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Abstract

In late 2013, Trinidad & Tobago Police Service conducted the first randomized experiment ever to test a hot spots patrol strategy across large areas, as distinct from testing extra patrols one hot spot at a time. The Hot Spots Patrol Strategy (HSPS) experiment required, and helped to refine, a formal theory of both the causes and effects of directed patrols in hot spots. This paper presents an integrated theory of how to implement a hot spots patrol strategy in ways that maximize the preventive effects of patrol on crime. It then describes the HSPS experimental protocol used to test the theory in Trinidad. The key elements of HSPS are scaling up from specific hot spot locations to a district-wide focus on all its hot spots, and feeding back to the constables who provide hot spots patrols data on what they have done and with what effect---presented every two weeks, at a district-level “COP-stat” meeting with the people actually doing the patrols.

Introduction

How can police reduce crime and disorder in public places? One answer is hot spots policing. That answer, however, says more about a theory of the effects of increased patrols in hot spots (Reiss, 1985; Sherman, 1990; Sherman and Weisburd, 1995) than about a theory of the causes of those patrols. A theory of how to cause patrols to occur is described by police leadership as a sustainable strategy for implementing and maintaining a measurable level of patrols—but the strategy is essentially a theory of how to cause the causes of crime reduction. While strategies must be flexible in response to unanticipated obstacles, they must also have a clearly structured vision of the links in a causal chain of actions that delivers coordinated organizational behavior, a theory of implementation that drives daily operations.

Despite a flourishing body of research (if not formal theory) on the effects of hot spots policing (Braga et al, 2012) there is neither theory nor evidence on what actions police leaders should take to create and maintain the causes of a successful hot spots policing strategy. Criminologists are usually more interested in crime than in organizational behavior. Yet the applied criminology of police management requires that a theory of crime reduction be based on an evidence-based theory of what works in leading police service delivery on a
large scale, eventually covering any part of a jurisdiction where crime is concentrated into hot spots.

The local effects of hot spots policing at hot spots may be well-established, but the police profession remains openly skeptical about the issue of displacement. There is good reason for the skepticism, on two grounds. One is that the substantial evidence against displacement (Weisburd et al., 2006; Braga et al., 2012) is place-based, not offender-based. Until some police see evidence that offenders are not going from areas targeted by extra patrols to areas of less patrol, they may remain unconvinced that a hot spots strategy can reduce total crime in a jurisdiction—or even a police district. The second basis for their skepticism is that hot spots policing has never been clearly tested at a district level. “Scaling-up” the testing and delivery of hot spots at that level is needed to show district commanders, at least, that when they target hot spots for directed patrol, the total crime across the district will be lower—even if it displaces crime or criminals out of the district.

While a hot spots strategy has never been tested at a district level, it must be delivered at that level to demonstrate the full benefits which are only implied by the theory and evidence we already have—but not yet tested. It is essential, then, to scale up the evidence along with the delivery: to test hot spots policing at a district level, using districts as the units of analysis in randomized controlled trials. It is only when we have evidence on the effects of more patrolling at every hot spot of crime in public places, and not just a random selection of them (e.g. Sherman and Weisburd, 1995; Ratcliffe et al., 2011), that we can address the skepticism. That evidence is impossible to generate, we suggest, without a theory of the causes of consistently higher patrol levels in every hot spot, on a long-term, sustainable basis.

The development of this evidence requires a clear distinction between a theory of effects and a strategy for creating causes of those effects. A theory of how certain causes create certain effects is an integrated set of propositions that specifies and predicts the relationships between actions and results. It includes both necessary and sufficient conditions by which X causes Y. It need not specify how X happens, or how to cause X to happen. It merely predicts that if X does happen, Y will result. A strategy is, in effect, a theory of how to cause the causes to occur: a plan for organizing the actions of many people to take many steps in a specified sequence to implement and apply a theory of cause and effect. It is just as focused on the causes of X as it is on the effects of how X causes Y. In hot spots terms, a strategy of hot spots policing must be primarily concerned with how to insure that police patrols are conducted in the way the theory predicts will reduce crime, on the assumption—or evidence—that such patrols will keep crime levels lower than they would be under a strategy of random, undirected, “omnipresent” patrol (Wilson, 1950).

A strategy is thus simply another kind of theory. It requires integrated propositions, but its focus is on the production of the independent variable (as organizational outputs), rather than on the effects of the independent variable on the dependent variable (as organizational outcomes, such as less crime and disorder). Put another way, it is about the “causes of the causes” of crime reduction (Wikstrom et al., 2012). A police management strategy—a theory of causing causes—is required to cause police to do what a criminological theory says is required to reduce crime.

The idea of strategy as a theory suggests the value of an “integrated” theory of hot spots patrols, in which the causes of the patrols are linked to the causes of crime and disorder.
reduction. In this paper, we re-state and formalize the developing theory (Sherman, 1990; Sherman & Weisburd, 1995; Braga and Weisburd, 2010) of how hot spots patrols can reduce crime, as informed by extensive evidence. We then link that theory of outcomes to a new theory of outputs: how police management can cause and sustain hot spot patrols. By linking a management strategy for transforming patrol practice to implement the hot spots theory, we may build a translational theory of application into a formal theory from the outset. We then describe the protocol for testing the strategy in the Trinidad & Tobago Police Service, and briefly summarize the early implementation of the test. We conclude by reflecting on the time frame required to move any police agency from a discretionary to a directed patrol strategy against violent crime.

The goal of this paper is to address the central challenge of providing a continuously high dosage of intermittent patrol at predictable crime hot spots, in a global context of inadequate attention paid by police management systems to where and when patrol dosage is delivered on a daily basis. The paper has five sections:

I. Hot Spots Patrol Theory of Causing Crime Reduction Effects
II. Strategy for Implementing Hot Spot Patrols
III. Protocol for an Experiment in Hot Spots Patrol Strategy
IV. A Preliminary Report on Implementing the Protocol in Trinidad
V. Strategic Planning and Evidence-Based Policing

I. A Hot Spots Patrol Theory of Causing Crime Reduction Effects

The theory of the crime reduction effects of police patrol is derived from both a) the classical doctrine of deterrence, and b) modern evidence on police innovations. Taken together, these sources provide an opportunity for refining key concepts as the basis for a theoretical statement. These eighteen key concepts will ideally become a standard vocabulary for the highly precise “rocket science”—not just vague principles—of hot spots patrols. The concepts are hot spots, local deterrence, local displacement, regional deterrence, offender deterrence and displacement, crackdowns, backoffs, initial deterrence, residual deterrence, deterrence decay, dosage, frequency, intermittency, uncertainty, dosage-response curves, engagement and legitimacy. The formal statement of the theory of hot spots patrol effects connects these concepts in a series of propositions on the necessary and sufficient conditions to cause less crime in a police jurisdiction—and not just in a hot spot–than would otherwise occur.

