The Pursuit

"You are to appoint judges and officers for all your gates [in the cities] your G-d is giving you, tribe by tribe; and they are to judge the people with righteous judgment. You are not to distort justice or show favoritism, and you are not to accept a bribe, for a gift blinds the eyes of the wise and twists the words of even the upright. Justice, only justice, you must pursue; so that you will live and inherit the land your G-d is giving you."

Deuteronomy 16:18 – 16:20

About *The Pursuit* Journal

The Pursuit, a publication of the Criminal Justice Association of Georgia (CJAG) is a peer-reviewed journal that focuses on the broad field criminal justice. *The Pursuit* publishes scholarly articles relevant to crime, law enforcement, law, corrections, juvenile justice, comparative criminal justice systems and cross-cultural research. Articles in *The Pursuit* include theoretical and empirically-based analyses of practice and policy, utilizing a broad range of methodologies. Topics cross the spectrum of policing, criminal law and procedure, sentencing and corrections, ethics, juvenile justice and more, both in the United States and abroad.

Authors interested in submitting manuscripts for consideration should use the link on the CJAG website (http://cjag.us) or email the Editor of *The Pursuit* at cjagjournal@gmail.com

Acknowledgments

The concept for a Criminal Justice Association of Georgia journal was first proposed by Fred Knowles, Ph.D., Valdosta State University, many years ago. We are thankful for his suggestion and his continued encouragement in the creation of *The Pursuit*.

The Pursuit gratefully acknowledges the assistance of the Criminal Justice Association of Georgia's membership, as well as that of all authors who have submitted manuscripts for consideration and publication, and members who have reviewed these manuscripts.

<div align="right">

Michael B. Shapiro, J.D.
Georgia State University
Editor, *The Pursuit*

Steven Hougland, Ph.D.
Florida Sheriff's Association
Associate Editor, *The Pursuit*

</div>

About the Criminal Justice Association of Georgia

The Criminal Justice Association of Georgia is a not-for-profit organization of criminal justice faculty, students and professionals. It exists to promote professionalism and academic advancement in all areas of inquiry related to the Criminal Justice field.

The Association holds its annual meeting in October. Those interested in presenting at the conference should contact Professor Lorna Alvarez-Rivera (llalvarezrivera@valdosta.edu).

Readers are encouraged to follow us on Twitter (https://twitter.com/cjag_of) and "like" us on Facebook (https://www.facebook.com/CriminalJusticeAssociationofGeorgia/) and visit our website (http://cjag.us).

President	**Vice President**	**Communications Director**
Karen Wheel-Carter	Dorinda Dowis	Lorna Alvarez-Rivera
Georgia State University	Columbus State University	Valdosta State University

Asst. Comm. Director	**Treasurer**	**Immediate Past President**
John Stuart Batchelder	Roger Neal McIntyre	Mel de Guzman
University of North Georgia	Valdosta State University	Georgia Gwinnett College

Criminal Justice Association of Georgia
Post Office Box 3501
Valdosta, Georgia 31604

Table of Contents

Collective Efficacy, Disorder, and Fear in City Parks

Sara Z. Evans, Ph.D.
Kennesaw State University

Jamie A. Snyder, Ph.D.
University of Wyoming

Frances P. Abderhalden, Ph.D.
California State University – Los Angeles

Jocelyn Evans, Ph.D.
University of West Florida

John D. Morgan, Ph.D.
University of West Florida

Abstract

Although past research has investigated collective efficacy, disorder, and fear of crime in neighborhoods, less is known about the role of these concepts in other contexts. The current study investigates the links between collective efficacy, fear of crime, and perceived disorder. Data is drawn from a sample of city park users in a mid-sized U.S. Southeastern city. Results indicated that perceptions of disorder were significantly associated with higher levels of collective efficacy, while greater levels of fear and experiencing victimization while in a park were associated with lower levels of collective efficacy. Findings indicate that perceptions are crucial when examining disorder, fear, and collective efficacy. Policy implications are discussed including suggestions on how to reduce fear levels and build collective efficacy. Future research

should continue to look at collective efficacy in other environments beyond the neighborhood context and across more cities.

Keywords: parks, collective efficacy, community, social capital, fear, disorder

Introduction

The empirical testing and extension of social disorganization theory has been the focus of a large body of previous research. Social disorganization theory asserts that there are important associations between neighborhood disorder, structural characteristics, crime, fear of crime, and collective efficacy (Sampson et al., 1997; Markowitz et al., 2001). Since its introduction by Sampson et al. (1997), collective efficacy has become an important concept for researchers seeking to understand factors influencing levels of neighborhood crime and fear of crime. Accordingly, past research has found that residents in neighborhoods with lower levels of collective efficacy are more likely to perceive levels of disorder as problematic and report higher levels of fear of crime (Maimon & Browning, 2012; Plank et al., 2009). Additionally, research indicates that neighborhoods with lower levels of collective efficacy have higher levels of crime (Morenoff et al., 2001; Rader et al., 2012; Sampson et al., 1997).

While the bulk of this research has focused on how collective efficacy influences street crimes, such as burglary and assault, and fear of crime in the neighborhood setting, there is evidence that the concept of collective efficacy could be applied to other contexts. For example, Plank et al. (2009) study the impact of collective efficacy in the context of schools rather than neighborhoods. A few studies have begun to explore collective efficacy outside of traditional settings, such as how it affects perceptions of neighborhood boundaries and size (Coulton et al., 2013), or how it influences physical health (Browning & Cagney, 2002), and how it influences other types of crime outside of traditional street crimes such as intimate partner violence (Pinchevsky & Wright, 2012). Along with this research is the argument that collective efficacy is place-based and may occur in other places besides neighborhoods (Cattell et al., 2008; Kawachi

et al., 2008; Lochner et al., 1999). Sampson et al. (1997) define collective efficacy as cohesion among neighbors combined with a willingness to intervene on behalf of the common good. Most studies in the social disorganization literature focus on one or more of these factors with the goal of predicting crime rates across neighborhoods or some part of the causal chain that eventually leads to changes in crime rates. The traditional view of Sampson and colleagues (1997) conceptualization of this theory describes the pathway of "higher disorganization → lower collective efficacy → more crime". As such, some studies have investigated the impact of one piece of this causal chain, such as predictors of collective efficacy (see Duncan et al., 2003; Steinmetz-Wood et al., 2017). However, existing scholarship has not fully explored important nuances of the relationships between these factors and the antecedent processes that may impact the development of collective efficacy.

Additionally, little is known about the role of collective efficacy in other places where individuals interact. One such place that has not been explored is a city park. Parks are gathering places, often for residents of the surrounding neighborhood, and may provide valuable opportunities for neighbors to interact with one another on a regular basis and form social bonds that may affect their behaviors and perception of fear of crime while in the park. Reeves argues that public parks are, "one of the few public series which cut across social, financial, cultural, and ethnic barriers" (2000; p. 163). Further, it may be that collective efficacy influences not only behaviors and perceptions, but that the development of collective efficacy may be impacted by perceptions of disorder in the park. The current study seeks to extend the collective efficacy research by exploring the impact of fear of crime and perceived disorder on collective efficacy in a new context; city parks in a mid-sized American Southeastern city.

Literature Review

Social Disorganization Theory

Social disorganization theory posits that characteristics in a neighborhood influence crime rates for that area (Shaw & McKay, 1942). Existing research from this perspective asserts there are two major characteristics that affect crime in an area; structural factors, such as concentrated disadvantage, racial heterogeneity, and residential turnover, and social factors, such as collective efficacy. Each of these characteristics are thought to affect residents' interaction with each other and perceptions of the area in which they live, thus influencing opportunities for crime. Neighborhoods with higher levels of social disorganization have higher crime rates because of the social processes that are engendered by physical characteristics such as graffiti, litter, and groups of unsupervised youths. In neighborhoods that are perceived as "bad," residents may have fewer interactions with their neighbors, and, because of high turnover rates do not invest time and money to make it a better place to live. Later, Sampson et al. (1997) expanded upon this argument to include not only various forms of control but also the concept of collective efficacy.

Collective Efficacy

As a social phenomenon, collective efficacy refers to two related but importantly distinct elements – cohesion and control. Areas with higher levels of collective efficacy are neighborhoods where the residents know each other, are more likely to collectively watch out for deviance and/or crime and intervene when necessary to limit deviant activity. Sampson (2013) argues that strong interpersonal ties are not necessary to form collective efficacy, but some level of familiarity coupled with the knowledge of shared values and norms is needed. In areas where either of these components are missing, individuals are less likely to intervene to combat

problems that may arise (such as teenagers causing trouble, people tagging graffiti, public consumption of alcohol/drugs, perceived gang activity, etc.) because they either do not know the individuals involved and/or have no knowledge of what their reactions might be to an intervention. Additionally, as perceptions of physical disorder (i.e. litter, broken bottles/drug paraphernalia/cigarette butts, graffiti) increase, residents perceive the neighborhood as a less desirable place to live and do not actively try to form relationships that could change those dynamics and conditions. When this unwillingness to act rises to a problematic level, neighborhood disorder increases. Sampson (2013) then asserts that it is through this pathway that high levels of physical and social disorder discourage the development of collective efficacy, which in turn allows crime to flourish because there is a lack of informal social control and trust. Public order crimes may be the first types of crimes to increase, but social disorganization theory predicts that those more minor forms of crime further decrease collective efficacy and can allow more serious crime to increase.

In the context of city parks, relationships could be formed in a similar way to neighborhoods if individuals were frequent visitors to the same park and consequently developed a shared set or norms and mutual trust with other "regulars" in that park. Peters et al. (2010) found (through observation) in a study conducted in the Netherlands that park visitors often interacted with each other, but interactions between strangers were usually brief. Their survey results indicated that residents felt attached to their neighborhood parks, especially residents who spent a lot of time in them. The authors argue that parks can be used to foster social cohesion to one's neighborhood through social interaction and place attachment (Peters et al., 2010). Conversely, Corcoran et al. (2018) found that greenspaces including parks, acted as "social holes" that do not encourage interaction and created opportunities for crime and disorder. The

authors suggest these findings may be the result of the huge variety of greenspaces and argue that differentiation by greenspace is needed to unpack how each type of space may influence opportunities for crime and disorder. Taylor et al. (2019) found in a recent study that community cohesion and crime in the surrounding neighborhood impacted "disorder crime" within parks with a large sample of urban parks. In this study, disorder crime was operationalized as "narcotics distribution or possession, prostitution, gambling, public intoxication, underage consumption, loitering, and vandalism" (Taylor et al., 2019, p. 3).

Although disorder is often conceptualized as the dependent variable in the "collective efficacy—disorder" relationship, many scholars acknowledge that this is likely a reciprocal relationship, with disorder also affecting collective efficacy (Sampson, 2012). Disorder is typically defined in two main ways: social and physical. Social forms of disorder are phenomena such as "individuals loitering," "people selling drugs" and "drinking alcohol in public," but they also can be operationalized in sociostructural ways such as high levels of poverty, unemployment, and residential instability (Kleinhans & Bolt, 2014). Physical forms of disorder can include a greater presence of litter, graffiti, run-down buildings, and unkept sidewalks. Individuals' perceptions of disorder can be influenced not only by the objective phenomena they witness but also by their past experiences and knowledge of the area (Sampson, 2013). For relationships within a city park, it is logical that a more accurate representation of this relationship may be to identify disorder as the independent variable impacting collective efficacy, something that is examined in the current study. Individuals have more freedom to either choose to spend time in a park or not, and the level of disorder could influence this decision, in turn impacting their likelihood of forming relationships with others.

Little research has focused on how specific types of spaces such as parks *within* a neighborhood might impact the relationship between collective efficacy, disorder, and fear even though it is argued that how land is utilized in an area can affect opportunities for cohesion (Corcoran et al., 2018). In a recent systematic review, Bogar and Beyer (2016) found that the relationship between green spaces and crime depended on a number of factors, but that overall they had the capacity to impact an area in a positive manner. These factors ranged from properties of the physical space (many studies looked at the impact of vegetation/tree coverage and crime), to investigations of how social dynamics could influence crime. Green spaces can potentially provide spaces for gang activity to happen, drug sales, and potentially illegal dumping. The results of this study underscore the importance of examining different types of green spaces, including parks, and differentiating between these types of spaces. Kimpton et al. (2017) provide further evidence for this notion finding that some types of green spaces may be more crime prone than others. Considering this research, it is also plausible that some types of green spaces may be more likely than others to foster collective efficacy.

Aside from its potential impact on crime in a neighborhood, collective efficacy has also been found to be related to fear of crime among residents. In areas where collective efficacy is higher, residents may have lower levels of fear (Sargeant et al., 2017; Markowitz et al., 2001; Bursik & Grasmick, 1993). Conversely, fear of crime could also impact collective efficacy. High levels of fear could hinder the ability of residents to develop or sustain collective efficacy. This could be due to several reasons, either directly or indirectly associated with collective efficacy. Collective efficacy has also been found to affect fear through other mechanisms indirectly. Ferguson and Mindel (2007) reported that levels of collective efficacy were related to protective measures which then directly impacted levels of fear. Overall, past research suggests that

collective efficacy is an important factor related to fear, however, the relationship may vary depending on how these concepts are operationalized and what other factors are considered. In the current study, similar to the relationship between disorder and collective efficacy, it is hypothesized that fear of crime among park users impacts their perceptions of collective efficacy with others in the park.

