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I. INTRODUCTION

Every time passengers check in at an international airport almost anywhere in the world today, they experience directly a strategy of deterrence by denial. The removal of electronics from personal luggage, the shoes and belts in the plastic bins, the scanners and the body searchers are all designed to convince would-be attackers that their chances of successfully hijacking an aircraft are low. Denial strategies are different from strategies that seek to deter by punishment, which threaten that if a would-be attacker strikes, the costs that will be inflicted in reaction will far outweigh the benefits.

Strategies of deterrence by punishment are common in the vocabulary of security: if you do what I do not want you to do, then I will punish you so that the costs exceed any benefits that you anticipate from your action. Deterrence by punishment is conditional: they are always “if . . . then . . .” statements. Strategies of denial work differently; they are unconditional and always in place. Airport security does not diminish perceptibly even when there is no evidence of an imminent attack. On the contrary, deterrence by denial works because a would-be attacker always estimates the probability of failure as

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low. The benefits of hijacking or exploding a passenger jet are not less now than they were a decade ago; rather, the probability of failure is far higher because of ubiquitous and thorough inspections. The manipulation of estimates of probability is doing most of the theoretical work in deterrence by denial.

In an era of transnational terrorism and frequent cyber-attacks against civilian as well as military infrastructure, deterrence by denial has become newly prominent. The underlying theoretical logic of deterrence by denial is the same if the target is a state or a non-state actor, but its application differs. We understand terrorism as a strategy of political theater, inflicting punishment on innocent civilians, on bystanders who are not directly involved in a conflict, to delegitimize leaders or governments by alienating and frightening their populations.\(^1\) It can best be understood as a process over time, as political strategy in asymmetrical conflict. We give special emphasis to delegitimation—and thereby destabilization—as a goal of transnational militants and shadowy hackers who engage in acts of terror against states. The struggle for legitimacy, we contend, becomes one of the critical theaters of contestation.

\(1\) The definition, designation, and meaning of terrorism are all contested. Terrorism has been defined as “[t]he unlawful use or threatened use of force or violence against individuals or property in an attempt to coerce or intimidate governments or societies to achieve political, religious, or ideological objectives.” North Atlantic Treaty Organization (NATO) Standardization Agency (NSA), NATO Glossary of Terms and Definitions, at 2-T-5 (2008), available at http://fas.org/irp/doddir/other/nato2008.pdf. The Global Terror Database at START, which is a Center of Excellence for US Homeland Security, uses a very similar definition in its most inclusive database: “the threatened or actual use of illegal force and violence by a non-state actor to attain a political, economic, religious, or social goal through fear, coercion, or intimidation.” Data Collection Methodology, Nat’l Consortium for the Study of Terrorism and Responses to Terrorism, http://www.start.umd.edu/gtd/using-gtd/ (last visited Jan. 24, 2015). Definitions vary and are contentious, including as to whether the target must be civilian or can include state agents. Gary LaFree & Gary Ackerman, The Empirical Study of Terrorism: Social and Legal Research, 5 ANN. REV. L. & SOC. SCI. 347, 348–49; Gary LaFree & Laura Dugan, Introducing the Global Terrorism Database, 19 TERRORISM & POL. VIOLENCE 181 (discussing databases, definitions, and event selection). In drawing together these two fields, it is significant to note that the Global Terror Database and START are directed by a criminologist who is past president of the American Society of Criminology.
II. THE LOGIC OF DETERRENCE BY DENIAL

To deter terrorism, governments have used strategies of both punishment and denial. We focus in this paper on the theoretical arguments and practical applications of denial and broaden the construction of deterrence by denial to include deterrence of terrorism through delegitimation of terror as a political strategy. In response to those who seek to destroy the legitimacy of governance by terrorizing populations, delegitimation in turn is increasingly important as one of the deterrence-by-denial strategies in governments’ repertoires.

Governments have made massive investments in homeland security in the last decade. They have increased airport inspections, hardened the perimeters of critical infrastructure, invested heavily in intelligence collection and analysis, and built firewalls in cyberspace. Interpreted through the lens of rational actor theories, these tactics play principally on increasing the likelihood of failure, and only indirectly on cost, in seeking to reduce the likelihood of attack.

What is required, in theory, for a strategy of deterrence by denial to succeed? Beyond the usual requirements of clear, credible, and costly signals, the risk calculus that is at the heart of deterrence by denial remains opaque. It seems reasonable to assume that adversaries must be motivated to attack; able to read the signs of added protection of targets, massive data collection and analysis, and strengthened firewalls; and, finally, able to calculate, with rough approximation, the probabilities of failure. But even this relatively relaxed formulation raises a host of theoretical questions.

Most important, what probability of failure becomes unacceptable? How do theoretical models specify these thresholds? What body of theoretical literature can we use to determine

2. Alex Wilner, Deterring the Undeterrible: Coercion, Denial, and Delegitimation in Counterterrorism, 34 J. STRATEGIC STUD. 3, 6 (2011) (analyzing deterrence by denial as including delegitimation).


4. Alex Wilner says that deterrence by denial “functions by reducing the perceived benefits an action is expected to provide. Hardening national or infrastructural defenses . . . raises the costs of attack by diminishing the probability that an adversary is likely to acquire his objective.” Wilner, supra note 2, at 6. Although the theoretical argument is framed in cost-benefit language, it is probability that is doing the work.
whether an al-Qaeda cell considers an 80 percent likelihood of failure as too high, or as an acceptable risk? In rational choice specification of deterrence by punishment, the theoretical logic is clear: the subjective expected costs are greater than the expected benefits. In rational choice specification of deterrence by denial, does the probability of failure simply have to be greater than success? The literature is silent on risk propensity and its implications for choice.

Theoretically, highly motivated attackers may accept a very low probability of success, since they can afford to fail many times so long as they succeed once. Even a high probability of failure may be acceptable because even when these attacks fail, they frighten the public, magnify the reputation of the attacking group, and generally contribute to the theatricality of terrorism that is such an important part of strategy.5 In the first case, the focus is on the large benefits of success even when the probability of success is low, similar to a low-probability but high-cost event. We insure against these kinds of events all the time. In the second case, failure brings benefits as well as costs. We have no evidence to suggest whether and when these different kinds of calculation govern the choices of those orchestrating acts of terror.