1. Hot Spots. A “hot spot” has been defined in different ways by different criminologists for different purposes. Perhaps the most micro-level definition was the level of a specific building or street address (Sherman, et al, 1989), which tracked a police data system in Minneapolis for measuring where police were dispatched. A very influential definition based on long-term analyses of crime in Seattle has been street segments: both sides of a street from one intersection to the next (Weisburd, et al, 2004, 2012). For the purposes of a theory of police patrol, the procedures
described by Buerger et al (1995) for the Minneapolis hot spots patrol experiment (Sherman and Weisburd, 1995) are most relevant, since they emphasize the visibility of all the people in a “place” to a police officer, and vice versa. This definition precludes a use of a circumferential rule of including all crime within a 50-metre radius of a precise point on a map, which is efficiently done with computerized mapping programs but not appropriate for the theory of deterrence. Instead, it relies on a conceptual test: “a fixed physical environment that can be seen completely and simultaneously, at least on its surface, by one’s naked eye” (Sherman, et al, 1989a: 31). This means that if a police officer is parked on a street corner, she can see every crime that might occur within sightlines, and every potential criminal can see the police car or uniform.

2. **Local Deterrence.** The classic doctrine of deterrence could describe police patrol as an example of “general” deterrence, a threat to anyone and everyone in a society that if they commit a crime they may be arrested and penalized (Sherman and Weisburd, 1995). Yet it is probably more accurate to describe patrols in hot spots as “local” deterrence, because each patrol is aimed only at one locality at a time. More precisely, it is aimed at all people currently present on the public spaces of that locality, rather than just at those people with prior penalties whose conduct has been described as subject to “specific” deterrence. As long as the threat from a police patrol is limited to those who can see the patrol, it makes more sense to describe any effect of patrol at reducing crime in hot spots as “local” deterrence. To do otherwise may beg the question about whether the local patrol is in fact generally deterrent of people not committing crimes anywhere, or only locally deterrent of crimes that might be committed within the area observable by the police patrol. Thus whether or not criminal events are displaced by police patrols in hot spots, the reductions in crime at hot spots can still be considered local deterrence. As Reiss (1985: 29-30) put it,

“…police can effectively control soft-crime…by increasing their presence in situations where they wish to control the incidence of soft-crime or its consequences. By being present, they… increase the risks of potential offenders to the point that offending is thwarted.”

While some might read this statement as a hypothesis about situational deterrence, all situations relevant to patrol of public places must develop in a specific place. The Reiss hypothesis should therefore be read as describing local deterrence as a subset of situational deterrence.

3. **Local Displacement.** The phenomenon of local deterrence has long been accepted by critics of policies aimed at creating it--who then deny that it prevents crime altogether, but merely pushes crime “around the corner” (Weisburd et al, 2006). The “hydraulic” idea that crime, like water, will exist in a constant mass regardless of where it goes (Clarke & Mayhew, 1988) has no basis in evidence, but its intuitive appeal seems very powerful. It is not limited to local displacement from one hot spot to an immediately surrounding buffer zone, although that is one of only two ways by which this theory meets the minimum scientific standard of falsifiability; the other falsifiable
claim is that offenders will commit crimes elsewhere, as measured by locations of crimes leading to arrests. Reppetto’s (1976) influential treatise on displacement unfortunately included other kinds of displacement that are largely unfalsifiable, and hence beyond the realm of science. His many possible destinations for the “water” of criminal events included different types of offenses, as well as a wide range of different locations and situations. Because these other destinations in space and time could be anywhere in the world, the hypothesis that locally deterred crime will go just anywhere cannot be falsified by existing measurement tools (if ever). Despite its political potency, it remains scientifically insignificant. What is significant is what can be tested: whether crime is displaced “around the corner”—almost literally—and whether offenders who commit crime in one hot spot may move to other locations in the same police jurisdiction (see “offender displacement” below).

4. **Regional Deterrence.** If patrol has a local deterrent effect in a hot spot, that deterrence—rather than the crimes it deters—could actually spill over into the immediately surrounding region of the hot spot. Potential offenders may see police coming into and going out of a hot spot. They may hear by word of mouth that the cops are “over there.” They may stay away from the entire region around the hot spot because police presence anywhere in the region sends a warning signal. This spillover of deterrence may be caused by imprecise knowledge about exactly what boundaries police are staying within, which are not easily deduced from watching the police. These and other consequences of patrols inside hot spots on crime surrounding hot spots may explain the substantial evidence of what Clarke and Weisburd (1994) have called “diffusion of benefits” in a “buffer zone” immediately surrounding a hot spot (Weisburd, et al, 2006, 2012).

5. **Offender Deterrence.** The “diffusion of benefit” concept was named to contradict the widespread refutation of local deterrence with the displacement hypothesis. The idea of regional deterrence expresses this in spatial terms. Underlying the observation of regional deterrence, however, is also the premise that it is individuals as potential offenders who have decided not to commit crimes either within or around hot spots when they perceive increased risks of police presence. Regional deterrence is simply the sum of all individual offender deterrent effects.

6. **Offender Displacement.** If crime reductions within hot spots are accompanied by crime increases in the region, it is also presumably a result of individual displacement effects. Regardless of whether crime goes up or down in the region around a hot spot—since there is evidence of both phenomena (Sherman, 1990; Ratcliffe, et al 2011; Taylor et al, 2011)—the refutation includes the possibility that offenders will decide to commit their allegedly inevitable crimes outside of the region where local deterrence has temporarily prevented them. By deflecting the offense location far away from a hot spot, if that is what local deterrence does, the offenders’ decisions become harder to measure, but still not impossible. As Mazeika (2014) demonstrates, the names of offenders arrested in a hot spot in one city can be used to identify any new locations in the same city where they may be arrested after a crackdown creates local deterrence where they had been arrested in the past. As he finds for robbery arrestees, there may be no such offender displacement at all within the city. Yet the
concept—and its measurement—remains an underdeveloped subject in hot spots research, one that could be very important in establishing the plausibility of a hot spots policing strategy.

7. **Crackdowns.** Sherman (1990: 1) defined a police crackdown as a sudden increase “in officer presence, sanctions, and threats of apprehension either for a specific offense or for all offenses in a specific place.” The initial conceptualization of deterrent effects from hot spots patrols (Sherman and Weisburd, 1995) defined each appearance of a police patrol in a hot spot as a mini-crackdown. Unlike the formal, large-scale and often long-lasting crackdowns included in Sherman’s (1990) review, each patrol car or foot patrol officer’s visit to a specific location can also qualify as a crackdown on theoretical grounds. Much like a drunk-driving roadblock using breath-testing to detect violations, a police visit constitutes an increase in officer presence, as well as a threat of apprehension. Using this framework opens the door to a series of interrelated concepts that are the basis for a theory of crime reduction effects in hot spots.

