

Procedural Justice Training for Police

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President Obama's 2015 Task Force on 21st Century Policing relied upon police legitimacy as the first pillar of policing and emphasized the importance of building and maintaining public trust and confidence in the police across its recommendations. This shift in emphasis moves police attention away from a primary focus on deterrence and crime control and toward greater concern with the way that the public experiences and evaluates the police in their communities. Such a shift has been widely accepted among police leaders. A study of police chiefs recently conducted by PERF (Nickeas, 2020) suggests that they believe increasing public trust should be a key priority for the Biden-Harris administration.

Central in efforts to increase public trust in the police is identifying the basis of popular legitimacy. Researchers who work in the area are, in other words, concerned with legitimation – when and how people engage and cooperate with authorities and follow laws and rules.

The research effort to identify the factors shaping trust has led to a clear evidence-based conclusion. The public bases its evaluations of police legitimacy upon the degree to which they experience or observe the police following four key principles of procedural justice. This is equally true when people are evaluating personal encounters with police officers and evaluating policing in their larger communities.

Scholars have identified four principles of procedural justice (Goodman-Delahunty, 2010; Tyler, 2006, 2008; Tyler, Goff and MacCoun, 2015; Tyler and Huo, 2002; Tyler and Murphy, 2011). The first is voice, such as giving people the opportunity to tell their side of the story or allowing people to provide input into policies. The second is ensuring people understand decisions, and perceive them as fair, by providing explanations for decisions, following the law, being transparent, and acting in ways perceived as neutral. Third is respectful treatment. People value courtesy, sincerity, and treatment with concern for their rights. Finally, people want to trust that the police are trying to do the right thing in a situation and that they are considering the needs and concerns of those involved. Recognizing and acknowledging people's needs and concerns leads to trust in police officer motives.

Essentially, members of the public want to believe that the authority they are dealing with believes that they *matter*.

The application of the ideas of procedural justice to the area of policing is relatively recent. The effort to use procedural justice to reform policing has moved forward rapidly, however, because it has been possible to draw upon extensive and well-developed literatures on procedural justice in the field of psychology, as well as existing extensions of this work into the field in the areas of management and in the design of the criminal and civil courts. These literatures provide a research base, much of it experimental, supporting the arguments of the procedural justice model, and demonstrating that it impacts attitudes and behaviors in real world field settings.

The discussion of procedural justice in policing involves three distinct methodological issues: experimental vs. non-experimental methods, field vs. non-field research, and research on policing as opposed to other types of authority. Recently Nagin and Sampson (2019) argued that it is a mistake to conflate “causality with the method used to identify it,” recognizing the value of non-experimental research. The recent NAS report on policing (Weisburd and Majmundar, 2018) reviewed the existing literature on procedural justice in other settings and found that field and laboratory research produced similar findings (e.g., Cohen-Charash and Spector, 2001). Finally, while it may be the case that policing is a unique arena of activity, prior studies of the exercise of authority in other arenas have reached similar conclusions across domains. The idea that policing is a unique type of authority is speculative. Outside of policing, MacCoun (2005) notes that “the sheer heterogeneity of tasks, domains, populations, designs, and analytic methods provides remarkable convergence and triangulation” in support of the key propositions of procedural justice theory.

The question for this memo is how the literatures are relevant to policing (Nagin and Telep, 2020). In the context of policing, a procedural justice approach shifts police attention away from a primary focus on deterrence and crime control and toward greater concern with the way that the public experiences and evaluates the police in their communities (La Vigne et al., 2019). Moving the focus of criminal law application and processing away from a carceral model based upon surveillance, apprehension, and punishment toward the goal of gaining willing public deference to and cooperation with the police has always been a central focus for scholars in this arena (Tyler, 2003, 2006, 2011). This shift can be viewed as a goal in itself within a democratic model of policing (Lum and Nagin, 2017). Gaining public trust can also be regarded as a better way for the police to manage crime in their communities (Tyler, Goff, and MacCoun, 2015) as people more willingly comply with the police (Rosenbaum and Lawrence, 2017). Policing in this collaborative way might promote community development and vitality more effectively.

This memo addresses several key questions about when and how to promote procedural justice in policing. It details available research findings. We begin by examining the literature on procedural justice generally. We then discuss changes within police departments, which we label internal procedural justice.

The third and largest portion of the memo discusses training for police officers with the goal of changing how police interact with people in the community to promote what we call external

procedural justice. While there is growing lab-based evidence that experimentally manipulated exposure to procedurally just policing practices influences citizen perceptions, it is not clear to what extent these findings extend to real world interactions. By seeking to exploit exogenous variation in officer adherence to procedurally just practices, procedural justice training studies have the potential to shed light on the causal relationships between procedurally just policing and citizen attitudes and behaviors. For procedural justice training to identify these causal relationships, however, it must be the case that police officers can indeed be trained to behave in a procedurally just manner. Furthermore, for procedural justice training to impact the real-world objective outcomes studied in a subset of papers (for instance, police use of force), it must also be the case that officers' behavioral changes promote citizen compliance and do so in ways that are observable to police and that fundamentally alter the nature of police-citizen interactions. It is nonetheless important to emphasize that policing training occurs in a larger ecosystem of agency policy and workplace demands that shape the culture of how officers carry out daily tasks.

