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To cite this article: Jeffrey B. Snipes, Edward R. Maguire & David H. Tyler (2019): The effects of procedural justice on civil disobedience: evidence from protesters in three cities, Journal of Crime and Justice, DOI: [10.1080/0735648X.2018.1559128](https://doi.org/10.1080/0735648X.2018.1559128)

To link to this article: <https://doi.org/10.1080/0735648X.2018.1559128>



Published online: 08 Jan 2019.



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# The effects of procedural justice on civil disobedience: evidence from protesters in three cities

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## ABSTRACT

A large body of research reveals that procedural justice influences compliance with the law and legal authorities in a variety of settings. Recent research in protest settings has found that procedural justice influences protesters' attitudes toward the use of violence against police as well as their self-reported violent behaviors toward police. Protesters who perceive the police as unjust are more willing to use or support the use of violence against the police. What is not yet known is the extent to which procedural justice might influence non-violent forms of illegal behavior among protesters. Based on data from surveys of protesters in three U.S. cities (Oakland, CA, New York, NY, and Washington, D.C.), we examine the linkages between procedural justice and civil disobedience.

## KEYWORDS

Procedural justice; civil disobedience; police protests

## Introduction

The procedural justice revolution in criminology has resulted in a massive body of research on the linkages between public perceptions of police and a variety of prosocial outcomes. People who perceive the police as procedurally just are more likely to feel an internalized obligation to obey the law and legal authorities. At the same time, people who perceive the police as procedurally unjust are more likely to view the law and its agents as illegitimate and therefore less likely to comply with these sources of authority. There now appears to be a growing consensus among social scientists that procedural justice plays an important role in achieving legal compliance (e.g. Reisig, Tankebe, and Mesko 2014; Tankebe 2009; Tyler 2006; Tyler and Huo 2002). As this body of scholarship continues to mature, one remaining challenge is determining the conditions under which procedural justice effects are more or less prominent (Maguire 2018). This is primarily a question of external validity as researchers test for procedural justice effects in a variety of different populations and settings.

One population for which procedural justice may be especially salient is protesters. Protests and mass demonstrations often bring activists into contact with police under conditions that are ripe for conflict. Indeed, conflict between police and protesters has become a common phenomenon around the world. In the United States, conflict between police and protesters became a common theme in numerous social movements and figured prominently in the civil rights era during the 1960s. Some of the most iconic images of that era feature police abusing peaceful protesters, including police dogs attacking protesters in Birmingham, Alabama, in 1963, the 'Bloody Sunday' march in Selma, Alabama, in 1965, and the Democratic National Convention in Chicago in 1968. Recent research has demonstrated that procedural justice

plays an important role in shaping protesters' violence-related attitudes and behaviors (Maguire et al. 2016, 2018; Tyler et al. 2018). What remains unknown is the extent to which procedural justice shapes protesters' use of non-violent forms of illegal behavior, particularly the use of civil disobedience, a classic protest strategy. The present study examines the effects of procedural justice on civil disobedience using data from surveys of protesters in three U.S. cities (Oakland, CA, New York, NY, and Washington, D.C.) during the Occupy movement. Our findings are useful for understanding the dynamics between police and protesters. More generally, our findings are useful for reflecting on the scope of procedural justice theory.

## **Procedural justice theory**

### ***Procedural justice theory***

Procedural justice theory seeks to explain how the behaviors of authority figures influence people's motivation to cooperate with orders or requests from those sources of authority and rules or laws more generally (Lowrey, Maguire, and Bennett 2016; Tyler 2006; Tyler and Huo 2002). Cooperation and compliance stem not just from a threat of sanctions, but also from a personal commitment to law-abiding behavior (Jackson et al. 2012; Tyler 2006; Tyler and Huo 2002). The theory postulates that legal authorities can increase people's perceived obligation to obey the law by behaving in a procedurally just manner. Citizen assessments of procedural justice are based on interrelated judgments about the fairness of treatment and decision-making during their encounter with police (Tyler 2006, 2011; Tyler and Huo 2002). Individuals assess fairness by considering whether the legal authority treated them with dignity and respect, provided an opportunity to explain their actions, and appeared to be a neutral arbiter with trustworthy motives (Mazerolle et al. 2013). A substantial body of knowledge suggests that procedurally just treatment by police and other legal authorities influences citizen views of legitimacy and felt obligation to obey the law (e.g. Lowrey, Maguire, and Bennett 2016; Reisig, Tankebe, and Mesko 2014; Sunshine and Tyler 2003; Tyler 2006; Tyler and Huo 2002).