8. **Initial deterrence.** The general pattern Sherman (1990) detected in a review of eighteen case studies was this: crime drops most steeply and deeply in the immediate aftermath of the onset of the crackdown. This observation was first seen at the end of the San Diego Field Interrogation experiment (Boydstun, 1975: 33), and then in other impact evaluations as well. In 15 out of 18 cases, the initial deterrence effect was observed, across diverse kinds of crimes and places. That effect opened the door for two other patterns to emerge: residual deterrence and deterrence decay, both of which were premised on a third concept of backoff.

9. **Backoffs.** A backoff is most easily defined as the end of a crackdown, gradually or suddenly reducing the dimensions of increased threats that defined the crackdown. It is important, as well as measureable, in relation to how long a local deterrent effect lasts. A simple deterrent effect might terminate immediately after a sudden police backoff; that is the common response, for example, to police strikes, from 1919 in Boston and Liverpool to 1976 in Helsinki (Sherman 1992) to 2013 in Argentina. Yet that reaction is not inevitable. A more interesting, and useful, idea is that when police reduce their threats to apprehend criminals in a locality, the deterrent effect may often wear off only gradually, not immediately.

10. **Residual deterrence.** The phenomenon of residual deterrence was first identified by Sherman’s (1990: 36) review of police crackdown evaluations as a continuation of initial deterrence after a backoff: in five out of five cases where crime was measured after an initial deterrent effect and a backoff, the review found that crime frequencies remained lower than they had been before the crackdown. Only gradually did they rise back up towards the levels that had preceded the crackdown. This initial observation of the phenomenon, with largely “middle class” offense types like drunk driving, was massively confirmed by Koper’s (1995) analysis of 6,273 observations of police cars arriving and departing from hot spots in Minneapolis in 1988-89. Continued observation after police left noted whether and how soon any crimes or disorderly conduct occurred. In the now famous “Koper Curve” pattern, the analysis demonstrated that the longer police remained in a hot spot (up to 15 minutes)—almost always with no crime occurring while they were present—the longer the period of
residual deterrence (defined as continued crime-free time) after they departed. The effect of longer police presence on residual deterrence began to decay after 15 minutes. As a result, evidence-based policing curricula generally recommend moving police patrols from one hot spot to another after 10-15 minutes, without making patrol patterns too predictable or certain for potential offenders.

11. **Deterrence decay.** The end of both initial and residual deterrence can be defined as deterrence decay. Whether police maintain or reduce the increased level of threat, it seems that initially deterred offenders may eventually become emboldened to commit offenses with greater frequency. In hot spot terms, there may be little crime committed in front of police officers, but it may occur while police become preoccupied with other matters and temporarily avert their gaze of surveillance. And as Koper (1995) demonstrates, the decline of initial deterrence after police leave is inevitable, but not right away.

12. **Dosage.** Evidence on residual deterrence and decay points to the central dimension of hot spots patrol theory: the total time, or “dosage,” of patrol presence that police deliver to a hot spot, with visibility to all potential offenders present at the location. The centrality of this dimension has not been enough to guarantee that it is measured consistently in hot spots patrol experiments. As of December 2013, the only journal-published experiment with precise measurement of minutes of uniformed patrol presence in the hot spots was the original Sherman and Weisburd (1995) Minneapolis test, which used graduate student observers with stopwatches to count the over 6,000 visits to 100 (out of 110) hot spots, 50 experimentals and 50 controls. It is only by this measurement strategy that in the Minneapolis test we know that mean patrol time per hot spot was doubled (during high-crime hours) from 7.5% to 15% of the time observed (Sherman and Weisburd, 1995: 638). No other published (as of late 2013) randomized tests (e.g., Ratcliffe et al 2011; Taylor, et al, 2011) were able to take such measures due to the cost of the observations. But the new world of GPS-monitored police cars and radios now makes it possible to measure patrol dosage by location in at least three experiments underway (in Birmingham and Peterboro, UK, and Trinidad) led by the Jerry Lee Centre of Experimental Criminology at Cambridge University. The use of GPS monitors also makes it inexpensive to measure a separate dimension of patrol: frequency.

13. **Frequency.** The total percent of time police are present—i.e., dosage—is a dimension that is completely independent of the number of times police come and go during one day or evening—or on average over many weeks or months. Police can be present in a hot spot fully 15% of the time between 1800 hours and 0200 hours by entering and leaving only one time, or 100 times, or more. Theoretically, frequency would seem to alter the local deterrent effect of police presence, at least to some degree. If potential offenders know that police will come only once a night to a location, even if they stay for two hours, they can be assured that police will not come back. If such observant offenders conclude that police will come only twice, or three times, they will also be able to estimate the best time to commit a crime without police arriving in the middle of the event. This claim is not based on evidence (yet—although some experiments are collecting it). It also lacks guidance on whether the relationship between
frequency and local deterrence is linear or not: that is, whether there is a tipping point of frequency (such as five visits per night) after which offenders can no longer keep track of what police are doing. Under this non-linear, step-change model of frequency, once the threshold is reached it would be unnecessary for police to pay any more visits per evening than required to hit the threshold. Other models are also possible, but would depend on the kind of evidence Koper analyzed. The key question remains whether frequency even matters at all, independently of total dosage. Is it (in dieting terms) the total calories or the number of meals per day that drives your weight gain or loss—or whether you exercise before or after breakfast? Policing knowledge is at least not far behind dieting in this respect.

14. Intermittency. The concept of frequency requires a complementary concept of intermittency—the periods in between police departures and arrivals. The unanswered question in hot spots policing is whether different, or more variable, patterns of police departures and arrivals produce different levels of local deterrence. The arrival and departure of police like clockwork every 2 hours, for example, would be a fixed period of intermittency, one that criminals might easily identify. They could simply wait until police left with great certainty that police would not return for another two hours. Periods ranging from 5 hours to five minutes, however, could leave even such professional criminals as pickpockets confused about their risks of apprehension.

15. Uncertainty. The extent to which intermittency is variable determines the statistically objective uncertainty of police arrivals and departures. The greater the variability of intermittency, the greater the uncertainty criminals may have about their risks of getting caught. As Sherman (1990) hypothesized, the greater the uncertainty, the greater the risk is perceived to be. This prediction is derived from prospect theory (Kahneman and Tversky, 1979), which predicts that people give more weight to a prospective loss than to a prospective gain.

