward L., Richard Koestner, and Richard M. Ryan. 1999. "A Meta-Analytic Review of Experiments Examining the Effects of Extrinsic Rewards on Intrinsic Motivation." *Psychological Bulletin* 125 (6): 627.
- De Quervain, Dominique J.-F., Urs Fischbacher, Valerie Treyer, Melanie Schellhammer, Ulrich Schnyder, Alfred Buck, and Ernst Fehr. 2004. "The Neural Basis of Altruistic Punishment." *Science* 305 (5688): 1254–58.
- Eckel, Catherine C., and Philip J. Grossman. 1996. "Altruism in Anonymous Dictator Games." *Games and Economic Behavior* 16 (2): 181–91.
- Elster, Jon. 1989. *The Cement of Society*. Cambridge, U.K.: Cambridge University Press.
- Fehr, Ernst, and Simon Gächter. 2000. "Cooperation and Punishment in Public Goods Experiments." *American Economic Review* 90 (4): 980–94.
- Fehr, Ernst, and Tony Williams. 2013. "Endogenous Emergence of Institutions to Sustain Cooperation." [http://www.fdewb.unimass.nl/meteor-seminar-et/spring-2014/papers-and-abstracts/Paper\\_williams.pdf](http://www.fdewb.unimass.nl/meteor-seminar-et/spring-2014/papers-and-abstracts/Paper_williams.pdf).
- Feigenberg, Benjamin, Erica Field, and Rohini Pande. 2013. "The Economic Returns to Social Interaction: Experimental Evidence from Microfinance." *Review of Economic Studies* 80 (4): 1459–83.
- Fong, Christina, Samuel Bowles, and Herbert Gintis. 2006. "Strong Reciprocity and the Welfare State." In *Handbook of the Economics of Giving, Altruism and Reciprocity*, vol. 2, edited by Serge-Christophe Kolm and Jean Mercier Ythier, 1439–64. Amsterdam: Elsevier.
- Forsythe, Robert, Joel L. Horowitz, Nathan E. Savin, and Martin Sefton. 1994. "Fairness in Simple Bargaining Experiments." *Games and Economic Behavior* 6 (3): 347–69.
- Frey, Bruno S., and Benno Torgler. 2007. "Tax Morale and Conditional Cooperation." *Journal of Comparative Economics* 35 (1): 136–59.
- Ghosal, Sayantan, Smarajit Jana, Anandi Mani, Sandip Mitra, and Sanchari Roy. 2013. "Sex Workers, Stigma and Self-Belief: Evidence from a Psychological Train-

- ing Program in India." Unpublished paper. [http://www2.warwick.ac.uk/fac/soc/economics/staff/sroy/sanchari\\_roy\\_j-m-p.pdf](http://www2.warwick.ac.uk/fac/soc/economics/staff/sroy/sanchari_roy_j-m-p.pdf).
- Gintis, Herbert, Samuel Bowles, Robert Boyd, and Ernst Fehr, eds. 2005. "Moral Sentiments and Material Interests: Origins, Evidence, and Consequences." In *Moral Sentiments and Material Interests: The Foundations of Cooperation in Economic Life*, edited by Herbert Gintis, Samuel Bowles, Robert Boyd, and Ernest Fehr, 3–40. Cambridge, MA: MIT Press.
- Gneezy, Uri, and Aldo Rustichini. 2000. "A Fine Is a Price." *Journal of Legal Studies* 29 (1): 1–17.
- Goffman, Erving. 1959. *The Presentation of Self in Everyday Life*. Garden City, NY: Doubleday Anchor Books.
- Gottlieb, Jessica. 2014. "Why Women Participate Less in Civic Activity: Evidence from Mali." Unpublished paper. [http://mgape.files.wordpress.com/2013/06/gottlieb\\_civic-behavior.pdf](http://mgape.files.wordpress.com/2013/06/gottlieb_civic-behavior.pdf).