A procedural justice model of policing offers an alternative to the deterrence approach for encouraging regulation (Tyler and Huo 2002). Deterrence strategies rely on motivating individuals to comply through a threat of sanctions, an approach that is occasionally necessary in the short term, but which has a substantial negative impact on trust and long-term cooperation (Pratt et al. 2008; Tyler 2006; Tyler and Huo 2002). A procedural justice model of policing, meanwhile, is based on the premise that 'effective regulation by the police and courts depends on their ability to gain consent and cooperation' from citizens (Tyler and Huo 2002, 12). Citizens defer to legal authorities because the citizens themselves believe they should, not because they feel threatened (Tyler and Huo 2002). This model seeks to obtain long-term compliance with legal authorities through self-regulation, rather than the use of force or the threat of sanctions. Process-based policing strategies reduce the likelihood that people will openly defy, exhibit hostility towards, or rebel against the law and its agents (Tyler and Huo 2002, 8).<sup>1</sup>

In addition to exploring the relationship between procedural justice, legitimacy, and compliance, scholars have also explored the effects of procedurally *unjust* actions at the hands of legal authorities (Jackson et al. 2013; Maguire, Lowrey, and Johnson 2017; Paternoster et al. 1997; Sherman 2010; Sunshine and Tyler 2003). Just as engaging in procedurally just practices increases long-term willingness to comply with legal authorities, procedurally unjust practices have been found to reduce compliance and increase the likelihood of resistance and rebellion against legal authorities (Paternoster et al. 1997; Sherman 1993, 2010). Perceived injustice also increases the likelihood of outrage and escalation by citizens during their encounters with police (Hess and Martin 2006; Jackson et al. 2013; Stott and Drury 2000). The relationship between procedurally unjust actions and defiance is of particular importance because negative interactions tend to exert a stronger influence on public perceptions than positive ones (Maguire, Lowrey, and Johnson 2017; Skogan, 2006).

## ***Procedural justice in protest settings***

Procedural justice theory may be especially salient in protest settings. Protesters are thought to have 'a heightened sense of grievance' relative to others (Her Majesty's Chief Inspector of the Constabulary, 2009). Tyler and Smith (1998) argue that 'procedural issues seem especially important when interactions have larger social significance.' Protesters typically view their cause as significant and their efforts as having a noble or higher purpose; therefore, they may be particularly sensitive to procedural issues associated with efforts to regulate their activities. Maguire (2016) articulated the theoretical application of procedural justice to protests, arguing that existing social psychological theories of crowd attitudes and behaviors could benefit from the inclusion of concepts from procedural justice theory. Several recent studies have tested the effects of procedural justice in protest settings.<sup>2</sup>

Based on a survey of Occupy participants in Washington, D.C., Maguire and colleagues (2016) found that protesters who viewed the police as treating them and their peers in a procedurally unjust manner were more likely to support the use of violence against police. Based on a survey of Occupy Wall Street participants in New York City, Maguire and colleagues (2018) found that the same measure of procedural justice used in the Washington, D.C. study did not have a significant effect on protesters' attitudes toward the use of violence against police. However, a measure of the extent to which protesters had experienced or observed unjust uses of force by police did have a significant effect on attitudes toward the use of violence against police. The researchers attributed the difference between the results in the two cities to the nature of police–citizen interactions in the protest sites. In New York City, the police behaved in a much more aggressive and abusive manner than in Washington, D.C. As a result, protesters in Washington, D.C. were more sensitive to subtler forms of procedural injustice, while protesters in New York City were more sensitive to more serious forms of procedural injustice involving unjust uses of force. Another study of Occupy Wall Street participants found that observing or experiencing unjust uses of force by police not only influenced protesters' attitudes, it also shaped their behaviors. Tyler et al. (2018) concluded that 'when protesters perceive police as engaging in unjust use of violence against them and their peers, they develop more violent attitudes toward the police, which in turn are associated with greater self-reported violent behavior toward the police.'

Taken together, these studies reveal that procedural justice has strong effects on protesters' violence-related attitudes and behaviors. However, protesters engage in a diversity of tactics, some of which are violent and some of which are nonviolent (Conway 2003). Moreover, some of these tactics are legal and some are illegal. Here we are interested primarily in the use of protest tactics that are non-violent but illegal. These tactics are often referred to as 'civil disobedience' or 'non-compliance.' The key research question is whether perceptions of the extent to which police behave in a procedurally just or unjust manner influence protesters' support for the use of nonviolent but illegal protest tactics.<sup>3</sup>

## ***Data and methods***

The studies mentioned previously examined the effects of perceptions of procedural justice on violent attitudes and behaviors among protest participants. The current study addresses influences on protesters' willingness to commit non-violent illegal behaviors, including acts of civil disobedience. We draw on data from surveys administered at three Occupy protest sites: Washington, D. C., New York, and Oakland. The instruments are identical across sites, and the sampling protocol is largely consistent in the three locales.