One other argument has been leveled against the theory and strategy of deterrence by denial. No matter how impressive the defense, no matter how low the likelihood of success, highly motivated attackers probe for weakness and ultimately “design around” the defense. No defense is impregnable, as the history of the Maginot Line in France in 1940 and the Bar-Lev line in the Sinai Peninsula in 1973 attest. All the more so when highly motivated attackers can probe multiple points of access and find the weakest link in the chain. It is no surprise, for example, that audits of airport security systems routinely find holes in the system which make the system as a whole vulnerable.6

Scholars in international relations have also suggested that when the odds of failure become unacceptably high,

would-be attackers displace their action to less-defended, softer targets. When airport security becomes too difficult to penetrate, subway systems, crowded plazas, shopping malls, and sporting events, all largely undefended, become targets of opportunity. If correct, evidence of displacement would not challenge the theory of deterrence by denial, but it would significantly limit its benefits.

Analysis of deterrence by denial, particularly deterrence of attacks against civilians by militant organizations, suffers from the well-known challenge of identifying cases of “success.” When deterrence succeeds, the dog does not bark. We have little or no access to evidence from al-Qa’eda or other organizations that suggests whether and when they have been deterred from attacking because of a perceived high likelihood of failure that is due directly to actions that a defender has taken to harden targets, improve intelligence, or otherwise secure vulnerable sites. We do have evidence of attacks that were not completed, whether they were thwarted at the planning stage or known to have been attempted and failed. In 2006, al-Qa’eda militants tried to detonate liquid bombs on transatlantic aircraft. They tried again in 2009 with the “underwear bomber,” and yet again in 2010 with explosive printer cartridges shipped on cargo planes. That these attacks were not successful speaks to the success of intelligence agencies in collecting and analyzing data and in penetrating these networks, as well as to plain dumb luck. However, these attempts also speak to the limits of deterrence by denial to deter challengers from attempting to hijack aircraft.

III. EXAMINING DETERRENCE BY DENIAL THROUGH THE LENS OF CRIMINOLOGY

If aborted attacks testify to the failure of deterrence, we cannot assume by default that long periods of quiescence or
inactivity establish the success of deterrence. Identifying cases of successful deterrence over time has long plagued the analysis of deterrence. We propose to come at the analysis of deterrence of terrorism by denial from a different perspective. Some scholars working on terrorism argue that terrorism is best analyzed within the framework of criminal activity and, correspondingly, that terrorist actions are best dealt with through the criminal justice system rather than through extrajudicial mechanisms. Whatever the merits of the strategic arguments, the theoretical argument for deterrence strategies derived from the criminal justice paradigm is intriguing and compelling. Indeed, criminologists have begun to assess counterterrorism policy within the context of other crime prevention strategies, although they do not relate their analyses to the ongoing debates in international relations. Locating terrorism as a subset of criminal activity allows for comparison of the effectiveness of deterrence by denial across similar types with robust empirical studies. Although there are, of course, concerns over whether research insights from studies of one type of crime are applicable to other forms of criminal activity, these challenges are arguably less significant than relying exclusively on logical argument or on the limited and anecdotal data we currently have on the effectiveness of deterrence by denial against global terrorism. As we marshal data from studies in criminology, we also examine the complementarity and overlap of theoretical arguments from criminology with those from the deterrence literature in international politics.

In a separate paper, we examined the arguments relating to displacement, which are common to the literature in both international politics and criminology. Drawing on studies of

11. See, e.g., Evidence-Based Counterterrorism Policy (Cynthia Lum & Leslie W. Kennedy eds., 2012) (discussing the principles of an evidence-based approach to counterterrorism policy); Ronald V. Clarke & Graeme R. Newman, Outsmarting the Terrorists (2006); Gary Lafree, Expanding Criminology’s Domain: The American Society of Criminology 2006 Presidential Address, 45 Criminology 1 (2007) (advocating the introduction of a “wider emotional range” in dealing with terrorism and extending criminology principles to this area).
displacement and diffusion in criminology, we find that the conventional wisdom about displacement in the deterrence literature in international politics may well be wrong. Instead, studies suggest the intriguing and counter-intuitive argument that focused crime prevention, or deterrence by denial, may diffuse the benefits of crime prevention to nearby areas. Experimental and quasi-experimental research in the United States and the United Kingdom consistently demonstrate that geographically based policing interventions—for which one can measure the effect on crime both locally and beyond the geographical scope of the intervention—does not displace crime between locations. If anything, the strongest evidence from randomized control trials points to a diffusion of crime control benefits, so that these interventions lead to a drop in crime in both targeted and nearby locales.


15. Analyzing the potential of crime displacement necessarily requires attention not only to geography but also to time: without an experimental design, any apparent increase or decrease in crime may be a product of secular changes in crime rates that are unrelated to the intervention. See generally David Cantor & Kenneth Land, Unemployment and Crime Rates in the Post-World War II United States: A Theoretical and Empirical Analysis, 50 AM. SOC. REV. 317, 323–24 (1985); David Weisburd et al., Campbell Collaboration, Review Proposal, Displacement of Crime and Diffusion of Crime Control Benefits in Large-Scale Geographic Areas (2010).

We also looked at evidence drawn from experimental studies that speak directly or indirectly to strategies designed to increase the likelihood of failure by deliberate manipulation of the physical and social environments to deny would-be offenders the opportunity to commit criminal acts. We paid particular attention to evidence from criminology on public surveillance, especially on the use of CCTV cameras and whether, when, and why they work. The arguments and evidence from criminology speak to the strategy of “target-hardening,” one of the key strategies in the literature on deterrence of terrorism through denial, which is designed to increase the likelihood of failure. We found some evidence of success, but far less than is generally assumed. Quasi-experimental studies in Canada, the United Kingdom, and the United States all demonstrate that CCTV is not particularly effective in reducing crime, except for the limited case of CCTV in reducing auto thefts on streets and in car parks.