Collective efficacy is also linked indirectly with levels of fear through the relationship with incivilities/disorder (Wyant, 2008). Levels or perceptions of incivility may affect the ability for residents to exercise informal social control reducing the potential capability for strong collective efficacy (Hipp, 2016; Gibson et al., 2002). Further, the impact of disorder on cohesion or collective efficacy may then impact fear levels (Markowitz et al., 2001). Conversely, disorder has also been found to have direct impacts on fear levels (Scarborough et al., 2010) suggesting a complex relationship between fear, disorder, and collective efficacy.

Recently, researchers funded by the National Institutes for Health conducted a study of city parks utilizing a nationally representative sample focused on this issue (Cohen et al., 2016). They found that parks with walking loops, gymnasiums, and designated exercise areas fostered more physical activity. Interestingly, they also found that parks in low-income areas tended to be smaller, less frequently used, and more disorderly. The finding by Cohen and colleagues (2016) that programming and supervised park activities were related to physical activity is particularly relevant for the current study. However, this study included only observational measures of parks and users (but interview data with senior staff in the parks systems), leaving more questions to be answered about how people perceive parks, their interactions with others in them, and how those interactions influence larger neighborhood social processes.

Current Study

The present study bridges gaps in existing literature and connects research on city parks with collective efficacy literature. This study examined the relationship between collective efficacy and perceptions of disorder and fear of crime in city parks in Pensacola, Florida while controlling for important factors that may confound this relationship. Pensacola is a mid-sized Southeastern city with a population of 52,562 in 2018 (Census, n.d.). Further, it explores the potential role that public spaces, such as city parks, can play in either fostering or inhibiting collective efficacy for those who spend time there. The main goal is to provide preliminary evidence on which to ground future research on collective efficacy in a different context, city parks, and extend the collective efficacy literature beyond the traditional neighborhood.

Methods

Data for the current study are drawn from surveys administered in the five largest city parks across one mid-sized Southeastern city (approx. 50,000) in the United States. The survey contained 26 questions and was broken into sections. The first section asked participants about their park usage including frequency of visits, park activities, and length of stay. The next section contained several questions asking participants about previous experiences in parks including perceptions of park problems and interactions while at parks. Participants were also asked about their fear of crime and perceptions of risk for victimization at parks along with any victimization experiences they may have experienced while at parks and safety precautions they take. Finally, the survey also contained questions about fear of crime and perceptions of risk in their home neighborhoods, previous victimizations, and respondent demographics.

The authors employed student researchers to administer surveys to city park users. All students were Institutional Review Board (IRB) certified and received training in survey design and administration prior to administering surveys. Students traveled in groups of two to three people and were spread out across the five park locations. Students wearing identifying apparel from the local University approached potential participants, identified themselves as college students, and asked the potential participant if they wanted to take the survey. All participants signed informed consent, and no incentives were provided for completion[1]. Students administered surveys during the weekdays and weekends and at multiple times of day to include a more diverse range of visitors. Data was collected at two different time points about a year apart (during two consecutive Spring semester classes). There were no major renovations or changes to the parks utilized during that timeframe.

Dependent Variable

The dependent variable was a modified version of the measure of *collective efficacy* developed by Sampson and colleagues (1997) that identified Likert-scale questions assessing *control* and *cohesion*. These questions asked individuals whether they, "strongly agree, agree, disagree, or strongly disagreed" with statements such as: "If there is a problem at a park, the other visitors would get together to deal with it"; "Park visitors are willing to help one another"; "You can count on adults in parks to watch out that children are safe and don't get in trouble"; "When I'm away from my spot at a park, I know that others will keep their eyes open for possible trouble"; "People in parks generally share the same values"; "Parks are generally safe places for children to play"; and "I generally feel that visitors at parks are close-knit." Survey

---

[1] Students attempted to approach all parkgoers present at the time. No approached parkgoers declined to take the survey.

items were matched to Sampson and colleagues' (1997) original language as much as possible while editing appropriately to apply to park visitors rather than neighborhood residents[2].

Independent Variables

The main independent variables of interest are two measures of *disorder* and one measure of *fear.* The first, *visitor disorder*, was a six-item measure from the survey that asked respondents whether each of the following things in the park was "a big problem," "somewhat of a problem," or "not a problem." This resulted in a scaled measure in which higher numbers indicated more problematic issues of disorder. Items of disorder included: "litter, broken glass, or trash on the sidewalks or streets"; "graffiti on buildings or walls"; "vacant or deserted buildings"; "drinking in public"; "people selling or using drugs"; "groups of teenagers or adults hanging out in the park and causing trouble.[3]" The second measure of disorder was a modified measure based on Sampson's "Systematic Social Observation" (SSO) technique (Sampson & Raudenbush, 1999) – *observed disorder*. Student independent coders visited each of the five parks and rated the level of disorder using the *observer rated disorder* measure. The original measure contained 17 items referencing forms of disorder similar to the *visitor disorder* measure. Examples of items included "cigarettes or cigars in the streets/gutter"; "garbage/litter on the street/sidewalk"; "tagging graffiti"; "abandoned cars"; "adults loitering or congregating"; and "people drinking alcohol.[4]"

Fear of crime was measured by asking participants how afraid they were of certain types of victimization and how likely they thought they were to experience certain types of

---

[2] Cronbach's Alpha .80
[3] Cronbach's Alpha .65
[4] Cronbach's Alpha .89

victimization while at a public park. Examples included how afraid they were of, "having your car stolen," "being physically attacked," and "having items stolen from your car." Two questions measured fear overall during the day and at night. Participants were asked, "Overall, how afraid are you of being a victim of a crime at night while at a park?" and, "Overall, how afraid are you of being a victim of a crime during the day while at a park?" The survey then assessed perceptions of risk asking, "How likely do you think it is…?" All responses were on a three-point scale ranging from, "not afraid" or "not likely" to "very afraid" or "very likely."

Past victimization was measured by asking respondents if they had ever been the victim of the following crimes while in a park: "theft from your spot," "physical assault," "theft from your vehicle," "motor vehicle theft," "robbery," "harassment or been pestered by other park visitors," and "sexual assault/rape." Responses were collapsed into a dichotomous measure and coded 1 if the respondent reported victimization of any type and 0 if no victimization was reported.

Control Variables

Models also included control variables for *age* (in years) and *female* (females = 1, males = 0). Other demographic control variables were collected (income, education level, and employment status) but were excluded for a more streamline model[5]. Three variables related to the parks were included. The first is a measure of *park use frequency*, which was coded as 1 for respondents who reported using the park "more than once/month," and 0 for other respondents. It is expected that those who use the park more frequently may be more comfortable and therefore

---

[5] Models were also estimated with variables for income, education level, and employment status. Results were substantively the same and no significant relationships between these variables and the dependent variables were found.

less fearful, so to avoid confounding of other effects we include this as a control. We also included a control variable for the year of data collection, as this data was collected at two different time points[6]. Finally, we controlled for the park that the respondent was surveyed in. These parks are all within the same city but have unique characteristics that may influence results. For example, Park 1 is located in an economically depressed neighborhood, while Park 5 is near the city center. Park 3 is central and attracts users from across the city.

Results

Descriptive Statistics

Table 1 presents descriptive statistics for all study variables. The original sample contained 396 respondents but was reduced to 372 after data cleaning. The mean level of *collective efficacy* was 2.62. Perceptions of disorder differed based on whether it was reported by visitors or the student objective coders. The mean level of *visitor disorder* was 0.41 out of a 0-2 scale, while the mean level of *observer rated disorder* was 1.86 out of a 0-2 scale. In other words, visitors perceived significantly less disorder than identified by the objective coders. About 22% of the sample reported ever experiencing victimization while in a park. Among those that had been victimized, 40% of those victimizations were "harassment or pestering by park visitors." Less than half (40%) of the sample reported using the park more than once per month. The mean level of fear was relatively low at 1.32. The sample ranged from 18-86 in age, with a mean age of 38, and about two-thirds of the sample (61%) was female. There was not an equal distribution of respondents across parks. Parks 3, 4, and 5 had about the same of respondents (26%, 27%, and 26%, respectively), followed by Park 2 (11%), and Park 1 (9%).

---

[6] Clustered variance was controlled for since individuals were nested into 5 parks.

Table 1. Descriptive Statistics

Variable (N = 372)	Mean/%	SD
Collective Efficacy	2.62	.30
Disorder		
Visitor Disorder	0.41	.58
Observer Rated Disorder	1.86	.17
Fear of crime	1.43	.50
Age	38.01	14.74
Female	61%	
Park Victimization (ever experienced)	22%	
Park Usage (more than once a month)	40%	
Park ID		
City Park 1	10%	
City Park 2	11%	
City Park 3	26%	
City Park 4	27%	
City Park 5	26%	

Table 2 contains correlation coefficients for all variables. The bivariate analyses are presented first to inform the multivariate investigation. As shown in the table, several interesting associations emerged. In particular, *collective efficacy* is significantly associated with almost all of the independent variables of interest, but not always in the expected direction. For example, higher levels of *collective efficacy* are associated with higher levels of disorder, both as reported by visitors and coders. Respondents who had been victimized in the past reported on average lower levels of *collective efficacy*, as well as those who reported higher levels of fear. Frequent park visitors and older park visitors reported significantly higher levels of *collective efficacy*. Lastly, there were significant associations with three out of the five parks for *collective efficacy*. Respondents in Parks 1 and 2 compared to others reported lower levels, while respondents in Park 4 reported higher levels.

Table 2. Correlation Coefficients for study variables (N = 372).

	CE	OD	VD	Fear	PV	Usage	Age	F
Collective Efficacy (CE)	---							
Observer Rated Disorder (OD)	.21***	---						
Visitor Disorder (VD)	-.23***	-.19***	---					
Fear of Crime	-.29***	-.19***	.52***	---				
Park Victimization (PV)	-.11*	.03	.00	.07	---			
Park Usage	.37***	.26***	-.20***	-.28***	.11*	---		
Age	.21***	.03	-.14**	-.10*	.12*	.20***	---	
Female (F)	-.11*	-.001	.06	.09	-.02	.03	-.11*	---

* p < .05; ** p < .01; *** p < .001

Multivariate analyses

Based on these significant bivariate relationships, an OLS regression model was estimated to investigate multivariate effects. The results of these are presented in Table 3. This model regressed *collective efficacy* on the independent variables of interest. The goal of this analysis is to estimate if and how disorder impacts collective efficacy among city park users, and how the surrounding environmental context in which the park is embedded affected this relationship. Results indicated that *visitor disorder* did not significantly impact *collective efficacy*. However, the *observed disorder* measure did have a statistically significant association with *collective efficacy*, indicating that in those parks with higher levels of disorder, respondents reported higher levels of collective efficacy. Additionally, respondents with higher levels of *fear*

reported lower levels of *collective efficacy*. Those respondents who reported past *victimization* in parks reported lower levels of *collective efficacy* as well. Both effects were statistically significant. Visitors who used the park more than once per month reported slightly higher levels of *collective efficacy* (marginally significant). Lastly, older respondents and females reported slightly higher levels of *collective efficacy*.

Table 3. OLS Regression of independent variables on Collective Efficacy

Variable (N = 372)	B	se
Disorder		
Visitor Disorder	-.04	.03
Observer Rated Disorder	.02**	.00
Fear of crime	-.12**	.02
Age	.01+	.001
Female	-.05*	.02
Year (2017)	.01	.03
Park Victimization (ever experienced)	-.09**	.02
Park Usage (more than once a month)	.02+	.01
Constant	2.32***	
R² = .30		

+p<.10, *p <.05, **p <.01, ***p <.001

Discussion

The current study estimated how perceptions of disorder and perceptions of fear may affect collective efficacy among city park users. Disorder was estimated by both visitor perceptions of disorder and through systematic social observation by student observers, thus tapping into user perceptions of city parks and outsider observation of city parks. In addition, collective efficacy was measured through a series of questions based on previous collective efficacy research administered to park visitors. Results indicated that fear and victimization were related to perceptions of collective efficacy, which supports prior literature on collective efficacy in neighborhood settings (Wyant, 2008). Higher levels of fear and experiencing a past

victimization in the park were significantly related to lower levels of collective efficacy. Conversely, we found that more disorder observed through systematic social observation was significantly associated with higher levels of collective efficacy, but visitor ratings of disorder were not significant. This finding is somewhat surprising and contrasts prior neighborhood collective efficacy and disorder literature. There are a few exceptions in the neighborhood literature that have reported similar findings (Perkins et al., 1993). We explore possible explanations below.

The finding that higher collective efficacy was associated with greater disorder as measured by outside observers, but visitor perceptions were not significantly related to collective efficacy could be due to several factors. It is possible that this finding is related to operationalization and observer bias. The observer rated disorder data was collected by trained investigators, while survey respondents are untrained park visitors. These trained observers may have been more "in tune" to disorder in the park since they were trained in a systematic way to look for it. In contrast, park visitors may not look for or notice disorder in their parks in the same way. It may be worth in the future training park visitors in the same way to look for disorder then comparing this to the ratings of or trained investigators.

