COMMENTARY

Understanding when people will report crimes to the police

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In a recent PNAS article, Hagan et al. (1) use administrative records of 911 calls to study how people in urban neighborhoods decide whether to report crimes to the police. The authors argue that an important factor in the decision is what researchers have called "legal cynicism," or a general distrust in the fairness and efficacy of the law and police enforcement (2). But whereas others have argued that such cynicism discourages people from interacting with the police, Hagan et al. (1) propose that legal cynicism encourages them to report crimes, that it does so because people carry both conscious and unconscious cultural attitudes that encourage a desire for protection, and that this desire is shaped by racial isolation and other neighborhood factors. Research of this kind is important for both social and scientific reasons.

The Hagan et al. (1) research is socially important given the national debate over policing. The relationship between police authorities and African Americans, immigrants, and other minority populations has been particularly contentious, as video-recorded incidents of abuse of authority, of people dying at the hands of the police, and of children being detained by border agents have been shown repeatedly throughout social and news media. African American parents in many low-income neighborhoods have reported fear for the lives of their adolescent children. Legislators, mayors, and commissioners in many localities have struggled to create community–police relations with high levels of trust and cooperation. Understanding how trust shapes people's decisions to contact authorities is a question of national significance.

The Hagan et al. (1) research is also scientifically important given its relevance to the study of how the context in which people find themselves affects the decisions they make (3). Much of this research in the fields of urban sociology, poverty, and social inequality has focused on decisions highly consequential for the person making them, such as whether to commit a crime, to enroll in college, to marry, or to change jobs. But decisions that may or may not be especially significant for the individual can be highly consequential for a group, as when the same decision by many in a group ends up affecting everyone in it. The decision to call 911 to report a crime may or may not affect the person deciding to do so and might not even affect the outcome of the particular incident at hand. But when many people in a neighborhood regularly report crimes to 911, the quality of life in the neighborhood and the safety of all its residents can be substantially affected. Still, given that the decision to call may be trivial to the individual, understanding such decisions forces the scientist to look beyond what may seem to be obvious explanations.

While studying questions of this kind is important, doing so remains a serious challenge for any researcher, as a result of three difficulties.

Culture and Causality

One difficulty is the challenge of demonstrating that cultural conditions cause people to make a given decision. Hagan et al. (1) argue that both "conscious and nonconscious" cultural conditions encourage people to call 911. These conditions are cynicism about police and a desire for protection. Two issues make demonstrating this point a challenge.

First, measuring cultural conditions in a convincingly reliable way can be difficult, because researchers often disagree on where one cultural category begins and another ends (4). Consider the concept of legal cynicism, the general distrust in the fairness and efficacy of police and the law. The concept would seem to be intuitive, easy to agree upon, and thus straightforward to capture in a survey. Now consider the following survey item, asked with a five-point scale from "strongly agree" to "strongly disagree": "The police in your local community can be trusted." This question would seem to be a straightforward way to measure legal cynicism: the more a respondent believes it to be true, the less cynical she or he is. But in Hagan et al. (1) this item is not used to measure legal cynicism; it is used to measure "procedural justice," a measurement decision that would seem to be arbitrary. To be clear, this is not necessarily a criticism of Hagan et al., who were merely using other researchers' measures and concepts; it is a point about the difficulty of measuring culture in

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a scientifically convincing way. When the connection between concepts and measures is theoretically ambiguous, any empirical results must be interpreted with caution.

Second, it is difficult to demonstrate that "unconscious" cultural factors are affecting how people are making decisions over the course of their everyday lives. To be sure, in a laboratory setting, identifying effects of this kind is possible. For example, a researcher can manipulate conditions such that study participants are forced to make decisions with little or no time to consciously reflect on them. In the field setting, it is also possible to identify, via carefully crafted survey questions, aspects of respondents' understanding of the world that they have not consciously articulated to themselves (5). By extension, it is possible to find statistical associations between such understandings and decisions, such as calling 911. But such associations are subject to omitted variable bias in ways difficult to overcome when the causal variable at hand is an unconscious cultural condition.

Ecological Fallacy?

Another difficulty is the challenge of demonstrating that a neighborhood-level cause is having a neighborhood-level consequence when the latter is the sum of individual-level decisions. To understand this difficulty, we must clarify two important aspects of this kind of analysis.