In contrast to many other training topics, there is a relatively more extensive academic literature that has rigorously studied the effects of procedural justice training on officer and citizen attitudes, officer behaviors, and administrative policing outcomes. Evaluations of procedural justice trainings include studies of script-based trainings, whereby police are taught to use brief, procedurally just scripts (i.e., texts) in traffic stops or other similar settings where interactions are short and relatively homogeneous. More recent studies, however, have evaluated trainings that focus more broadly on the development of procedurally just policing practices through the use of lectures, discussions, and exercises that offer participants the opportunity to practice and refine these skills.

In the analysis of training program impacts included in this memo, we first summarize findings from two randomized trials that have examined how script-based interventions influence citizen views of police fairness and legitimacy (Mazerolle et al., 2013a; Sahin et al., 2017). Both of these studies concluded that citizens who engaged with trained officers were found to have improved perceptions of their encounters; one of the two studies found that general perceptions of the police also improved significantly. However, neither of these studies is able to speak to the causal relationship between procedurally just policing practices and objective outcomes of police-citizen interactions. More generally, by focusing only on citizens' survey-based attitudinal measures, these script-based studies are unable to identify the causal relationship between procedurally just policing practices and citizen behaviors that underpins common theories of procedural justice.

We next summarize findings from five papers that use experimental or quasi-experimental research designs to estimate the impacts of procedural justice trainings for officers (Wheller et al., 2013; Antrobus et al., 2019; Rosenbaum and Lawrence, 2017; McLean et al., 2020; Wood et al., 2020) and from one experiment (Owens et al., 2018) that randomizes whether officers are assigned to meet with supervisors modeling procedurally just practices. As we describe below, these evaluations varied with respect to training design, participants (academy recruits versus officers), and the outcomes examined. While these studies tended to identify significant changes in officer attitudes and beliefs on at least some margins, findings are otherwise quite mixed. In particular, of the three studies that examined objective outcomes from real-world police-citizen interactions, one study identified significant declines in citizen complaints and in reported use of force. A second

study identified significant reductions in arrests, while measured reductions in use of force were imprecise but large in magnitude. The third study did not find evidence of significant or large declines in use of force in response to treatment. In sum, while we have some evidence that trainings impact officer practices and citizen perceptions, these conclusions hold only for a subset of outcomes analyzed and, in general, have not been replicated across multiple studies. General problems in this area include limited experimental evidence combined with the challenges of demonstrating change in the rate of low base rate behaviors. More research is needed to determine whether the hypothesized causal relationships that underpin standard models of procedural justice theory are borne out in the real world.

I. Does Procedurally Just Policing Promote Legitimacy?

The first question is whether the procedural justice of the police shapes public attitudes and behaviors. Does the evidence support the value of this policing model? The goal of a procedural justice approach is to change the dynamics of the relationship between the police and the public. By focusing on fair treatment, the police are building a relationship based on trust. Trust promotes voluntary compliance and greater cooperation with the police.

This review identifies a variety of studies addressing impacts that procedural justice can have on people in the community. Those studies conclude that greater perceived procedural justice raises trust and that this heightened trust in turn encourages compliance with the law. Importantly, there is some evidence suggesting that this strategy is at least as effective in managing crime as the traditional deterrence model (Tyler, 2006; Tyler and Jackson, 2014). It is also important to note that there is disagreement about the value of this approach, disagreement centered around the weight of different antecedents of compliance (Nagin and Telep, 2020).

In addition to increasing law abidance, studies overwhelmingly suggest that an important payoff of the procedural justice model is heightened support for and cooperation with the police. As Nagin and Telep (2020) note “the rapid growth in the literature offers some encouraging evidence on ... the effectiveness of community policing infused with elements of procedural justice in improving citizen perceptions of police.”

The more general benefit of procedural justice is of course to create a cooperative relationship between communities and legal system authorities, including the police (Tyler, 2011; Tyler and Jackson, 2014). This enhanced cooperation can have a crime-control effect by raising clearance rates for crimes (Tyler, Goff and MacCoun, 2015).

An important distinction in the procedural justice literature is between studies of personal interactions with the police and studies of general views about policing in one’s neighborhood or community. Studies suggest that personally experiencing procedural justice heightens willing deference to the police (Tyler and Fagan, 2008; Tyler and Huo, 2002). Personal experiences might also affect views beyond that of an individual interaction or officer, shaping broader perceptions of the police as an institution (Mazerolle et al., 2013a).