It also is possible that individuals reporting higher collective efficacy may contribute to the physical and social disorder observed in city parks. This would suggest that respondents are less aware of signs of disorder in park settings because they contribute to the problem by littering, for example. There is some neighborhood research that shows precedent for this finding, indicating that residents' perceptions of disorder and independent coders' ratings of disorder were not significantly correlated (Perkins et al., 1993). Payne and Reinhard (2016) also found in a study of a downtown Anchorage, AK park that observations they coded as "disorder"

(three of which aligned with the measure used here – alcohol use, drug use, and drug sales) in general did not seem impact park-goers, and that many did not seem to realize what was happening around them.

Another possible explanation for finding higher collective efficacy in city parks that have more disorder is that the individuals who report higher collective efficacy are in the parks frequently, building community relationships and collective efficacy. Through this familiarity they may become immune to the disorder around them (see Sampson, 2012). Having more individuals in the park may also lead to more disorder, but also provides more people for park users to encounter and opportunities to build trust and cohesion.

Further, the sense of community and collective efficacy fostered in a park setting likely differ from that fostered in neighborhood settings. Perhaps in neighborhoods, the feeling of property ownership and thus vested interest in neighborhood order creates a pull to focus on incivilities that exist. Alternatively, in a city park the feeling of ownership is lower and thus disorder has less of an impact on the development of collective efficacy. Other researchers have argued in neighborhood literature that asking individuals who are frequently in a location about disorder is not necessarily the most accurate method. There is some indication that the measure of "disorder" ends up actually measuring "fear" itself and is subject to shared survey-method variance (Sampson & Raudenbush, 1999; Taylor, 1999). Further research is needed to more fully understand these relationships and how they may differ by location.

Another important finding in the current study was that respondents who expressed higher levels of fear had lower perceptions of collective efficacy than city park users who had lower levels of fear. This finding is in line with other collective efficacy literature, including

those outside the neighborhood context (Plank et al., 2009). Building social cohesion may be helpful to increase collective efficacy with these individuals, while also decreasing the perception of fear of crime among them. Social integration may be a way to combat fear of crime by developing trust among city park users. Cohesion around informal social controls may stabilize the relationships in city parks and negate some of the fear that city park users may have. This would help to reinforce collective efficacy and could decrease perceptions of fear among individuals (Gibson et al., 2002). An additional focus on lowering fear could be the features of the park. Numerous studies have found that lighting, design, and other features such as the among of foliage, bushes, and other obstructions influence levels of fear while in a park or other outdoor space (Jorgensen et al., 2012; Nasar et al., 1993; Nasar & Jones, 1997; Westover, 1986).

Additionally, respondents who self-reported experiencing victimization in a park reported lower levels of collective efficacy. It may be that those who have experienced victimization are more self-preserving and thus are less likely to engage in social interactions with other city park users in order to build collective efficacy (Bursik & Grasmick, 1993). This relationship is supported by several studies conducted in neighborhood settings (Bursik & Grasmick, 1993; Markowitz et al., 2001; Sampson & Raudenbush, 1999).

A finding that was marginally significant was that park visitors who used the park more than once a month reported higher levels of collective efficacy. Frequent park use might result in more frequent encounters and interactions with others increasing the opportunity for building collective efficacy. Additionally, frequent park visits could desensitize park visitors from any disorder that exists in the park while at the same time increasing chances for social interaction.

Lastly, older respondents and females had slightly increased levels of collective efficacy. The influence of age on collective efficacy has not been thoroughly assessed. However, some past research has indicated that older individuals have higher levels of collective efficacy on average (Sampson et al., 1997). We found females reported a higher level of collective efficacy on average. However, Sampson and colleagues (1997) found no association between gender and collective efficacy in neighborhoods. We postulate that females may be more likely to engage in social interactions while at the park. These interactions might help them develop social ties to the community at the park. These social ties may build feelings of collective efficacy that promote mutual trust and shared values with fellow park visitors. Future research on collective efficacy in parks should control for gender to provide more clarity on this relationship.

The major findings of this study have implications for future research and policy. First, our results highlight the importance of developing an understanding of collective efficacy and disorder that extends outside the neighborhood into the larger community, to include parks, schools, and community centers. In fact, prior research has called for this expansion of research to include other environments (see Gau, 2014; Gibson et al., 2002; Swatt et al., 2013; Taylor et al., 2019). There is some research that indicates these associations may differ by context. Plank and colleagues (2009) investigated the relationship between disorder, fear, and collective efficacy across schools. Their results indicated that physical and social disorder were related to one another and that there were significant relationships between both fear and collective efficacy and fear and social disorder. The results reported here indicate that in a city park environment collective efficacy operates in similar ways to neighborhood studies. At the same time, the unique findings presented seem to indicate that environmental setting also matters. If collective efficacy functions differently in city parks than in neighborhoods, perhaps there are

caveats to social cohesion that can help city managers with strategies to increase collective efficacy in community parks and thereby the greater community.

Although the current study has several implications for research on collective efficacy, we also recognize the limitations of this work. Only one mid-sized city in the southeast was studied. Therefore, the results may not be generalizable to other environments or cities. It is also possible that there are other explanatory factors not captured by this study. For example, although we expect that the general level of use of a park (i.e., how "busy" it typically is) may impact these relationships, we do not have a measure of this included in our data. Researchers may want to consider including potential omitted variables to see how they impact the relationships found in this study. Additionally, given that a convenience sample was used, these results are not generalizable nationally.

The current research contributes to the body of literature on disorder and collective efficacy, but it also provides several suggestions for further investigation for a more complete understanding of how collective efficacy operates beyond the neighborhood context. Notwithstanding these limitations, our findings offer important insights for policy and future research. For policy, the most important observation is that these findings clearly indicate that perceptions are crucial when examining disorder and collective efficacy. Strategies that may decrease the disorder in a city park may not be as effective in increasing collective efficacy. On the other hand, decreasing fear and increasing time spent in city parks may be more important to improving perceptions of collective efficacy. For example, an awareness campaign that focuses on increasing the frequency that community members visit parks could strengthen collective efficacy. However, cleaning up the parks may not have a significant impact on the perceptions of collective efficacy held by users.

Alternatively, strategies that reduce fear may have more impact on the opportunity to develop collective efficacy. Identifying park features or perceptions about parks that contribute to fear may be more fruitful. For example, are there certain areas of parks that visitors are fearful of or are there features such as lighting that appear to be influencing fear levels? Answering these questions may hold the key into why some people indicate higher levels of fear. We recommend that policymakers assess features and engagement at local city parks prior to designing a program to target collective efficacy.

Future research should continue to look at collective efficacy in other environments beyond the neighborhood context and across more cities. Finally, looking at city parks in a range of compositions and conditions, including highly urban areas, rural areas, mid-sized areas, and other types of contexts could also be beneficial to our understanding of the concepts of fear, collective efficacy, and disorder. These comparisons would further our understanding of city and community level variables and reveal critical differences across social environments that could be utilized by stakeholders to improve parks and other areas important to community health.

References

Bogar, S., & Beyer, K.M. (2016). Green space, violence, and crime: A systematic review. *Trauma, Violence, & Abuse*, *17*(2), 160-171.

Browning, C.R., & Cagney, K.A. (2002). Neighborhood structural disadvantage, collective efficacy, and self-rated physical health in an urban setting. *Journal of health and social behavior*, 383-399.

Bursik, R.J., & Grasmick, H.G. (1993). Neighborhoods and crime: The dimensions of effective community control. *New York: Lexington*.

Cattell V., Dines N., Gesler W., Curtis S. (2008). Mingling, observing, and lingering: everyday public spaces and their implications for well-being and social relations. *Health Place* 14(3):544-561.

Census Reporter, (n.d.). Retrieved November 19, 2020 from https://censusreporter.org/profiles/16000US1255925-pensacola-fl.

Cohen, D.A., Han, B., Nagel, C.J., Harnik, P., McKenzie, T.L., Evenson, K.R., Marsh, T., Williamson, S., Vaughn, C., & Katta, S. (2016). The first national study of neighborhood parks: Implications for physical activity. *American Journal of Preventative Medicine*, DOI: http://dx.doi.org/10.1016/j.amepre.2016.03.021

Corcoran, J., Zahnow, R., Wickes, R., & Hipp, J. (2018). Neighbourhood land use features, collective efficacy and local civic actions. *Urban Studies*, *55*(11), 2372-2390. https://doi.org/10.1177/0042098017717212

Coulton, C.J., Jennings, M.Z. and Chan, T. (2013). How Big is My Neighborhood? Individual and Contextual Effects on Perceptions of Neighborhood Scale. *American Journal of Community Psychology*, 51: 140-150. doi:10.1007/s10464-012-9550-6

Duncan, T. E., Duncan, S. C., Okut, H., Strycker, L. A., & Hix-Small, H. (2003). A multilevel contextual model of neighborhood collective efficacy. *American journal of community psychology*, *32*(3-4), 245-252.

Ferguson, K.M., & Mindel, C.H. (2007). Modeling fear of crime in Dallas neighborhoods: A test of social capital theory. *Crime & Delinquency*, *53*(2), 322-349.

Gau, J.M. (2014). Unpacking collective efficacy: The relationship between social cohesion and informal social control. *Criminal Justice Studies*, *27*(2), 210-225.

Gibson, C.L., Zhao, J., Lovrich, N.P., & Gaffney, M.J. (2002). Social integration, individual perceptions of collective efficacy, and fear of crime in three cities. *Justice Quarterly, 19*, 537-564.

Hipp, J.R. (2016). Collective efficacy: How is it conceptualized, how is it measured, and does it really matter for understanding perceived neighborhood crime and disorder? *Journal of Criminal Justice*, *46*, 32-44.

Jorgensen, L. J., Ellis, G. D., & Ruddell, E. (2013). Fear Perceptions in Public Parks: Interactions of Environmental Concealment, the presence of people recreating, and Gender. *Environment and Behavior*, *45*(7), 803-820.

Kawachi I., Subramanian S.V., Kim D. (2008). Social capital and health: a decade of progress and beyond. *Social Capital and Health*. New York: Springer.

Kimpton, A., Corcoran, J., & Wickes, R. (2017). Greenspace and crime: An analysis of greenspace types, neighboring composition, and the temporal dimensions of crime. *Journal of Research in Crime and Delinquency*, *54*(3), 303-337.

Kleinhans, R., & Bolt, G. (2014). More than just fear: On the intricate interplay between perceived neighborhood disorder, collective efficacy, and action. *Journal of Urban Affairs*, *36*(3), 420-446.

Lochner K., Kawachi I., Kennedy B.P. (1999). Social capital: a guide to its measurement. *Health Place*, 5:259-270.

Maimon, D., & Browning, C.R. (2012). Adolescents' violent victimization in the neighbourhood: Situational and contextual determinants. *British Journal of Criminology*, 52(4), 808-833.

Markowitz, F.E., Bellair, P.E., Liska, A.E., & Liu, J. (2001). Extending social disorganization theory: Modeling the relationships between cohesion, disorder, and fear. *Criminology*, *39*(2), 293-319.

Morenoff, J.D., Sampson, R.J., & Raudenbush, S.W. (2001). Neighborhood inequality, collective efficacy, and the spatial dynamics of urban violence. *Criminology*, 39(3): 517-559.

Nasar, J. L., Fisher, B., Grannis, M. (1993). Proximate physical cues to fear of crime. *Landscape and Urban Planning*, 26, 161-178.

Nasar, J. L., Jones, K. M. (1997). Landscapes of fear and stress. *Environment and Behavior*, 29, 291-323.

Payne, T. C., & Reinhard, D. (2016). The complexity of problem-solving in urban parks: a case study. *International Criminal Justice Review*, *26*(2), 134-149.

Perkins, D.A., Wandersman, A., Rich, R., and Taylor, R.B. (1993). The physical environment of street crime: Defensible space, territoriality, and incivilities. *Journal of Environmental Psychology*, 13:39-49.

Peters, K., Elands, B., & Buijs, A. (2010). Social interactions in urban parks: Stimulating social cohesion? *Urban Forestry and Urban Greening*, 9(2), 93-100. http://doi.org/10.1016/j.ufug.2009.11.003

Pinchevsky, G.M., & Wright, E.M. (2012). The Impact of Neighborhoods on Intimate Partner Violence and Victimization. *Trauma, Violence, & Abuse*, *13*(2), 112-132. https://doi.org/10.1177/1524838012445641.

Plank, S.P., Bradshaw, C.P., and Young, H. (2009). An application of "Broken-Windows" and related theories to the study of disorder, fear, and collective efficacy in schools. *American Journal of Education*, 115, 227-247.

Rader, N.E., Cossman, J.S., & Porter, J.R. (2012). Fear of crime and vulnerability: Using a national sample of Americans to examine two competing paradigms. *Journal of Criminal Justice*, 40(2), 134-141.

Reeves, N. (2000). The condition of public urban parks and greenspace in Britain. *Journal of CIWEM, 14,* 157-163.

Sampson, R.J. (2012). *Great American city: Chicago and the enduring neighborhood effect*. University of Chicago Press.

Sampson, R.J. (2013). The place of context: a theory and strategy for criminology's hard problems. *Criminology*, *51*(1), 1-31.

