

Governmental Action, Social Norms, and Criminal Behavior

by

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This article explores the relationship between governmental deterrence, crime, and the strength of social norms against crime. Based on experimental research in psychology and economics, I argue that the strength of the social norm of “not committing a crime” is shaped by social interactions. Modeling these social interactions exhibits self-reinforcing processes of crime and multiple equilibria. As for the impact of governmental deterrence, I show that harsher governmental deterrence reduces crime directly as well as indirectly through its impact on social norms. (JEL: K 4, Z 13)

1 Introduction

The fact that crime is very unevenly distributed across cities, regions, or countries has triggered a huge amount of research about the underlying reasons. While differences in the composition of the population, in the economic conditions, or in the methods of punishment available seem to play an important role, they cannot explain the whole puzzle. Therefore, several authors have worked on identifying mechanisms that generate multiple equilibria of crime and help to explain why cities with identical factors might have different rates of crime.

The main literature focuses on the criminal justice system and the labor market as sources of multiple equilibria (see SAH [1991], SCHRAG AND SCOTCHMER [1997], and RASMUSEN [1996]). For instance, if the number of police officers is fixed, a criminal’s probability of arrest goes down if criminal activity spreads, and hence, his incentive to commit a crime increases. GLAESER, SACERDOTE, AND SCHEINKMAN [1996] additionally consider whether individuals may have an increased incentive to commit a crime (if many other people do) due to a decrease in *legal returns*, due to being in less productive *schools*, or due to a greater likelihood of being raised in a *single-parent* family.

Unfortunately, GLAESER, SACERDOTE, AND SCHEINKMAN [1996] found that *none* of the current economic theories that can explain a positive covariance across

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agents' criminal decisions seems to have generated the high variance in crime observed within and between U.S. cities. While these economic models focus on global or city-wide interactions, Glaeser *et al.* suspect that some very local kinds of social interactions (*e.g.*, a higher propensity to commit a crime if other people around are doing so) are responsible for a large part of cross-city variation in crime.

The goal of this paper is to demonstrate that social norms are shaped by local interactions and may account for the large unexplained cross-city variation in crime. In contrast to previous contributions, which try to explain how social norms evolve and are sustained,¹ I focus on a subtle connection between local changes in criminal behavior and the strength of the social norm "not to commit a crime."²

The strength of the social crime norm is measured by the moral costs that arise from committing a crime. Since social norms may be internally and/or externally enforced,³ there are two separate sources of moral costs: first, an individual who has internalized the crime norm experiences feelings of guilt and remorse from committing a crime (internal enforcement of the social crime norm). Secondly, a person identified as a criminal may be informally punished by others (external enforcement of the crime norm). Since research has shown the importance of these two cost factors in inhibiting crime,⁴ understanding the determinants of moral costs is a prerequisite for understanding crime.

In the following, I hypothesize that both cost factors, remorse and informal sanctions, are shaped by local interactions and decrease in the level of crime. I ground my hypotheses on psychological and experimental research from various disciplines.

(1) The strength of *internal enforcement* of the crime norm: In a large number of experiments, it has been established that the incentive to behave in a certain manner depends on the degree in which we see others performing this behavior (called the *principle of social proof*). The principle of social proof holds for various situations: The use of canned laughter causes the audience to laugh longer and more often, violence on television induces children to act more harmfully, pain is perceived as less painful if others can tolerate it, *etc.* (see FULLER AND SHEEHY-SKEFFINGTON [1974], SMYTH AND FULLER [1972], LIEBERT AND BARON [1972], and CIALDINI [1993]). Similarly, the incentive to put a flyer into a nearby trash can rather than on

¹ See ELSTER [1989], LINDBECK [1995], MCADAMS [1997], OSTROM [1998], POSNER AND RASMUSEN [1999], and POSNER [2000].

² The social rule "not to commit a crime" is defined to be a legal as well as a social norm. It is a legal norm because it is enforced by the government. As long as it is enforced by others than the government, this rule constitutes a social norm as well (see ELLICKSON [1998, p. 539], who defines a social norm as a social rule enforced by others than the government).

³ See COLEMAN [1990] for the distinction between internal and external enforcement of norms.