Studies focused on individual encounters have employed survey-based and observational data to examine how direct interactions with police relate to citizens' views and behaviors. Engel (2005), for example, examined survey-based attitudes in a sample of 7,054 drivers who had been stopped for a traffic violation during the previous year. The author investigated whether citizens thought police acted properly (i.e., in a procedurally just manner) in the encounter and found that factors such as the reason for being stopped and the enforcement actions taken during the stop, which were interpreted as measures of officer fairness, were correlated with citizen perceptions. In Cincinnati, Ohio, Dai et al. (2011) conducted direct observations of citizen-police encounters. The authors found that citizens were more likely to behave disrespectfully (for instance, in a passive aggressive manner) and were less likely to comply with police requests when police were coded as behaving disrespectfully towards citizens and did not consider citizens' opinions, respectively. Importantly, neither of these studies is structured to evaluate causality given the lack of plausibly exogenous variation in police practices or behaviors.¹

Recent work also demonstrates that negative police experiences may influence citizen attitudes and behaviors. For example, in a pair of randomized trials, researchers employed vignettes to show that procedurally unjust interactions with 911 dispatchers and with police officers predicted lower reported willingness to cooperate with dispatchers and officers (Flippin et al., 2019; Reisig et al., 2018).

Maguire et al. (2017) provides another example of a study that identifies these linkages causally in a lab-based setting. The authors randomly assigned participants to view video clips of simulated traffic stops that involve procedurally just officer behavior, procedurally unjust officer behavior, or neutral officer behavior, and then had them complete surveys about their levels of trust in the police, obligation to obey law enforcement orders and the law, and willingness to cooperate with the police. Participants who viewed positive, procedurally just police interactions had higher ratings of trust and confidence, obligation to obey, and cooperation willingness, while participants who viewed negative, procedurally unjust encounters had lower ratings on these outcomes.

There is also evidence that vicarious experiences of procedurally just encounters with officers that people hear about from others or observe are correlated with general perceptions of procedural justice, satisfaction, and self-reported willingness to cooperate (Mazerolle et al., 2013a; Tyler and Wakslak, 2004; Wells, 2007; Salvatore, Markowitz, and Kelly, 2013).

Overall, systematic reviews of procedural justice theory and meta-analyses of the existing evidence find positive associations between the procedural justice or injustice experienced when dealing with the police and perceptions of the police, support for cooperative behaviors, and trust in the police (e.g., Donner et al., 2015; Bolger and Walters, 2019; Walters and Bolger, 2019). Individuals who perceive interactions with the police as more procedurally just have more positive perceptions of legitimacy, as well as increased satisfaction with police services, satisfaction with disposition in interactions, and trust and confidence in the police (Donner et al., 2015). In their review of

¹ While Dai et al. (2011) does include specifications based on an instrumental variables approach, an instrument is only included for use of force and the validity of this approach is compromised by the multitude of channels through which the instrument (based on shift timing) would be expected to impact the outcome of interest (citizen disrespect).

research examining police-led intervention programs aiming to strengthen police legitimacy, Mazerolle et al. (2013b) found that interventions improve perceptions of procedural justice, satisfaction with the police, confidence in the police, and compliance and cooperation with the police.

While much of the literature on procedural justice is centered around personal experiences with the police, notably people are also influenced by their judgments of overall police behavior in their neighborhood or community (Sunshine and Tyler, 2003; Tyler, Fagan and Geller, 2014). In a survey study, Tyler, Fagan and Geller (2014) found that young respondents were more influenced by what they believed the police generally did when dealing with people in their neighborhood than they were by their own personal experience with the police.

While an extensive laboratory and field literature in the area of procedural justice supports the procedural justice theoretical model, efforts to apply this model to the field of policing have only recently begun. For that reason, the experimental literature on policing is less extensive and evidence of causality among studies of the police is more limited. However, in recent years an increasing number of experiments on procedural justice have been conducted and those studies tend to support the causal model outlined (Flippin, Reisig and Trinkner, 2019; Reisig, Mays, and Telep, 2018).

It is important to note that not all studies of police-citizen contacts support this model. More generally, an ongoing debate exists over whether it is reasonable to expect that a single interaction could shape citizen views of police legitimacy given deep-seated beliefs developed based on a lifetime of prior interactions and experiences (Nagin and Telep, 2020). Studies of single encounters with police officers of a routine nature, such as a traffic stop, may not influence views about the police, or many only influence views about a specific police officer, not the police force (Sahin et al., 2017).

II. Procedural Justice within Police Departments

Whereas procedural justice is typically used to describe citizens' interactions with officers, called external procedural justice, internal procedural justice is concerned with officers' perceptions of fairness within their workplace (i.e., within police departments).

Research demonstrates that when the internal structure of a police department is not experienced by officers as fair, those officers are less likely to be procedurally just when dealing with the community. For instance, in his study of Ghanaian officers, Tankebe (2010) found that, in addition to peer relationships and higher education, supervisor treatment predicted officers' organizational commitment. In their study of officers in Buenos Aires, Haas et al. (2015) found that perceptions of fair supervisor treatment and supervisor trust were associated with behavioral compliance. Trinkner et al. (2016) suggests that organizational justice may improve officer performance, officer well-being, and police-community relations. Officers in procedurally just departments had higher trust of and obligations to obey supervisors, less psychological and emotional distress, and lower cynicism and mistrust about the world and the communities they police. Effects were

positively related to endorsement of democratic forms of policing, organizational efficiency, and officer well-being.