16. Dosage-response curves. The concepts of dosage, frequency, intermittency and uncertainty can be combined to create measures of more dosage-response curves between these concepts and crimes per hour in a hot spot. Koper’s (1995) curve is a prime example of a dosage-response curve, but it is not the only possible curve of its kind. Moreover, it is an observational, non-experimental curve: a correlation that does not necessarily demonstrate causation. Ideally, dosage response curves should be constructed from large numbers of experiments using different dosage levels. Each experimental result, with a given dosage (or frequency, or intermittency) of patrol can be plotted as a single data point, with the control group level of patrol serving as the basis for estimating how big the effect is for each level of dosage. That, in turn, creates the challenge of using a standard level of dosage in the control group across experiments. It also implies a need for hot spots of fairly similar crime frequency rates, since the base rates could also affect the dosage response curves. Yet until we can compare the different levels of cost effectiveness of different dosage levels at similar levels of baseline crime frequency, in comparison to the same lower level of dosage in control groups, we will not be able to answer the central question of theory.
and policy: how much patrol, with what structure, would be optimal for controlling crime and disorder within a limited budget?

17. **Engagement.** A final concept about how to do hot spot patrols is engagement: *the extent to which police initiate contact with citizens.* Whether such engagement is a friendly conversation about the weather, or aggressive stop-and-frisks, it sends a much clearer message that police are present. The evidence that even increased traffic enforcement can reduce robbery (in city-level analyses) suggests that engagement may matter even more than how many police are employed in a city (Wilson and Boland, 1978; Sampson & Cohen, 1988; Kubrin, et al, 2010).

18. **Legitimacy.** Whether more engagement reduces crime, however, may depend upon whether it is perceived as undermining or enhancing the *moral right of the police to exercise authority on behalf of the state*, i.e., police legitimacy (Bottoms and Tankebe, 2012). The extent to which people in neighborhoods around crime hot spots may approve of police patrols there can be very high (Shaw, 1995) or little different with or without such patrols (Weisburd, et al 2011). But the attitudes of people stopped in hot spots may be much harder to measure, and much more negative. If the life-course impact of high levels of police engagement with potential offenders in hot spots is to reduce police legitimacy, it could then cause more crime over many years. Measuring the phenomena well enough to test the theory is difficult. Yet the negative image of stop and search engagement, mostly in hot spots, by the New York police in the Mayoral election of 2013 suggests that it remains a key dimension of crime prevention (or causation) for a theory of hot spot policing effects.

**Propositions.** Our theory of hot spots policing effects combines these concepts as follows:

1. The majority of crime and disorder in public places in any district *over a year or more* is concentrated in a small fraction of all its addresses or street segments where one police car or officer on foot can be seen *from any point within the boundaries* of hot spots that can be targeted for receiving far more patrol dosage than all other land mass in the district.
2. The greater the proportion of all crimes and disorder encompassed by a list of hot spots, the greater the proportion of reduction in crime that a hot spots patrol strategy can achieve, subject to conditions specified below.
3. The more frequent the visits of uniformed police to each hot spot, other things (including dosage) being equal (*ceteris paribus*), the more initial and residual deterrence each hot spot will experience.
4. The longer each visit of uniformed police to each hot spot, the greater the *initial* deterrence caused by each visit, up to the point of deterrence decay.
5. The longer each visit of uniformed police to each hot spot, the greater the *residual* deterrence caused after each visit ends, up to the point of diminishing returns.
6. The greater the proportion of total time that police are visibly present in a hot spot, the less frequent or serious crime will be within that hot spot, especially during higher-crime hours.
7. The greater the one-week variance in intermittency of police presence in a hot spot, the greater the objective unpredictability of when police will next appear in a hot spot at any given moment.

8. The greater the objective unpredictability and the publicly-perceived uncertainty about when and for how long police will appear and remain in a hot spot, the less frequent or serious crime will be within that hot spot.

9. The greater the local deterrent effect created by hot spots patrols, the greater the regional deterrent effect.

10. The greater the local deterrent effect created by hot spots patrols, the greater the offender deterrent effect; offender displacement—as distinct from offense displacement—is unlikely to equal and will never exceed the local deterrent effect.

11. The more engagement patrol officers undertake during patrol time in hot spots—from conversations to stop and frisk to ticketing and arrests—the less frequent and serious crime will be within the hot spots.

12. The more police legitimacy patrol officers create by treating all citizens in a respectful manner with fair procedures during patrols in hot spots, the less frequent and serious crime will be in those hot spots.

This formal theory can be used to assess the growing number of hot spots patrol tests (Braga, et al 2012) from a theoretical perspective as well as from an empirical viewpoint. The theory’s separation of local and regional deterrence, for example, could be used to interpret the Philadelphia foot patrol experiment or the Jacksonville patrol vs. POP experiment as tests of regional deterrence, but not local deterrence; neither of those experiments used hot spots small enough to meet the theoretical definition of a hot spot as one where police can be seen from any point inside the boundaries. Systematic reviews of hot spot patrol effects can therefore distinguish between studies that measure local deterrence (e.g. Sherman and Weisburd, 1995; Koper, 1995; Ariel and Sherman, 2014) from those that do not (e.g., Ratcliffe, et al, 2011; Taylor et al 2011).

Once a formal theory is stated, it can be falsified, modified, extended and improved. Journal editors can even require new tests to suggest what the results mean in relation to a formal theory of hot spots. None of that, however, can test the theory against its toughest empirical challenge: scaling it up to a multi-hot spot application with areas (districts, precincts, etc) as the units of experimental analysis. That scaling up itself requires a separate theory for a strategy of causing the causes of hot spot effects at the area level. It is only by joining and integrating the theories of causing patrols and of patrols causing less crime that police leadership can fully implement evidence-based policing.

II. A Strategy for Implementing Hot Spot Patrols

There is no larger theory of how police leaders can cause organizational behavior that is useful for causing the causes of a hot spots strategy. Not since the classic Varieties of Police Behavior (Wilson, 1968) have police scholars grappled theoretically with the chain of command linking police leadership actions to police officer conduct in the field. Wilson’s typology of three kinds of police strategy was useful but very general. It offers no cause-and-
effect logic model of the kind we need to transform, radically, how patrol officers spend their time. In the absence of deductive theory, an inductive theory can be generated from the broader literature on innovations and the specific experiences of leading hot spots policing experiments. These sources help provide a glossary of key concepts, which can then be integrated into a formal theory of how to cause an area-level strategy of hot spots patrols. The ten key concepts for the causes-of-the-causes of this theory of crime prevention are scaling up, infrastructure, targeting long-term hot spots, short-term predictive policing, tracking patrol in time and space, accountability for patrol delivery, feeding back patrol time, COP-stat, interaction ritual chains, and transformational leadership.

