

The Cognitive Accessibility of Crime: Behavioral Science and Criminal Behavior

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The standard economic view of crime suggests that decisions to offend are based on the probability of getting caught and the costs of getting caught, relative to the benefits of the offense (Becker, 1968). And there is a large body of evidence to suggest that, in the aggregate, criminal behavior does indeed respond to these parameters (e.g., Durlauf and Nagin, 2011). However, even when these parameters are held constant, there is also enormous variability in whether people engage in criminal behavior. What lies at the root of these decisions to offend?

In this paper, we focus on what happens *prior* to the moment when people consider the parameters of the standard economic model of crime. Before people weigh the costs and probability of getting caught committing a crime, what behavioral and cognitive

processes lead them to even think of a criminal action in the first place? A better answer to this question could help improve the effectiveness and efficiency of the criminal justice system.

We suggest that criminal behavior enters into consideration to the extent that it is cognitively *accessible*. Specifically, people form interpretations of the context and have beliefs about which behaviors are common and adaptive in that context. These interpretations and beliefs are shaped by past experiences and expectations, and they influence which courses of action—including criminal behavior—readily come to mind (i.e., are accessible). Critically, accessibility depends on three parameters: *automaticity*, *identity*, and *privacy*. These parameters make it possible to identify new interventions which would not necessarily stem from the standard economic view.

I. Automaticity and Reflection

In his 1992 Nobel lecture, Gary Becker described how he came up with the economic model of crime. He was late to deliver an oral

exam and was trying to park.¹ He considered parking illegally near campus to save time, weighing the costs and probability of getting a ticket. In a sense, he asked, “Is it worth it to park illegally?” From there, the calculus naturally follows.

But there were other questions that could have come to mind instead. For example, he might have asked, “Since I am late, should I change the format of the oral exam so we have enough time to still focus on the key issues?” From this question, parking illegally does not even come to mind as an answer.

A large body of research in psychology suggests that our interpretations of the situation often happen automatically and are based on the situations we encounter most often (Ross & Nisbett, 1991; Kahneman, 2011). The assumptions we make about a situation constrain how we respond to it by affecting the alternatives we consider. In fact, sometimes only one response comes to mind based on how we see the situation. Many “decisions” might not be decisions at all. For someone who cannot afford to get a ticket, parking illegally may never come to mind as an option. For someone who assumes that academic bureaucracies are inflexible, parking illegally might be the only accessible option.

We can see this psychology play out in an exercise that forms the foundation of a youth anti-violence program called Becoming A Man (BAM), developed by the Chicago nonprofit Youth Guidance. In this exercise, called “The Fist,” two participants are paired up and one of them receives a rubber ball and is told to make a fist around it. The other young man in the pair is told he has a minute to get the ball from his partner. Inevitably, youth use physical force to try to take the ball. Afterwards, the counselor asks why no one asked for the ball (as is almost always the case). The youths say they are certain that if they asked for the ball, their partner would have disrespected or ridiculed them. The counselor notes that this is a common *assumption* that they often invoke across a range of situations. But he then turns to the first person in the pair and asks what they would have done if asked for the ball. Most say they would have just given up the ball.

Watching youths go through this exercise, it is easy to wonder what character traits might make them choose to use physical force in such a trivial context. But a different explanation is that there was not an actual *moment of choice*. The youths automatically responded based on their perception of the situation. The exercise seemed to call for physical force.

¹http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/1992/becker-lecture.pdf

This psychology might also explain why some crimes happen—not because offenders considered the relevant benefits and costs, but rather because they did not consider a way for the crime to not happen. Sometimes, an offender automatically responds to his perception of the situation. For example, someone might respond to a conflict with violence because he assumes it is the only way for him to save face or ensure he is not victimized again in the future. Someone might commit a robbery because he assumes there is no other way to earn the money to pay a bill.