⁴ In various sociological studies, it has been found that guilt and remorse as well as the fear of informal sanctions are important crime inhibitors and often deter people *more* than the fear of formal sanctions (see MEIER AND JOHNSON [1977], TITTLE [1980], GRASMICK AND GREEN [1980] and PATERNOSTER [1989]).

the floor has been found to depend crucially on the littering behavior of other people around (SUNSTEIN [1997, p. 32]).

Economic experiments have also confirmed that the incentive to “steal” (*i.e.*, take money away from other participants) depends on the degree of observed uncooperative behavior (FALK AND FISCHBACHER [2002]). The same is plausibly true for committing milder crimes. If it is observed that many *significant others*⁵ are committing crimes, remorse or discomfort felt from breaking the social norm will weaken.

(2) The strength of *external enforcement* of the crime norm: Different groups of people may have different incentives to informally punish an offender. I rely on the empirically well-established assumptions that a norm adherent (a) generally disagrees more with the behavior of a norm breaker than does a norm breaker and (b) has a stronger tendency to punish norm breakers.

(a): Research directly related to crime confirms that law-breakers generally perceive crimes as less serious than do law-adherents (see LEVI AND JONES [1985] and FIGLIO [1975]). LEVI AND JONES [1985] established these differences between unconvicted and convicted people; FIGLIO [1975] showed that inmates of the Rahway prison (a prison for adults) perceived nearly all crimes as significantly less severe than inmates of a juvenile detention center and both groups perceived them as less severe than students did. (b): In the experimental context of prisoners’ dilemma games with costly sanctions, FALK, FEHR, AND FISCHBACHER [2000, pp. 12f.] found that sanctions were predominantly imposed on the defectors by the cooperators. Additionally, the amount of the sanctions imposed by the cooperators exceeded that imposed by the defectors. Therefore, norm adherents seem to judge and sanction deviance differently than do norm breakers.

An apprehended offender has two potential sources of informal punishment: punishment by significant others and punishment by people out of the closer circle of acquaintances. While law abiders of the first group have an incentive to react and possibly punish the deviator due to the existing relationship with the offender (*active informal punishment*), nonsignificant others may *free ride* on punishment. Nevertheless, it is in many people’s own interest to avoid contact with the offender and to refuse building a relationship with him. Therefore, *passive informal punishment* may hit the offender when he tries to connect with less familiar people, *e.g.*, a possible new employer.⁶

A substantial increase in the share of criminals is equivalent to a decrease in the share of people strongly disagreeing with and willing to sanction criminal behavior. Therefore, a higher level of crime is likely to reduce the potential number of

⁵ The term is used in sociology in order to describe people who are of significance for a certain person. Significant others frequently include family, friends, business associates, *etc.*

⁶ A large body of literature explores the offender–employer relationship. It is found that convicted offenders have substantial difficulties in finding jobs after conviction. Furthermore, they often have to accept lower wages than prior to the conviction (see WALDFOGEL [1994] and LOTT [1990], [1992]).

punishers in a community and the level of (active and passive) informal sanctioning a norm breaker has to expect.⁷

Throughout the rest of the paper, I will maintain the assumption that moral costs (stemming from internal and/or external enforcement of the crime norm) decrease in the local level of crime.

In section 2, I incorporate moral costs and the negative dependence on the number of criminals into a Becker-type model of crime (see BECKER's [1968] seminal contribution, where criminal choice is modeled as rational decision making). Since an increase in criminal activities weakens (internal and/or external) enforcement of the crime norm, self-reinforcing processes of crime are initiated. As a result, multiple equilibria of crime may exist and a high variance of crime across locations.

In section 3, some extensions of the basic model are discussed. Firstly, I provide arguments suggesting that moral costs are state-dependent and lower in the state "criminal." According to psychological knowledge about cognitive dissonance and self-serving biases, a person having committed a crime is likely to reduce cognitive dissonance by judging crime as less severe and rationalizing feelings of guilt away. With such state-dependent moral costs, there are systematic greater and longer-lasting effects of random crime-enhancing shocks than of random crime-reducing shocks. Therefore, high-crime equilibria are more stable than low-crime equilibria. Secondly, I relax some (standard) assumptions of the model (full information about the expected penalty, absence of preference falsification, *etc.*) in order to analyze crime policy in a broader framework. As far as a policy directed at getting out of a high-crime equilibrium with weak social norms is concerned, I suggest that a big-bang policy might be more apt for that purpose than a policy of several small steps. This is mainly because a big-bang policy specifically raises the awareness of governmental deterrence and serves better for justifying legal behavior in groups with criminal group pressure. As an illustration, I discuss New York's "zero tolerance" policy and am able to provide an intuitive explanation as to why the impact of that policy might have been bigger than expected.