- Granovetter, Mark. 1985. "Economic Action and Social Structure: The Problem of Embeddedness." *American Journal of Sociology* 91 (3): 481–510.
- Grossman, Guy, Devorah Manekin, and Dan Miodownik. Forthcoming. "The Political Legacies of Combat: Attitudes towards War and Peace among Israeli Ex-Combatants." *International Organization*.
- Gürerk, Özgür, Bernd Irlenbusch, and Bettina Rockenbach. 2006. "The Competitive Advantage of Sanctioning Institutions." *Science* 312 (5770): 108–11.
- Habyarimana, James, and William Jack. 2009. "Heckle and Chide: Results of a Randomized Road Safety Intervention in Kenya." Working Paper 169, Center for Global Development, Washington, DC. <http://www.cgdev.org/content/publications/detail/1421541/>.
- . 2011. "Heckle and Chide: Results of a Randomized Road Safety Intervention in Kenya." *Journal of Public Economics* 95 (11): 1438–46.
- Hall, Jennifer. 2011. "Effective Community-Based Interventions to Improve Exclusive Breast Feeding at Four to Six Months in Low- and Low-Middle-Income Countries: A Systematic Review of Randomised Controlled Trials." *Midwifery* 27 (4): 497–502.
- Hechter, Michael. 1987. *Principles of Group Solidarity*. Berkeley, CA: University of California Press.
- Hechter, Michael, and Karl-Dieter Opp, eds. 2005. *Social Norms*. New York: Russell Sage Foundation.
- Henrich, Joseph, Robert Boyd, Samuel Bowles, Colin Camerer, Ernst Fehr, and Herbert Gintis. 2004. *Foundations of Human Sociality: Economic Experiments and Ethnographic Evidence from Fifteen Small-Scale Societies*. Oxford, U.K.: Oxford University Press.
- Henrich, Joseph, and Natalie Henrich. 2007. *Why Humans Cooperate: A Cultural and Evolutionary Explanation*. Oxford, U.K.: Oxford University Press.
- Herrmann, Bendikt, Christian Thöni, and Simon Gächter. 2008. "Antisocial Punishment across Societies." *Science* 319: 1362–67.
- Jacoby, Hanan G., and Ghazala Mansuri. 2011. "Crossing Boundaries: Gender, Caste and Schooling in Rural Pakistan." Policy Research Working Paper 5710, World Bank, Washington, DC.
- Joshi, Neeraj N., Elinor Ostrom, Ganesh P. Shivakoti, and Wai Fung Lam. 2000. "Institutional Opportunities and Constraints in the Performance of Farmer-Managed Irrigation Systems in Nepal." *Asia-Pacific Journal of Rural Development* 10 (2): 67–92.
- Kahan, Dan M. 2005. "The Logic of Reciprocity: Trust, Collective Action and Law." In *Moral Sentiments and Material Interests: The Foundations of Cooperation in Economic Life*, edited by Herbert Gintis, Samuel Bowles, Robert Boyd, and Ernst Fehr, 339–78. Cambridge, MA: MIT Press.
- Kamenica, Emir. 2012. "Behavioral Economics and the Psychology of Incentives." *Annual Review of Economics* 4 (13): 1–13, 26.
- Kandpal, Eeshani, and Kathy Baylis. 2013. "Expanding Horizons: Can Women's Support Groups Diversify Peer Networks in Rural India?" *American Journal of Agricultural Economics* 95 (2): 360–67.
- Kelley, Judith G., and Beth A. Simmons. Forthcoming. "Politics by Number: Indicators as Social Pressure in International Relations." *American Journal of Political Science*.
- Kerr, John, Mamta Vardhan, and Rohit Jindal. 2012. "Pro-social Behavior and Incentives: Evidence from Field Experiments in Rural Mexico and Tanzania." *Ecological Economics* 73: 220–27.