Studies of internal procedural justice typically examine officer perceptions in relation to attitudes toward one's job and workplace, behaviors, and organizational measures such as retention of officers. Organizational trust has been associated with officer compliance and misconduct (Bradford et al., 2014; Haas et al., 2015). Wolfe and Piquero (2011) surveyed nearly 500 officers in Philadelphia and found that officers with fair and just perceptions of their agency's managerial practices were less likely to adhere to the code of silence, to believe that police corruption was justified, and to engage in misconduct. De Angelis and Kupchik (2007) found that for police officers facing sanctions for misbehavior, procedural justice and perceptions of legitimacy were more important in shaping satisfaction than case outcomes. Procedural justice perceptions were positively related to trust in administration, trust in the internal affairs bureau, and overall satisfaction with the investigation process. Crow, Lee, and Joo's (2012) study of South Korean officers found that organizational justice was positively related to organizational commitment, and this relationship was mediated by job satisfaction.

A number of studies relate organizational justice to attitudes and behaviors toward citizens. Van Craen and Skogan (2017) showed that perceived internal procedural justice was associated with support for external procedural justice both directly and indirectly through trust in citizens. Relatedly, Carr and Maxwell (2018) found a strong relationship between officer perceptions of organizational justice and officer trust in the public in their survey of patrol officers. Organizational justice also appears to be associated with positive attitudes towards serving members of the public (Myhill and Bradford, 2013).

Other empirical studies highlight the complexity and multidimensionality of organizational justice. In a study of Durham Constabulary officers, Bradford et al. (2014) found positive relationships between organizational justice and police organization identification, the taking on of new roles, and positive views of community policing. In a survey of 418 officers from the Korean National Police Agency in South Korea, Crow, Lee, and Joo (2012) found that while organizational justice perceptions were positively related to officers' levels of organizational commitment, procedural justice and interactional justice (i.e., perception of fairness in organization's interpersonal treatment of employees) indirectly affected organizational commitment through distributive justice. Further, officers' organizational justice perceptions had an indirect effect on organizational commitment through job satisfaction. Haarr (1997) looked at patrol officers' levels of organizational commitment and found that officers at low, medium, and high levels reported specific forms of deviance.

In contrast to research highlighting the importance of officer self-legitimacy, Jonathan-Zamir and Harpaz (2014) found Israeli commanding officers' self-legitimacy to be associated with accomplishments in fighting crime rather than procedural justice. In addition to supervisor and peer recognition influencing officers' views about their own legitimacy (i.e., self-legitimacy), some work highlights the importance of officer perceptions of clientele recognition, or "officers' impressions of how their power-audiences perceive police legitimacy" (Tankebe, 2019). Whereas peer and supervisor perceptions of officers can be thought of as inward-facing concepts that are

affected within one's workplace, clientele recognition relates officers to the outside world. For instance, Noppe's (2016) survey of 137 predominately Belgian police officers found that officers who are not concerned with others and who believe citizens lack trust in or respect for the police were more likely to support use of force, and that those who support use of force were more likely to use force.

While the effects of internal procedural justice are not yet fully known, officer perceptions of their legitimacy and/or their departments' legitimacy appear to be associated with increased commitment to community engagement (Wolfe and Nix, 2016), greater support for the use of procedural justice in interactions with citizens (Bradford and Quinton, 2014; Jonathan-Zamir and Harpaz, 2018), and lowered use of force (Noppe, 2016). Officers who experience recognition from their supervisors or organizations have fewer complaints filed against them (Wolfe and Piquero, 2011), show increased commitment towards procedural justice in interactions with citizens (Tankebe, 2014), and adhere to organizational rules (Haas et al., 2015; Tyler, Callahan, and Frost, 2007). Empirical studies associate peer recognition with pro-organizational behavior (Tankebe and Meško, 2015) and willingness to report misconduct (Kutnjak Ivković, Haberfeld, and Peacock, 2016). Clientele recognition has been associated with client treatment in positive ways (Alpert and Dunham 2004; Jonathan-Zamir and Harpaz, 2018; Mastrofski, Reisig, and McCluskey, 2002; Reisig et al., 2004). Not all studies find that internal procedural justice impacts officer attitudes or behaviors, however. For instance, Jonathan-Zamir and Harpaz (2018) did not find a statistically significant association between internal procedural justice and police officers' endorsement of procedurally just policing.