We chose to interview as many participants as possible, rather than attempt systematic selection methods aimed at testing a random sample (Maguire et al., 2018, 6 FN1). The many Occupy events that took place across the nation varied widely on several characteristics, including whether they were indoor or outdoor, crowded or sparse, tightly clustered or more dispersed, and still (such as

meetings and rallies) or in motion (such as marches). It would have been difficult to calculate an accurate refusal rate, given that a protester might not agree to participate at one time but then agree on a different occasion. We invited all 18-or-older Occupiers present at each event to participate, and surveyors fanned out, approaching individuals and those in groups, explaining the nature of the study, and asking for voluntary participation. We ceased collecting data at each event when it became evident that most of those present had been approached, and we had reached saturation.

One two-sided sheet of paper contained the survey items, which were closed-ended except one open-ended question asking respondents for details on their level of involvement in the movement. Participants filled in bubbles on the instrument, and we used an OMR (optical mark resolution) scanner to process the data.

### ***Occupy D.C***

Occupy DC emerged on 1 October 2011 in McPherson Square, two blocks from the White House, where protesters set up a tent-based community encampment. On 30 January 2012, the U.S. Park Police said it would enforce a ban on overnight camping, and it did so through evictions on 4 February. We collected survey data from Occupy DC participants on six different occasions, from 29 February to 31 March (Maguire et al., 2016). Three of these were General Assembly (GA) meetings in McPherson Square. One was during a planned action, which moved from the square to the American Legislative Exchange Council (ALEC), and then on to the Monsanto Corporation's offices. Another occasion was the 'Carnival of Resistance,' an all-day celebration of Occupy DC's 6-month anniversary, taking place in McPherson Square, and one gathering was held in a home inhabited by those in the movement. A total of 136 participants agreed to respond to the survey in Washington.

### ***Occupy Wall Street***

Occupy Wall Street's origin was Zuccotti Park, where an encampment formed on 17 September 2011, first relying on just sleeping bags for overnight stays and later, tents. By mid- to late-October, concerns about sanitation built tension between Occupiers and authorities, and on 15 November, police forcibly removed protesters from the park, arresting at least 200. There was a short-lived effort to reoccupy the area on New Year's Eve. Once evicted from Zuccotti Park, the movement shifted to banks, corporate headquarters, and universities. We collected survey data on two occasions – 15 March and 17 March – first at a GA meeting at 60 Wall Street and second during a 6-month anniversary event in Zuccotti Park (Maguire et al. 2018). Three hundred and two OWS participants responded to the survey, 50 at the GA meeting and 252 during the anniversary event.

### ***Occupy Oakland***

Oakland's first occupation occurred on 12 October 2011, Indigenous People's Day, when several hundred supporters gathered at Frank H. Ogawa Plaza, in front of Oakland City Hall. Participants began sleeping in tents that night. Oakland officials announced a ban on overnight stays on 20 October, and on 25 October law enforcement agencies cleared Ogawa Plaza as well as a second Occupy encampment at nearby Snow Park, arresting approximately a hundred people. Occupiers retook the plaza 27 October, and on 2 November, up to 100,000 protesters gathered there and marched to the Port of Oakland. Police cleared the areas again on 14 November (Ogawa Plaza) and 21 November (Snow Park). We administered surveys to Occupy Oakland participants on 4 March 2012 at a GA meeting. By then, Occupy Oakland was losing steam rapidly, and although our compliance rate was high, we had only 62 respondents. In early April, the *San Francisco Chronicle* reported that Occupy had mostly disappeared from Oakland.

### ***Dependent variables***

The original study plan called for the dependent variable to be a single composite measure comprising six illegal but non-violent protest tactics. The response options for each tactic ranged

**Table 1.** Items used to measure dependent variables.

	New York, NY	Oakland, CA	Washington, D.C.
Disobeying police orders to disperse when protesting	80.3%	91.8%	76.3%
Occupying public parks when ordered not to do so by police	84.2%	93.4%	84.7%
Occupying abandoned or foreclosed buildings when ordered not to do so by police	78.3%	85.2%	76.3%
Occupying public buildings when ordered not to do so by police	76.8%	86.7%	75.2%
Vandalizing public property	19.7%	24.1%	19.1%
Using nonviolent resistance against the police	92.1%	89.8%	87.1%

Note: Cells contain the percentage of respondents in each city who view each action as either 'somewhat' or 'very' reasonable in order to bring about meaningful social change.

from 1 to 5, with 1 indicating that the respondent viewed the tactic as very unreasonable and 5 indicating that the respondent viewed the tactic as very reasonable. Table 1 lists the six indicators together with the percentage of respondents in each city viewing each action as either somewhat or very reasonable 'to bring about meaningful social change.' One clear pattern that emerges from Table 1 is that respondents were much less likely to endorse the use of vandalism than the other five non-violent protest tactics. Preliminary confirmatory factor analyses (detailed results not shown) revealed that the vandalism item did not measure the same underlying latent variable as the other five indicators.<sup>4</sup> As a result, we decided to estimate two separate regression models in this study: one in which the 5-item civil disobedience index served as the dependent variable, and one in which the stand-alone vandalism item served as the dependent variable. We return to this distinction between vandalism and other protest tactics in the Discussion section.

