CRIMINOLOGY

A MULTILEVEL FRAMEWORK FOR UNDERSTANDING POLICE CULTURE: THE ROLE OF THE WORKGROUP*

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Relying on a well-established theoretical paradigm from organizational psychology, the aim of the current inquiry is to apply a multilevel approach to the study of police culture that identifies workgroups as important entities that influence officers' occupational outlooks. More specifically, we propose that police culture be assessed in a way similar to concepts in criminology, such as collective efficacy and street culture, whereby the shared features of individuals' environments are considered. Within this framework, we draw on survey data from five municipal police agencies to examine how strongly officers within 187 separate workgroups share culture, as well as the extent to which culture differs across these workgroups. Collectively, the findings suggest that the workgroup serves as a viable context that patterns culture in police

*organizations. As such, the study provides a way to move beyond con-
ceptualizations of police culture as either a purely monolithic or an
individual-level phenomenon.*

Researchers and practitioners alike have devoted a considerable amount
of time trying to understand police culture, which is understandable given
that culture is noted as an obstacle to police accountability (National Re-
search Council, 2004), as a reason why police reforms fail (Skogan, 2008),
as a cause of police abuse of authority (Skolnick and Fyfe, 1993), as a mech-
anism officers use to cope with the dangers and uncertainties of their work
environments (Paoline, 2003), and as an explanation for discretionary be-
haviors (Paoline and Terrill, 2005; Terrill, Paoline, and Manning, 2003). De-
spite its importance, the concept has been criticized for its overall lack of
theoretical development (Manning, 2005; Mastrofski, 2004). As such, cer-
tain limitations currently exist in the study of police culture.

One primary limitation of prior research has been the traditional depic-
tion of police culture as a monolithic phenomenon shared by all officers
through a common socialization process across all organizations (Paoline,
2003). Such cultural accounts are the result of foundational ethnographic
studies (e.g., Skolnick, 1966; Van Maanen, 1974; Westley, 1970), and al-
though these accounts are useful for summarizing the various dynamics of
the occupation, they often ignore important variation that might exist re-
garding the way(s) in which officers ply their craft.

A second limitation can be found in cultural characterizations that con-
centrate on attitudinal segmentation (i.e., police officer typologies and clas-
sification schemes) (e.g., Brown, 1988; Cochran and Bromley, 2003; Jermier
et al., 1991; Paoline, 2001). Whereas this work has found important cultural
variation (i.e., not all police officers share the same outlooks) via differences
in the ways officers deal with the strains of the occupation at the individual
level, the explanatory factors to account for such differences have yet to be
fully identified (Paoline, 2004). As a result, recent reviews of police culture
research have noted that the "theoretical framework for establishing the
locus or referent of the police culture has not been articulated" (National
Research Council, 2004: 133).

Finally, although culture often is defined as a set of shared attitudes
among occupational members in dealing with the strains of the occupation
(i.e., either in the monolithic or the typology characterization), there cur-
rently is no established threshold for assessing officer agreement. In other
words, the precise extent to which officers share the attitudes commonly
associated with police culture has not been determined (Paoline, 2003).

The aim of the current inquiry is to apply a multilevel approach to the
study of police culture by relying on a well-established theoretical paradigm
from organizational psychology (Klein, Dansereau, and Hall, 1994;

Kozlowski and Klein, 2000). In doing so, this research takes a structural approach and identifies workgroups as organizational entities that influence police culture. Workgroups, defined as patrol officers assigned to the same squad or work schedule, on the same shift, and in the same precinct, represent significant boundaries within the formal organization of policing because they provide an immediate environment in which patrol work is carried out. As such, workgroups structure officers' experiences and interaction patterns, operating at a lower level of socialization purported by monolithic accounts of culture, yet at a higher level than disparate individual-level adaptations reported by typology research. Overall, it is argued that officers' interactions and exposure to common features of the street and organizational environments at the workgroup level serve to produce shared understandings and collectiveness. In this regard, we propose that police culture be examined and investigated in a way similar to concepts in criminology, whereby collective efficacy (Sampson, Raudenbush, and Earls, 1997) and street culture (Berg et al., 2012) are treated as collective features of individuals' neighborhood environments.

This article begins with a discussion of two competing conceptualizations of police culture, as well as of the limitations associated with each. This section is followed by the theoretical framework, which incorporates a multilevel perspective in highlighting the importance of the organizationally derived workgroup in understanding police culture. Next, we provide an overview of our survey that was administered to patrol officers from five police agencies that were part of 187 workgroups. We then present findings from two analyses that examine the degree to which officers within workgroups share occupational attitudes, as well as the extent to which cultural differences exist across workgroups. Finally, we discuss the implications of this research for future studies of police culture.

PRIOR APPROACHES TO THE STUDY OF POLICE CULTURE

Police culture as a concept has been criticized for being too broad, unbounded, and loosely defined (Chan, 1996; Crank, 2004; Manning, 2005). In the simplest sense, police culture, a universally recognized term among police practitioners, researchers, and the public alike, operationally often can mean different things to different individuals. Recent work, in synthesizing extant research, has helped define the theoretical boundaries of what culture includes into two distinct camps (Crank, 2004; Paoline, 2003).