The conclusions of the paper are presented in section 4.

Compared to the existing literature, the main innovation of the paper lies in understanding moral costs and in integrating them into a standard model of criminal choice. While there are some other contributions in related fields (most closely MCADAMS [1997], COOTER [1998], and COOTER [2000], who mention that the incentive for law adherence might depend on the number of law adherents, and then LINDBECK [1995] and LINDBECK, NYBERG, AND WEIBULL [1999], who study social norms in an economic analysis of the welfare state), the literature on crime has largely neglected self-reinforcing processes of crime through norm enforcement.⁸

⁷ Apart from the number of punishing people, the *extent* of the norm adherents' reactions may also diminish with increasing crime. If crime is very common and expected, the disappointment from learning about somebody's deviance may be smaller, and likewise the expressed disapproval.

⁸ One exception is BAR-GILL AND HAREL [2001], who mention that an increase in the amount of crime may lower the stigma attached to law-breaking and thereby lower

Therefore, a new argument for multiple equilibria of crime is provided, which is based on *local* social interactions and might explain the large variance of crime across cities. Enriching the economic model of crime with moral costs leads not only to novel predictions from comparative statics, but also to new implications for crime policy.⁹

2 A Stylized Model of Criminal Behavior Taking Account of Social Norms

I consider risk-neutral individuals who have the choice between legal work, which brings in an amount w ($w \geq 0$), and illegal work, which brings in an amount g ($g \geq 0$), with $g > w$. There are several costs associated with illegal activity: First, there is an expected formal penalty P , defined as the probability of conviction multiplied by the severity of the punishment. Additionally, there are moral costs $\mu_i(\theta)$, consisting of the costs of breaking an internalized norm as well as the expected costs of informal punishment ($\theta \in [0, 1]$ denotes the share of criminals in a community – or simply the crime rate – and the subscript i indicates that individuals differ with respect to moral costs). $\mu_i(\theta)$ is a continuous function with $\partial\mu_i/\partial\theta < 0$. Since internal and external enforcement of the crime norm gets weaker as crime increases, moral costs are negatively dependent on crime.

An individual chooses to commit a crime if $g - P \geq \mu_i(\theta)$ (w.l.o.g. I set $w = 0$; we have $P < g$). Assume that for some individuals there exists a threshold level of crime $\tilde{\theta} \in [0, 1]$ with $g - P = \mu_i(\tilde{\theta})$. For $\theta \geq \tilde{\theta}$, the individual commits the crime. Denote by $F(\theta)$ the percentage of individuals for which $g - P \geq \mu_i(\theta)$. Then every equilibrium rate of crime satisfies $F(\theta^*) = \theta^*$.

2.1 Existence of Equilibria

$F(\theta)$ is a continuous and nondecreasing function of θ [recall that $\mu'_i(\theta) < 0$], with support $[0, 1]$, and restricted to values between 0 and 1. It is a straightforward point that at least one equilibrium exists.¹⁰ The exact number of equilibria depends on the curvature of $F(\theta)$ and cannot be determined *a priori* without further specifications.

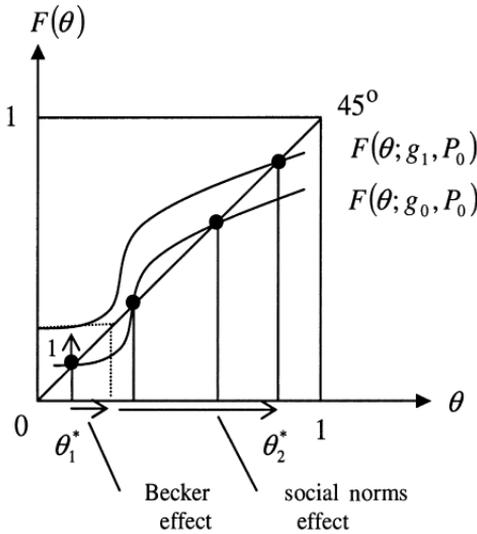
the amount of informal sanctions. In this article, I investigate the type of social interactions more closely and identify two separate sources (internal and external enforcement of the crime norm) that could lead to multiple equilibria. The implications of cognitive dissonance on the moral costs and the stability of equilibria is also new.