### *Independent variables*

The two key independent variables in this analysis are each measures of procedural justice/injustice. The first is a generalized measure of perceived procedural justice; this measure is most consistent with those typically used in the scientific literature on procedural justice. The indicators used to construct this measure are based on survey questions asking respondents to indicate whether they believe the police in the area treated people with respect; took time to listen to people; treated people fairly; respected people's rights; were honest and trustworthy; and explained their actions and decisions. We computed an additive index based on the six survey items. Each item contains response options from a five-point Likert scale ranging from strongly disagree to strongly agree. Preliminary confirmatory factor analyses (results not shown) confirmed that these six items were strong measures of the same underlying latent variable.<sup>5</sup>

The second measure of procedural justice used as an independent variable in this study focuses specifically on perceived use of unjust force. This is measured using an additive index composed of six items. Respondents indicated whether police in the area threatened to use force against a protester; grabbed, pushed, hit, or kicked; used pepper spray; used a TASER or stun gun; used a K-9; pointed a gun; or arrested a protester unjustly.<sup>6</sup>

We also included four control variables in the regression models: respondents' race (white = 1, other = 0), level of participation in the Occupy movement ('full or regular' participation = 1, 'partial or occasional' participation = 0), attitudes toward the police prior to the movement (ordinal variable ranging from mostly negative = 1 to mostly positive = 5), and a composite measure of stake in conformity. We measured stake in conformity by combining three variables into a single measure using principal components analysis: whether the respondent is a college graduate (yes = 48.5%); whether the respondent is employed full time (yes = 35.6%); and the respondent's age (mean = 32.6). A higher principal component score reflects a greater stake in conformity. The three variables formed one component that explains 47.4% of the overall variability across these three items. Table 2 provides descriptive statistics for all independent variables. Table 3 provides Pearson's correlations for all independent and dependent variables.

**Table 2.** Descriptive statistics for independent variables.

	Minimum	Maximum	Mean	Median
Perceived procedural justice	6	30	10.33	9
Perceived unjust use of force	0	21	10.63	10
Percent white	0	1	0.64	1
Level of participation in Occupy	0	1	0.72	1
Attitudes toward police before Occupy	1	5	2.37	2
Stake in conformity (principal component)	-1.48	2.37	0.00	-0.04

**Table 3.** Correlation matrix for all independent and dependent variables.

Variable	1	2	3	4	5	6	7	8
1. Perceived procedural justice	1.0							
2. Perceived unjust use of force	-.488	1.0						
3. Attitudes toward police before joining Occupy	.257	-.177	1.0					
4. Race	-.051	-.049	-.004	1.0				
5. Degree of involvement in Occupy	-.218	.268	.013	.063	1.0			
6. Stake in conformity	.114	-.154	-.062	.133	-.112	1.0		
7. Civil disobedience	-.200	.031	-.052	.220	.067	-.083	1.0	
8. Vandalism	-.233	.313	-.204	.030	.152	-.227	.223	1.0

## Findings

We estimated two multiple-group regression models containing the variables outlined in the previous section. Each model was configured to allow for different parameter estimates for each city. To address missing data, we relied on Bayesian imputation procedures implemented in Mplus.<sup>7</sup> Our diagnostics revealed no issues with collinearity; the largest variance inflation factor was 1.4. The results from our multiple-group regression analyses are provided in Tables 4 and 5.

Table 4 contains the results from a multiple group regression analysis in which the five-item measure of civil disobedience serves as the outcome variable. This is a linear regression model that we estimated using a robust maximum likelihood estimator (MLR) in Mplus. We selected this estimator because it has been shown to work well with data that are not normally distributed (Yuan and Bentler 2000).<sup>8</sup> Protesters' perceptions of the extent to which police behave in a

**Table 4.** Regression results, civil disobedience (excludes vandalism).

	New York, NY	Oakland, CA	Washington, D.C.
Perceived procedural justice	-.238**	-.094	-.111
Perceived unjust use of force	-.060	.059	-.194
Attitudes toward police before joining Occupy	-.022	.001	.015
Race (white = 1, other = 0)	.177**	.016	.298***
Degree of involvement in Occupy (PT = 0, FT = 1)	-.019	.095	.065
Stake in conformity	-.062	-.205	-.181

\*Note: Cells contain standardized regression coefficients based on robust maximum-likelihood estimation. Asterisks denote statistical significance levels (\*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ ).