There has been a rapid development of studies of the internal climate of police departments and of officer self-legitimacy. This literature offers strong support for the argument that enhancing the procedural justice that officers experience in their work settings has a variety of benefits (Bottoms and Tankebe, 2013; Tankebe, 2019; Trinkner, Tyler, and Goff, 2016). Some of those benefits accrue to officers in terms of psychological and physical well-being, but the impact is broader. Officers who experience procedural justice in their work settings have more positive views of the decisions of their supervisors, increased trust in their administrations, and higher job satisfaction, among other positive outcomes (Donner et al., 2015). Other benefits are experienced by the community because officers enact a procedural justice style when they deal with the public. These benefits are of particular value because officers do not need to be instructed to change. They experience a different work environment and that changes their attitudes and behaviors while doing their jobs.

III. Evidence on Procedural Justice Training

The term "procedural justice training" is used to refer to a range of different types of training content and modalities that look very different in practice. A subset of trainings teach officers to simply employ scripts specific to certain types of police-citizen interactions, such as traffic stops (Mazerolle et al., 2012; MacQueen and Bradford, 2015, 2017; Sahin et al., 2017). In contrast, most trainings focus on imparting skills intended to promote procedurally fair officer-citizen interactions across a broad range of contexts. In summarizing the existing evidence on procedural

justice training impacts below, we highlight the particular content and modality associated with each evaluation.

Support for procedural justice training is premised on the notion that the police can influence citizens' attitudes and behaviors. As we have highlighted, the dominant argument among academics is that legal authorities can increase stated support among their subjects, as well as self-reported willingness to cooperate, by treating people with dignity and respect (Tyler, 2006, 2008; Tyler and Huo, 2002). A secondary requirement for procedural justice training to achieve its objectives is that training must translate into improvements in procedurally just practices by officers. For those studies that have examined real-world outcomes of police-citizen interactions (i.e., arrests and police use of force) it must also be the case that changes in citizens' behaviors must be observable to officers and must influence officers' own responses in a way that affects these objective outcomes.

The Queensland Community Engagement Trial (QCET) served as the world's first randomized field trial to test the effect of procedural justice training on citizen views of the police. Through QCET, Australian traffic police were randomly assigned to a status quo control group or a treatment group in which they were taught to use a procedural justice- and community engagement-related script in engaging drivers during random breath testing operations at planned traffic roadblocks. Mazerolle et al. (2012) explored how brief, positive, and procedurally just police-citizen interactions influenced people's procedural justice- and legitimacy-related perceptions of the police, as well as their satisfaction and willingness to cooperate with the police. With the caveat that survey response rates were below 15% in both the treatment and control groups, they found that treatment positively influenced specific and general views of the police. A subsequent analysis by Murphy et al. (2014) found that Australian drivers who were exposed to the experimental condition had higher trust and confidence in police than those exposed to the control condition, though no significant differences were found for obligation to obey police or willingness to cooperate with law enforcement.

Sahin et al. (2017) tested the impact of a similar script-based procedural justice policing intervention in the context of traffic stops in Adana, Turkey. There, drivers assigned to treatment interacted with an officer who used a procedural justice script during traffic stops for excessive speeding. Drivers were interviewed after encounters with the police about the encounter itself and perceptions of traffic police more generally. With the caveats that response rates were 20 percentage points lower in the control group and that a number of baseline imbalances were identified, citizens who engaged with trained officers were found to have improved perceptions of their encounters, as in the Queensland studies described above. However, their general perceptions of police were not significantly improved.^{2 3} While these findings from script-based interventions

² Backfire effects were found in an evaluation conducted by MacQueen and Bradford (2015) in Scotland, but the effects were most likely due to study issues rather than the use of a procedural justice-based intervention (MacQueen and Bradford, 2017).

³ There is also a body of related work that studies interventions that are distinct from procedural justice trainings but similarly intended to improve citizens' perceptions of the police. For instance, Peyton et al. (2019) conducted a randomized trial in a large urban American police department that tested the impact of positive, door-to-door

appear somewhat encouraging in indicating that similar interventions may prove effective in promoting perceived police legitimacy, the scalability of such trainings is limited by the fact that most officer-citizen encounters are more fluid and less amenable to the use of pre-developed officer scripts. As such, a more extensive body of research has focused on whether more flexible procedural justice trainings appear to be useful in influencing officer attitudes and behaviors, as well as citizen perceptions.

In an early randomized field experiment in this space, Wheller et al. (2013) evaluated the effects of one such training conducted with 576 officers from England's Greater Manchester Police Service. The training, delivered over the course of two or three days and lasting up to 14 hours, was designed to improve interactions between the police and victims of crime and involved the use of scenario-based lessons and the teaching of interaction techniques in a classroom setting.⁴ In response to the training, treated officers were more likely to prioritize delivering quality of service, building empathy and rapport with victims, and making fair decisions involving the victim. Effect sizes ranged from 0.18 to 0.46 on a seven-point scale (significant effects were not detected on four other measures with effect sizes ranging from -0.18 to 0.21). Analyzing scenario-based officer behavior, the authors found a statistically significant 0.29-point effect of treatment on the overall quality of officer interactions (measured on a seven-point scale). Throughout the interactions, the treatment group officers were more likely to acknowledge the victim's emotional state, empathize with their situation, match body language, and provide the victim with a set of options. The analysis also employed a follow-up survey with real-world victims three to nine months after they had interacted with study sample officers. The authors identified a statistically significant improvement in the overall quality of interactions with treatment group officers (0.09 points on a 4-point scale), though there were no significant differences in victims' willingness to cooperate, in their satisfaction with how they were treated, or in their satisfaction with the service provided.⁵