This has implications for intervention: Reducing automaticity might increase the chances people consider alternatives to criminal behavior. Creating a moment of choice might also increase how responsive people are to the standard economic levers.

Could doing something as simple as creating a moment of choice really change the prevalence of such complicated behavior as crime? To test this possibility we carried out two large-scale randomized trials of BAM in Chicago. In both studies we found reductions in total arrests during the program period by about one-third and declines in violent crimes by nearly one-half (Heller et al., 2015). We also find that a related program carried out in the Cook County Juvenile Temporary

Detention Center (JTDC) generates sizable reductions in recidivism rates.

To scale these interventions, it is important to understand the exact mechanism generating the behavior change. Some insights come from a lab experiment that Shah (2015) conducted with 144 participants. Participants first imagined participating in the Fist exercise. They were then randomly assigned to three conditions: (1) a “think harder” condition, where they imagined different ways the exercise could play out or different people it could involve; (2) a “think back” condition, where they identified their assumptions about the situation and thought about alternative assumptions; and (3) a control condition, where they were given no further instructions on how to think about the situation. All participants were then asked to brainstorm ways of navigating the exercise. Participants who simply thought harder about the situation were no more likely than controls to realize that they could simply ask for the ball. But participants in the think back condition were more likely to find this solution.

Notice how this changes our view of why crime happens. Because people often *think past* critical assumptions about the situation, only a few ways of navigating the situation are accessible. But re-construing the situation—thinking back to those assumptions—creates

other actions to consider (each with their own costs, benefits, and probabilities of success and failure). This insight leads to a whole new class of interventions beyond those suggested by the economic model of crime. And these interventions can be remarkably cost-effective: We estimate benefit-cost ratios that may be as high as 70 to 1.

II. Identity and Consistency

How we construe the situation is not the only factor that determines whether criminal acts come to mind. Our sense of identity also constrains which actions are accessible, as a large body of research in psychology shows that people value acting consistently with how they view themselves. Someone who thinks of himself as a person who stands up for women would be unlikely to seriously consider an act of domestic violence in any situation, even during a heated conflict. Someone who thinks of himself as a person who does not use violence might refrain from carrying a weapon, even while engaging in other criminal activities where a weapon might be useful (e.g., drug dealing or robbery). These behaviors are rejected not just because of the expected costs of punishment. Rather, they might not even enter into consideration because they are inconsistent with how people view themselves.

At first glance this seems to suggest a straightforward intervention: Exhort people to take on a new identity by changing their behavior. And indeed this is a common feature of public health approaches to reducing crime. For example, Chicago is covered with signs and bumper sticks that say “Don’t shoot – I want to grow up,” distributed by the public health organization Cure Violence to “convey the message that violence is not acceptable.”²

Yet research from social psychology suggests it might actually be easier to change people’s behavior by telling them they *already* have a certain identity. For example, a classic experiment to reduce littering randomly assigned subjects to either persuasion or labeling conditions. In the persuasion condition, there were lectures, advertisements, and messages like “Don’t be a litterbug.” In the labeling condition, students were told repeatedly (by the teacher, principal, and others) that they were a “Litter-Conscious Class” that does not do things like litter. At follow-up the share of students who properly disposed of trash was 30% for controls, 30% for the persuasion group, and well over 80% for the labeling group (Miller et al., 1975). Similar effects have been observed for outcomes like scholastic achievement, self-

² <http://cureviolence.org/the-model/essential-elements/>

esteem, and charitable giving. That is, labeling a person as someone whose behavior is already commendable can be more effective than exhorting them to change their behavior.

This psychology may also help us understand why recidivism rates are currently so high in the United States. Social labels are widely used throughout the criminal justice system, but they are overwhelmingly negative. Juveniles are labeled as troublemakers, inmates are labeled (and sometimes isolated) as problematic, and focused deterrence strategies call in the highest-risk gangs or people to tell them that their propensity for violence has earned the police spotlight. If this is the identity they are given, then delinquent behavior will be more cognitively accessible because it is consistent with their self-concept. Perhaps we should not be surprised that fully two-thirds of all people released from prison are arrested again within three years.