**Table 5.** Regression results, vandalism.

	New York, NY	Oakland, CA	Washington, D.C.
Perceived procedural justice	.062	-.213	-.382***
Perceived unjust use of force	.334***	-.179	.041
Attitudes toward police before joining Occupy	-.224***	-.417**	-.022
Race (white = 1, other = 0)	.084	.138	-.020
Degree of involvement in Occupy (PT = 0, FT = 1)	.068	-.009	.124
Stake in conformity	-.196**	-.244	-.176

\*Note: Cells contain standardized ordered probit coefficients based on mean and variance adjusted weighted least squares estimation. Asterisks denote statistical significance levels (\*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ ).



procedurally just manner have a significant negative effect on their support for the use of non-violent civil disobedience tactics in New York, but not in the other two cities. Protesters' experiences with police using unjust force against themselves or their peers do not have a significant effect on support for civil disobedience in any of the three cities. [Table 4](#) also contains results associated with the four control variables we included in the model. Three of the controls – protesters' recollections of their attitudes toward police before joining the Occupy movement, degree of involvement in the Occupy movement, and stake in conformity – did not have a significant effect on support for civil disobedience in any of the three cities. Race had a significant effect on support for civil disobedience in New York and Washington, but not in Oakland.<sup>9</sup> The two significant effects were both positive, suggesting that white protesters are more supportive of civil disobedience tactics than protesters of other races.

[Table 5](#) contains the results from a multiple group regression analysis in which vandalism serves as the outcome variable. This is an ordinal probit model that we estimated using a mean and variance adjusted weighted least squares estimator (WLSMV) in Mplus.<sup>10</sup> Protesters' perceptions that police behave in a procedurally just manner have a significant negative effect on their support for the use of vandalism in Washington, but not in the other two cities. Protesters' experiences with police using unjust force against themselves or their peers have a significant positive effect on support for the use of vandalism in New York, but not in Oakland or Washington. Protesters in New York who experienced or observed greater unjust use of force by police support the use of vandalism more strongly. [Table 5](#) also contains results associated with the four control variables we included in the model. Two of the controls – race and degree of involvement in the Occupy movement – did not have a significant effect on support for the use of vandalism in any of the three cities.<sup>11</sup> Protesters' recollections of their attitudes toward police before the Occupy movement have a significant negative effect on support for the use of violence in New York and Oakland, but not in Washington. In New York and Oakland, protesters who entered the Occupy movement with more positive attitudes toward police were less likely to support the use of vandalism as a reasonable protest tactic. In New York, protesters with a higher stake in conformity were significantly less likely to support the use of vandalism. The same effect was not observed in Washington and Oakland.

## Discussion

Protesters have a variety of options available to them when choosing how to express their viewpoints and achieve their objectives. Many protesters subscribe to the idea of a 'diversity of tactics' through which they can seek to influence to the political, economic, and social order (Conway 2003). One of the most important tactical choices is the decision about whether or not to use violence. While many social movements, including the Occupy movement, proclaim an adherence to nonviolent tactics, protest groups are heterogeneous and some protesters view the use of violence as a legitimate tactic for achieving meaningful social change. Previous research, drawing on procedural justice and other perspectives, has found that protesters' attitudes and behaviors regarding the use of violence are heavily influenced by the behavior of the police (e.g. Maguire et al. 2016, 2018; Stott and Drury 2000; Stott and Reicher 1998). When protesters view the police as behaving in a fair and just manner, they are less likely to use or support the use of violence. However, little is known about the extent to which the perceived fairness of police behavior can influence attitudes and behaviors associated with other types of protest tactics. This study sought to fill that gap in the social science literature using data gathered from three U.S. cities in 2012 during the Occupy movement.

Based on the survey instrument used in this study, we focused on six types of nonviolent protest tactics: disobeying police orders to disperse, occupying public parks, occupying abandoned or foreclosed buildings, occupying public buildings, vandalizing public property, and using nonviolent resistance against police. Our preliminary analyses revealed that five of these items (all but



vandalizing public property) received support from more than three-quarters of Occupy protesters in all three cities. Vandalism was a clear outlier, receiving support from less than a quarter of protesters in all three cities. Our measurement diagnostics revealed that the five tactics receiving broad support could be viewed as indicators of a single latent variable, which we have labeled as nonviolent civil disobedience. The clear separation in support for vandalism and support for other forms of nonviolent protest tactics led us to examine the correlates of each one separately.