Sampson, R.J., Raudenbush, S.W. and Earls, F. (1997). Neighborhoods and Violent Crime: A Multilevel Study of Collective Efficacy. *Science* 277:918-924.

Sampson, R.J. & Raudenbush, S.W. (1999). Systematic social observation of public spaces: A new look at disorder in urban neighborhoods. *American Journal of Sociology*, 105(3): 603-651.

Sargeant, E., Liu, Y., St John, N., Fong Hong, N., Huu, T., Chen, J., & Mazerolle, L. (2017). Social capital and fear of crime in Brisbane. *Journal of Sociology*, *53*(3), 637-652.

Scarborough, B.K., Like-Haislip, T.Z., Novak, K.J., Lucas, W.L., & Alarid, L.F. (2010). Assessing the relationship between individual characteristics, neighborhood context, and fear of crime. *Journal of Criminal Justice*, *38*(4), 819-826.

Shaw, C. R., & McKay, H. D. (1942). *Juvenile delinquency and urban areas*. Chicago, IL, US: University of Chicago Press.

StataCorp (2013). *Stata Statistical Software: Release 13*. College Station, TX: StataCorp LP.

Steinmetz-Wood, M., Wasfi, R., Parker, G., Bornstein, L., Caron, J., & Kestens, Y. (2017). Is gentrification all bad? Positive association between gentrification and individual's perceived neighborhood collective efficacy in Montreal, Canada. *International Journal of Health Geographics*, *16*(1), 24.

Swatt, M.L., Varano, S.P., Uchida, C.D., & Solomon, S.E. (2013). Fear of crime, incivilities, and collective efficacy in four Miami neighborhoods. *Journal of Criminal Justice*, *41*(1), 1-11.

Taylor, R.B. (1999). The incivilities thesis: Theory, measurement, and policy. *Measuring What Matters.* Washington, D.C.: National Institute of Justice.

Taylor, R.B., Haberman, C.P., & Groff, E.R. (2019). Urban park crime: Neighborhood context and park features. *Journal of Criminal Justice, 64,* 101622.

Westover, T. N. (1986). Park use and perception: Gender differences. *Journal of Park and Recreation Administration*, 4, 1-8.

Wyant, B.R. (2008). Multilevel impacts of perceived incivilities and perceptions of crime risk on fear of crime. *Journal of Research in Crime and Delinquency, 45,* 39-64.

Sara Z. Evans is an Assistant Professor of Criminal Justice at Kennesaw State University. Her research focuses on neighborhoods and crime, public space, delinquency, scholarship of teaching and learning, and high-impact practices.

Jamie A. Snyder is an Associate Professor of Criminal Justice at the University of Wyoming. Her research interests include victimization prediction and prevention, fear of crime, crime prevention, policing, and criminological theory.
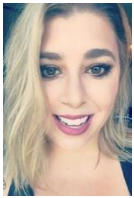
Frances P. Abderhalden is an Assistant Professor of Criminal Justice at Cal State-L.A. Her research centers on institutional corrections, specifically jail incarceration. Her focus on suicidality and the mental health impact of incarceration has led her to partner with multiple large jails in multiple states.

Jocelyn Evans is Associate Dean of the College of Arts, Social Sciences and Humanities, and Professor of Political Science at the University of West Florida. She has published several books

and scholarly articles that explore congressional behavior, political culture and political science education.

John D. Morgan is an Assistant Professor of Earth and Environmental Sciences at the University of West Florida. He is an urban environmental geographer who uses state-of-the-art geospatial methodologies to study how humans navigate changing environments in public space.

Restarting Criminal Trials in Georgia During Coronavirus Pandemic: Securing Witness Testimony

Valerie Cochran, J.D.

University of North Georgia

Abstract

As the COVID-19 pandemic spread nationwide and courts shut down, all stages of the criminal trial process ground to a halt. Then, as the pandemic stretched on, the Constitutional implications of delaying criminal proceedings became greater and greater. If courts resumed in-person operations but witnesses, jurors, attorneys, or other necessary parties were hesitant to return for any reason, what could the courts do? If witnesses had legitimate concerns about coming in-person, could a court allow video testimony without running afoul of state and federal Constitutional confrontation rights? Very few states, including Georgia, are prepared for a situation like this. There are no criminal procedures for long distance court proceedings like there are for civil procedure. The U.S. Supreme Court has addressed the singular question of video testimony by a witness. Numerous courts have fleshed out this ruling but only a single Georgia case has touched on the issue. This article reviews the current case law on two-way video witness testimony, particularly in the context of a criminal trial.

Keywords: constitution, criminal, confrontation, video, testimony

The coronavirus epidemic has changed all aspects of American life. The judicial system is no exception. Governor Kemp declared a public health state of emergency on March 14, 2020, specifically mentioning the 60 confirmed cases of coronavirus in Georgia.[7] The Chief Justice subsequently announced a statewide judicial emergency March 14, 2020 advising courts statewide to remain open for essential functions, including some criminal matters and any jury trials where a jury was already empaneled.[8] The judicial emergency also tolled statutes of limitation, deadlines for speedy trial demands, the time to return a bill of indictment or take a matter to a grand jury, and discovery timing requirements.[9] Combined with the growing "hotspots" in Fulton and the Albany area, many courts followed suit and closed the courts to everything but the limited essential functions listed in the Chief Justice's emergency declaration.[10] Although Governor Kemp has allowed the economy to reopen, courts are not following suit. The Honorable Harold D. Melton, Chief Justice of the Supreme Court, has extended the declaration of statewide judicial emergency thirteen times.[11] The first seven orders kept the courts largely closed to in-person proceedings, prohibiting jury trials and most grand jury proceedings.[12] Since the seventh order, issued October 10, 2020, the orders have gone back and forth with regard to courts conducting criminal proceedings in person. The orders recognize that the state and federal Constitutions will not allow jury trials and other criminal proceedings to

---

[7] Declaration of Public Health State of Emergency, March 14, 2020, https://gov.georgia.gov/executive-action/executive-orders/2020-executive-orders (accessed May 28, 2020).
[8] Order Declaring Statewide Judicial Emergency, March 14, 2020, https://sbog.informz.net/sbog/data/images/CJ%20Melton%20(amended)%20Statewide%20Jud%20Emergency%20order.pdf (accessed May 28, 2020).
[9] Order Declaring Statewide Judicial Emergency, March 14, 2020, https://sbog.informz.net/sbog/data/images/CJ%20Melton%20(amended)%20Statewide%20Jud%20Emergency%20order.pdf (accessed May 28, 2020).
[10] Judicial Council of Georgia, Administrative Office of the Courts, Emergency Judicial Orders, https://georgiacourts.gov/emergency-judicial-orders/ (accessed May 28, 2020).
[11] Thirteenth Order Extending Declaration of Statewide Judicial Emergency, April 8, 2021, https://www.gasupreme.us/wp-content/uploads/2021/04/13th-SJEO_as-issued.pdf (accessed April 15, 2021).
[12] Thirteenth Order Extending Declaration of Statewide Judicial Emergency, April 8, 2021, https://www.gasupreme.us/wp-content/uploads/2021/04/13th-SJEO_as-issued.pdf (accessed April 15, 2021).

be postponed indefinitely but the orders put a priority on public health. The latest order, however, recognizes that jury trials cannot be postponed indefinitely and allows local courts to resume in person criminal proceedings as local conditions allow. Now that the criminal courts can resume in person criminal proceedings, what should a criminal court do when a witness does not want to come testify in court due to fears of exposure to or is sick with the coronavirus? Unlike civil procedure, criminal procedure does not have specific rules for handling any part of a case, such as depositions, which can only be used to preserve testimony,[13] and hearings, remotely.

With incredible foresight, the Administrative Office of the Courts of Georgia and the Judicial Council of Georgia published the "Georgia Pandemic Bench Guide"[14] in 2018. The guide, however, does not address the video testimony of witnesses *during a criminal trial*. The bench guide includes a specific list of criminal court-related activities, including arraignments, probation revocation hearings, and sentences, but does not specifically address criminal trials. The guide does mention that subsection 14 of the Uniform Superior, State, Probate, and Magistrate Court Video-Conferencing Rules would allow video conferencing when there is a situation with an inmate having a highly sensitive medical issue and that this may apply to a full trial.[15] However, this note still misses the issue of witnesses who may not feel comfortable appearing in person at a criminal trial. Additionally, a defendant being excluded entirely from the courtroom may violate the Confrontation Clause for many of the same reasons allowing a witness to appear via two-way video is problematic, as discussed below. The constitutionality of

---

[13] O.C.G.A. § 24-13-130, et seq.
[14] Administrative Office of the Courts of Georgia and the Judicial Council of Georgia. (September 2019). *Georgia Pandemic Bench Guide 2018*. https://georgiacourts.gov/wp-content/uploads/2019/09/Pandemic-Bench-Guide-Final.pdf
[15] Administrative Office of the Courts of Georgia and the Judicial Council of Georgia. (September 2019). *Georgia Pandemic Bench Guide 2018*. https://georgiacourts.gov/wp-content/uploads/2019/09/Pandemic-Bench-Guide-Final.pdf

defendants appearing via two-way video for any portion of a criminal trial is beyond the scope of this article. As criminal trials restart in Georgia during the on-going pandemic it is important to understand the current legal standard that must be met to allow a witness to appear via two-way video conferencing. While this article focuses on providing guidance to criminal justice professionals in Georgia, the legal standards may be applicable in other jurisdictions as well.

One of the more obvious choices is to use a two-way video system for witness testimony. Zoom has certainly seen increased use during the pandemic, particularly from civil courts,[16] despite security concerns.[17] However, criminal trials are more complicated due to the numerous Constitutional protections afforded the criminal process. Can a court allow two-way video testimony in criminal proceedings without violating the Confrontation Clause found in the Sixth Amendment? Unfortunately, no single case outlines all of the rules and there are many factors for a court to consider when deciding whether video testimony is permissible under the U.S. Constitution.

The U.S. Supreme Court has not yet addressed the specific issue of when a witness can testify via two-way video in spite of the defendant's Sixth Amendment right to confront the witnesses against him. Current U.S. Supreme Court case law only addresses the question of when a witness can testify via one-way, closed circuit video. In Georgia, the Supreme Court has not yet taken up the issue. Only a single Georgia Court of Appeals case has addressed the question of when a witness can testify via two-way video. Georgia is not alone in the dearth of

---

[16] Matt Reynolds. (May 2020). *Could Zoom jury trials become the norm during the coronavirus pandemic?*. ABA Journal. https://www.abajournal.com/web/article/could-zoom-jury-trials-become-a-reality-during-the-pandemic
[17] Tom Warren. (April 2020). *Zoom grows to 300 million meeting participants despite security backlash*. The Verge. https://www.theverge.com/2020/4/23/21232401/zoom-300-million-users-growth-coronavirus-pandemic-security-privacy-concerns-response

guidance. In fact, very few states have had the opportunity to address the issue. As the criminal justice system struggles to restart, though, it is likely to arise more than once.

THE *CRAIG* STANDARD

The prevailing test is set out in *Maryland v. Craig* (1990).[18] Under *Maryland v. Craig* (1990), a court must conduct an evidentiary hearing to decide whether the denial of the physical, face-to-face confrontation is "necessary to further an important public policy" and whether the reliability of the testimony is assured.[19] Although *Maryland v. Craig* (1990) dealt with witness testimony via one-way, closed circuit video, many courts have applied the same test to live, two-way video witness testimony. Courts adopting the *Maryland v. Craig* (1990) standard include:

- The Georgia Court of Appeals,[20]

- The Sixth, Eighth, Ninth, Tenth, Eleventh Circuits,[21]

- Fourth Circuit,[22]

- Fifth Circuit,[23]

- U.S. District Court for the Eastern District of North Carolina,[24]

- The Ninth Circuit,[25]

---

[18] *U.S. v. Yates*, 438 F.3d 1307 (11th Cir. 2006) (quoting *Maryland v. Craig*, 497 U.S. 836, 848, 110 S.Ct. 3157, 111 L.Ed.2d 666 (1990)).

[19] *U.S. v. Yates*, 438 F.3d 1307, 1315 (11th Cir. 2006) (quoting *Maryland v. Craig*, 497 U.S. 836, 848, 110 S.Ct. 3157, 111 L.Ed.2d 666 (1990)).

[20] *In re* E. T., 804 S.E.2d 725, 727 – 728 (Ga. App. 2017).

[21] *U.S. v. Yates*, 438 F.3d 1307, 1313 (11th Cir. 2006); *See, e.g., United States v. Moses,* 137 F.3d 894, 897-98 (6th Cir.1998); *United States v. Weekley,* 130 F.3d 747 (6th Cir.1997); *United States v. Rouse,* 111 F.3d 561, 568 (8th Cir.1997); *United States v. Quintero,* 21 F.3d 885, 892 (9th Cir. 1994); *United States v. Carrier,* 9 F.3d 867 (10th Cir.1993); *United States v. Garcia,* 7 F.3d 885, 887-88 (9th Cir.1993); *United States v. Farley,* 992 F.2d 1122, 1125 (10th Cir.1993).

[22] *United States v. Abu Ali*, 528 F.3d 210, 240 (4th Cir. 2008).