1. **Scaling Up.** The key concept from the literature on innovations is defined by the transition to a large-scale organizational change from a small-scale test (or even an untested “pilot” that just demonstrates how something can be done without testing its effects on outcomes against an appropriate control group). Small-scale testing can rely on ideal (or at least better) conditions, with hand-picked staff and intensive management and leadership. Large-scale implementation must rely on more typical conditions, including indifferent staff and less focused management and leadership. The reduced effect of a “scaled-up” implementation relative to the test is so central to innovation that in medicine there is a rigid distinction between small-scale “efficacy” trials and large-scale “effectiveness” trials (Piantadosi, 1997). The distinction embraces the difference between how well a practice can work if the theory is followed, versus how well it does work with more typical levels of deviation from the procedures required by the cause-effect theory. What this means for evidence-based policing is an extremely important caveat: new policies based on small-scale tests should probably be tested again under large-scale conditions, in order to generate more realistic estimates of cost-benefit ratios. That is a point that may be lost, for example, when leaders rely on the published estimates of public agencies such as the Washington (State) Public Policy Institute (see [http://www.wsipp.wa.gov/](http://www.wsipp.wa.gov/)).

2. **Infrastructure.** How much the impact of a practice on outcomes (like crime reduction) is seen to shrink when moving from testing to scaling up depends in large part on a wide range of conditions best summarized as “infrastructure:” the capacity to produce large quantities of the raw materials needed to deliver all the outputs needed to cause the outcome. An example in a different field illustrates the concept: penicillin. Long after doctors knew that it was an effective drug for curing infections, they had no idea how to produce mass quantities of penicillin for millions of people dying each year. It was only after a research breakthrough that the infrastructure could be created to supply the enormous demand at full scale, world-wide. The same is true for hot spots policing, district by district, team by team: police need precise data, preferably from GPS devices, locating where crimes occur; maps showing hot spot boundaries; geo-fencing of those boundaries onto police agency GPS monitors tracking police cars and officers; graphs showing how much patrol time they are delivering in trends over time and comparisons across units; and updated crime maps showing whether new crimes are in or out of the hot spots. Absent these tools, it is
very hard to motivate or even discipline officers in support of concentrating patrol dosage in hot spots.

3. **Targeting Long-Term Hot Spots.** The infrastructure begins with the first of the three “Ts” of evidence-based policing (Sherman, 2013): the identification of concentrations of crime in which resources can be concentrated for more efficient use. Many hot spots experiments have used computer-generated targeting, with algorithms such as a 50-metre radius around an epicenter of crime in space. This approach has advantages of insuring statistical power for hot-spot level testing, but it fails to provide a clear theoretical link to local (as distinct from regional) deterrence. It is only by hand-drawing the boundaries of each hot spot that minimum visibility requirements can be met (Buerger, et al., 1995). The requirement to use at least one year of data (see section I), however, means that the effort needed for manual construction of hot spots must only be invested once a year, at most. Many hotspots stay hot for ten years or more (Weisburd, et al., 2004; Weinborn, 2013). Once a hot spot boundary is established, it can be used for at least a year or more to measure and manage patrol dosage within the boundaries.

4. **Short-Term Predictive Policing.** The concept of “predictive policing” marketed for such products as Predpol ® is radically different from the targeting of hot spots based on a minimum one-year history of crime distributions. Predictive policing is premised on the already-falsified claim that hot spots are not stable, and that date-and-time-specific factors must be taken into account to predict reliably where crime will be concentrated in short periods of time. Absent any published validation of the reliability of these forecasts, it is impossible to say whether they are more accurate than hot spots targeted from long-term crime distributions in space. Absent any rule for linking hot spot boundaries to patrol visibility, it is impossible to say whether predictive policing targets are responsive to increased patrol dosage. We are unaware of any field experiments conducted with patrol dosage randomly assigned to predictive policing hot spots. Yet even without predictive policing, many police agencies map hot spots on the basis of far too short a time period, generally less than a year. It is unlikely that crime will either be concentrated or predictable with such short time periods. It is therefore as important for a theory to specify what infrastructure not to use as it is to specify what must be used. Long-term hot spots (based on one year or more) are both relevant and reliable units for targeting extra patrol dosage.

5. **Tracking Patrol in Time and Space.** In over two decades of COMPSTAT and other management initiatives for targeting police strategies, there has been a missing link. The “elephant in the room,” the issue so big and important that no one dares address it, is whether police are actually delivering more patrol time to the targeted hot spots. The question remained unanswered as long as it could not be answered cheaply. The advent of GPS tracking of police cars and officers changed that context, with potentially inexpensive reporting of where and when police patrol was delivered. But in a breathtaking failure of vision by the marketers of this technology, no software for generating police management reports was marketed along with the hardware. In a series of struggles with the hardware providers, the Jerry Lee Centre of Experimental Criminology at Cambridge has managed to produce such reports. Even with the
information in hand, however, it was only the Weisburd (2012) report on a Dallas experiment that provoked our thinking about how to connect this missing link to police operations. That connection is to the main drive-shaft of patrol operations, police accountability.

6. Accountability for Patrol Delivery. While two decades of COMPSTAT has focused on targeting and tactics, it has also held commanders accountable for outcomes: whether crime goes down or not. That accountability may or may not be grossly unfair. There are many things that can drive a district’s crime counts up or down, especially in the short run—including chance fluctuation. The myth that police cannot affect crime (Gottfredson and Hirschi, 1990: 270) is paralleled by the myth of complete police responsibility for crime trends. It is much more realistic to hold police commanders accountable for the delivery of outputs than of outcomes, if only because the outputs are produced within a closed system of police organizations. The concept of accountability for patrol delivery is one that makes outputs, but not crime outcomes, the shared responsibility of police commanders, supervisors, individual patrol officers and constables. The key to this shared responsibility is shared information, or what the NYPD COMPSTAT (Maple, 1999) called “timely and accurate intelligence”—but did not apply it to measurement of where police were patrolling.

7. Feeding Back Patrol Time and Space. The key proposition of this theory is that feeding back is essential to scaling up. Like the mass production of penicillin, the mass production of hot spots patrols cannot be insured if the producers themselves are not told whether they are producing what is required, in conformance with the detailed specifications of the product. This feedback must have two dimensions. One is cognitive, so that police understand the relevant dimensions of their patrol delivery in relation to the crime prevention theory specified above. The other dimension is affective (emotional), so that police become committed to the delivery of their patrol in the most effective manner and amounts possible. The cognitive information can be presented in trends comparing a patrol unit’s delivery over time, in total dosage, dosage in hot spots (as a percent of total patrol). It can also be presented in bar graphs comparing different units, in a fair competition to deliver more patrol outputs with similar resource levels. A map tracking the progressive locations of a patrol car on a given shift is even clearer evidence of where a car has been (or not), and for how long. Figure 1 shows such a map developed for feeding back this information to patrol officers in Trinidad.
8. **“COP-Stat:” COMPSTAT on the front line.** It seems unlikely that such cognitive information alone can change police practices. It is even more unlikely that feeding back the information in writing, or one-to-one discussions with supervisors, will have the same effect as feedback to operational officers in a group context. We do not know of any COMPSTAT that has focused on the street police officers delivering the services, with all of them in the room during periodic discussions. Once COMPSTAT is delivered at this “retail” level, it may be more appropriate to re-name it, as a fundamentally different police leadership process. We propose to call biweekly meetings providing feedback to the frontline officers on their personal patrol delivery outputs a “COP-Stat” strategy: something for the street cops, not the managers alone. In brief meetings of some 30 minutes, district commanders and shift leaders can review the past 14 days of delivering patrol in a manner that is both cognitively clear and emotionally powerful.