III. Privacy and Transparency

We all behave differently in public than in private. In fact, there are actions we would never even consider if we believed there was an audience paying attention. If potential offenders believe that the details of their crime would remain private, then it feels as if the crime essentially has no audience. Crimes may be more likely when, psychologically speaking, there is a veil of privacy.

The usual approach to making potential offenders feel like there is an audience for their crimes is to increase the chances that there is actually an audience. The US spends billions of dollars a year to have police patrol places where crime might happen, to field security guards, or to mount security cameras.

But, there is an interesting wrinkle in the psychology of privacy. People often experience what psychologists call an *illusion of transparency*, where they believe that others can read their minds (Gilovich et al., 1998). The illusion of transparency removes the veil of privacy. It might therefore be possible to leverage this illusion to reduce the sense that some crimes have no audience.

In fact, it may be possible to increase this illusion without increasing actual surveillance. To do so, we can draw on the same psychology that led one fan to tell the actress Reese Witherspoon, “You’re my best friend...and you don’t even know it.”³ Knowing a lot about others may lead us to believe they know a lot about us. Having information about other people might increase the illusion that our own thoughts are transparent to others.

To test this hypothesis, Shah et al. (2015) carried out an experiment with 104

³ <http://www.crushable.com/2014/09/17/entertainment/meeting-celebrities-what-fans-say-to-them-video/>

participants who were asked to write four truths and one lie about themselves. Participants were then randomly assigned to one of three conditions that varied the amount of information they believed were about another study participant: No information, seeing one truth about this other person, or seeing four truths. They were then asked how likely it was that the other person could detect the participant's own lie. Participants who were given information about the other person reported a higher probability that the other person would detect their lie (approximately 40% versus 27% in the "no information" condition)—that is, they experienced a greater illusion of transparency. In some sense, this assumption is adaptive given most situations we face. It is usually true that people whom we know well also know us well. But, in our experiment, this could not possibly be true. Instead, people overgeneralize this belief.

This has a striking implication. Law enforcement often focuses on solving and deterring crime by *extracting* information from the public. But the illusion of transparency suggests we may be able to deter crime by *providing* information to the public. That might take the form of officers simply sharing a few benign details about their lives at a community meeting or out on patrol. In fact, it may not even be necessary to share a

lot of information. In our experiment, the greatest marginal increase in the illusion of transparency occurred when providing one piece of information about the other person. The leap from anonymity to being known is much greater than the leap from being known to being known well.

This insight might also change how we think about the mechanism behind community policing initiatives, which ask officers to spend time interacting with community residents. We usually think these initiatives work by increasing the chances that potential witnesses might share information to help future investigations. But by having the police share information, another benefit might be changing offenders' perceptions about whether their crimes have an audience. The illusion of an audience changes which actions are accessible.

IV. Conclusion

The standard economic view of crime suggests clear levers for changing behavior: Decrease the benefits and increase the costs of punishment or the chances of being caught. But before a person can even consider the costs and benefits of an action, they have to think of the action. We suggest that the cognitive accessibility of criminal behavior depends on how people view the context.

It is also worth noting that these insights are relevant not just for changing the behavior of potential criminal offenders, but also for the behavior of actors within the criminal justice system itself. Rather than exhort officers to become the sort of person who has positive interactions with the community, we might commend them for already being the sort of person who interacts positively with community residents. Moreover, police and correctional officers often make fast assumptions about situations and whether other parties have negative intent. But these assumptions might be faulty, which could make it difficult to see some courses of action available to them. Efforts to reduce automaticity and help officers reconstrue the situation might therefore help de-escalate some conflicts.

Ultimately, if we understand the psychological parameters that lead people to even consider a given action in a given situation, we can design interventions that lead people to think of different possibilities.

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