[23] *Horn v. Quarterman*, 508 F.3d 306 (5th Cir. 2007).

[24] *United States v. Rivera*, 372 F.Supp.3d 311, 316 (E.D. N.C. 2019).

[25] *United States v. Carter*, 907 F.3d 1199, 1208 (9th Cir. 2018).

- New Mexico,[26]

- Arizona,[27]

- Iowa,[28]

- Maryland,[29]

- Michigan,[30]

- Pennsylvania,[31]

- Wyoming,[32]

- North Carolina,[33]

- Montana,[34]

- Nevada,[35] and the requirements for audiovisual transmission found in the Nevada

  Supreme Court Rules Part IX-A(B) provide the requisite indicia of reliability under

  Maryland v. Craig (1990),[36]

- South Carolina has not explicitly adopted the *Maryland v. Craig* (1990) standard for live

  two-way witness testimony.[37] The South Carolina Court of Appeals recognizes the

  Maryland v. Craig (1990) standard for one-way closed-circuit testimony of child victims

  after a case-by-case analysis.[38] The Court of Appeals applied the *Maryland v. Craig*

---

[26] *State v. Thomas*, 2016 NMSC 24, 376 P.3d 184, 195 (N.M. 2016).
[27] *State ex rel. Montgomery v. Kemp*, 239 Ariz. 332, 371 P.3d 660, 664 (Ariz. App. 2016).
[28] *State v. Rogerson*, 855 N.W.2d 495, 506-507 (2014).
[29] *White v. State*, 223 Md. App. 353, 116 A.3d 520, 540–49 (Md.Ct.Spec.App.2015).
[30] *People v. Buie*, 285 Mich. App. 401, 775 N.W.2d 817, 825 (2009).
[31] *Commonwealth v. Atkinson*, 987 A.2d 743, 750–51, ¶¶ 16–17 (Pa.Super.Ct.2009).
[32] *Bush v. State*, 193 P.3d 203, 215–16, ¶¶ 52–53 (Wyo.2008).
[33] *State v. Seelig*, 738 S.E.2d 427, 434 (N.C. App. 2013).
[34] *State v. Stock*, 2011 MT 131, 361 Mont. 1, 256 P.3d 899 (2011).
[35] *Lipsitz v. State*, 442 P.3d 138, 143 (Nev. 2019).
[36] *Lipsitz v. State*, 442 P.3d 138, 144 (Nev. 2019).
[37] *State v. Johnson*, (S.C. App. 2018)
[38] *State v. Johnson*, 10 (S.C. App. 2018).

(1990) standard to the live two-way testimony of a witness against an adult defendant but

did not explicitly adopt the *Maryland v. Craig* (1990) standard for all cases.[39]

The challenge for criminal justice professionals is sifting through these cases for guidance on

whether a particular witness meets the *Craig* standard to help the court come to a decision.

"NECESSARY" UNDER *CRAIG*

Initially, a court must decide whether the particular circumstances of a case meets the

"necessary" portion of "necessary to further an important public policy" under *Maryland v.

Craig* (1990).[40] In some situations, the denial of face-to-face confrontation may be necessary in

light of a witness's medical condition. The medical condition must be serious and long lasting.

For example, pregnancy is a temporary disability a court can accommodate by continuing the

case until the witness is able to come testify in person and does not meet the "necessary"

standard under *Maryland v. Craig* (1990).[41] In contrast, while a witness being in a residential

drug treatment facility might appear to be a temporary challenge overcome by a continuance,

similar to pregnancy, if the defendant objects to the continuance, this too will meet the necessary

standard set out in *Craig*.[42] The situations can be distinguished by the length of time the witness

would be unavailable. The witness in the residential drug treatment facility would be unavailable

for several months[43], whereas the pregnant witness in *Carter* had approximately two months left

in the pregnancy.[44] Certainly then, an out-of-state witness who is terminally ill and has been

---

[39] *State v. Johnson*, 11 (S.C. App. 2018).
[40] *Maryland v. Craig*, 497 U.S. 836, 848, 110 S.Ct. 3157, 111 L.Ed.2d 666 (1990).
[41] *United States v. Carter*, 907 F.3d 1199, 1206 (9th Cir. 2018) (quoting Maryland v. Craig, 497 U.S. at 851, 110 S.Ct. 3157).
[42] *Lipsitz v. State*, 442 P.3d 138, 144 (Nev. 2019).
[43] *Lipsitz v. State*, 442 P.3d 138, 144 (Nev. 2019).
[44] *United States v. Carter*, 907 F.3d 1199, 1208 (9th Cir. 2018) (quoting *Maryland v. Craig*, 497 U.S. at 851, 110 S.Ct. 3157).

advised to not travel meets the *Craig* necessary standard.[45] Similarly, in a 2008 Wyoming

Supreme Court case, the Court found the *Craig* necessary standard had been met by a seriously

ill, but not terminally ill, witness. The witness lived out of state and suffered from numerous

ailments, including congestive heart failure, chronic renal failure, cardiomyopathy, anemia of

chronic disease, and severe left ventricular dysfunction.[46]

In addition to medical conditions, courts have held two-way video testimony was

necessary under the *Craig* standard when the defendant either created the witness's medical

problems or significantly contributed to the challenges faced by a particular witness. In an

unusual cross-border case the potential witness was located in Canada. The United States District

Court for the Western District of Washington found *Craig*'s necessary standard was met because

it was the defendant who created a situation wherein the potential witness could not testify in

person.[47] The defendant, an American citizen, had sued the witness, a Canadian citizen, in

Canada and obtained a default judgement preventing the witness from returning to the U.S.,

preventing in-person testimony.[48] In the lone Georgia case applying the *Craig* necessary

standard, the juvenile defendant's actions during a crime caused serious injuries to the victim and

the court granted a prosecution request to allow the victim to testify via two-way video.[49] The

victim was left "hospitalized, awaiting a multi-organ transplant in Miami; that his injuries 'left

him so infirm as to afford reasonable grounds to believe that he will be unable to testify in person

as a witness at a criminal trial or proceeding'; and that his 'long-term prognosis' was

'speculative.'"[50] The defendant challenged the two-way video testimony under the Uniform

---

[45] *Horn v. Quarterman*, 508 F.3d 306 (5th Cir. 2007).
[46] *Bush v. State*, 193 P.3d 203, 215–16, ¶¶ 52–53 (Wyo.2008).
[47] *United States v. Rosenau*, 870 F.Supp.2d 1109 (W.D. Wash. 2012).
[48] *United States v. Rosenau*, 870 F.Supp.2d 1111 (W.D. Wash. 2012).
[49] *In re* E. T., 804 S.E.2d 725, 728 (Ga. App. 2017).
[50] *In re* E. T., 804 S.E.2d 725, 728 (Ga. App. 2017).

Juvenile Court Rules and the confrontation clauses found in both the federal and state constitutions.[51] The Georgia Court of Appeals found the Uniform Juvenile Court Rules allowed two-way video witness testimony for good cause, which had been shown under these facts. However, the Court of Appeals found the trial court had failed to apply the *Craig* standard to decide whether the two-way video testimony violated the defendant's right to confrontation.[52] Instead of remanding to the lower court for the analysis, the Court of Appeals found neither the public policy or necessary prongs of *Craig* had been met because options other than two-way video testimony were available and there was no evidence presented of the witness's medical condition.[53] The Georgia Court of Appeals did not explicitly adopt the Craig standard, though.

However, in direct contrast to the cases above where witnesses faced serious health risks if forced to testify in person, the Supreme Court of Montana allowed an out-of-state doctor to testify via two-way video when the doctor was necessary in three separate trials. The court based this decision on the extraordinary travel costs to the prosecution and significant burden of repeated travel on the doctor.[54] The Montana case is an outlier and requests for two-way testimony are usually based on the potential for physical or psychological harm to the witness.

AN IMPORTANT PUBLIC POLICY UNDER *CRAIG*

Frequently, a court decides the public policy standard under *Maryland v. Craig* (1990) based on the seriousness of the charges or the physical condition of the witness. Valid public policy goals can be based on the seriousness of the charges, such as a defendant facing terrorism and related charges for conspiring with al-Qaeda to assassinate President Bush and commit other

---

[51] *In re* E. T., 804 S.E.2d 725, 728 (Ga. App. 2017).
[52] *In re* E. T., 804 S.E.2d 725, 732 (Ga. App. 2017).
[53] *In re* E. T., 804 S.E.2d 725, 732 (Ga. App. 2017).
[54] *City of Missoula v. Duane*, 380 Mont. 290, 355 P.3d 729, 734 (2015).

acts of terror.[55] The security of the Nation is the most compelling governmental interest and the prosecution needed testimony of officials in the Saudi Arabian government. [56] This testimony could only be obtained via two-way video since the defendant could not travel to Saudi Arabia for any deposition of the officials and the Saudi government would not allow the officials to travel to the United States to testify.[57]

However, the courts have been clear that obtaining a criminal conviction[58], providing crucial evidence to the jury,[59] or the expeditious resolution of a case are not sufficient public policy goals to allow two – way video testimony.[60] Additionally, if neither the witness nor the prosecution raises the issue of the cost or the burden to the witness of repeated travel to testify in person, repeated travel will not qualify as a valid public policy goal like it did in *City of Missoula* (2015).[61] Although the witness in *Rivera* would have traveled from Hawaii to North Carolina at least twice, it appears the prosecution was not paying for the travel and the witness did not raise the issue of the financial burden presented by repeated travel. The Supreme Court of New Mexico, too, has said inconvenience to the witness is an insufficient public policy goal where a witness had moved out-of-state prior to trial. As in *United States v. Rivera* (2019), neither party raised the issue of the cost or burden of travel and, therefore, travel was not a factor in deciding whether a valid public policy goal would be met by two-way video testimony. From these limited number of cases, it is unclear whether the costs or burden of travel could ever be used to meet the valid public policy test or if the costs and burdens of testimony are exclusively valid arguments under the necessity element to support the use of two-way video testimony.

---

[55] *U.S. v. Abu Ali*, 528 F.3d 210, 240 (4th Cir. 2008).
[56] *U.S. v. Abu Ali*, 528 F.3d 210, 240 (4th Cir. 2008).
[57] *U.S. v. Abu Ali*, 528 F.3d 210, 241 (4th Cir. 2008).
[58] *U.S. v. Abu Ali*, 528 F.3d 210, 241 (4th Cir. 2008).
[59] *U.S. v. Yates*, 438 F.3d 1307, 1315 – 1316 (11th Cir. 2006).
[60] *U.S. v. Yates*, 438 F.3d 1307, 1315 – 1316 (11th Cir. 2006).
[61] *United States v. Rivera*, 372 F.Supp.3d 311, 317 (E.D. N.C. 2019).

RELIABILITY OF THE TESTIMONY

The reliability of the testimony is determined by 4 factors: "physical presence, oath, cross-examination, and observation of demeanor by the trier of fact."[62] In *State v. Sweidan* (2020) the court stated a court should include information about the number and location of any court room video screens, screen sizes for both the screens in the courtroom and the screen(s) at the witness's location, and how much of the witness's body is visible to the jury.[63] The trial court should also make findings on the record that both the jury and defendant can hear the witness and see the witness and the witness's body language.[64] Finally, the witness should be able to see the defendant and jury and when the testimony is complete, the court should record that no errors occurred during the testimony.[65]

TYPE OF WITNESS

The last detail to consider is the type of witness testifying via two-way video. Witnesses testifying via live two-way video should be crucial witnesses providing the jury with information that cannot be obtained from other sources during the trial. It is harmless error to allow an investigator to testify about a videotaped confession if there is no allegation of wrongdoing during the interrogation and the videotape could speak for itself.[66] Similarly, in *Haggard v. State* (2019) it was harmless error to allow a sexual assault nurse examiner to testify via two-way

---

[62] *Maryland v. Craig*, 497 U.S. 836, at 846, 110 S.Ct. 3157 (1990).
[63] *State v. Sweidan*, No. 36060-1-III, at 28 (Wash. App. 2020).
[64] *State v. Sweidan*, No. 36060-1-III, at 28 (Wash. App. 2020).
[65] *State v. Sweidan*, No. 36060-1-III, at 28 (Wash. App. 2020).
[66] *State v. Johnson*, 812 S.E.2d 739, 422. S.C. 439, 454 (S.C. App. 2018).

video about the examination and evidence collected during the exam because the testimony was cumulative and neither was the nurse a "crucial identification or fact witness." [67]

CONCLUSION

As criminal proceedings restart nationwide, courts will have to decide which witnesses meet the standard for two-way video testimony. Prosecutors will have to evaluate the value of each witness to their case and whether the witness meets each of the standards outlined in *Maryland v. Craig* (1990).[68] Defense attorneys will need to evaluate any proposed two-way video testimony against the standards and be prepared to challenge any unmet standards. If a witness meets the standard and two-way video testimony is approved, the next challenge may be finding an appropriate location for the testimony, a space where all the standards for the testimony itself can be met. Courts may be the only places open, even if on a limited basis, with the space and resources necessary to facilitate two-way video testimony. Even once the witness issues are resolved, others will remain. However, once Georgia develops a clear path, we will be ready for any future similar situations.