The theory of effective interaction ritual proposed by 21st-Century sociologist Randall Collins (2004) is that when people have an engaging group experience that stresses commitment to shared values and goals, it renews and strengthens their moral commitment to upholding those values accomplishing those goals. The application of this theory to police strategy requires that anyone leading a COP-stat pay careful attention to the requirements of effective interaction ritual. This requires a quiet room with the door shut and no one allowed to come in or leave; a mutual focus on one speaker at a time with complete silence by the audience; meaningful content that engages people’s emotions as well as analytic thinking; pride, shame, remorse, and resolve to do better in the future as key emotions to cultivate; strong situational control and leadership from the person in the chair. Few COMPSTATs we have observed meet all these requirements, which were all present in the original version led by William Bratton and Jack Maple in New York in the 1990s. But their blueprint for running a COMPSTAT was not articulated as a causes-of-the-causes theory in the formal manner we propose in this article.

10. **Transformational Leadership.** The key concept for the successful delivery of more effective hot spots patrol is inspiring those who do the patrols to do them for an emotionally-compelling reason. Merely following orders is not a very inspiring idea. As Burns (1978) suggests in his classic treatise on leadership, a transformational leader is one who inspires followers to want to serve a cause or interest larger than their own personal needs or selfish desires. It is not fear of punishment, but pride of achievement, that will inspire patrol officers to carry out the best patrolling work they can. It is pride in preventing crime that will motivate them to do even better next week than they did last week. Police leaders at every level, from corporals to commissioners, must keep this idea of a mission or purpose larger than the self at the forefront of their every word and deed. Even the slightest slip, or appearance of a slip, into self-interest may disillusion those who become truly committed to the idea of saving lives and reducing harm for their fellow-citizens.

With the ten concepts for a theory of causing more and more effective hot spots patrols, we can offer a formal theory of outputs that maps onto the theory of outcomes presented in the previous section.

1. Scaling up the delivery of more patrol time to long-term high-crime hot spots requires an integrated plan of action for creating and maintaining infrastructure, accountability, and delivery of more patrol and less crime, under transformational leadership at all levels.
2. Implementing a strategy of hot spots policing at the district level requires a police organization-wide infrastructure for targeting hot spots, measuring patrol in time and space, and feeding back the delivery of patrol directly to the officers who deliver it.
3. Accountability for the organizational delivery of hot spot maps and patrol dosage records should be clearly assigned to a leader reporting directly to the agency’s chief executive officer.
4. District commanders should be held accountable to their immediate supervisors in monthly COMPSTAT reviews of the most recent 12- to 24-month trends in total patrol time in the district, and in its targeted hot spots, and in the ratio of those two, and in their relationships to trends in crime in each hot spot in the district.

5. Shift commanders in each district should be held accountable for the performance of their constable teams by the district commander, in bi-weekly reviews of the most recent 14-day period, as well as of the past 12 months of data on patrol time and crime.

6. Data on total and hot-spot patrol time should be presented to shift commanders and constables on patrol in each district, as feedback for discussion and action, in bi-weekly “COP-stats” at each district station.

7. The more the delivery of such feedback follows the principles of effective interaction rituals, the more effective it will be at improving the quantity and quality of hot spot patrol.

8. Supervisors of district commanders should appear without prior notice at District-level COP-stat meetings, in order to display interest in the issues and successes to be found in each district—and to encourage pride and satisfaction in delivering outputs as well as encouraging outcomes.

9. The more the frontline officers are told that police leadership cares about what they are doing and notices with great precision how well they are doing it, the more responsive they will be to doing more and better patrols in hot spots.

10. The more the officers are told (and feel) that their work is succeeding in preventing crime, the more and better patrol they will do in hot spots.

11. The more feedback patrol officers receive about their engagement with citizens in hot spots, the more engagement they will do; body-worn video cameras, for example, may promote frontline officer use of self-feedback as well as managerial feedback.

12. The more feedback patrol officers receive about their compliance with principles of procedural justice during engagement with citizens, the more compliance they will achieve, and the more police legitimacy they will create, in hot spot populations.

III. A Protocol for an Experiment in Hot Spots Patrol Strategy

The Jerry Lee Centre for Experimental Criminology at Cambridge encourages police and other criminal justice professionals to follow the medical model of publishing formal protocols for experiments before they are launched. While these protocols are often modified after experiments begin, there is no reason why each version of a protocol cannot be posted. Publications would then be held accountable to the terms of the protocol, especially key outcomes. This strategy helps reduce concerns that results were “cherry-picked” from a large number of correlations, with the favorable ones reported while the unfavorable outcomes are suppressed. Major medical journals now refuse to publish the results of any test of a medical strategy unless the protocol was registered before the trial started.

In order to encourage such transparency in experimental criminology, Sherman and Strang (2009) developed a protocol format called CRIM-Port (for “CRIMinological Protocol
for Reporting of Trials”). The following summarizes the protocol that guided the attempt to implement all parts of an area-level comparison of hot spots vs. random patrol strategies in September through November of 2013 on the island of Trinidad in the Republic of Trinidad and Tobago as a project of the Trinidad & Tobago Police Service. Full transparency requires the observation that in the press of time to combat a high homicide rate, the protocol was not completed in advance. What was learned in the process of designing-while-implementing, however, is comparable to any of the Phase I tests we have done on such strategies as police-led restorative justice, in which a final protocol followed the initial development and learning process of a new procedure.

In this case, as in the Minneapolis Repeat Call Address Policing Experiment, RECAP (Sherman et al, 1989b), and other projects that began with a batch-randomized trial (Sherman, 2010), the results were encouraging and strong enough to report. In both RECAP and the Trinidad Hot Spots Patrol Strategy (HSPS) Experiment, the outcome measures were clearly specified in advance. Thus there should be less concern about selective reporting of outcomes.

We can also note, however, that the theoretical statement in sections I and II were written after Phase I of the Trinidad HSPS Experiment was completed. It drew heavily on the reports of L.R. Strang, who was the site manager (see Sherman, 2010) in Trinidad for almost the entire length of the Phase I test in 2013. The protocol stands, by definition, as a version of what was attempted, rather than what actually was implemented. The next section briefly summarizes the dimensions of the anticipated gap between the protocol approved by Police Commissioner Stephen Williams and its delivery on the ground, a gap small enough to allow what was implemented to produce a substantial and significant reduction in lethal violence (as will be reported elsewhere in full). The protocol approved by the Commissioner and presented in a week of training sessions in August 2013 is as follows:

1. **Name and Hypotheses:** The Trinidad & Tobago Police Service Hot Spots Patrol Strategy (HSPS) Experiment has one central hypothesis: that more patrol time in hot spots of violent crime will reduce harm levels from that crime. Harm levels (Sherman, 2013) are defined as the number of years of prison defined as the maximum penalty in national sentencing guidelines for each crime type, multiplied by the number of crimes of that type.