There is a sense that police attitudes and behaviors may be particularly malleable during the recruit training period (Constable and Smith, 2015; Platz, 2016; Tyler, 2006; White and Escobar, 2008), and a pair of randomized evaluations have investigated the impact of procedural justice trainings conducted during this window. In Australia, Antrobus et al. (2019) employed a block randomization design with 56 police recruits, assigning one officer from each matched pair to a one-and-a-half day training during their time at the academy. The training sessions were facilitated by academy trainers, trained specifically to deliver this program, and included a day of classroom learning with lectures, discussions, and exercises. The half day was used to practice skills in role-play scenarios, after which facilitators would provide verbal feedback. Anonymized survey responses revealed that recruits' attitudes were largely unchanged in response to the training. The one statistically significant finding was a 0.41-point increase (on a 7-point scale) at the first follow

nonenforcement contact between officers and citizens. The researchers found that positive, nonenforcement contact improved residents' attitudes regarding police legitimacy and willingness to cooperate with police.

⁴ The evaluation originally intended to test three treatment arms, which varied based on speed of delivery, from two to three days, and on method, with two arms of the treatment using scenario-based learning in addition to the classroom. Due to moderate attrition, heterogeneity analysis by treatment group was underpowered. The results presented, therefore, focus almost entirely on the aggregate group assigned to receive any training.

⁵ It is worth noting that the paper fails to include standard errors or p-values in the main text, without which a full consideration of the strength of this evidence is not possible.

up in treated officers' perceptions of the effectiveness of procedural justice. Estimated effects on other outcomes were inconsistent in sign and uniformly smaller in magnitude. Interestingly, the authors identified more robust behavioral impacts associated with treatment based on field training mentor observations. Specifically, field training mentors found that treated officers employed more procedurally just behaviors than their control counterparts. In a rating-level analysis (officers were rated multiple times), the difference in ratings as a function of treatment status was 0.48 (on a 7-point scale). Trained officers demonstrated a statistically significant improvement in their rating based on encounters with suspects in particular, suggesting that the training may have motivated officers to use new skills in interactions that are ex-ante less likely to be procedurally just.

Another training program focused on instilling procedurally just attitudes and behaviors among recruits was evaluated in Rosenbaum and Lawrence (2017) with a study sample including 142 new officers. Treated officers were assigned to Chicago's 20-hour Quality Interaction Program (QIP), a police training that engaged recruits through applied case studies, role-playing scenarios, repetitive opportunities for practice, and individualized feedback. The curriculum emphasized five core components: procedural justice, interpersonal communication skills, decision-making skills, cultural awareness, and stress management. The authors' survey-based analysis of officer attitudes and beliefs did not identify any statistically significant treatment effects; estimated magnitudes were small and inconsistent in sign (measured on 4 or 5-point scales and never greater than 0.15 points in absolute value). The researchers also analyzed recruits' behaviors during videotaped scenarios but were only able to measure behaviors for about one-fourth of the original sample (and a smaller share of the treatment than control group). In this subsample, treated recruits were coded as being significantly more respectful and supportive in their interactions (by 0.42 points on a 3-point scale). Treated recruits also reported being more likely to avoid aggressive enforcement and more likely to want to "diffuse the situation" in hypothetical scenario-based survey questions. As the authors suggest, these mixed results may indicate that the training was not cohesive with the rest of the academy curriculum.

While the research described above relied on survey responses and subjective observations to assess officers' attitudinal and behavioral changes, two recent experiments have included analyses of impacts on administratively measured outcomes of police-citizen interactions. McLean et al. (2020) and Wolfe et al. (2020) report results from an evaluation of an intensive social interaction skills training that utilized short, repetitive sessions to facilitate continued practice in decision-making during ambiguous situations. The training, Polis Solutions' Tact, Tactics, and Trust (i.e., T3) curriculum, aimed to develop police officers' knowledge, skills, and attitudes in interacting with the public. The researchers examined the effects of this social interaction training on police attitudes and behaviors in the Fayetteville, NC (FPD) and Tucson, AZ (TPD) police departments. The program was delivered in-house by department trainers, who were taught the curriculum by Polis Solutions. District groups were designated either as high-dose groups, which repeated training exercises over 6 months, or as low-dose groups, which participated for three months.