---

[67] *Haggard v. State*, Docket No. 09-17-00319-CR, 18 (Tex. App. 2019).
[68] *U.S. v. Yates*, 438 F.3d 1307 (11th Cir. 2006) (quoting *Maryland v. Craig*, 497 U.S. 836, 848, 110 S.Ct. 3157, 111 L.Ed.2d 666 (1990)).

Valerie Cochran is an Assistant Professor of Criminal Justice at the University of North Georgia. In addition to her teaching responsibilities, she currently serves on the State Bar of Georgia's Access to Justice Committee, the University of North Georgia's Paralegal Advisory Board, and volunteers regularly with the Chief Justice's Commission on Professionalism.

Vicarious Implications of Police-Citizen Interactions

Matilda J. Foster and Michael B. Tuvlin

University of North Georgia

Abstract

Public perception of trust and confidence in the police force has been related to the quality of face-to-face interactions that citizens have with police officers (Rosenbaum, Schuck, Costello, Hawkins, & Ring, 2005). However, people tend to share their police-citizen face-to-face interactions with friends and family members, particularly if they have a negative experience. Myhill and Quinton (2010) suggested that hearing about negative face-to-face police-citizen interactions could potentially influence citizens' perceptions of the police. This study investigates whether or not hearing about friends and family members' face-to-face interactions with the police influences their overall perceptions of the police. The data for this study was collected in October 2017 from 750 college students at two state universities in the Southeast region of the United States. The survey collected information on respondents' demographics, perceptions of the police, media consumption, and both face-to-face interactions with the police and friends'/family members' face-to-face interactions with the police. Ordered logistic and linear regression models were estimated to analyze the influence of both direct and vicarious police-citizen face-to-face interactions on perceptions of the police.

<center>**Vicarious Implications of Police-Citizen Interactions**</center>

The idea that the police need citizens to have trust and confidence in them and view their actions as legitimate is not a new concept. It dates back to Sir Robert Peel's (1829) nine principles of policing. Six of these principles focused on the idea that the key to preventing crime was for the police force to maintain a positive relationship with their community by securing the community's approval, favor, respect, and voluntary cooperation. However, these principles were not a major concern to policing institutes or researchers until the 1960s (Schafer, Huebner, & Bynum, 2003). The 1960s were marked by civil unrest, and the aftermath of infamous police-citizen encounters, such as the Watts Riots of 1965[69], highlighted the police's need for public support (Schafer, Huebner, & Bynum, 2003). Since then highly publicized incidents of police violence and brutality have still sparked conflict between citizens and the police. As a result, there has been an abundance of research regarding trust and confidence in the police. However, there are still gaps in the literature on how people develop their feelings towards the police. The next section of this paper will address what is known about perceptions of the police and what possible influences of perceptions of the police still need further investigation.

<center>**Perceptions of the Police**</center>

There has been extensive research on which personal characteristics (i.e., age, race, gender) of citizens are associated with their perceptions of the police. Age has been shown to be positively related to how people view the police (Brown & Benedict, 2002; Brown & Coulter, 1983; Cao, Frank, & Cullen, 1996; Dowler, 2002; Sampson & Bartusch, 1998; Webb &

---

[69] The Watts Riots of 1965 was the result of a police-citizen encounter involving a Los Angeles police officer, Lee Minikus, and a motorist, Marquette Frye, regarding the suspicion that Frye was driving under the influence. This incident sparked six days of rioting that resulted in over 34 casualties and around 1,000 non-lethal injuries (Queally, 2015).

Marshall, 1995*).* Levels of favorableness towards the police have been shown to vary depending on race. When comparing African Americans, Hispanics, and Whites, Whites tend to have more favorable attitudes towards the police than African Americans (Albrecht & Green, 1977; Bayley & Mendelsohn, 1969; Block, 1971; Brown & Benedict, 2002; Cao, Frank, & Cullen, 1996; Hagan & Albonetti, 1982*;* Hagan, Shedd, & Payne, 2005; Tooley, Linkenbach, Lande, & Lande, 2015; Webb & Marshall, 1995; Weitzer &Tuch, 1999). People of Hispanic descent have been shown to have less favorable attitudes towards the police than Whites, but more favorable attitudes towards the police than African Americans (Sampson & Jeglum-Bartusch, 1998; Weitzer & Tuch, 2005). The findings regarding gender and perceptions of the police has not been as consistent as the findings on age and race. Some studies have indicated that females have more favorable attitudes towards the police than males (Brown & Coulter, 1983; Correia, Reisig, & Lovrich, 1996; Weitzer & Tuch, 2002), but others have shown males to have more favorable attitudes toward the police than females (Cao, Frank, & Cullen, 1996; Hagan, Shedd, & Payne*,* 2005; Reisig & Giacomazzi, 1998; Weitzer & Tuch, 2002). When looking at where people live and how they feel about the police, urban residents, especially urban poor, have been shown to have lower perceptions of the police than rural or suburban residents (Albrech & Green, 1977; Hindelang, 1974). The literature on income and perceptions of the police has been mixed. Some studies show lower economic class citizens to have lower perceptions of the police than those more financially stable (Brown & Coulter, 1983; Benson, 1981), but other studies have shown no significant relationship regarding a person's income and overall perceptions of the police (Hindelang, 1974; Jesilow, Meyer, & Namazzi, 1995).

While these personal characteristics are important to the overarching understanding of how people perceive the police, they do not answer why people feel the way they do about the

police or how people develop their perceptions of the police. Therefore, researchers must look beyond describing the characteristics of citizens when studying perceptions of the police. One of the major factors pertaining to how people develop their feelings toward the police could be their face-to-face interactions with police officers (Rosenbaum et al., 2005; Scaglion & Condon, 1980; Tyler, 2006; Skogan, 2005). There have been multiple studies on how citizens' face-to-face contacts with the police influence their perceptions of the police, pertaining to if the citizen had a positive or negative experience with a police officer. Having a positive experience with a police officer has been shown to be related to a small increase in favorable attitudes towards the police (Bradford, Huq, Jackson, & Roberts, 2014; Mazerolle et al., 2013), while negative face-to-face interactions with a police officer have been associated with having less favorable attitudes towards the police (Miller, Davis, Henderson, Markovic, & Ortiz, 2004; Schafer, Huebner, & Bynum, 2003). However, this influence may only reach significant levels if the citizen was the one who initiated the interaction (i.e., the citizen sought out the officer's assistance) (Rosenbaum, Schuck, Costello, Hawkins, & Ring, 2005).

Because who initiated the police-citizen interaction may play a role in how that interaction is processed and retained by the citizen, factors related to the reason for the contact should be considered. One circumstance in which a citizen may actively seek out a police officer's assistance is when she or he has been victimized. The literature on whether or not victimization status is associated with how citizens feel about the police has mixed conclusions. Victimizations status has been shown not to be related to people's attitudes towards the police (Smith & Hawkins, 1973), but it has also been shown to both increase (Thurman & Reisig, 1996; Skogan, 1989) and decrease (Block, 1971; Priest & Carted, 1999) citizens' levels of favorableness towards the police. One explanation for the mixed results is that the effects may

have less to do with the act of being victimized and more to do with how the officer's actions were perceived by the citizen (Skogan, 1989; Smith & Hawkins, 1973).

When looking at these studies, it is important to remember that people's perceptions of the police are not necessarily formulated by a single transaction. Often it must be cultivated (Bottoms & Tankebe, 2012). This does not mean that every police-citizen interaction is unimportant; each is an opportunity for citizens to learn about the police and have their perceptions either reaffirmed or negated (Gau, 2013). It just means that there are more dimensions shaping a person's perceptions of the police than just face-to-face interactions. Perhaps before ever meeting a police officer, citizens may have already conceptualized policing institutions and what they should expect from police officers. Vicarious interactions with the police could influence citizen's preconceived notions about the police prior to him or her having any personal physical or verbal interactions with a law enforcement officer (Gau, 2014). There are several sources of possible vicarious influences on perceptions of the police, such as friends and family members or media outlets.

There is a growing amount of literature on media as a vicarious influence on perceptions of the police. One possible adverse vicarious influence on citizens' perceptions of the police is highly publicized instances of police misconduct. Studies on high-profile instances of police brutality have indicated a drop in overall support for the police following the event. However, most studies have found this drop to be modest, and even if the drop does reach a level of significance, it has been found not to be long lasting (Chermak, McGarrell, & Gruenewald, 2006; Kaminski & Jefferis, 1998; Kochel, 2015a, b; Lasley, 1994; Tuch & Weitzer, 1997). Another possible vicarious influence on citizens' perceptions of the police is crime dramas and police-related reality television shows. When looking specifically at crime dramas' influence on

perceptions of the police, Dowler (2002) found a negative association, but Callanan and Rosenberger (2011) found a positive association. However, the association for both studies did not reach a statistical level of significance. The results of studies looking at policing reality shows have also been mixed. Dowler and Zawilski (2007) found policing reality shows have little influence on perceptions of the police, while Eschholz, Blackwell, Gertz, and Chiricos (2002) found policing reality shows have a significant positive influence on perceptions of the police. However, when Eschholz et al. (2007) looked at the demographic breakdown of these results, they found this true only for whites, males, and people with less than a college education. While studies on media consumption and perceptions of the police have shown little media influence, this still leaves vicarious influence via hearing personal stories involving friends and family members' interactions with the police (Bradford, Jackson, & Stanko, 2009).

A few studies have examined vicarious experiences with the police via hearing about a friend or family member's experience with the police. Klein, Webb, and DiSanto (1978) found that hearing about police officers physically mistreating someone, being impolite, and unfairly treating people were all significantly related to a decrease in favorable perceptions of the police. Rosenbaum, Schuck, Costello, Hawkings, and Ring (2005) found that having negative vicarious experiences with the police was significantly related to a decrease in favorable perceptions of the police and that having positive vicarious experiences was significantly associated with having a significant increase in favorable perceptions of the police. However, Miller, Davis, Henderson, Markovic, and Ortiz (2004) found hearing about negative experiences with the police was associated with a significant decrease in favorable perceptions of the police, but hearing about positive or neutral experiences did not significantly affect perceptions of the police. This finding may be significant because, as Myhill and Quinton (2010) point out, "people tend to process,

recall, and share negative experiences more than positive experiences, which would suggest vicarious experiences are more likely have a detrimental effect" regarding perceptions of the police (p.277).

Previously in this literature review, it was mentioned that the cultivation of attitudes towards the police occurs over time and across many multiple transactions of information (Bottoms & Tankebe, 2012). This review of the literature on perceptions of the police found few studies on how vicarious face-to-face interactions affect these perceptions, indicating that there is still a gap in the literature on this subject. This study aims to test the following research questions:

1. Do face-to-face police-citizen interactions influence overall perceptions of the police?
2. Do vicarious police-citizen interactions influence overall perceptions of the police?
3. Do people have more negative vicarious interactions than positive ones?

Data and Methods

Sample

The data for this study was obtained from a survey administered via email to students majoring in Criminal Justice at two state universities in the Southeast region of the United States during the Fall of 2017 (n=1,355). The survey had an overall response rate of 58% (n=782). A review of the data indicated that 32 questionnaires were returned without having any data regarding perceptions of the police and were consequently removed from the data set. This resulted in a final sample size of 750 for the data set. See Table 1 for information regarding the overall data demographics.

In order to determine the impact of face-to-face and vicarious police-citizen interactions on overall perceptions of the police the sample utilized for this study is limited to only those who experienced a police-citizen interaction via face-to-face (n=441), vicarious (n=380) and those who experienced both types of police-citizen interactions (n=266).

Table 1: Frequency Distribution for Data Demographics

Variable	N	%	Variable	N	%
Gender			Community		
Female	308	41.07	Urban community	120	16.00
Male	440	58.67	Rural community	210	28.00
Missing	2	0.27	Suburban community	411	54.80
Race			Missing	9	1.20
Hispanic or Latino	71	9.47	Family Income		
Non-Hispanic Black or African American	64	8.53	less than $49,999	164	21.87
Non-Hispanic White or Caucasian	575	76.67	$50,000-$74,999	163	21.73
Other	40	5.33	$75,000-$99,999	127	16.93
Age			$100,000-$124,999	110	14.67
19 or under	245	32.67	$125,000 or above	171	22.80
20 to 21	335	44.67	Missing	15	2.00
22 to 23	98	13.07			
24 or older	72	9.60			

Note. Due to rounding errors, percentages may not equal 100%

Measures

Attitudes towards the police are not as simple as if a person likes or dislikes the police; it is multidimensional and varies regarding various concepts of attitudes towards the police, such as trust and confidence in the police and police legitimacy. Therefore, it should not be measured in

simple "yes" or "no" questions.[70] The survey utilized two methods in gathering information about

respondents' attitudes towards the police to capture a variety of attributes relating to perceptions

of the police. The first method involved asking respondents to rate their level of agreement with

statements about the police on a Likert scale ranging from one to four, with one indicated strongly

agree and four indicating strongly disagree. This method of getting information regarding attitudes

towards the police has been criticized for not being reliable data (Holmes, 1997; Pate & Fridell,

1993). To address this issue and help control for social bias, some questions regarding perceptions

of the police were asked in vignette format, which also measured responses on a 4-point Likert

scale. This allowed the respondents to make normative judgments regarding how they felt about

police officers' actions (Rossi & Anderson, 1982; Wallander, 2009). Since overall attitudes

towards the police are multidimensional, these attributes were merged into one additive scale

ranging from 4-20, with higher scores indicated a more favorable perception of the police (Nix &

Wolfe, 2016). To ensure that the questions were all measuring the same thing and therefore could

be combined into one additive scale, a principal component analysis (PCA) with varimax rotation

using a polychoric correlations matrix was conducted.[71] The output indicated that each item

measuring attitudes towards the police did load into one component with adequate internal

consistency ($\lambda = 4.74$, loadings $> .633$, $\propto = .875$) (Dunteman, 1989; Nix & Wolfe, 2016). See

Tables 2 & 3 for more information on the PCA.