2. **Organizational Framework.** The experiment was conducted in 40 police districts, selected by the Commissioner on the basis of Cambridge recommendations.

3. **Unit of Analysis.** Police districts.

4. **Eligibility Criteria.** All districts had to be located on the island of Trinidad, and to rank in the top 40 for the total number of violent crimes reported by district from January 1, 2012 to July 15, 2013.

5. **Pipeline: Recruitment or Extraction of Cases.** The design is for pairwise random assignment in a single batch, in which all eligible districts are paired in rank order of total number of serious violent crimes (murder, rape, shootings/woundings, and robberies), in descending order from highest to the lowest. This means the first pair is the two districts with
the highest counts of violent crimes in the preceding 12 months (to July 2013), the second pair are the third and fourth highest, and so on.

6. **Timing.** The experiment was designed to run for 90 days from September 1, 2013, using the months of June-August 2013 as the baseline period for before-after analysis.

7. **Random Assignment.** After the 20 pairs of districts were identified by ranking, the two districts in each pair were then randomly assigned into Hot Spots or control group status. This decision was based on comparisons of statistical power of pairwise tests of 20 effect sizes in a meta-analysis, which were better able to detect moderate effects on crime than a simple random assignment model, given the baseline levels of violent crime in Trinidad. Consistent with other evidence (Weisburd & Gill, 2013), the crime levels in the two randomly assigned groups were almost identical on a range of crime types.

8. **Treatment and Comparison Elements.** The control group practice was intermittent patrols with no specific geographic targets. The treatment group was asked to introduce these new elements of district patrol management: a) more total patrol time than before, especially during high-homicide hours of 6 pm to 2 am; b) majority of patrol time to be focused in hot spot areas identified by the maps produced by the CAPA (Crime and Problem Analysis) Unit every two weeks; c) awareness that CAPA would produce bi-weekly reports on the GPS data for all patrol cars to track time on patrol for each of 4 rotating shift-teams in each station, including the time of each shift spent present in hot spots; d) bi-weekly COP-stat meetings led by district commanders with all patrol officers (two meetings per period to reach all officers) that review CAPA reports on total patrol time by each and encourage constables to spend more time patrolling hot spots in hot times.

9. **Measuring and Managing Treatments.** Measurement of control station conditions was to include ride-alongs and patrol station visits to inspect for crime maps posted indicating hot spots locations, if any. Measurement of treatment stations included daily unannounced visits to district stations to observed scheduled COP-stat meetings. Measurement of the delivery of maps and GPS reports directly monitored for every treatment station every week, under a census (rather than sampling) strategy of inspection by the Cambridge site manager. Treatment was also managed by the site manager, who debriefed station commanders immediately after meetings, sometimes with the benefit of a laptop-recorded video of the COP-stat discussions.

10. **Measuring Outcomes.** All crime reports taken in all 40 districts were hand-written in the usual way and sent to HQ for data entry. CAPA then produced a full count of serious crimes by category in each district, for June-August and September-November.

11. **Analysis Plan.** Before-after difference-of-differences within pairs for a pairwise meta-analysis of the trial as 20 data points from quasi-experiments within each pair as a level 3 test (Sherman, 1997). Analyses were planned for both delivery of patrol time in hot spots in both treatment and control groups, as well as crime harm index levels from violent crime (CHI). The plan was to include all kinds of serious reported violence.
12. Due Date and Dissemination Plan. The due date for preliminary reporting was immediately upon the discovery of significant differences between treatment groups. Initial local dissemination was to be at the discretion of the Police Commissioner, with academic journal publications at the discretion of Cambridge.

IV. A Preliminary Report on Implementing the Protocol

Scaling Up. The commanders of the 20 police districts randomly assigned to implement a hot spots patrol strategy were part of a larger series of training sessions on evidence-based policing. The commanders of the 20 control districts were excluded from the specific training sessions for implementing hot spots policing. Two district commanders were not able to attend the training, and were subsequently unclear about what to do in COP-Stat sessions, despite ongoing feedback and support from the Cambridge site manager.

Infrastructure. Crime maps showing hot spots for each district were produced largely as scheduled, with updates every two weeks. Delivering the maps to each station was a time-consuming and difficult process, in which CAPA asked the districts to pick up the maps from HQ rather than having CAPA staff go to each station. By the end of PHASE I, we concluded that bi-weekly updates were not necessary, and that monthly or even less frequent updates of district crime maps would be sufficient for the HSPS. No such maps were ever produced for the 20 control districts.

COP-Stat Meetings. These varied from highly focused to highly diffuse. Constables sometimes asked questions the district commander could not answer, which were then put to the Cambridge representative or her colleague, a TTPS police sergeant who is also a PhD student. The two representatives each monitored 10 of the 20 treatment group stations, and both observed a range of leadership styles, from inspirational to completely unengaged.

Targeting Hot Spots. Much of the time in initial COP-stats was spent stressing the importance of not being just “near” the hot spot, but staying within the geo-fenced boundaries for GPS measurement. It took some time for patrol officers to accept that only time spent where they could be visible within those boundaries would “count” towards their goal of more hot spot patrol time.

Tracking Patrol in Time and Space. Well into the second month of the 90-day trial, Cambridge staff discovered major issues of accuracy in attributing police cars in each district to the recorded patrol coverage. Mis-identification of GPS devices, plus inconsistent understandings of the electronic measures reported by the commercial GPS measurement company, led to concerns about whether the measures were reliable. At that point, the maps of where each patrol car had gone on a specific shift became a very fruitful basis for discussion about how and where to patrol in the next two weeks.

Accountability for Patrol Delivery. Some district commanders and corporals accepted their accountability with clarity and enthusiasm; others did not understand it or seem unconcerned.
Feeding Back Patrol Time. In some COP-stats, commanders exhorted constables to do more patrols and focus more on hot spots. In others, there was less discussion. But in every COP-stat meeting the message was clear: people at HQ think this is important and are paying close attention to it.

Patrol Time Delivered. While the experiment was unable to reliably compare patrol time in treatment and control districts, there was ample informal evidence that patrol had increased overall in treatment districts. COP-stat discussions reported citizens approaching police on the streets to express delight at seeing so much more patrol time on the streets.