- Kinzig, Ann P., Paul R. Ehrlich, Lee J. Alston, Kenneth Arrow, Scott Barrett, Timothy G. Buchman, Gretchen C. Daily, Bruce Levin, Simon Levin, Michael Oppenheimer, Elinor Ostrom, and Donald Saari. 2013. "Social Norms and Global Environmental Challenges: The Complex Interaction of Behaviors, Values, and Policy." *BioScience* 63 (3): 164–75.
- Klugman, Jeni, Lucia Hanmer, Sarah Twigg, Tazeen Hasan, Jennifer McCleary-Sills, and Julieth Santamaria. 2014. *Voice and Agency: Empowering Women and Girls for Shared Prosperity*. Washington, DC: World Bank. <http://documents.worldbank.org/curated/en/2014/10/20274040/voice-agency-empowering-women-girls-shared-prosperity>.
- Kosfeld, Michael, and Susanne Neckermann. 2011. "Getting More Work for Nothing? Symbolic Awards and Worker Performance." *American Economic Journal: Microeconomics* 3 (3): 86–99.
- Larkin, I. 2009. "Paying \$30,000 for a Gold Star: An Empirical Investigation into the Value of Peer Recognition to Software Salespeople." Working Paper, Harvard Business School, Boston.
- Larson, Deborah Welch, and Alexei Shevchenko. 2010. "Status Seekers: Chinese and Russian Responses to U.S. Primacy." *International Security* 34 (4): 63–95.
- Lessig, Lawrence. 1995. "The Regulation of Social Meaning." *University of Chicago Law Review* 62 (3): 943–1045.
- List, John A. 2007. "On the Interpretation of Giving in Dictator Games." *Journal of Political Economy* 115 (3): 482–93.



- Lopez, Alan D., Colin D. Mathers, Majid Ezzati, Dean T. Jamison, and Christopher J. L. Murray. 2006. "Global and Regional Burden of Disease and Risk Factors, 2001: Systematic Analysis of Population Health Data." *Lancet* 367 (9524): 1747–57.
- Madrian, Brigitte C. 2014. "Applying Insights from Behavioral Economics to Policy Design." Working Paper 20318, National Bureau of Economic Research, Cambridge, MA.
- Mansuri, Ghazala, and Vijayendra Rao. 2013. "Localizing Development: Does Participation Work?" Policy Research Report, World Bank, Washington, DC.
- Martinsson, Peter, Nam Pham-Khanh, and Clara Villegas-Palacio. 2013. "Conditional Cooperation and Disclosure in Developing Countries." *Journal of Economic Psychology* 34: 148–55.
- Mobarak, Ahmed Mushfiq, and Mark R. Rosenzweig. 2013. "Informal Risk Sharing, Index Insurance, and Risk Taking in Developing Countries." *American Economic Review* 103 (3): 375–80.
- Munshi, Kaivan, and Jacques Myaux. 2006. "Social Norms and the Fertility Transition." *Journal of Development Economics* 80 (1): 1–38.
- Munshi, Kaivan, and Mark Rosenzweig. 2006. "Traditional Institutions Meet the Modern World: Caste, Gender, and Schooling Choice in a Globalizing Economy." *American Economic Review* 96 (4): 1225–52.
- Nabulsi, Mona, Haya Hamadeh, Hani Tamim, Tamar Kabakian, Lama Charafeddine, Nadine Yehya, Duriyah Sinno, and Saadieh Sidani. 2014. "A Complex Breastfeeding Promotion and Support Intervention in a Developing Country: Study Protocol for a Randomized Clinical Trial." *BMC Public Health* 14 (1): 1–11. doi: 10.1186/1471-2458-14-36.
- Ostrom, Elinor. 2005. "Policies That Crowd Out Reciprocity and Collective Action." In *Moral Sentiments and Material Interests: The Foundations of Cooperation in Economic Life*, edited by Herbert Gintis, Samuel Bowles, Robert Boyd, and Ernst Fehr, 253–76. Cambridge, MA: MIT Press.