---

[70] The use of "yes" or "no" questions (e.g., "Do you support the police") when measuring perceptions of the police
may also be undesirable because they could result in socially biased responses instead of the respondents true feeling
regarding the police (Dillman, 1998).
[71] The correlations matrix normally utilized in PCA assumes normally distributed continuous variables, but the data
utilized in the study is ordered. The polychoric correlations matrix assumed the variables are ordered in nature
(Gilley & Uhlig, 1993; Kolenikov & Angeles, 2004, StataCorp, 2017).

Table 2: Principal Factor Analysis with Orthogonal Varimax Rotation

Factor	Variance	Difference	Proportion
Factor 1	4.739	.	0.942

Table 3: Rotated Factor Loadings and Unique Variances

Variable	Factor 1	Uniqueness
Helpful	0.787	0.381
Safer	0.784	0.385
Avoid	-0.633	0.600
Direction	0.684	0.532
Community Problems	0.835	0.303
Good Job	0.850	0.278
Respond	0.731	0.466
Solve Crime	0.827	0.313

Citizens' contacts with the police were measured both directly and indirectly. Direct interaction was measured by asking the respondent if they have had any face-to-face interactions with a police officer during their lifetime. If the respondent reported that they have had a face-to-face interaction with a police officer, they were asked how many interactions they have had, overall how satisfied they were with their contacts, and who tended to initiate the contact. To measure vicarious face-to-face interactions, the respondents were asked if they had ever heard about a friend or family member's face-to-face contact with a police officer during their lifetime. If so, they were asked about the number of interactions they had heard about, overall how satisfied were their friends and family with the interactions they had heard about, and who tended to initiate the interactions they heard about, the police or their friend or family member.

The literature on perceptions of the police has indicated there to be a correlation between perceptions of the police and demographic characteristics (Engel, 2005; Rosenbaum, Schuck, Costello, Hawkings, & Ring, 2005; Scaglion & Condon, 1998). Therefore, these measures were also included in the models. None of the previous studies on attitudes towards the police found in the literature review looked at the influence of political affiliation on attitudes towards the police. However, the paper's authors feel that it may be influential and were therefore included in the models.

Findings

Three ordinary least squares (OLS) regression models were used to estimate the influence of both face-to-face and vicarious police-citizen interactions on overall levels of perceptions of the police. Please see Appendix A for more information on these models. When looking at the difference between how males and females perceive the police, females tended to have more favorable perceptions of the police. However, this difference only reached a level of significance for vicarious influences on perceptions of the police. In all three models, African Americans had significantly lower perceptions of the police than Whites. When looking at just face-to-face interactions, age was not significantly related to perceptions of the police. However, for both vicarious and all interactions, people age 20-21 had significantly less favorable perceptions of the police than people ages 19 or under (p. = .012 and p. = .034, respectively). Republicans consistently had higher levels of favorable perceptions of the police than other political affiliations. People who reported growing up in a rural area consistently had higher levels of favorable perceptions towards the police than people who grew up in a suburban or urban community. Overall, income was not significantly related to perceptions of the police.

Face-to-face police-citizen interactions

Face-to-face police-citizen interactions were measured by three factors: number of interactions, overall satisfaction with the interactions, and who initiated the interaction. The number of face-to-face police-citizen interactions did not influence overall perceptions of the police. Who initiated the interaction was also not significantly related to respondents' overall perceptions of the police. When looking at overall satisfaction levels of the face-to-face interactions a rating of overall "satisfied" or "very satisfied" with the interactions, compared to being overall "dissatisfied" with the interactions, was significantly related to an increase in overall perceptions of the police ($p. = 0.000$ and $p. = 0.000$, respectively). See Table A.1 for more information.

Vicarious police-citizen interactions

Vicarious police-citizen interactions were measured by the same three factors as the face-to-face interactions. For vicarious interactions, the overall number of face-to-face interactions that a person had did not significantly influence overall perceptions of the police. Who tended to initiate the vicarious police-citizen interactions did not significantly influence overall levels of perceptions towards the police. Overall perceptions of the police were significantly influenced by how satisfied respondents' friends and family members were with his or her face-to-face interactions. Having a rating of overall "satisfied" or "very satisfied" for vicarious police-citizen interactions was associated with a significant increase in overall perceptions of the police compared to having a rating of overall "dissatisfied" ($p. = 0.000$ and $p. = 0.000$, respectively). See Table A.2 for more information.

Overall Interactions

When both face-to-face and vicarious police-citizen interactions were included in the model, the number of interactions and who tended to initiate the interactions were still not significantly related to overall perceptions of the police. For this model, overall satisfaction levels with face-to-face interactions were still statistically significant, with being overall "satisfied" or "very satisfied" with the face-to-face interactions, compared to being overall "dissatisfied" with the interactions was significantly related to an increase in overall perceptions of the police (p. = 0.000 and p. = 0.000, respectively). When controlling for face-to-face interactions with police officers, hearing about friends' and family members' positive interactions with police officers was still related to an increase in overall perceptions of the police. However, the increase related to hearing about friends and family members who were overall "satisfied" with their interactions with the police compared to being overall "dissatisfied" was no longer significant (p. = 0.401). When compared to having overall "dissatisfied" vicarious interactions, having overall "very satisfied" vicarious interactions was significantly related to an increase in overall perceptions of the police (p. = 0.001). See Table A.3 for more information.

Negative vs. Positive Vicarious Interactions

Descriptive statistics indicated that positive experiences are shared more often than negative experiences: Dissatisfied (n=145), Satisfied (n=190), and Very Satisfied (n=63). See Appendix B for more information on the number of vicarious interactions.

Discussion

The literature on how gender influences perceptions of the police show mixed results. For this study, females had more favorable perceptions of the police than males. However, this

difference was only significant when looking at vicarious interactions. This may indicate that vicarious interactions with the police may have a more significant influence on perceptions of the police for females than males. In all three models, Non-Hispanic Blacks/ African Americans had significantly lower perceptions of the police. This is consistent with the literature. The literature on perceptions of the police has been consistent with there being a positive relationship between age and perceptions of the police. The data for this study does not support this. For this sample, there was a negative relationship. However, this should be interpreted carefully because the age range for the sample size was small. Even with this, there was one interesting change that needs further investigation; the relationship between vicarious interactions and a significant drop (p. = 0.012) in perceptions of the police for respondents age 20-21 compared to respondents 19 or younger. When controlling for face-to-face interactions, this influence was still significant (p. = 0.034). This could be due to respondents' friends having experienced more negative police-citizen interactions when they reached 20-21 years old compared to when they were younger, or family being willing to share more negative experiences with them, as they get older. However, age 20-21 could also be a time when respondents are experiencing more face-to-face interactions with the police compared to when respondents were younger, but there was not a significant drop in overall perceptions of the police regarding the influence of face-to-face interactions. More research needs to be done to help determine why vicarious interactions were significantly related to a decrease in overall perceptions of the police between two age groups that are so close together. This literature review did not find any studies that looked at political affiliation and attitudes towards the police. This study found that Democrats have significantly lower attitudes towards the police than Republicans (p. = 0.000).

It has been suggested in the literature that negative police-citizen interactions may be shared with friends and family members more than positive interactions (Myhill & Quinton, 2010). The data for this study does not support there being more negative vicarious interactions than positive, with a majority (63.41%) of reported vicarious interactions indicated that their friends/ family members were overall satisfied or very satisfied with the interaction. However, with the sample consisting of criminal justice majors, it should be noted that they might be more prone to having more positive views and, therefore, conversations regarding the police. The literature also suggested that who initiated the interaction influences a citizen's overall perceptions of the police (Rosenbaum, Schuck, Costello, Hawkins, & Ring, 2005). This study does not support that there is a significant difference between those who tended to initiate the interaction either for face-to-face interactions or for vicarious interactions in overall perceptions of the police. However, when looking at the number of vicarious interactions, the majority of vicarious interactions were mostly officer-initiated (59%), and of those interactions, almost half (49%) were mostly dissatisfied with the interaction. This suggests that negative officer-initiated police-citizen interactions are shared more than other interactions. Therefore, more research needs to be conducted on the influence of vicarious police-citizen interactions. With this, more research also needs to be done to see if who initiates the interaction does influence overall perceptions of the police. Future surveys need to be administered to a more representative sample of the general population than criminal justice majors from two state universities to see if these findings can be replicated.

References

Albrecht, S., & M. Green. (1977). Attitudes toward the police and the larger attitude complex. *Criminology*, 15(1), 67-86.

Bayley, D. H., & Mendelsohn, H. (1969). *Minorities and the police: Confrontations in America*. New York, NY: The Free Press.

Benson, P. R. (1983). Political alienation and public satisfaction with police services. *The Pacific Sociological Review*, 24(1), 45-64.

Block, R. L. (1971). Fear of crime and fear of the police. *Social Problems*, 19(1), 91-101.

Bottoms, A., & Tankebe, J. (2012). Beyond procedural justice: A dialogic approach to legitimacy in criminal justice. *Journal of Criminal Law and Criminology*, 102(1), 119-170.

Bradford, B., Huq, A., Jackson, J., & Roberts, B. (2014). What price fairness when security is at stake? Police legitimacy in South Africa. *Regulation & Governance*, 8(2), 246-268.

Bradford, B., Jackson, J., & Stanko, E. (2009). Contact and confidence: Revisiting the impact of public encounters with the police. *Police and Society*, 19(1), 20-46.

Brown, B., & Benedict, W. R. (2002). Perceptions of the police: Past findings, methodological issues, conceptual issues, and policy implications. *Policing: An International Journal of Police Strategies & Management*, 25(3), 543-580.

Brown, K., & Coulter, P. B. (1983). Subjective and objective measures of police service delivery. *Public Administration Review*, 43(1), 50-58.

Callanan, V. J., & Rosenberger, J. S. (2011). Media and public perceptions of the police: Examining the impact of race and personal experience. *Policing and Society*, 21(2), 167-189.

Cao, L., Frank, J., & Cullen, F. T. (1996). Race, community context and confidence in the police. *American Journal of Police*, 15(1), 3-22.

Correia, M. E., Reisig, M. D., & Lovrich, N. P. (1996). Public perceptions of state police: An analysis of individual-level and contextual variables. *Journal of Criminal Justice*, 24, 17-28.

Chermak, S., McGarrell, E., & Gruenewald, J. (2006). Media coverage of police misconduct and attitudes toward police. *Policing*, 29(2), 261-281.

Dowler, K. (2002). Media influence on citizen attitudes toward police effectiveness. *Policing and Society*, 12(3), 227-238.

Dowler, K., & Zawilski, V. (2007). Public perceptions of police misconduct and discrimination: Examining the impact of media consumption. *Journal of Criminal Justice*, 35, 193-203.

Dillman, D. A. (1998). *Mail and other self-administered surveys in the 21st century: The beginning of a new era.* Pullman, WA: Washington State University.

Dunteman, G. H. (1989). *Principal components analysis*. Newbury Park, CA: SAGE Publications, Inc.

Engel, R. S. (2005). Citizens' perceptions of injustice during traffic stops with police. *Journal of Research in Crime & Delinquency*, 42, 445-481.

Eschholz, S., Blackwell, B. S., Gertz, M., & Chiricos, T. (2002). Race and attitudes toward the police: Assessing the effects of watching "reality" police programs. *Journal of Criminal Justice*, 30(4), 327-341.

Gau, J. M. (2013). Procedural justice and police legitimacy: A test of measurement and structure. *American Journal of Criminal Justice,* 1-19, doi: 10.1007/s12103-013-9220-8.

Gau, J. M. (2014). Procedural justice, police legitimacy, and legal cynicism: A test for mediation effects. *Police Practice and Research*: *An International Journal*, doi:10.1080/15614263.2014.927766.

Gilley W. F., & Uhlig, G. E. (1997). Factor analysis and ordinal data. *Education*, 114, 258-264.

Hagan, J., & Albonetti, C. (1982). Race, class and the perception of criminal justice in America. *American Journal of Sociology*, 88(2), 329-355.

Hagan, J., Shedd, C., & Payne, M. R. (2005). Race, ethnicity, and youth perceptions of criminal justice. *American Sociological Review*, 70(3), 381-407.

Hindelang, M. J. (1974). Public opinion regarding crime, criminal justice, and related topics. *Journal of Research in Crime & Delinquency*, 11(2), 101-116.

Jesilow, P., Meyer, J., & Namazzi, N. (1995). Public attitudes towards the police. *American Journal of Police*, 14(2), 68-88.