The results of our multivariate analyses suggest three broad conclusions. First, the correlates of support for nonviolent civil disobedience differ from the correlates of support for vandalism. It may be that in the minds of protesters, vandalism is viewed as an extreme tactic more akin to the use of violence. Second, the correlates of support for vandalism and violence are not consistent across cities. Occupy sites were neither homogeneous in their composition nor in the way they were policed. Moreover, it is difficult to separate the linkages between police and protesters in this one social movement from the linkages that emerged from the many other local, regional, national, and international protests that preceded the Occupy movement. If all politics are local, then perhaps all protests are local. The relationships that form between police and protesters in different cities may vary so widely that it is difficult to discern consistent patterns across localities. Third, most of the coefficients (9 of 12) representing the effects of procedural justice and injustice on the two outcomes were not statistically significant.<sup>12</sup>

The findings of this study support the notion that in the minds of protesters, vandalism is more similar to violence than it is to other forms of civil obedience. The current study found little overlap between the determinants of support for vandalism and those of the five-item variable measuring support for other civil disobedience tactics. By contrast, there are several commonalities between the determinants of support for vandalism in this study and the determinants of violent attitudes and behaviors discovered in previous studies based on the same data set. Whereas civil disobedience implies passivity, vandalism, defined as 'willful or malicious destruction or defacement of public or private property,' (Vandalism n.d.) implies aggression. Vandalism committed during protests may have symbolic meaning and occur because protesters perceive themselves as having little control (or ability to achieve change) under conditions of great inequity (Fisher and Baron 1982). On the surface, these conditions would seem to apply to Occupy protesters.

In New York, perceived unjust use of force increased support for vandalism, and prior positive attitudes toward the police and stake in conformity reduced it. Maguire and colleagues (2018) found that perceived unjust use of force contributed strongly to protester support for the use of violence against police. In an extension of that work, Tyler et al. (2018) found that unjust use of force influenced both protester support for and engagement in violent behaviors. These effects parallel the findings from our analysis of protester support for vandalism. In Washington, D.C., the current study observed just one significant effect: perceived procedural justice reduced support for vandalism. Maguire et al. (2016) similarly found that perceived procedural justice, but not unjust use of force, influenced support for the use of violence against police in Washington, D.C.

Our findings in the model of vandalism in New York and Washington, D.C. are consistent with the body of literature on repression, and the Elaborated Social Identity Model. Kritzer's (1977) study of 126 protest events in the United States led him to conclude that the occurrence of violence was a result of a series of interactions between police and protesters, and that when police behavior becomes particularly egregious, protesters may become violent. Khawaja (1993) notes that while there may be a deterrent effect of police repression on protester behavior, once the repression reaches a certain level it may have the opposite effect. When police use unjust force during protests, they are often responding to the behavior of a few (for example, the 4% who report throwing objects at police in New York, or the 10% in Oakland). This use of force may have a stronger effect than subtler forms of procedural justice/injustice in shaping support for, and use of, both violence and vandalism. According to the Elaborated Social Identity Model (ESIM), when police take enforcement action against a whole crowd based on the behavior of a few, ordinary law abiding protesters (or 'moderates') may begin to identify with more radical members of the crowd

in opposing police repression (e.g. Drury and Reicher, 2009; Stott and Drury 2000; Stott and Reicher 1998). In New York, where police behaved very aggressively during protests, unjust use of force by the police was a primary determinant of protester support for the use of violence against police. In Washington, D.C., where police behaved in a more restrained manner on most occasions, a more general measure of perceived procedural justice that focused on issues like respect, politeness and citizen voice, had a significant negative effect on support for the use of violence against police.

Whereas our model of support for vandalism approximated earlier models of support for the use of violence, our model of civil disobedience did not. There were only two significant determinants of support for nonviolent but illegal forms of civil disobedience. Perceived procedural justice negatively influenced support for civil disobedience in New York, and whites were more likely to support it in both New York and Washington, D.C. Lichbach's (1987) Rational Actor (RA) model may explain why we did not find that perceived use of unjust force by police exerted a significant effect on support for civil disobedience. According to the model, when the government increases its repression of nonviolence, this approach reduces nonviolent activities, but increases violent activities. Put differently, violence becomes a substitute for civil disobedience. NYPD's violent crackdown on civil protests, then, may have reduced (or at least not increased) benign protester behavior at the expense of ramping up support for the use of violence.

Since generalized forms of procedural injustice (like disrespectful or impolite police behaviors) are less extreme than use of unjust force, it makes sense that they would increase support for civil disobedience, as we found in New York, but not the use of violence, as Maguire and colleagues (2016, 2018) discovered. It is unclear why this effect appeared only in New York. Our model also observed that whites were more likely than nonwhites to support civil disobedience in both Washington, D.C. and New York. Maguire et al. (2016) reported that nonwhites were more likely to support violence in Washington, D.C. than whites. Historically oppressed groups may view more extreme behaviors as necessary for change, whereas the traditionally protected are more likely to opt for less extreme forms of protest.