First, Hagan et al.'s (1) study does not actually predict which individuals are likely to call 911; it predicts which neighborhoods have high rates of 911 reporting. This difference is important and appropriate. The individual-level outcome (probability of reporting) and the neighborhood-level outcome (high rates of reporting) are, in fact, substantially different outcomes, because a person can live in a neighborhood with high reporting rates while being reluctant to ever call 911. Additionally, because neighborhoods with different reporting rates are likely to differ in safety, police presence, and other conditions, understanding this neighborhood-level outcome is essential to understanding the experiences of people in urban areas.

Second, just as the outcome in Hagan et al. (1) is at the neighborhood level, so are its ultimate expected causes. The authors are surely right in arguing that people's decisions should not be understood in isolation: "People do not base their perceptions of the police simply on their own experiences; instead, they draw on those of their family, friends, and neighbors" (1). What could seem like a personal decision made in isolation may in fact be a group process in several different ways: for example, the decision to call may be made in consultation with family members, rather than alone; it may reflect beliefs held by most people in a neighborhood, not just the individual; it may be the product not of personal experience but of the experiences of others who have shared it with the individual. So, with respect to both the causes and consequences, there can be good and important reasons to examine this question at the level of the neighborhood.

But this kind of examination presents two challenges. One is the difficulty of observing the process linking cause and effect. Hagan et al. (1) have excellent data that would seem to obviate the issue, because they have the actual decisions to call 911 at the level of the incident, data they merely happen to aggregate to the neighborhood level. But despite their richness, these are data on the outcome (the decision), not the process through which the outcome came about. Consider a contrast: Bruch et al. (6) recently studied a very different outcome: people's decision of whom to approach romantically, based on online dating data. Bruch et al. had data on the decision-making process, including how people browsed profiles, what key terms they entered in their searches, and which of the resulting profiles they first clicked on before deciding whom to contact. As a result, their data can be used to test directly theories of how people decide whom to date (regardless of whether the data are aggregated to the neighborhood or city level). In contrast, Hagan et al. (1) cannot observe the process through which people arrive at the decision to call 911.

Hagan et al. appear to connect their finding to a pattern often reported in the literature, which is that many people in poor and minority neighborhoods have ambivalent relations toward the police, expressing cynicism about them while also wanting protection.

To be clear, this limitation by itself is not unique to Hagan et al. (1); in fact, it is common across the social sciences. For example, most experiments of how people make decisions cannot observe the process either, they can only observe whether the theorized cause had an effect. But when the process is not observed, the predictors are at the neighborhood level, and the outcome is a neighborhood-level aggregate, the potential arises for an ecological fallacy (7).

The fallacy is not inevitable in such circumstances, but it can be difficult to avoid when the theory of the process assumes individual-level mechanisms. In Hagan et al. (1), the theory is that people with legal cynicism are both distrustful of the police and eager for protection; the evidence is that neighborhoods with high legal cynicism call 911 more frequently, even after taking crime rates into account. But note that it is also possible that neighborhoods with lots of cynics also have lots of other people inclined to call police: that living around people with too-cynical attitudes toward the police encourages an individual to overcompensate, out of fear that police may avoid the neighborhood. Store owners and landlords, for example, may be especially prone to call the police. It is thus possible that the cynics are not the ones especially likely to call 911. In the absence of data on the process, it is impossible to know.

Counterintuitive Findings

The final difficulty is the challenge of making intuitive sense of counterintuitive findings. Reporting counterintuitive findings is important to the proliferation of social science, because it makes clear to the public at large why the systematic study of society can yield results different from common sense, and can help nations and cities avoid governance decisions based on sensible but empirically wrong intuitions. These very facts heighten both the evidentiary and the theoretical stakes of reporting such findings.

First, a finding that seems contrary to common sense and has not been previously reported must be taken with caution. The notion that being more cynical about police might encourage people to call police more certainly seems contrary to common sense, and is difficult to reconcile. Hagan et al. (1) have provided a new finding. The possibilities of measurement problems, analytical idiosyncrasies, coding errors, and similar issues in any study call for additional studies replicating the finding, especially given the other challenges of works of this kind.

Second, findings of this kind call for exceptional clarity in interpretation. Hagan et al. (1) appear to connect their finding to

a pattern often reported in the literature, which is that many people in poor and minority neighborhoods have ambivalent relations toward the police, expressing cynicism about them while also wanting protection (8). But there is a major difference between arguing that people can be cynical about the police while also wanting protection and arguing that the more cynical about police one is, the more likely one is to call them (net of the actual crime rate). The intuition behind this latter process remains elusive. As future researchers pursue the important issues raised by Hagan et al. (1), both society and social science will likely benefit.

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