Kaminski, R. J., & Jefferis, E. S. (1998). The effect of a violent televised arrest on public
       perceptions of the police: A practical test of Easton's theoretical framework. *Policing*,
       21(4), 683-706.

Klein, J. F., Webb, J. R., & DiSanto, J. E. (1978). Experience with the police and attitude
       towards the police. *The Canadian Journal of Sociology*, 3(4), 441-456.

Kochel, T. R. (2015a). Assessing the initial impact of the Michael Brown shooting and police
       and public responses to it on St. Louis County residents' views about the police. *Southern*
       Illinois University Carbondale. Retrieved from
       http://opensiuc.lib.siu.edu/cgi/viewcontent.cgi?article=1001&context=ccj_reports

Kochel, T. R. (2015b). Ferguson's long term impact on public views about police. *Southern*
       Illinois University Carbondale. Retrieved from
       http://opensiuc.lib.siu.edu/cgi/viewcontent.cgi?article=1003&context=ccj_reports

Kolenikov, S. & Angeles, G. (2004). *The use of discrete data in PCA: Theory, simulations, and*
       applications to socioeconomic indices (Technical Report). MEASURE/Evaluation
       project, Carolina Population Center, University of North Carolina, Chapel Hill.

Lasley, J. R. (1994). The impact of the Rodney King incident on citizen attitudes toward police.
       Policing and Society, 3(4), 245-255.

Mazerolle, L., Antrobus, E., Bennett, S., & Tyler, T. (2013). Shaping citizen perceptions of
       police legitimacy: A randomized field trial of procedural justice. *Criminology*, 51(1),
       33-64.

Miller, J., Davis, R. C., Henderson, N. J., Markovic, J., & Ortiz, C. W. (2004). Public
       opinions of the police: The influence of friends, family, and news media. *Vera*
       Institute of Justice. Retrieved from
       https://www.ncjrs.gov/pdffiles1/nij/grants/205619.pdf

Myhill, A., & Quinton, P. (2010). Confidence, neighborhood policing, and contact: Drawing
       together the evidence. *Policing*, 4(3), 273-281.

Nix, J., & Wolfe, S. E. (2016). Sensitivity to the Ferguson effect: The role of managerial
       organizational justice. *Journal of Criminal Justice*, 47, 12-20.

Priest, T. B., & Carter, D. B. (1999). Evaluations of police performance in an African American
       sample. *Journal of Criminal Justice*, 27(5), 457-465.

Reisig, M. D., & Giacomazzi, A. L. (1998). Citizen perceptions of community policing: Are attitudes toward police important? *Policing: An International Journal of Police Strategies & Management*, 21, 547-561.

Rosenbaum, D. P., Schuck, A. M., Costello, S. K., Hawkins, D. E., & Ring, M. K. (2005). Attitudes toward the police: The effects of direct and vicarious experience. *Police Quarterly*, 8(3), 343-365.

Sampson, R. J., & Jeglum-Bartusch, D. (1998). Legal cynicism and (subcultural?) tolerance of deviance: The neighborhood context of racial differences. *Law & Society Review*, 32, 777-804.

Scaglion, R., & Condon, R. (1980). Determinants of attitudes toward city police. *Criminology*, 17(4), 485-494.

Schafer, J. A., Huebner, B. M., & Bynum, T. S. (2003). Citizen perceptions of police services: Race, neighborhood context, and community policing. *Police Quarterly*, 6(4), 440-468.

Skogan, W. G. (1998). The impact of police on victims. In E. Viano (Ed.), *Crime and its victims* (pp. 71-77). New York, NY: Hemisphere.

Skogan, W. G. (2005). Citizen satisfaction with police encounters. *Police Quarterly*, 8(3), 298-321.

Smith, P., & Hawkins, R. (1973). Victimization, types of citizen-police contacts, and attitudes toward the police. *Law & Society Review*, 8(1), 135-152.

StataCorp. (2017). *Stata 15 Base Reference Manual*. College Station, TX: Stata Press.

Thurman, Q. C., & Reisig, M. D. (1996). Community-oriented research in an era of community-oriented policing. *American Behavioral Scientist*, 39(5), 570-586.

Tooley, C. M., Linkenbach, J., Lande, B. J., & Lande, G. M. (2015). The media, the public, and the law enforcement community: Correcting misperceptions. *The Police Chief*. Retrieved from http://www.policechiefmagazine.org/magazine/index.cfm?fuseaction=display_arch&article_id=1828&issue_id=62009

Tuch, S. A., & Weitzer, R. (1997). The polls—trends: Racial differences in attitudes toward the police. *Public Opinion Quarterly*, 61, 642-663.

Tyler, T. R. (2006). *Why people obey the law*. Princeton, NJ: Princeton University Press.

Webb, V. W., & Marshall, C. (1995). The relative importance of race and ethnicity on citizen attitudes toward the police. *American Journal of police*, 14(2), 45- 66.

Weitzer, R., & Tuch, S. A. (1999). Race, class, and perceptions of discrimination by the police. *Crime & Delinquency*, 45(4), 494-507.

Weitzer, R., & Tuch, S. A. (2002). Perceptions of racial profiling: Race, class, and personal experience. *Criminology*, 40(2), 435-456.

Weitzer, R., & Tuch, S. A. (2005). Determinate of public satisfaction with the police. *Police Quarterly*, 8(3), 279-297.

Table A.1: Linear Regression model for face-to-face police-citizen interactions and perceptions of the police

Variable	Coef.	Std. Err.	t	P>|t|	Variable	Coef.	Std. Err.	t	P>|t|
Gender					**Income**				
Female	.287	0.309	0.93	0.354	less than $49,999-0.057	-0.057	0.478	-0.12	0.905
Race					$50,000-$74,999	-0.467	0.461	-1.01	0.312
Non-Hispanic white (ref)					$75,000-$99,999	0.079	0.482	0.16	0.870
Non-Hispanic Black/ A. A.	-2.736	0.593	-4.61	0.000	$100,000-$124,999	-0.042	0.484	-0.09	0.931
Hispanic or Latino	-0.043	0.553	-0.08	0.939	$125,000 or above (ref)				
Other	-1.141	0.656	-1.74	0.083	**Number face-to-face**				
Age					1-2 (ref)				
19 or under (ref)					3-4	-0.087	0.384	-0.23	0.820
20 to 21	-0.331	0.352	-0.94	0.348	5-8	0.570	0.500	1.14	0.255
22 to 23	-0.418	0.486	-0.86	0.390	9+	0.150	0.520	0.29	0.774
24 or older	-0.447	0.560	-0.80	0.425	**Face-to-face Satisfaction**				
Political Affiliation					Dissatisfied (ref)				
Republican (ref)					Satisfied	2.158	0.467	4.62	0.000
Democrat	-2.405	0.420	-5.72	0.000	Very Satisfied	5.101	0.504	10.11	0.000
Independent	-1.122	0.406	-2.76	0.006	**Who Initiated face-to-face**				
Something else	-8.10	0.556	-1.46	0.146	Mostly officer initiated (ref)				
Area					Mostly initiated by you	0.086	0.431	0.20	0.843
Rural community (ref)					Equally initiated by you & officer	0.275	0.403	0.68	0.495
City or urban community	-0.448	0.467	-0.96	0.338					
Suburban community	-0.743	0.366	-2.03	0.043	_cons	11.580	0.653	17.73	0.000

Notes. Number of observations = 441, $F_{(23, 417)}$ = 13.73, p > F = 0.000, R-squared = 0.4310, Adj. R-square = 0.3996, Root MSE= 3.0847

Table A.2: Linear Regression model for vicarious police-citizen interactions and perceptions of the police

Variable	Coef.	Std. Err.	t	P>|t|	Variable	Coef.	Std. Err.	t	P>|t|
Gender					**Income**				
Female	0.827	0.357	2.32	0.021	less than $49,999-0.057	0.295	0.538	0.55	0.583
Race					$50,000-$74,999	1.027	0.507	2.03	0.044
Non-Hispanic white (ref)					$75,000-$99,999	0.145	0.551	0.26	0.792
Non-Hispanic Black/ A. A.	-3.014	0.689	-4.38	0.000	$100,000-$124,999	0.600	0.564	1.06	0.290
Hispanic or Latino	-0.289	0.690	-0.42	0.676	$125,000 or above (ref)				
Other	-1.084	0.781	-1.39	0.166	**Number vicarious**				
Age					1-2 (ref)				
19 or under (ref)					3-4	-0.281	0.400	-0.70	0.482
20 to 21	-1.00	0.400	-2.51	0.012	5+	0.169	0.490	0.730	0.730
22 to 23	-0.378	0.586	-0.64	0.520					
24 or older	-0.798	0.643	-1.24	0.216	**Vicarious Satisfaction**				
Political Affiliation					Dissatisfied (ref)				
Republican (ref)					Satisfied	1.470	0.404	3.63	0.000
Democrat	-2.653	0.479	-5.54	0.000	Very Satisfied	4.458	0.548	8.14	0.000
Independent	-1.032	0.470	-2.20	0.029	**Who Initiated vicarious**				
Something else	-0.254	0.660	-0.39	0.700	Mostly officer initiated (ref)				
Area					Mostly initiated by you	-0.310	0.501	-0.62	0.538
Rural community (ref)					Equally initiated by you & officer	-0.193	0.430	-0.45	0.654
City or urban community	-0.319	0.553	-0.58	0.563					
Suburban community	-0.604	0.417	-1.45	0.148	_cons	12.824	0.662	19.36	0.000

Notes. Number of observations = 380, $F_{(22, 357)}$ = 9.37, p > F = 0.000, R-squared = 0.3661, Adj. R-square = 0.3270, Root MSE= 3.2692

Table A.3: Linear Regression model for all police-citizen interactions and perceptions of the police

Variable	Coef.	Std. Err.	t	P>|t|	Variable	Coef.	Std. Err.	t	P>|t|
Gender					**Number face-to-face**				
Female	0.271	0.410	0.66	0.509	1-2 (ref)				
Race					3-4	-0.103	0.516	-0.20	0.842
Non-Hispanic white (ref)					5-8	0.420	0.689	0.61	0.542
Non-Hispanic Black/ A. A.	-2.538	0.743	-3.41	0.001	9+	-0.55	0.688	-0.80	0.424
Hispanic or Latino	0.380	0.800	0.48	0.635	**Face-to-face Satisfaction**				
Other	-1.200	0.881	-1.36	0.175	Dissatisfied (ref)				
Age					Satisfied	3.244	0.642	5.06	0.000
19 or under (ref)					Very Satisfied	5.060	0.717	7.06	0.000
20 to 21	-1.018	0.477	-2.13	0.034	**Who Initiated face-to-face**				
22 to 23	-0.430	0.640	-0.67	0.502	Mostly officer initiated (ref)				
24 or older	-1.125	0.740	-1.52	0.130	Mostly initiated by you	-0.100	0.600	-0.16	0.870
Political Affiliation					Equally initiated by you & officer	0.543	0.545	1.00	0.320
Republican (ref)					**Number vicarious**				
Democrat	-2.471	0.540	-4.58	0.000	1-2 (ref)				
Independent	-0.700	0.554	-1.26	0.209	3-4	-0.539	0.465	-1.16	0.248
Something else	-1.180	0.765	-1.54	0.124	5+	0.060	0.571	0.10	0.917
Area					**Vicarious Satisfaction**				
Rural community (ref)					Dissatisfied (ref)				
City or urban community	-0.592	0.624	-0.95	0.344	Satisfied	0.424	0.504	0.84	0.401
Suburban community	-0.683	0.485	-1.41	0.160	Very Satisfied	2.236	0.676	3.31	0.001
Income					**Who Initiated vicarious**				
less than $49,999	0.320	0.603	0.5	0.596	Mostly officer initiated (ref)				
$50,000-$74,999	0.152	0.608	0.25	0.803	Mostly initiated by friend/ family	-0.323	0.628	-0.51	0.608
$75,000-$99,999	0.171	0.618	0.28	0.782	Equally initiated by friend/family & officer	-0.419	0.504	-0.83	0.407
$100,000-$124,999	0.416	0.660	0.63	0.530					
$125,000 or above (ref)					_cons	10.765	0.840	12.81	0.000

Notes. Number of observations = 266, $F_{(29, 236)}$ = 8.76, p > F = 0.000, R-squared = 0.5184, Adj. R-square = 0.4593, Root MSE= 3.0673

Appendix B

Table B.1: Frequency distribution for vicarious interactions satisfaction levels

	f
Dissatisfied	145
Satisfied	190
Very Satisfied	63
Total	398

Table B.2: Cross-tabulation for vicarious interactions satisfaction levels & who initiated interaction

	Officer-initiated	Citizen-initiated	Equally-initiated	Total
Dissatisfied	115	14	16	145
Satisfied	97	33	60	190
Very Satisfied	23	13	27	63
Total	235	60	103	398

Matilda J. Foster is an Assistant Professor of Criminal Justice at the University of North Georgia. Her research focuses on trust and confidence in the police and police use of force.

Michael B. Tuvlin is an Assistant Professor of Criminal Justice at the University of North Georgia. His research emphasizes bloodstain pattern analysis and crime scene reconstruction.

The Pursuit

The Journal of the Criminal Justice Association of Georgia