⁹ GAROUPA [2003] notes that it is common in the literature on behavioral law and economics to criticize the economic model on the basis of psychological experiments without delivering an alternative (testable) theory.

¹⁰ Assume first that $F(0) = 0$. Then there exists at least one equilibrium with $\theta^* = 0$. Assume secondly that $F(0) = 1$. Then, $F(\theta) = 1 \forall \theta$, and there exists a (unique) equilibrium $\theta^* = 1$. If $0 < F(0) < 1$, then $F(\theta)$ either crosses the 45° line [and guarantees an equilibrium at $F(\theta^*) = \theta^*$] or lies above it. In the latter case, $F(\theta)$ reaches 1 at a certain point, which ensures an equilibrium with $\theta^* = 1$.

Figure 1 depicts a propensity (to crime) function $F(\theta; g_0, P_0)$ with three equilibria (the two outer equilibria are stable). In the following, I will analyze the impact of an exogenous shock on crime.

Figure 1
Equilibria in a Crime Model with Social Norms



2.2 The Impact of an Exogenous Shock on Crime

Suppose we find ourselves in the low-crime equilibrium θ_1^* . Due to an exogenous change, illegal earning opportunities rise from g_0 to g_1 (arrow 1). For every given rate of crime, a larger share of people now want to commit a crime, depicted by the propensity function $F(\theta; g_1, P_0)$. As becomes evident, the new equilibrium is much higher, at θ_2^* .

The important point is that without consideration of the changing social norms, the increase in illegal earnings would only cause a modest change in crime [in fact, the new equilibrium θ^{**} would be $\theta^{**} = F(\theta_1^*; g_1, P_0)$, referred to as the Becker effect in Figure 1]. However, in my extended model I show that due to the effect of weakening social norms, an exogenous shock on crime may lead to a much higher rate of crime (referred to as the social norms effect in Figure 1). In this example, the shock does not cause the crime rate to jump to a higher low-crime equilibrium, but rather to a completely new type of (high-crime) equilibrium.

While a crime-enhancing shock may be radically reinforced by the weakening of the social crime norm, the same mechanism may equally reinforce a crime-reducing shock and cause a jump from a high-crime equilibrium to a low-crime equilibrium. However, the government may wish to interfere if the economy is stuck in a high-crime equilibrium with weak social norms and no major crime-reducing shock is expected.

2.3 *The Effect of Governmental Action*

From this (admittedly) stylized model, it follows immediately that a larger expected penalty P exerts a double impact on crime (*double dividend*): First, due to the larger expected costs of a crime, there is a direct (negative) impact on the number of criminals.¹¹ Later on, with the decrease in criminal activity, there goes along a restrengthening of the social crime norm. Therefore, there is an additional (indirect) crime-inhibiting effect.

An interesting implication of the model is that harsher governmental deterrence enforces social norms even in the absence of a direct preference-shaping effect. Proponents of the *expressive theory* argue that law (or action of legal officials) expresses some values and norms and thereby directly influences social norms (and preferences) of the population (the *preference-shaping function* of law; see SUNSTEIN [1997]). However, whether harsher deterrence increases the moral costs of committing a crime is debatable.

From a theoretical perspective, it seems that changes in governmental deterrence have to be noticed and respected in order to cause a changed judgment on crime. TYLER's [1990] work, for example, suggests that there is a very strong connection between compliance with law and the citizens' perceptions of the fairness and legitimacy of government. In particular, enforcement of criminal law perceived as too harsh by a large part of the population runs the risk of leading to an erosion instead of a strengthening of the social crime norm (see ANDREONI [1991] and LESSIG [1998]). As for empirical evidence on this subject, the only study suggests that giving citizens information about the judicial view of the seriousness of a certain offense as well as information about the sentence imposed did not influence the subjects' disapproval of a specific criminal act.¹² Therefore, it is unclear whether an increase in governmental deterrence directly strengthens social norms against crime. However, my model suggests that a crime policy succeeding in provoking an initial decrease in visible crime indirectly enforces the crime norm through social interactions.