The first, based on foundational ethnographic accounts of policing, focuses on the universally shared attitudes, values, and norms that officers use to cope with the strains encountered during their interactions with

dangerous and hostile citizens in their occupational environment, and with punitive supervisors/administrators in their organizational environments (Paoline, 2003, 2004). This body of research collectively has identified a set of cultural themes believed to be relevant to all officers because of the nature of the police occupation (see Crank, 2004). Specifically, officers are described as being suspicious and distrustful of citizens, as holding negative attitudes toward supervision and administration, as favoring aggressive patrol tactics, and as giving preference to narrow role orientations that emphasize law enforcement in a selective manner (Skolnick, 1966; Van Maanen, 1974; Westley, 1970). As a result, police culture is viewed as a monolithic phenomenon, with a concentration on cultural homogeneity (Paoline, 2003).

An alternative conceptualization questions this cultural homogeneity, and instead it focuses on describing a variety of styles or types of officers who respond differently to the challenges inherent in their work environment (Broderick, 1977; Brown, 1988; Muir, 1977; White, 1972). As Brown (1988: 8) contended, "[p]atrolmen react in fundamentally different ways to the pressures and demands of their occupation, and rather than a common set of values and beliefs, what we find … are highly distinctive approaches to police work." Of interest is the synthesis of the various typology research by Worden (1995), where he identified one type (i.e., tough cops) that mirrored the outlooks of the monolithic camp (described earlier), while also identifying four additional officer types (i.e., clean-beat crime fighters, problem solvers, avoiders, and professionals) that varied along many cultural dimensions (e.g., views toward citizens, the police role, policing tactics, supervision, and job satisfaction).

Recent empirical inquiries have revisited the latter approach (i.e., typologies) by constructing quantitatively driven classification schemes in highlighting the segmentation in police officers' occupational attitudes. For example, researchers developed a traditional police culture type and then used cluster analysis to compare officers' attitudes with this type (Jermier et al., 1991). Similarly, Cochran and Bromley (2003), using cluster analysis and discriminant function analysis, found empirical support for three cultural types based on officers' attitudes toward the police role, cynicism, traditionalism, and receptiveness to change. Finally, Paoline (2001, 2004) combined several attitudes identified in the occupational culture and typology literature (i.e., views toward citizens, supervisors, procedural guidelines, police role, and how the role should be performed) and found evidence of seven distinct groups of officers.

Typology/classification research has made significant contributions to the study of police culture. First, the results question directly the monolithic presentation of culture, and the evidence of variation in officers' attitudes suggests the possibilities of subcultures (Paoline, 2003). Second, these studies illustrate that culture can be measured by aggregating attitudinal data

that capture the theoretically relevant context of this phenomenon among occupational members, and that culture can be used as both independent and dependent variables (Mastrofski, 2004; Worden, 1995).

LIMITATIONS OF PRIOR APPROACHES

Although prior approaches have made significant contributions to our understanding of police culture, they are not without limitations. Largely qualitative conceptualizations of culture as a monolithic phenomenon, although useful for summarizing the multidimensional dynamics of policing into identifiable commonalities, did so at the expense of teasing out important differences among officers. Whereas police culture is defined as a shared phenomenon, some degree of variation in culture must exist for it to be a meaningful concept (Mastrofski, 2004; National Research Council, 2004). Additionally, although typology/classification studies have documented attitudinal variation in the ways officers respond to their primary work environments, this research also has suffered from notable limitations.

First, typology studies, in assessing variation in occupational attitudes, have treated culture as an individual-level concept. Police culture, however, consists of a set of shared attitudes that, by definition, establishes it as a collective concept. Research on organizational culture has indicated that if attitudes are shared, then a multilevel approach to the study of culture is necessary (Ostroff, Kinicki, and Tamkins, 2003). This sentiment also is mirrored in the policing literature, as the National Research Council (2004: 133) noted that for police culture to be meaningful, it "must exist independent of the outlooks of the individual officers it presumably affects." In essence, culture can be measured as attitudes at the individual officer level, but the concept should not be treated solely as an individual-level characteristic.

A second limitation of typology studies has been that the classification of officers into different types does not necessarily reflect how strongly group members share culture. That is, researchers have yet to identify a way for establishing a threshold of cultural agreement (Paoline, 2003). This observation is significant in the sense that focusing solely on attitudinal variation can work to question the overall existence of culture. As Waddington (1999: 290; italics in original) appropriately argued, the concept of culture "as a set of *shared* artifacts-almost disappears entirely" when the focus centers on cultural heterogeneity. Thus, it is necessary for approaches to the study of police culture not only to illuminate variation but also to assess how strongly officers share (or do not share) cultural components.

Relatedly, the individual approach to the study of police culture has not been able to account fully for the factors that produce variation in officers' attitudes. Research has primarily focused on the influence of officers'

characteristics, such as gender, race, education, experience, and rank. This research has been based on the intuitive notion that background differences relate to variation in how officers view police work. The results from research in this area, however, indicate that officer characteristics are weak and inconsistent predictors of officers' occupational attitudes (see DeJong, 2004; Paoline, 2001; Paoline, Myers, and Worden, 2000; Worden, 1993, 1995).