Deterrence by denial strategies are thus broadly supported by this experimental and quasi-experimental work in criminology. First, the possibility of crime displacement—a potential, unintended, and negative consequence of any successful denial strategy—seems unlikely; if anything, criminological evidence points to a potential diffusion of crime control benefits. Second, public surveillance through CCTV tends to be effective only in those cases where offenders face a higher probability of immediate failure, such as when curtailing automobile theft through enhanced lighting strategies in parking lots, but is largely ineffective when it merely increases the likelihood of detection and eventual capture after the offense is committed. And third, target-hardening is most successful when it involves physical denial strategies, with largely success-


ful, albeit mixed, results in cases of human guardianship and monitoring (whether these are formal guardians, such as security guards, or the presence of adult residents on city streets).

In this paper, we extend our focus to examine studies of deterrence by denial that both increase the risks of failure and reduce the social rewards to perpetrators of acts of terror. Scholars of deterrence have only recently begun to develop theoretical arguments about deterring terror by delegitimation. The purpose is to manipulate the social rewards of prohibited action: “The objective is to reduce the challenger’s probability of achieving his goals by attacking the legitimacy of the beliefs that inform his behavior.”19 We focus on three approaches that all work to deter, not only by influencing estimated probabilities of failure through the hardening of targets and surveillance—as the established theoretical literature in international relations does—but also by influencing individual and collective beliefs about social risks and reward. The factors influencing these beliefs are individual belief in the legitimacy of law enforcement, social bonds and informal controls that are activated by people who are influential in the community within neighborhoods, and ecological outcomes that attend living in neighborhoods rich in collective efficacy20 with high levels of social cohesion.21 Criminological research has determined that at each of these levels, deterrence by denial can be enhanced by acting directly or indirectly on the social risks and rewards of would-be perpetrators.

We begin by examining studies of the impact of procedural justice on preventing crime in neighborhoods. Studies from criminology speak to the willingness of community members to cooperate with law enforcement and to share information with the authorities. This kind of information is becoming increasingly important as young recruits stream into conflict theatres like Syria and then return with new organizational and leadership skills that may result in greater security chal-

20. “Collective efficacy” refers to communities that can achieve their goals collectively.
lenges. These studies speak to deterrence by denial by increasing the likelihood of failure.

We then turn to the effectiveness of reducing the social rewards of acts of terror by activating existing social bonds within communities and changing the available “norms and narratives” on which community members (and would-be offenders) draw in making choices about appropriate behavior. We examine the deterrent effect of having community members articulate norms, expectations, and informal sanctions for criminal acts. Closely related are arguments in criminology on strategies designed to induce shame. There is a growing literature on rule-setting and strengthening social condemnation of violent and criminal acts to remove social supports from those who commit criminal acts. The evidence here is less robust, but nevertheless suggestive of the capacity for engaging a deterrence-by-denial strategy through delegitimation within communities.

We move next to the ecological level of the community, where criminologists find that neighborhoods rich in collective efficacy enjoy salutary effects on crime and produce environments that reduce legal cynicism among residents. Robust findings in criminology demonstrate that informal social control is not only a characteristic of individual beliefs or social bonds, but is also “rooted in shared expectations and perceived codes of conduct.”\(^{22}\) Deterrence by denial is made possible by activating and making salient a shared moral context in the community where people reside, thereby reducing the social rewards of criminal action.

Finally, as a contrast to these three approaches, we examine evidence that changes in policing presence and perceptions of public order and disorder have an impact on the prevention of criminal activity. Here, we draw on work that assesses the evidence on “broken windows” policing and the effectiveness of strategies to police disorder. Research finds these “broken windows” strategies to be ineffective or at best inconclusive in reducing crime. The assertion of visible symbols of protection through deployment of police officers is not enough, and requires, in addition, attending to processes of social reward and sanction.

A. Formal Order Maintenance: The Role of Procedural Justice

The degree to which community members cooperate with law enforcement is central to the capacity to deter by denial. Community cooperation in the deterrence of terror by denial is important in two distinct ways. First, when community members engage effectively with police, they can mobilize to warn of suspicious packages, compromised security, or other indications that targets are vulnerable. In Israel, members of the public routinely warn law enforcement when they see unattended packages aboard public transport or in public places.23 Community members must feel a sense of efficacy and responsibility if they are to engage in this kind of activity.

Even more important, community members can provide early warning of young people from their own community who are likely to be involved in acts of terror. Deterrence by denial works here by increasing police capacity to obtain information to thwart would-be terrorists, rather than by changing their risk calculus. Scholars emphasize the importance to counterterrorism of police being able to elicit information and internal cooperation from within communities.24

Engagement with law enforcement is often undercut by widespread cynicism within communities over the role of the police.25 There are two strands of research in criminology that are relevant: the first, at the individual level, demonstrates the importance of beliefs about procedural justice, and the second, at the ecological level, demonstrates the importance of community norms of collective efficacy. Both provide empirical evidence about the mechanisms through which community members either cooperate with the police or engage in the informal maintenance of order, even in highly challenging social and economic contexts.


A rich vein of research consistently demonstrates the importance of procedural justice for individuals’ willingness to cooperate with the police and to comply with legal rules.\(^{26}\) Procedural justice rests on whether people judge police processes and law enforcement as fair, even if they disagree with the substantive outcome. It draws on people’s beliefs about neutrality, their respect, and their trust. These beliefs and attitudes are more important for legitimacy—or the acceptance of decision-making—than their views of the substantive outcome or even their stake in winning or losing. This emphasis on beliefs about the process, rather than on the attractiveness of the outcome, remains the case even when the stakes are high in cases of incarceration and high financial stakes, and when important policy issues are being decided.\(^{27}\) Perceptions of procedural justice help explain why people voluntarily obey the law and regard state power as legitimate.\(^{28}\)

As a cornerstone of legitimacy, perceptions of procedural justice are also critical to explaining why people cooperate with the police in responding to crime.\(^{29}\) A two-wave panel study drawn from a random sample of New York City residents asked about their willingness to cooperate with the police by calling the police to report that a crime was occurring, helping the police to find a criminal, reporting suspicious activity to the police, volunteering time to help the police, patrolling the streets with others, and attending community police meetings about crime.\(^{30}\) Residents who in the first wave of interviews regarded the police as more legitimate—that is, that they make decisions fairly and treat people justly—were found in the second wave of interviews, one year later, to be more likely to


\(^{29}\) Tyler & Fagan, supra note 26, at 267.