Analyzing survey data from the periods before and after training in a difference-in-differences framework, McLean et al. (2020) found that the T3 training was successful in strengthening officers' prioritization of procedural justice, though in subsample analyses the authors found that

this result was only present in the Fayetteville department.⁶ Effects on other survey-based outcomes, including the perceived importance of maintaining physical control in encounters, were not statistically significant and were smaller in magnitude. Although there was some observed treatment effect heterogeneity by dosage (for instance, procedural justice prioritization increased more with low dosage but physical control prioritization fell more with high dosage), it is important to note that dosage was not randomized across troopers due to implementation constraints. Survey attrition and the defaulting of a subset of officers into the control group for survey-based analyses also raise interpretation concerns more generally. Based on interrupted time series model estimates, the authors conclude that the training program did not appear to have any significant influence on officers' use of force. The authors do emphasize that use of force reports were rare, particularly in FPD, and that this analysis may have also been affected by spillovers; approximately 10 percent of FPD and 18 percent of TPD reports filed involved both a treatment and control officer.⁷

In another study analyzing impacts on objective policing outcomes, Owens et al. (2018) evaluated a procedural justice coaching intervention conducted by police supervisors in Seattle. By promoting procedurally just officer-supervisor interactions, this intervention differed from the previously discussed procedural justice trainings, which focused on directly encouraging procedurally just officer-citizen interactions. The intervention evaluated in Owens et al. (2018) was intended to “slow down’ police officers’ thought processes during citizen encounters.” To define the study sample, the authors used a combination of place-based histories and officer-based covariates to construct predicted risk scores for each recent incident that characterized the likelihood that the responding officer would use force, be injured in an encounter, or motivate a complaint to be filed. The authors then randomized treatment assignment within the top 12% of officers within each precinct (as ranked by their highest risk score during the relevant period). As part of the intervention, treatment participants received notifications to schedule a meeting with their supervisor to discuss a particular high priority incident, such as one that involved threat to life; events involving active complaints or use of force reports were excluded. The control group received no notifications or engagements.⁸ In total, 221 meetings were conducted. Officers who met with their supervisors were treated with respect and patience. Supervisors engaged in non-disciplinary, cognitive, and procedurally just behaviors, asking officers open-ended questions about encounters in ways that promoted reflection and explanation.

Because the notification to meet could be considered a distinct treatment from the supervisor meeting, the authors separately analyzed behavior before versus after the notification and before versus after the meeting. Treated officers were less likely to resort to arrests in the week following their meeting (by 25 percent relative to an incident-level arrest rate of 6%), with no change

⁶ The authors report a 0.12 point “standardized” treatment effect, which should seemingly be interpreted in standard deviation terms (although additional details regarding the standardization procedure employed would help facilitate interpretation).

⁷ In addition, the authors employ an intent-to-treat design and note that the departure of officers from the department and officer transfers to other roles may have further reduced statistical power.

⁸ The authors conducted multiple rounds of randomization; as such, treatment effect estimates reflect the average impact of a single supervisory meeting. The authors report that point estimates are unchanged when the sample is limited to officers who were eligible for random assignment exactly once.

measured after only the notification (point estimates were small and inconsistent in sign). Looking six weeks before and after their meeting, this result diminished but treated officers still demonstrated a 12% reduction in arrests. The use of force analysis did not provide consistently statistically significant results, in part likely due to the low frequency of these events. Nonetheless, officers decreased the number of use of force incidents in the six weeks post notification and post engagement by 16%-50% (results are presented throughout based on both lagged dependent variable and first differences models). Over a longer time horizon (incorporating the full eight-month study period), the authors identified 15-50% declines in use of force that are somewhat more precise (with p-values between 0.02 and 0.16). Notably, the authors were ex-ante underpowered to detect moderately sized treatment effects for these outcomes. The authors found no evidence that the treatment significantly influenced complaints filed against officers and there was no evidence of a decline in community engagement associated with assignment to treatment. The authors concluded that although the use of force results were in some cases imprecise, the benefit of these reductions were sufficiently valuable that implementing such a low-cost intervention could be worthwhile.

In addition to the experimental literature we have covered, there is a single quasi-experimental paper that studies the impact of procedural justice training on real-world policing outcomes (the authors employed an interactive fixed effects model due to deviations from the original randomization protocol). In Wood et al. (2020), the authors evaluated the implementation of a one-day procedural justice training in Chicago over a period of over four years. Nearly eight and a half thousand officers participated in a training program which emphasized policing strategies that create appropriate voice, neutrality, respect, and trustworthiness in community interactions. Taking advantage of the phased rollout across the department, the researchers evaluated whether the training had effects on cluster-level outcomes, including complaint records relating to officer conduct, civil litigation settlement payouts, and officer use of force; significant treatment effects were identified for each of these outcomes. Over two years, treatment reduced complaints filed against officers by 10% and reduced use of force reports by 6.4% (corresponding to 11.6 fewer complaints per 100 trained officers and 7.45 fewer use of force reports per 100 trained officers).