¹¹ The result that larger penalties reduce crime is standard for economic models of crime (see GAROUPA [1997] and POLINSKY AND SHAVELL [2000] for overviews). An exception is ANDREONI's [1991] model, where larger penalties induce judges to be more careful about convictions. Hence, if penalties are getting very high, conviction rates may be get so low that the overall impact of the increase in the penalty on crime is positive. However, since we are modeling the effect of larger *expected* punishment, we do not have to worry about this issue.

¹² See WALKER AND MARSH [1984], who interviewed more than 1000 persons in three English towns. The goal was to get information concerning the citizens' knowledge about governmental sentencing, about their respect for governmental punishment, and finally about whether the choice and harshness of the governmental sentences influenced public disapproval of lawbreaking. No evidence for the latter could be found.

3 Extensions

So far, I have considered moral costs and assumed no more than a negative relationship with crime. In the following, I would like to refine the relationship between moral costs and crime.

Specifically, I hypothesize that moral costs are *state-dependent* and lower in the criminal state. Furthermore, moral costs may be more elastic with respect to a decrease in crime than with respect to an equal increase in crime (over a given crime interval).

I ground these hypotheses on psychological research about self-serving biases and cognitive dissonance. A vast number of psychological experiments has established that people believe what they prefer to believe and that there is a tendency to screen out information that would challenge a comfortable belief.

For instance, the literature on *self-serving biases* establishes how beliefs and judgments are distorted in one's own favor. Most people believe that they are better than average drivers (SVENSON [1981]), more ethical than others (MORGAN [1993]), more responsible for success than for failure (MILLER [1976]), and so on. Furthermore, there is psychological evidence that self-serving biases are often motivated: the beliefs people form are intertwined with the preferences over those beliefs (see COTTON [1985] and RABIN [1995, p. 30ff.]). Information that would challenge our comfortable beliefs is either screened from our conscience or distorted.

Therefore, the undertaking of an action that causes cognitive dissonance is likely to lead to a new perception of that action.¹³ As an example, consider an individual who converts from law adherence to lawbreaking due to a huge increase in illegal earning opportunities. Since this person may face substantial cognitive dissonance costs if his initial moral values apply, he is likely to judge criminal behavior as less seriously after having committed a crime in order to reduce cognitive dissonance.¹⁴ Therefore, moral costs are state-dependent and lower in the criminal state (see also GAROUPA [2003, p. 9] for a similar view).

As for self-serving information processing, consider a noncriminal individual for which the social crime norm poses a constraint. Such an individual may interpret an increase in the number of lawbreakers in a way that enables him to relax his moral constraint considerably. Once he converts to a criminal, though, he avoids or ignores information (like a decrease in the number of lawbreakers) that would lead to a restrengthening of the moral constraint. Although there is a type of individual for whom the social crime norm constitutes a preference rather than a constraint,

¹³ Economic consequences of cognitive dissonance are discussed in AKERLOF AND DICKENS [1982], RABIN [1994], and MONTGOMERY [1994].

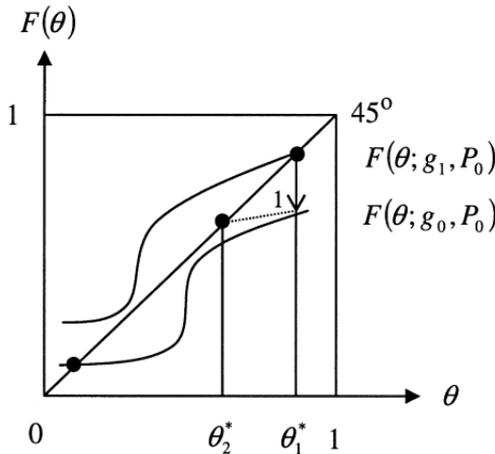
¹⁴ Surveys show indeed that criminals perceive crimes as less severe than do noncriminals (LEVI AND JONES [1985] and FIGLIO [1975]). However, it is not clear whether the criminals already had lower moral costs before committing a crime and hence a greater incentive to do so, or whether they adapted their perception after having committed the crime.

and who therefore interprets any information neutrally,¹⁵ an asymmetric reaction of criminals and noncriminals remains in the aggregate.