\(^{30}\) Id. at 248.
cooperate with the police. These models rely on people’s beliefs about what is appropriate, rather than on instrumental calculations.

Positive perceptions of procedural justice are a precondition for engagement with the police and willingness to supply information in counterterrorism investigations. Criminologists have directly investigated whether minority groups will comply with the police in the context of counterterrorism investigations. A series of studies that include Muslim communities in both London and New York find that, for Muslim Americans, it is the belief that police processes are fair and that people are treated fairly during the decision-making process that induces cooperation, either as a direct consequence of this fairness, or because this perception of fairness leads to a more general belief in the legitimacy of the police themselves. Belief in police legitimacy changes behavior; it induces people to defer to authorities and to cooperate voluntarily with the police. These studies demonstrate that the political ideology of respondents—their views on foreign policy, their attitudes toward terrorism, and their religious identity—generally has no effect on willingness to engage with law enforcement in the United Kingdom and has only limited impact in the United States. When people do not perceive police intervention as harassment, their membership in a group that is targeted for increased police attention appears not to change their assessment of procedural justice.

In contrast, these same studies demonstrate that instrumental mechanisms—whether residents believe that police

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31. Id. at 249, 252.
32. See infra notes 34–36.
33. In Britain, procedural justice has a direct effect on cooperation, but is not mediated through “legitimacy,” leading the authors to hypothesize that cooperation in the United Kingdom is more contingent—based on personal treatment—than based on a broader legitimacy of the policing institution or the state. Aziz Z. Huq et al., Mechanisms for Eliciting Cooperation in Counter-Terrorism Policing: Evidence from the United Kingdom, 8 J. EMPIRICAL LEGAL STUD. 728, 750 (2011) [hereinafter Mechanisms for Eliciting Cooperation].
34. Id.; Tom R Tyler et al., Legitimacy and Deterrence Effects in Counterterrorism Policing: A Study of Muslim Americans, 44 LAW & SOC’Y REV. 365, 380 tbl. 1 (2010) [hereinafter Legitimacy and Deterrence].
were effective, or even whether they believe that terrorism is a serious problem—are only weakly and indirectly related to cooperation. For both majority and minority group members, when people believe that Muslim Americans are being unfairly targeted or harassed, there are negative spillovers for police legitimacy. Beliefs about the consistent elements of procedural justice—neutrality, respect, and trust—remain central in fostering cooperation for counterterrorism as well as crime control. Neither the degree of violence in acts of terrorism nor the identity of the respondents as Muslim Americans changes the central importance of procedural justice for predicting cooperation with the police.\textsuperscript{36}

One way deterrence by denial works is by building strategic contacts between police and community members and fostering public trust of the police within communities whose members may be reserved about, or even fearful of, engagement with law enforcement officers. Drawing on empirical evidence from research on procedural justice, we identify the creation of “community intelligence” as one in the broader menu of strategies of deterrence by denial.\textsuperscript{37} Community members in the United States and Great Britain who consider the police fair are more likely both to alert the police and to cooperate with law enforcement about potential security threats.\textsuperscript{38} The evidence suggests that the success of deterrence by denial rests not only on a credible threat of failure, but also on strongly embedded norms of police fairness within communities.

B. Community Norms and Shaming

A different strand of research focuses on inducing shame in a would-be attacker for the violation of community norms.\textsuperscript{39} This strategy denies opportunity by delegitimizing acts of terror and increasing the likelihood of social sanctions against those who would commit acts that are normatively impermissible. The probability of failure increases not by what those who

\begin{itemize}
\item 36. Legitimacy and Deterrence, supra note 34, at 381–87; Mechanisms for Eliciting Cooperation, supra note 33, at 750.
\item 37. Martin Innes, Policing Uncertainty: Countering Terror through Community Intelligence and Democratic Policing, 605 ANNALS AM. ACAD. POL. & SOC. SCI. 222 (2006).
\item 38. Mechanisms for Eliciting Cooperation, supra note 33, at 750.
\end{itemize}
seek to defend against terror do, but rather by what communities with high levels of social cohesion do. Scholars emphasize that marginalizing terrorist groups from their imagined constituencies is central to counterterrorism efforts. This kind of strategy has been described as deterrence by delegitimation; we examine its likely effectiveness as a form of social-psychological denial that stems from the community of origin of individuals who contemplate acts of terror.

How does a strategy of shaming work? Community leaders engage in rule-setting, or reducing uncertainty about the impermissibility of certain acts. This kind of rule-setting has been of increasing importance in the global Muslim community, where religious leaders have explained that killing innocent civilians is against Islamic law and have issued fatwas against these kinds of acts. Rule-setting of this kind is especially important when there is uncertainty about what is permissible. Many young Muslim men who have been mobilized to commit acts of violence have been told by organizers that their acts of violence are divinely sanctioned and a fulfillment of Islamic law. Clarifying religious rules can be effective for young men motivated in part by religious beliefs.

How best to enable the development of shared norms that strengthen the condemnation of violent acts and the removal of social supports? The evidence in criminology is thin on this point, but research suggests that neighborhoods rich in shared norms of social order and of supervision of young people are highly correlated with communities with high levels of intergenerational closure, where local adults know and are a resource to support children and adolescents in the community, and reciprocated exchange, where interfamily interactions can build parenting supports across families. In these kinds of


contexts, local adults are likely to be more successful in building norms of social order and supervision.