A broader body of non-experimental work has provided support for the hypothesis that procedural justice training can positively impact officer attitudes. To provide an example from this literature, Skogan et al. (2015) evaluated the short- and long-term effects of a police training program in the Chicago Police Department that aimed “to present procedural justice principles to officers as tactics that would encourage the public to recognize the police as a legitimate source of authority, resulting in improved officer safety, more compliance with their instructions, and greater cooperation from the public.” Short-run survey-based comparisons for approximately 2,700 officers suggested that training had a positive and statistically significant effect on officers’ perceptions of the importance of various procedurally just behaviors (neutrality, respect, trust, and voice). A longer-term survey (with a 28% response rate) suggested that these attitudinal changes persisted.⁹ Similarly encouraging findings are reported in Jannetta et al. (2019) which evaluated a suite of trainings coordinated by the National Initiative for Building Community Trust and Justice,

⁹ Short-term estimates exploited quasi-experimental variation in whether officers were surveyed before or after training; long-term results were based on analyses of differences between officers who had and had not been trained that conditioned on officer covariates and officers’ predicted likelihood of having attended training.

in six cities across the country. The evaluation found statistically significant improvements in officers' self-reported attitudes towards procedural justice (although it is worth noting that the effects of procedural justice training could not be isolated from the effects of the implicit bias training delivered simultaneously).

In summary, there is evidence that training/coaching can influence police officer attitudes and behaviors in the field. However, this does not always happen. Some programs are only shown to impact officer attitudes, and behavioral influences may occur with some types of behavior (use of force), but not others (behavior receiving complaints). As such, it will be important that future work provides clearer insight into whether the hypothesized causal relationships that underpin standard models of procedural justice theory are borne out in the real world. To the extent that future research does provide support for the causal linkages that underpin procedural justice theory, it will be important to unpack findings in order to more systematically understand what types of interventions are most effective, how findings generalize across settings and over time, etc. General problems in this area include limited experimental evidence combined with the challenges of demonstrating change in the rate of low base rate behaviors.

IV. Conclusions

The law enforcement, policy, and academic leaders who made up President Obama's 2015 Task Force on 21st Century Policing had the responsibility of identifying and announcing best policing practices and the ways in which such practices might effectively reduce crime. Their recommendations were organized into six key pillars, the first of which involved building trust and legitimacy between the police and citizens. Specifically, the President's Task Force (2015) called on law enforcement agencies to "adopt procedural justice as the guiding principle for internal and external policies and practices to guide their interactions with rank and file officers and with the citizens they serve," and to engage in a number of specific activities that would likely build public trust and legitimacy. Two other pillars identified by the task force, training and education and officer wellness and safety, also included procedural justice recommendations, underscoring the significance of procedural justice for both the public and law enforcement personnel.

Among other recommendations, the President's Task Force called for the tracking and analyzing of data relating to policing changes and their effects. Such data would allow researchers and practitioners to examine the effects of various law enforcement policies, including procedural justice trainings. The current review aimed to provide a detailed discussion of the particular procedural justice training and coaching curricula that have been tested and to unpack in more detail the associated research findings.¹⁰

As we have described, procedural justice-related concepts have been found to be associated both directly and indirectly with citizens' and officers' attitudes and behaviors. However, there is not a clear connection between the type of training provided and its influence on officers. Further experimentation related to procedural justice interventions is clearly needed to understand when

¹⁰ The memo complements recent work by Nagin and Telep (2020). Notably, our report focuses only on procedural justice training in the context of policing (as opposed to procedural justice trainings that extend to other settings, such as airport security screenings).

impact will occur and how interventions can be designed to consistently impact officers' behaviors.

More research on the design of procedural justice interventions is needed. While a large body of research by cognitive psychologists (see, for instance, Kang, 2016) demonstrates that spaced repetition (i.e., repeated practice with material that is spaced out over time) is effective for maximizing knowledge retention, it is unclear how procedural justice training design matters in influencing officers. We find, for instance, little evidence that a training incorporating spaced repetition impacts real-world policing outcomes (McLean et al., 2020), while a procedural justice coaching intervention offering more cause for optimism (Owens et al., 2018) involves only a single officer-supervisor meeting.

One partial explanation for variation in the influence of interventions is that distinct procedural justice practices may have different effects depending on the particular populations with whom the police are interacting given that perceptions of and behaviors toward the police vary across social groups (Radburn et al., 2018). Procedural justice may be especially important in impacting the attitudes and behaviors of groups such as victims, immigrants, and youth, who feel stigmatized by, wary of, and/or alienated from the police (Tyler and Lind, 1992; Watson and Angell, 2007).

More generally, procedural justice interventions will benefit from further experimentation. It is vital that researchers continue to assess on-the-ground effects of procedural justice interventions and determine whether such effects can be sustained for long periods of time. Furthermore, it is likely also the case that consistent implementation of procedural justice practices is only possible with sustained officer accountability, which in turn requires strengthening organizational infrastructures and the connections between management and street-level practices (Worden and McLean, 2017). In sum, it is vital that researchers continue to assess on-the-ground effects of procedural justice interventions in order to broaden the evidence base.

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