We found in the current and previous studies distinct variations in the primary determinants of protester attitudes and behaviors. Maguire et al. (2018) suggested that the style of policing may have played a role in these differences – in New York police were more aggressive,<sup>13</sup> such that protesters were more sensitive to use of force, but in Washington, D.C., with less aggressive policing, protesters' support for the use of violence was more heavily influenced by perceptions of procedural justice instead. Examination of the measures of police use of unjust force reveals support for this argument.<sup>14</sup> Yet, in Oakland, where perceptions of unjust force were even greater than in New York, neither procedural justice nor use of force influenced support for violence or vandalism. Perhaps protesters in Oakland were so used to observing unjust violence by police, that they were in a sense 'numbed,' and their support for use of violence and vandalism was calcified. Only those with prior positive views of police and greater stake in conformity were less likely to support violence,<sup>15</sup> and prior attitude toward police was the only significant contributor to vandalism. Protesters in Oakland also were more likely to support violence and report engaging in violence than their counterparts in the other two cities.<sup>16</sup> Oakland has a reputation for violence during demonstrations, and frequently out-of-towners come to protests and commit the bulk of it. This knowledge became widespread during the backlash over the police fatal shooting of Oscar Grant in 2009. The relatively small sample size in Oakland, and the differences in internal dynamics of its protesters from those in the other cities may help explain why we found no effects regarding perceptions of police behavior on support for resistance there.

Our study has some limitations. First, sampling is problematic when surveying protesters, since protest events are often so dynamic, with protesters sometimes remaining in the same location and other times in constant motion. Systematic sampling with a known error rate is difficult to impossible, so researchers do the best they can to get a representative sample in such settings. Second, within protests, there may be distinct subgroups of participants, and causal models that lump them together may pose problems with specification. Future studies may benefit from parsing out different types and model their attitudes and behaviors separately. Finally, variations on the timeline and the sorts of events surveyed across sites may have introduced some selection biases.

One of the most consistent conclusions from this study and earlier studies in the same genre is that context is a powerful determinant of protest dynamics. Best practice models of protest policing need to identify which features of events in locations where protests go smoothly are most instrumental to success. New York's handling of nonviolent disruptions with aggressive and at times violent policing only served to alienate the participants, increasing their support for the use of violence against police. In Washington, D.C., less aggressive policing may have reduced support for the use of violence among protesters, which results in more generalized forms of procedural justice emerging as more important to them. Police in Washington, D.C., then, should pay greater attention to improving their skills in procedural justice and de-escalation. As the United States appears to be becoming a more and more divided nation, one can expect group conflict to remain prevalent and probably grow. Thus, police and policy makers need to be vigilant in striving toward using better strategies and tactics when confronting crowds and seeking to prevent and address conflict.

## Conclusion

In this study, we explored whether determinants of support for acts of non-violent civil resistance by protesters at Occupy events in New York, Washington, D.C., and Oakland paralleled those of support for the use of violence against police as found in previous studies. We discovered that non-violent acts consisted of two distinct types: vandalism and civil disobedience. Models of support for vandalism produced similar results to those of violence, whereas we found little support that perceptions of procedural justice/injustice or unjust use of force by police influenced support for civil disobedience tactics. Like previous findings, our effects on vandalism depended heavily on the city, with procedural justice relevant in Washington, D.C., use of force in New York, and neither in Oakland. Ours is predominantly a quantitative study. Future research should employ greater use of qualitative methods when exploring cross-site differences in the dynamics of police and protester culture, attitudes, and behavior in times of conflict.

## Notes

1. There is some debate between Tyler and others, recently, regarding the extent to which police behavior that is procedurally just translates to citizen perceptions of legitimacy (Nagin and Telep 2017a, 2017b; Tyler 2017).
2. In a related study, Pery, Jonathan-Zamir, and Weisburd (2017) found that protesters participating in the Occupy Israel movement who perceived that police were using paramilitary methods were less likely to trust the police. In another related study, researchers found that people were less willing to engage in illegal protest tactics in protected environmental areas if they trusted the enforcement authorities within these areas (Stern 2008). The authors did not explicitly measure procedural justice in either study, but the implication in both studies is that procedurally unjust enforcement methods reduce trust, which in turn reduces voluntary compliance.
3. An anonymous reviewer suggested that in choosing civil disobedience as an outcome, we were making a value judgment about this type of behavior and treating it as an 'antisocial activity that should be quelled.' We seek to make no such judgment here. Consistent with procedural justice theory, our only interest is in testing the effect of procedural justice on a subset of behaviors defined as illegal under the criminal codes within each jurisdiction in this study.
4. We used the mean and variance adjusted weighted least squares estimator (WLSMV) in Mplus to estimate a confirmatory factor analysis model in which all six items were specified as indicators of a single latent variable. The loading for vandalism ( $\lambda = .37$ ) was much lower than the loadings for all other indicators (which ranged from .68 to .93, with a mean of .86). This finding suggests that vandalism may not be viewed by respondents as part of the same perceptual package as the other five nonviolent civil disobedience tactics. As a result, we chose to treat vandalism as a separate outcome from the other five tactics. We were unable to use confirmatory factor analysis as part of estimating the larger structural models in this study due to model complexity relative to sample size. As a result, we used confirmatory factor analysis as a preliminary validation tool and then constructed additive indices based on the findings from those analyses. Cronbach's alpha for the 5-item civil disobedience index equals .89, which suggests that the index is internally consistent.
5. Once again, we used the WLSMV estimator in Mplus to estimate a confirmatory factor analysis model in which all six items were specified as indicators of a single latent variable. The loadings were all strong and positive,