V. Strategic Planning and Evidence-Based Policing

“No plan survives contact with the enemy”

--Helmut von Moltke the Elder, 1800-91

Von Moltke’s famous dictum about the unpredictability of warfare must be understood as a plea for more planning, not less. He saw military strategy as a system of options, in which every possible contingency is addressed with a planned modification that responds to each contingency or obstacle as it may (or may not) occur. In this respect, his framework describes the reduction of airplane accidents, the improvement of anesthesia, and the general process of refining and inventing better versions of the same technology through learning over time (Braithwaite, 2005). That learning comes from gaining more evidence by empirical experience, especially with well-documented tracking data (Sherman, 2013) or what medicine calls “after-market” analysis—including side effects, allergies, and unanticipated or rare variations of response.

Implementing a new strategy in a police agency is not a highly developed art. Evidence-based methods of managing change, however, may have more promise. Instead of flying blind in leading change, police executives can use precise information to see exactly where more managerial time should be targeted. Knowing what information is necessary will come from the evidence itself, but from a theory of change that spells out necessary conditions for causing the outputs to occur that will cause better outcomes—causing the causes of those outcomes.

The second author of this paper hypothesized that the obstacles that arose to delivering the outputs could have been anticipated and neutralized before the experiment began. In principle, that view is correct. In practice, the evidence is clear that neutralizing the obstacles takes time. In military terms, the D-Day strategy for June 6, 1944 took years for all pieces to be ready, and even then almost foundered on the unpredictability of bad weather. In policing terms, it is not clear that a year spent in developing and testing the infrastructure for hot spots policing would produce enough benefit to hold off on implementing a theory that will inevitably encounter obstacles and problems to be solved. If preliminary estimates that 23 murders were prevented by the HSPS stations, it is hard to imagine what benefit could have justified delaying the experiment, with all of its gaps in implementation.

For similar reasons, the experiment will not be continued as a randomized trial.
Instead, each control station will be turned into an experimental station, one at a time. This will create 20 new level 2 quasi-experiments, which can provide useful tracking (if modest testing) evidence. At the same time, the issues in the original 20 treatment stations will remain in focus for the Cambridge site managers in managing the introduction of the strategy as an exercise in evidence-based policing. The focus in this project is therefore more on using evidence to drive down the crime rate (as an *effectiveness* program) rather than on producing the most compelling randomized trial (as an *efficacy* test, as it would be described in medicine). At the same time, however, we have developed an integrated theory of change, and a protocol for a rigorous Level 5 (Sherman, 1997) test of the theory. As other police agencies may choose to deploy this same protocol, it may increase the global evidence-base for a hot spots patrol strategy.

One notably absent element of the Trinidad HSPS experiment so far is measurement of displacement. This means that even if the total serious crime harm in the treatment districts goes down, we cannot tell whether there has been offender displacement out of the treatment districts and into the control districts. The most powerful falsification of offender displacement, however, would not be measuring whether offenders previously arrested in the treatment districts were disproportionately arrested in other districts after the HSPS was implemented, as Mazeika (2013) has done in Washington, DC. Instead, the key test will be whether serious crime goes down in the 20 control areas after HSPS is introduced, without substantial increases in serious crime harm in the 20 original treatment areas. If total crime harm dropped substantially all over the island, it would provide the strongest intuitive (if not analytic) evidence against offender displacement. Since intuitive skepticism is the obstacle to police acceptance of the wisdom of an HSP strategy, such evidence could well offer a milestone in police acceptance of HSPS, in Trinidad and to some degree globally.

The Trinidad project can be seen as an example of evidence-based policing as something that is both more and less than a pure research project. It is more than a research project in that it is closely linked to the Acting Commissioner’s strategic response to an internationally high level of homicide. It is less than a research project in that it has chosen to pursue rapid scaling up over a longer and more definitive randomized trial, with offender displacement analyses. It is more than previous research projects because it has, for the first time, tested a scaled-up version of hot spots policing, testing for area-wide effects. It is less than a totally controlled experiment because it has tried to enhance and improve the independent variables while the experiment was in progress, rather than holding them constant.

As an example of evidence-based policing that fuses research with action, it may provide a new kind of protocol for which the research question is the same as the Commissioner’s mandate: how do we make the country safer tomorrow than it was yesterday? We have often confused police executive students trying to understand the difference between doing research and evidence-based policing—not to mention the difference between a theory and a strategy. The answer may best be illustrated by this case study, built on a protocol that has helped develop a formal theory while learning how to drive down crime. If in 2014 the overall homicide rate in Trinidad drops below what it was in 2013, while violent crime harm drops in each control district as the HSPS is introduced, then we will have demonstrated a “success” for evidence-based policing, even while more
questions for research on hot spots remain to be answered.

In the long run, it is examples of such “success” that may matter most, whether or not one is achieved in Trinidad. It is by focusing on the implementation of a strategy, based on the best theory and research available, that researchers may be able to foster more partnerships with police agencies. Neyroud and Slothower (2013) have done much the same in Birmingham, UK, with the Turning Point Project, a deferred prosecution program tested in a randomized trial involving well over 100 custody officers covering all of a population bigger than Trinidad’s, conducting the experiment at scale in order to obtain sufficient caseflow and statistical power. It is tempting to define evidence-based policing as the development of research-based strategies “on the hoof,” or as its adherents often put it, re-engineering the airplane in mid-flight. The instruction manual might then read, with reference to von Moltke, plan as much as you can in advance for what might block your strategy, and then proceed—in full expectation that you have not anticipated every problem that does arise, nor have you neutralized those obstacles.

Perhaps the key to evidence-based policing, in relation to the expected inadequacy of any strategic plan, is to view mid-course corrections as normal and inevitable. Rather than defending or sticking with the original plan, it may be better to cite the economist J.M. Keynes, when challenged by a critic for changing his view on a key economic policy issue: “When the facts change, I change my mind. What do you do sir?”

Hot spots policing is a highly developed strategy that can be implemented with highly detailed planning. But no plan will ever survive intact after contact—wit new facts, or new data about previously unknown facts. The plan is to plan for the unplanned: setting in place an infrastructure for constant re-assessment of the evidence, one prepared to solve all problems as they arise, as quickly as possible. That is what has happened in Trinidad, and even in smaller scale experiments on hot spots rather than districts. With this accumulated and documented evidence, any police agency in the world can now follow the strategic plan, as long as it tries to localize its details as much as possible in harmony with local context. As long as they proceed to publish their results as they discover them, to share with other agencies the evidence they produce, the growth of good evidence on police practice will continue to snowball. That growth may now include just as much evidence about implementation as about impact, on the causes of the causes and not just the crime prevention outcomes, on strategic planning as on crime prevention effects.

As the most comprehensive example yet of the full scope (Sherman, 2013) of evidence-based policing, hot spots policing strategy may yet become the vanguard of a wide range of similar efforts on other kinds of crime and prevention strategies. What better use can there be for a formal theory than to link it to a plan for action?

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