Closely related to developing norms of social order is strengthening the social condemnation of impermissible acts. It is not only that these acts are unlawful, but that they also violate community norms and values. Here, communities make the foundations of their moral reasoning explicit to establish a set of shared normative constraints on what they consider impermissible behavior. Criminological research that focuses on the impact of “pulling available levers”—repressive policing combined with positive opportunities—to combat open-air drug markets and crime-ridden gang areas suggests that this kind of strategy is promising. These strategies rely both on formal policing efforts, job opportunities, and training, and on a “norms and narratives” approach that mobilizes community-based influentials to denounce offenders and to signal the community’s disapproval of the behavior. Community influentials, such as family members, faith leaders, ex-offenders, loved ones, and others, speak to offenders directly to deliver messages such as, “We love and care about you. We want you to succeed. We need you alive and out of jail. But if you do not absolutely understand that we disapprove of what you are doing, we are going to set that straight today.”

By emphasizing “norms and narratives,” these crime prevention strategies work at one level to activate social bonds in the community, a strategy that has a long history in criminological research on informal social control. Community influentials promote attachments to families, commitments to social relationships in communities, involvement in legitimate

44. See generally David M. Kennedy, Don’t Shoot: One Man, a Street Fellowship, and the End of Violence in Inner-City America (2011); David M. Kennedy, Deterrence and Crime Prevention (2009).


46. See Norms, Narratives, supra note 45 (encouraging this type of dialogue between “influentials” and drug dealers).
employment, reinforcement of social norms, and prosocial attitudes based on a belief in law-abiding behavior. Yet this strategy goes further by focusing on the content of the messages being conveyed by community influencers: these offenders are indeed valuable to the community and to those who enforce the law (despite the prevailing narratives that structure the relationships between community residents and law enforcement), but the community also “needs the violence to stop,” “the ideas of the street code are wrong,” and the community influential is hopeful about the offender’s potential future. A “norms and narratives” strategy mobilizes the moral voice of the community to denounce offenses and condemn violence, and to counter prevailing local narratives of, for example, the acceptability of drug dealing or prevailing local norms of gang retaliation. This is a strategy that, at the informal level, mirrors deterrence by denial strategies by removing social approval. Indeed, this kind of strategy goes beyond constraining likely individual offenders, since, by removing the social reward, it has the potential to reduce the likelihood of imitation.

A central premise of this approach is that gang and drug crime is closely linked to informal codes that permit and reward violent criminal behavior. These street codes emphasize honor and retaliation, community anger, frustration, and suspicion of law enforcement that is perceived as racially biased and heavy-handed, as well as some tolerance within the community for serving prison time. This strategy gives greater weight to codes of honor, status, and informal solidarities, rather than drug markets as contributors to violence. Influential community members, including faith leaders, are mobilized in these programs to draw out and express underlying positive community voices and expectations, as are ex-offenders and other community and family members. They are mobilized along three dimensions: they set the community standard by indicating, “We need you, and you’re better than this”; they provide moral engagement by invoking the possibility of offenders’ mothers or community children being put in harm’s way; and they challenge street codes by asking offenders who will help their families when they are imprisoned and

47. TRAVIS HIRSCHI, CAUSES OF DELINQUENCY (1969).
48. NORMS, NARRATIVES, supra note 45, at 11.
condemning their gang violence as politically unjustifiable.\textsuperscript{49} In the words of David Kennedy, the leading designer and proponent of these programs, “You could feel the room change . . . We started calling it the moral voice of the community. Moral engagement with thugs. The very last thing anybody thought you could do.”\textsuperscript{50}

Because these strategies rely on several “levers” to address crime and violence—from policing and enforcement actions to job training to community-based disapproval—it is methodologically challenging to identify empirically the successful elements of these programs. Program proponents point to reductions in drug-related and violent crime of between 40 and 50 percent, but they do not tease out the elements of the program that are key to its success.\textsuperscript{51} Program evaluations by other researchers carefully delineate more modest but substantial program successes of approximately 12 percent, though even then it is challenging to distinguish which elements of the program account for the impact.\textsuperscript{52} As one analyst of these programs suggests, “In the focused deterrence approach, the emphasis is not only on increasing the risk of offending but also on decreasing opportunity structures for violence, deflecting offenders away from crime, increasing the collective efficacy of communities, and increasing the legitimacy of police actions. Indeed, it seems likely that the observed crime control gains come precisely from the multifaceted ways in which this program influences criminals.”\textsuperscript{53}

Shaming, the articulation of prosocial norms and narratives, the assertion of personal and community bonds, and beliefs about procedural justice are joined up in these strategies

of focused deterrence and pulling levers. Taken together, these strategies reflect social-psychological and normative approaches to deterrence by denial and delegitimation.

C. Collective Efficacy and Informal Social Control

In addition to the individual level of belief in legitimacy and trust in law enforcement and the bonds and norms promoted directly to would-be offenders by influential community members, research in criminology further points to the informal social controls that are rooted in the ecological level of neighborhood life. These social controls enable strategies of deterrence by denial and legitimation. “Thicker” strategies of problem-oriented policing that do not rely exclusively on surveillance or target-hardening, but also include police involvement to help address community problems, appear more likely to achieve a broader geographic diffusion of benefits. These programs include a reliance on community advice that gives police the information they need to develop a tailored response and monitor and assess the results of their strategy. These approaches are rooted more deeply in the wider context of community engagement and the building of informal social controls.

A related series of studies in criminology demonstrates the centrality of collective efficacy on neighborhood outcomes, including reduced levels of violence. The study of neighborhood effects, including the ecological capacity of neighborhoods to engage in informal social control, finds that safety and security are a function of a neighborhood’s collective efficacy.

54. Bowers, supra note 54, at 63–69 tbl. 4; Braga & Weisburd, supra note 54, at 37.

55. This has been defined by the National Research Council. NATIONAL RESEARCH COUNCIL, FAIRNESS AND EFFECTIVENESS IN POLICING: THE EVIDENCE 91 (Wesley Skogan & Kathleen Frydl eds., 2004) ("The heart of problem-oriented policing is that this concept calls on police to analyze problems, which can include learning more about victims as well as offenders, and to consider carefully why they came together where they did. The interconnectedness of person, place, and seemingly unrelated events needs to be examined and documented. Then police are to craft responses that may go beyond traditional police practices . . . . Finally, problem-oriented policing calls for police to assess how well they are doing. Did it work? What worked, exactly? Did the project fail because they had the wrong idea, or did they have a good idea but fail to implement it properly?")
Collective efficacy requires the activation of social ties and the generalized belief that people in the neighborhood will act on behalf of others and the collective. A neighborhood’s collective efficacy is a measure of the social cohesion among residents, combined with shared expectations that residents will intervene on behalf of the common good to monitor children, respond to disorder, intervene to stop violence, or secure city services. Collective efficacy thus speaks not only to the building of trust and cohesion, but also to moral context and the capacity for deterrence. As Robert Sampson, the leading researcher in this field, recently explained, “A key argument of collective efficacy theory is that it matters what I think others think, making collective efficacy a kind of deterrence or moral rule—a generalized mechanism of ‘common knowledge’ that goes beyond any single act of control.”