3.1 The Impact of an Exogenous Shock on Crime

With self-serving information processing, there may be greater and longer-lasting effects of crime-enhancing shocks than of crime-reducing shocks. Let me illustrate this for the case where an economy finds itself in a high-crime equilibrium (see θ_1^* in Figure 2). An exogenous decrease in g shifts the propensity function downwards (arrow 1). If the propensity towards crime were unchanged with respect to increases and decreases in crime, the shock on crime would be large enough to result in a very low equilibrium rate of crime (depicted by the dot furthest on the left). However, since the criminals do not face a particularly strong increase in guilt and remorse as crime starts to decrease, the propensity function is relatively inelastic (depicted by the dotted line). Therefore, a comparatively high equilibrium rate of crime remains (θ_2^*).

Figure 2
Equilibria with Self-Serving Information Processing



A similar result is obtained if state-dependent moral costs are considered. Consider an economy where a shock g shifts the propensity function upwards (e.g., from g_0 to g_1 in Figure 2). People who newly decide to commit a crime judge crime as less severe afterwards in order to reduce their cognitive dissonance costs, and hence, moral costs are lower in the criminal state. Therefore, even if illegal gains dropped back to g_0 , the moral costs might have been lowered so much that all the criminals would still want to commit the crime and the high-crime equilibrium could not be moved away from.

¹⁵ See RABIN [1995], who models the divergent information processing between individuals having “moral preferences” and those having “moral constraints.”

3.2 *The Effect of Governmental Action*

Theoretically, any high-crime equilibrium can be moved away from by increasing deterrence sufficiently. Under the standard assumption of perfect information, a policy of several small steps or a big-bang policy would be equally effective. While the assumption of full information about changes in punishment (or prosecution) is certainly realistic for bigger policy changes, which are widely discussed in the media, the same need not hold true for minor changes.

For that reason, I hypothesize that a big-bang strategy is more promising for getting away from a high-crime equilibrium with weak social norms than is one of several small steps. Only a radical change in punishment guarantees a wide awareness of the changing costs of a crime and potentially initiates a new discussion and cognition about criminal behavior.¹⁶ A further point concerns criminal *group pressure*. Consider some extreme criminal groups, where criminal behavior is not sanctioned at all, but instead, legal behavior is despised. In such a group, a minor increase in punishment may readily suffice to render crime unattractive for certain members, but they may stick to criminal activities out of group pressure. I believe that an obvious increase in the costs of a crime makes a conversion towards law adherence not only worthwhile for many group members, but also more easily justifiable. The reason is that a minor increase in punishment might not detach the coward stigma from law adherence, whereas a large increase might serve that purpose better. Therefore, a significant increase in the “price” of a crime might induce a “critical mass” to perceive illegal behavior differently than before and remove the coward stigma attached to law adherence.¹⁷

Nonetheless, there is also a risk going along with a big-bang strategy. If a large part of the (law-abiding) population perceives the harsher governmental deterrence as disproportionate, there is the risk of an erosion instead of a strengthening of the social crime norm (SHERMAN [1993] refers to this as a “defiant effect”). Furthermore, law enforcers may be reluctant to convict criminals if they perceive the penalty as too high (ANDREONI [1991], KAHAN [2000]). Therefore, a big-bang strategy of punishment can only be successfully implemented with the support of the major (law-abiding) population.

¹⁶ Note that imperfect information about deterrence may constitute a separate source for multiple equilibria if individuals take the crime rate as a signal for the harshness of deterrence. A radical and visible change in policymaking provides new signals and may lead to a reevaluation of the costs of crime.

¹⁷ The fact that people do not necessarily express their true preferences in public or groups due to a conflict with existing norms (so-called *preference falsification*) has been demonstrated for several historical epochs (KURAN [1995]). According to KURAN [1995], support of communism in several ex-communist countries was by far more fragile than was generally believed, because people did not express their true preferences. However, after a small group of people began to express their true norms publicly, a *norm cascade* was triggered with the consequence of a rapid shift towards new norms.