- Paluck, Elizabeth Levy, and Donald P. Green. 2009a. "Defiance, Dissent, and Dispute Resolution: An Experimental Intervention Using Mass Media to Change Norms and Behavior in Rwanda." *American Political Science Review* 103 (4): 622–44.
- . 2009b. "Prejudice Reduction: What Do We Know? A Critical Look at Evidence from the Field and the Laboratory." *Annual Review of Psychology* 60: 339–67.
- Paluck, Elizabeth Levy, and Hana Shepherd. 2012. "The Salience of Social Referents: A Field Experiment on Collective Norms and Harassment Behavior in a School Social Network." *Journal of Personality and Social Psychology* 103 (6): 899.
- Portes, Alejandro, and Patricia Landolt. 2000. "Social Capital: Promises and Pitfalls of Its Role in Development." *Journal of Latin American Studies* 32: 529–47.
- Posner, Eric A. 2002. *Law and Social Norms*. Cambridge, MA: Harvard University Press.
- Powell, Walter, ed. 1990. "Neither Market nor Hierarchy: Network Forms of Organization." *Research in Organizational Behavior* 12: 295–336.
- Putnam, Robert D., Robert Leonardi, and Raffaella Y. Nanetti. 1993. *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, N.J.: Princeton University Press.
- Rakoczy, Hannes, Felix Warneken, and Michael Tomasello. 2008. "The Sources of Normativity: Young Children's Awareness of the Normative Structure of Games." *Developmental Psychology* 44 (3): 875.
- Restivo, Michael, and Arnout van de Rijt. 2012. "Experimental Study of Informal Rewards in Peer Production." *PLoS ONE* 7 (3): 34358. doi: 10.1371/journal.pone.0034358.
- Rothstein, Bo. 1998. *Just Institutions Matter: The Moral and Political Logic of the Universal Welfare State*. Cambridge, U.K.: Cambridge University Press.
- Rustagi, Devesh, Stefanie Engel, and Michael Kosfeld. 2010. "Conditional Cooperation and Costly Monitoring Explain Success in Forest Commons Management." *Science* 330 (6006): 961–65.
- Serneels, Pieter, Andrew Zeitlin, and Abigail Barr. 2014. "Participatory Monitoring of Public Services by Beneficiaries: Insights from Education Services." Background note for *World Development Report 2015*.
- Sheffrin, Steven M., and Robert K. Triest. 1992. "Can Brute Deterrence Backfire? Perceptions and Attitudes in Taxpayer Compliance." In *Why People Pay Taxes: Tax Compliance and Enforcement*, edited by J. Slemrod, 193–218. Ann Arbor: University of Michigan Press.
- Simmel, Georg. 1955. *Conflict and the Web of Group Affiliations*. New York: Free Press. (Originally published in 1922.)
- Sinclair, Ian. 2005. *Fostering Now: Messages from Research*. London: Jessica Kingsley Publishers.
- Sobel, Joel. 2005. "Interdependent Preferences and Reciprocity." *Journal of Economic Literature* 43 (June): 392–436.
- Sunstein, Cass R. 1996. "Social Norms and Social Roles." *Columbia Law Review* 96 (4): 903–68.
- Tomasello, Michael. 2014. *A Natural History of Human Thinking*. Cambridge, MA: Harvard University Press.
- UNICEF (United Nations Children's Fund). 2013. *Female Genital Mutilation/Cutting: A Statistical Overview and Exploration of the Dynamics of Change*. New York: UNICEF.
- Varshney, Ashutosh. 2001. "Ethnic Conflict and Civil Society." *World Politics* 53 (3): 362–98.
- Willer, Robb. 2009. "Groups Reward Individual Sacrifice: The Status Solution to the Collective Action Problem." *American Sociological Review* 74 (1): 23–43.