56. This research returns to the sociology of the Chicago School of the 1920s that emphasized the importance of neighborhood context but lapsed into ecological fallacies about the effects of these contexts for individual outcomes. This work was instrumental in introducing the use of new methodological tools such as hierarchical linear modeling (HLM) developed by Raudenbush in the early 1990s (which can account for variance across levels). STEPHEN W. RAUDENBUSH & ANTHONY S. BYRK, HIERARCHICAL LINEAR MODELS: APPLICATIONS AND DATA ANALYSIS METHODS 459–96 (2d ed. 2001).

Collective efficacy is a latent construct understood as the linking together of social cohesion among residents combined with shared expectations over a community-based willingness to intervene on behalf of the common good, whether to monitor children, respond to disorder, intervene to stop violence, or secure city services. Questions about collective efficacy have become standard in the field, focusing on the willingness of neighbors to intervene if children were skipping school and hanging out on a street corner, if children were spray-painting graffiti on a local building, if children were showing disrespect to an adult, if a fight broke out in front of their house, and if the fire station closest to their home was threatened with budget cuts. Sampson et al., supra note 21.

57. Sampson, supra note 22, at 20. Survey research has been augmented through systematic social observations across Chicago over a five-month period. The systematic social observations involved videotaping and observing across all of Chicago’s census tracts over a five-month period, then sampled and coded for nearly 24,000 “face blocks” (one side of a city block) across the city. Jeffrey D. Morenoff et al., Neighborhood Inequality, Collective Efficacy, and the Spatial Dynamics of Urban Violence, 39 CRIMINOLOGY 517 (2001); Robert J. Sampson & Stephen W. Raudenbush, Systematic Social Observation of Public Spaces: A New Look at Disorder in Urban, 105 AM. J. SOC. 603, 616 (1999).
Collective efficacy is a consistent and significant predictor of how neighborhoods successfully deter crime and disorder—including in neighborhoods of high and concentrated forms of disadvantage—by increasing informal social control.\(^{58}\) Evidence from the United Kingdom suggests that such informal, neighborhood-driven collective efficacy also predicts public confidence and perceived legitimacy of the police.\(^{59}\) And, recent evidence from the United States demonstrates that the lack of informal social controls is correlated at the micro-level, across 24,000 street segments over a sixteen-year period, with chronic crime hot spots. This evidence suggests that highly targeted social interventions to bolster informal social control may be a promising crime prevention strategy.\(^{60}\)

This vein of research in criminology is robust and promising for scholars of deterrence by denial. Research identifies community collaboration as essential to engagement with the police and other state officials trying to deter violent acts of terror by changing collective beliefs and thereby raising the

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58. Sampson et al., supra note 21, at 918–24.
59. Jonathan Jackson, A Psychological Perspective on Vulnerability in the Fear of Crime, 15 PSYCHOL. CRIME & L. 365 (2009); Jonathan Jackson et al., Just Authority? Trust in the Police in England and Wales 16 (2012). The ecological literature also draws attention to neighborhood contexts of legal cynicism, where violence is higher where legal rules are perceived as irrelevant. This cognitive landscape can be reinforced by disadvantage, with a feedback loop that feeds further cynicism and behavior outside the law. Research demonstrates that such cynicism helps explain the persistence of violence. There are some preliminary indications in the United Kingdom that neighborhood level cynicism may itself lead to lower levels of cooperation with police. In the United States, arrests for crimes are less likely in neighborhoods with higher levels of legal cynicism. For deterrence by denial, then, we need to consider the elements that are protective against legal cynicism, and predictive of collective efficacy. David S. Kirk & Andrew V. Papachristos, Cultural Mechanisms and the Persistence of Neighborhood Violence, 116 AM. J. SOC. 1190 (2011); David S. Kirk & Mauri Matsuda, Legal Cynicism, Collective Efficacy, and the Ecology of Arrest, 49 CRIMINOLOGY 443, 460 (2011); Mike Hough et al., Procedural Justice, Trust, and Institutional Legitimacy, 4 POLICING 203, 207 (2010); Sampson, supra note 22, at 18 n.16; Robert J. Sampson, Mowing and the Neighborhood Glass Ceiling, 337 SCIENCE 1464, 1465 (2012); Robert J. Sampson & Dawn J. Bartusch, Legal Cynicism and (Subcultural?) Tolerance of Deviance: The Neighborhood Context of Racial Differences, 32 L. & SOC’Y REV. 777 (1998).
likelihood and the costs of failure. Studies demonstrate convincingly that a perception of procedural justice is necessary for individual engagement. At the community level, a sense of collective efficacy is essential, as is a shared belief in the legitimacy of law and a sense of shared norms.

How is a sense of collective efficacy enabled? Several strands of research are suggestive here. Criminologists suggest that the most effective strategies are likely to be those that help communities to help themselves. Institutional integration between the police and community organizations can give new meaning to law enforcement and public safety interventions. Rather than a public-centered notion of law enforcement, which envisions the police as the primary agents of social control through the use of a politically legitimized monopoly on force, cooperative alliances among community organizations that are facilitated by government can set the stage for "private" law enforcement, where social control takes place primarily through the enforcement of informal norms, as opposed to law.