A famous example of a city implementing a big-bang strategy is New York. With the initiation of the “zero tolerance” policy, minor crimes were rigorously prosecuted and obvious law violators removed from the street. The idea was to prevent a spread of criminal culture, which could develop further towards more severe crimes. Whether the subsequent dramatic drop in New York’s crime rates¹⁸ is exclusively due to the implementation of the “zero tolerance” policy has not yet been proven statistically. However, the model presented in this article provides an intuitive explanation as to why the impact of such a policy might be greater than expected. While “zero tolerance” unambiguously increased and signalized the expected costs of a crime, it simultaneously affected social norms. As argued in section 2, the remorse felt from breaking a social norm largely depends on the visible number of norm breakers around. Therefore, by rigorously prosecuting and removing the “bad examples” from the street, the social norm not to break the law could be strengthened again – not only due to an increase in the shame, but also due to an intensified informal sanctioning of norm breaking in a new culture of order.

4 Conclusions

Based on the fact that there is no satisfactory explanation for the huge spatial differences in crime, I have argued in this paper that a crucial determinant of criminal behavior, the social norm of “not committing a crime,” is shaped by local social interactions and constitutes a major potential source of multiple equilibria and a high variance of crime across locations.

Supported by experimental and empirical research from various disciplines, I assumed that the moral costs of committing a crime are decreasing in the spread of crime. Firstly, there is vast psychological evidence showing that the remorse on breaking a social norm is decreasing in the number of norm breakers around. Secondly, informal punishment of norm breakers (“defectors”) has experimentally been found mainly to be imposed by the norm adherents (“cooperators”). Therefore, a substantial increase in criminals additionally goes along with a decrease in the number of punishers and the amount of informal punishment a norm breaker has to expect.

Moral costs from committing a crime and its negative dependence on the number of criminals are incorporated in a traditional Becker-type model of crime (which allows for the costs of governmental punishment only). My model’s propositions differ from this traditional model in various respects. First, the model allows for multiple equilibria, since the propensity to commit a crime itself depends on the level of crime.¹⁹ Second, the model predicts that a shock on crime may be far

¹⁸ For an overview of the development of crime in various American cities, see for example LAFREE [1998].

¹⁹ Other economic models focusing on more global interaction mechanisms (for instance through congestion of the criminal justice system) also yield multiple equilibria of crime. However, according to GLAESER, SAECERDOTE, AND SCHEINKMAN [1996], these current models cannot explain the variance of crime between and within U.S. cities.

more devastating due to the weakening of social norms. As far as governmental deterrence is concerned, the effect of harsher governmental deterrence is also greater than predicted by Becker's model. While stronger governmental punishment exerts a direct impact on crime, it also indirectly reduces crime as soon as the social crime norm starts being strengthened.

In contrast to other models explaining multiple equilibria of crime, I find that low-crime equilibria are more fragile than high-crime equilibria. Psychological research on cognitive dissonance and self-serving biases supports the assumption that weak social norms are more sticky than strong social norms and that moral costs are reduced after having committed a crime (state-dependent moral costs). Therefore, once social norms are weakened, a bigger shock is needed to get them restrengthened.

Although I have to leave empirical tests of my model to future research, I would like to point out some possible implications for crime policy. One major target would certainly consist in avoiding getting caught in a high-crime equilibrium with weak social norms. For that purpose, governmental action (prosecution and/or sentencing) must be taken in parallel with major shocks on crime (like a substantial decrease in legal wages), even if they are perceived as temporary.

Once an economy finds itself in a high-crime equilibrium with weak social norms, government faces the challenge of how to get out of it. Although the stylized model (which assumes complete information) is indifferent between a strategy of several small steps and a big-bang strategy, my advice is rather to implement the latter. This is mainly because a radical change is more likely to be noticed and to be discussed in (criminal) groups and serves better for removing the coward stigma that may be attached to law adherence in criminal groups.

Nonetheless, there is also a risk going along with a big-bang strategy, especially if a large part of the (law-abiding) population or the law enforcers perceive the harsher governmental deterrence as disproportionate. As a whole, I think that a big-bang strategy must be implemented with and not against the will of the major (law-abiding) population. Therefore, it is the population rather than the government that determines the right time for a big-bang strategy; in New York, the time was probably ripe.

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