ranging from .71 to .93, with a mean of .83). Cronbach's alpha for the 6-item procedural justice index equals .89, which suggests that the index is internally consistent.

6. We view this as a formative measure rather than a reflective measure, therefore there is no underlying expectation that the items are strongly correlated. As a result, we do not report confirmatory factor analysis results or Cronbach's alpha. In a typical reflective measure, the causal order runs from the latent variable to the indicators; therefore, the indicators share a common cause and are expected to be correlated. In a formative measure, the causal order runs in the opposite direction, and therefore no such correlation is expected. For that reason, typical validation procedures do not make sense in this context. For more information on the difference between formative and reflective measures, see Diamantopoulos and Winklhofer (2001).
7. Mplus uses Bayesian methods to generate multiple imputations of missing data (Asparouhov & Muthen, 2010). Using this approach, we generated 30 imputed data sets and averaged the parameter estimates across them.
8. The civil disobedience outcome has a skewness value of  $-1.97$  and a kurtosis value of  $3.44$ , both of which are indicative of moderate non-normality. The MLR estimator is often used to adjust the model's chi-square and standard errors for the presence of such conditions (Muthén and Asparouhov 2002).
9. We also tested this model with an alternative coding of the race variable in which black/Hispanic = 1 and other = 0. This coding did not alter the substantive findings with regard to the effects of the procedural justice variables. The recoded race variable had a significant effect in New York ( $\beta = -.222, p = .001$ ) and Washington, D.C. ( $\beta = -.286, p = .001$ ), but not in Oakland ( $\beta = -.022, p = .870$ ).
10. We chose the WLSMV estimator for this model because the dependent variable is ordinal, therefore the use of linear regression would be inappropriate. With an ordinal dependent variable, the WLSMV specification results in an ordinal probit model. In the previous model, we chose a maximum likelihood estimator because the dependent variable was continuous.
11. We also tested this model with an alternative coding of the race variable in which black/Hispanic = 1 and other = 0. This coding did not alter the substantive findings with regard to the effects of the procedural justice variables and the recoded race variable did not have a significant effect in any of the cities.
12. There were two measures of procedural justice and injustice, three sites, and two outcomes, thus there were 12 coefficients in total ( $2 \times 3 \times 3 \times 2 = 12$ ). Of these, only three were statistically significant: the effect of procedural justice on civil disobedience in New York, the effect of procedural justice on vandalism in Washington, D.C., and the effect of unjust use of force by police on vandalism in New York.
13. Studying protests in New York against the Iraq War in 2003 and at the Republican National Convention in 2004, Vitale (2005, 2007) found evidence that the NYPD transitioned from a 'micro-management' approach to policing protests to a 'command and control' strategy, akin to 'Broken Windows' and 'Zero-Tolerance' policing, whereby they would use unjust force early on in an effort to disrupt political protesters.
14. For example, in New York, 55% of protesters reported police frequently threatening to use force, 59% grabbing, hitting, or kicking a protester, 27% using chemical agents, and 81% arresting a protester. By contrast, in Washington, D.C., these percentages, respectively, were 35%, 33%, 12%, and 66%. In Oakland, protesters' perceived use of unjust force was even greater than in New York: the same figures were 64% (threatening), 68% (grabbing, hitting, kicking), 59% (using chemical agents), and 90% (arresting).
15. We used the same regression models in past papers from New York and D.C., to determine that in Oakland, prior positive attitudes toward the police decreased support for violence ( $p = .013$ ), as did stake in conformity ( $p = .008$ ).
16. In New York, 7.6% viewed use of severe violence as very reasonable, and in Washington, D.C., the figure was 3.9. In Oakland, by contrast, 17.5% endorsed these tactics. Support for moderate violence was similar in D.C. (46.2% found it very unreasonable, 6.9% very reasonable) and New York (53.1, 10.0), but Oakland's numbers significantly departed from the other cities (26.8, 19.6). The Oakland group also had greater support than New York and D.C. protesters for vandalism and all but one of the civil disobedience measures. Self-reported violence was greater in Oakland as well: for example, 9.7% said they had thrown an object at police, compared to 4% in New York.

## Disclosure statement

No potential conflict of interest was reported by the authors.

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