D. Policing Disorder and “Broken Windows”

Governing crime through “broken windows” policing came to public attention when the first evidence of the decline in crime in New York of the early 1990s became available. Media reports linked this drop in the crime rate to a broad police campaign to increase misdemeanor arrests for disorderly behavior and public order offenses. In the context of crime and policing, “broken windows” developed as a metaphor to understand how perceived disorder can set off a chain reaction that weakens informal controls in neighborhoods, leading to additional disorder and more serious crime. “Broken windows” strategies were soon adopted by police departments in the United States, and several jurisdictions implemented these

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strategies through widespread arrests for disorderly conduct. Most notably, the New York City Chief of Police, William Bratton, adopted the concept of “broken windows” both metaphorically and literally and asserted, “If you peed in the street, you were going to jail. We were going to fix the broken windows and prevent anyone from breaking them again.” Bratton nearly doubled misdemeanor arrests, despite only a small increase in the number of complaints.

“Broken windows” was one of several policing reforms in the 1980s and 1990s that emphasized community-based approaches to policing, often through a focus on the maintenance of order and the reduction of symbolic and physical disorder. These reforms included loitering ordinances, curfews, policing of panhandling and graffiti, and tactics such as reverse stings and "stop and frisks," all part of the "new policing" that emphasized local and community "quality of life" approaches to crime prevention and security. The police reasserted authority through physical presence on the street and, in many cases, widespread arrests. The underlying rationale was to prevent disorder and thereby allow informal community


70. Meares & Kahan, supra note 61, at 832.


72. Livingston, supra note 63.
social controls to re-emerge and enhance neighborhood quality of life.\textsuperscript{73}

There was some early evidence to support “broken windows” strategies. The decline in the rate of crime in New York during this time period was dramatic. Crime dropped across a wide array of offences, and that drop has persisted to the present day.\textsuperscript{74} Homicide alone remains down over 80 percent from its peak.\textsuperscript{75} More broadly, data collected across a wide range of U.S. cities suggest that disorder is significantly linked to crime, a finding which could give credence to the potential efficacy of “broken windows” policing strategies.\textsuperscript{76}

Yet, there is little support for the thesis that “broken windows” policing is itself the cause of crime reduction. Contrary to the claims of police departments, municipal governments, and police executive forums that tended to support this revolution in policing strategy, the empirical evidence from city-based trials and experiments has turned out to be weaker than expected. Rigorous empirical research casts doubt on whether “broken windows” policing efforts have a salutary effect on crime rates.\textsuperscript{77} Researchers have also cast doubt on the empirical validity of the earlier studies of disorder and crime that underlie the “broken windows” approach.\textsuperscript{78}

\begin{itemize}
\item \textsuperscript{75} Zimring, \textit{supra} note 74, at 5.
\item \textsuperscript{76} See Wesley G. Skogan, \textit{Disorder and Decline: Crime and the Spiral of Decay in American Neighborhoods} (1990) (finding close links between the prevalence of social and physical disorder and crime rates).
\item \textsuperscript{78} See Harcourt, \textit{supra} note 67, at 302–05 (critiquing the hypothesis that minor physical and social disorder causes serious crime if left un-policed). In his proposal reviewing the research in this field, Anthony Braga summarizes that “evaluations of the crime control effectiveness of broken windows policing strategies also yield conflicting results,” and that “[i]n New York City, for example, it is unclear whether broken windows policing can claim any credit for the 1990s crime drop.” Anthony A. Braga, \textit{Title Registration for a Review}
crime rates fell after implementing “broken windows” strategies, statistical evidence on their causal impact is largely inconclusive, mainly because these cities relied on several new strategies simultaneously, and it was consequently impossible to disentangle retrospectively their independent impact.\textsuperscript{79}

Media reports and academic analyses were most optimistic about the New York Police Department’s vigorous “broken windows” strategy. The best available evidence, however, suggests that even in New York the decline in crime is not directly attributable to “broken windows” strategies. Time-series analyses over a ten-year period suggest a reversion to the mean after crack-related crime spikes.\textsuperscript{80} Panel-based econometric comparisons across New York City precincts demonstrate that reduction in rates of crime cannot be attributed to aggressive policing; rather, the decline in crime began at the same rate prior to the introduction of “broken windows” policing.


\textsuperscript{79} Greenberg, supra note 74, at 155–56.

\textsuperscript{80} Harcourt & Ludwig, supra note 77, at 276.
to these interventions.\textsuperscript{81} Within New York, the effectiveness of strategies that target discrete geographic locations, rely on vigorous policing, and hold individual precinct commanders accountable for crime rates in their areas is uncertain.\textsuperscript{82}

Those who do find positive impact from changed policing strategies attribute some reduction in crime to the inclusion of location-based approaches within the policing repertoire.\textsuperscript{83} These include community problem-solving efforts by the police force that focus on strategies that ask how victims and offenders have become engaged in situations that lead to crime. A systematic review of studies finds that focused, problem-oriented strategies in hot spots are the most effective approaches within situational policing efforts.\textsuperscript{84}

Building on the findings regarding collective efficacy, some of the most elegantly designed research in criminology suggests that any relationship between “broken windows” policing and crime reduction is largely spurious.\textsuperscript{85} What is significant is the presence of community cohesion through collective efficacy, even in cases of observed disorder.\textsuperscript{86}

\begin{footnotesize}
\begin{enumerate}
\item Greenberg, \textit{supra} note 74, at 155.
\item Zimring, \textit{supra} note 74, at 142–47; Eck & Maguire, \textit{supra} note 65, at 230–35; Greenberg, \textit{supra} note 74.
\item Weisburd & Eck, \textit{supra} note 78; David Weisburd et al., \textit{Policing, Terrorism, and Beyond, in To Protect and To Serve: Policing in an Age of Terrorism} 203 (David Weisburd et al. eds., 2011).
\item Anthony Braga, Andrew Papchristos & David Hureau, \textit{The Effects of Hot Spots Policing on Crime: An Updated Systematic Review and Meta-Analysis}, 31 \textit{JUST. Q.} 633 (2012). The national decline in crime rates also suggests that the drop in crime in New York was also a function of secular trends that cannot be attributed to specific changes in the city’s policing strategy. Researchers have pointed to changes in drug markets and gang consolidation, demographics, incarceration policies, increased surveillance, or changes in youth culture. Rosenfeld et al., \textit{supra} note 78. The question of whether increased numbers of police officers may be at the root of crime changes is itself very difficult to parse methodologically, largely because of causation problems (since changes in police strength may result from changes in crime rates). The evidence here is ambiguous, though the most sophisticated research suggests that there may be some decrease in crime rates achieved by increasing police strength. Weisburd & Eck, \textit{supra} note 78, at 49.
\item Sampson & Raudenbush, \textit{Systematic Social Observation, supra} note 57.
\item Where disorder has been found to be directly linked to crime, it is limited to robbery, rather than to crime in general. Robert J. Sampson & Steve Raudenbush, \textit{Nat’l Inst. of Justice, Research Brief, Disorder in Urban Neighborhoods: Does it Lead to Crime?} 5 (2001). Similarly, in an experimental study of five U.S. cities where low-income residents were pro-
\end{enumerate}
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This is not to argue that disorder is never meaningful. Instead, building on systematic social observation research in Chicago, Sampson argues that to be successful, a strategy of “broken windows” policing requires an understanding of how social meaning is attached—or not—to any particular “broken window” by community residents. This social meaning may then have real consequences for collective efficacy. In contrast to how “broken windows” has been translated into police practices—in particular, into harsher law enforcement—what is required, therefore, is a more comprehensive understanding of individual beliefs that acknowledges how, even in the same neighborhood, people differ significantly in how much weight they give to disorder as a problem. These perceptions are systematically shaped by residents’ education, class, age, and social position. Race is also important; whites tend to see disorder as more of a problem than other groups, even when they live in the same environment. If policing neighborhood disorder can be linked to reductions in crime, it needs to account for how individual and collective cognitions and community norms such as collective efficacy shape how any single broken window will be interpreted. “Just as memory is dependent on context,” Robert Sampson argues in summarizing the conclusions of this research, “so is what we ‘see.’”

What do we conclude? The evidence about “broken windows” policing strategies is at best ambiguous with regard to its impact on crime reduction and prevention. By extrapolation, strategies that reduce disorder and emphasize resilience in the wake of attacks may contribute only indirectly to the effectiveness of deterrence by denial. “Broken windows” approaches that do not grapple with community contexts of norms and social life have been found to be generally ineffective, whereas

87. Sampson, supra note 22, at 16.
89. Sampson, supra note 22, at 17.
90. Id. at 16.
enhancing perceptions of procedural justice and deepening the well of collective efficacy in neighborhoods are linked to more successful outcomes. This suggests that deterrence by denial strategies may work through processes of legitimation (of law and of state officials) and processes of delegitimation (through social sanctions). These strategies reconfigure social risks and rewards by acting on the social meaning embedded in relationships with state officials and with community members.

IV. Conclusion

Robust evidence from criminology undermines some of the conventional wisdom about deterrence of terror by denial and suggests important new areas for research about the effectiveness of different strategies that seek to deny would-be attackers the opportunity they seek. First, we can argue with considerable confidence that displacement should no longer be considered as a highly likely consequence of strategies of denial. Second, drawing on the evidence from studies that find diffusion of benefits, we put forward the proposition that the success of deterrence by denial is likely to be enhanced by three factors: uncertainty about the scope of denial strategies, heightened sensitivity to the probability of failure, and higher estimates of loss.

The results are equally promising for a second set of strategies—the focus of this paper—that enhance community engagement and collaboration with law enforcement and link deterrence by denial with delegitimation of acts of terror. At the neighborhood level, a sense of collective efficacy is essential, as is a shared belief in procedural justice. There is strong evidence that enhancing community engagement is associated with a reduction in crime through the denial of opportunity. Strategies that focus on inducing shame in a would-be attacker for the violation of community norms and making alternative norms and narratives salient among community members also find some support. These community-based strategies increase the probability of failure by increasing the likelihood of social sanctions against those who would commit acts that are not only illegal, but also normatively impermissible, and by legitimizing law-abiding norms and narratives while delegitimizing crime and violence.
Taken together, these strategies provide support for deterrence by denial, whether through physical target-hardening or through linked social processes of denial and delegitimation. The first set of strategies works on adjusting the physical environment while the second and third adjust the normative context in which would-be offenders operate. As we have seen, these strategies can operate at the level of the individual, at the level of social bonds, at the level of shared norms and narratives available to community members, and at the ecological level of collective efficacy and shared expectations for behavior.

Yet, the mechanisms that these strategies follow are very different, with important implications for policy. The first set of strategies—target-hardening through increased surveillance—works very differently than do the second and third sets, which seek to deny opportunities to would-be attackers by enhancing a sense of community efficacy to promote collaboration with law enforcement and by decreasing the social rewards of impermissible action through community engagement. Target-hardening can increase uncertainty and the likelihood of failure, but it can create “surveillance societies” that fracture communities and heighten suspicion and stereotyping. And, over time, divided communities may create the social conditions that enable acts of terror. In contrast, the last two norm-based strategies strengthen deterrence by denial at two levels: they deny opportunities by inducing law-abiding citizens to provide intelligence to police that can thwart attacks, and they deny social rewards by creating a moral context that ensures offenders lose community esteem if they engage in socially prohibited activity. By reducing the social rewards to those who commit acts of terror and creating a moral context of cooperation with law enforcement, these strategies deny social approbation and community support to would-be attackers.

The first strategy stands in tension to the others, and using different strategies simultaneously can create very difficult trade-offs. The challenge is to model the appropriate balance amongst them, fully recognizing that some of these trade-offs are unavoidable. We do not have strong theoretical models or robust evidence to help structure the trade-offs among strategies of deterrence of terrorism by denial. We must look beyond political science to find useful analogues and evidence,
because we cannot do the controlled or experimental studies that would generate robust inferences, nor are the number of cases large enough to generate valid results. In this paper, we have drawn from a closely relevant field of study, criminology, and to extract evidence that is relevant to deterrence by denial through cognitive strategies that stress legitimation and delegitimation. The next step is to muster the evidence that engages with the complementarities and trade-offs among the different strategies that fall under the broad rubric of deterrence by denial.