These limitations indicate that for research on police culture as an explanatory concept to progress, a theoretical framework that moves culture from an individual concept to a collective one, as well as offering a way to examine the attitudinal homogeneity among officers, would greatly improve our understanding of this phenomenon. In essence, this necessitates a transition from a microlevel perspective that has dominated research on officer attitudes to a more macrolevel approach (see also Klinger, 2004), but not so macro that we discount any cultural differences that might exist among groups of officers. The multilevel paradigm in organizational psychology provides a useful theoretical framework to accomplish this aim.

THEORETICAL FRAMEWORK

The multilevel perspective in organizational psychology has been offered as a way to integrate both microlevel and macrolevel perspectives into a single theoretical framework. A key assumption of this perspective is that constructs are tied to, and affected by, different levels of an organizational system (Klein, Dansereau, and Hall, 1994). As such, this approach is rooted within organizational systems theory (Kozlowski and Klein, 2000). The framework also is guided by principles that require explicit statements regarding the nature of the expected multilevel relationships, such as where within the system they are expected to manifest and how they are expected to form (Kozlowski and Klein, 2000). What follows is an application of the multilevel perspective, which we believe offers a fruitful approach for examining police culture.

A structural approach to the study of police culture is taken where formal organizational entities represent important boundaries that influence officers' responses to their work environment. Organizational structure has been identified as an important boundary of police culture (Crank, 2004; National Research Council, 2004). With respect to the formal organization of patrol in municipal departments, officers are embedded within squads, squads are embedded within shifts, shifts are embedded within precincts, and precincts are embedded within departments. Each respective level could plausibly impact occupational outlooks. For example, prior studies have examined how the department (Wilson, 1968), precinct (Hassell, 2006;

Klinger, 1997; Sobol, 2010), and lower levels, such as shifts and peer groups (Haarr, 2001; Paoline, 2001; Sun, 2002), have influenced officer attitudes.

The current approach builds on this body of research. However, we argue that it is beneficial to examine police culture as a function of the organizationally assigned workgroup. Patrol work is structured both geographically and temporally, and each previous conceptualization of organizational groupings (e.g., precincts, peer groups, geographic beat assignments, or assigned shifts) tends to miss one of these aspects. In this regard, the conceptualization of the workgroup presented in this article is similar to those that have identified officers' squads as the "fundamental unit of local cop culture" (Crank, 2004: 65).

Patrol workgroups serve as a logical starting point for examining the influence of the formal organization on police culture. Multilevel theorists have suggested that inquiries begin with the entity expected to have the most immediate and proximal effect on the outcome of interest (Katz and Kahn, 1978; Kozlowski and Klein, 2000; Ostroff, Kinicki, and Tamkins, 2003).[1] Furthermore, organizational scholars have identified common features of workgroups that make them important formal organizational entities. Within this body of literature, workgroups are defined as two or more individuals who depend on each other to perform organizationally defined tasks and accomplish goals, interact with each other, maintain boundaries, and exist within a broader organizational context that constrains the actions of the group (Kozlowski and Bell, 2003: 334). It is the application of these common features to patrol workgroups that illustrates the potential relevance of this organizational level to the study of police culture.

First, officers are embedded within a broader environment that should exert similar influences on group members. Within the occupational environment, officers in the same workgroup are exposed to similar types of citizenry and crime levels, two factors that researchers have found to shape officers' orientations toward their primary clientele (Crank, 2004; Moon and Zager, 2007; Rubinstein, 1973) and beliefs regarding the police role (Brooks, Piquero, and Cronin, 1994; Sun, 2003). Within the organizational environment, officers assigned to the same workgroup also share similar experiences associated with frontline supervision (Crank, 2004).

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1.   The rationale for basing the current framework around workgroups results from the idea that this is the immediate environment in which patrol work is carried out in municipal departments. As a result, this entity should exert a proximal influence on officers' cultural orientations. It is important to note that workgroups represent but one entity that might serve to influence police culture. Other potential entities could include the higher formal organizational levels of police organizations (e.g., shifts, precincts, or departments) or even more informal groupings of officers based on similar background characteristics and professional/personal experiences.

The daily interactions with immediate supervisors provide officers with the opportunity to develop convergent outlooks of this aspect of the organizational environment. Research also has found line officers' attitudes to be similar to those of sergeants (Paoline, 2001). Collectively, these aspects of the workgroup environment should expose individuals to common situations and constrain their attitudes, leading to common attitudinal orientations (Hackman, 1992).

Second, patrol officers working the same squad rely on each other to perform similar tasks and accomplish like goals. Klinger (1997: 283) described in great detail how "patrol work occurs in the context of territorially based workgroups." Although this description was offered at the precinct level, this notion is perhaps even more salient at lower organizational levels because of the structure of patrol. Officers working the same squad or days on duty are likely more interdependent than officers working different squads or on disparate shifts even in the same precinct. Because patrol tasks and goals are undertaken collectively, officers in the same workgroup should develop shared understandings for how to cope with the nature of these tasks.

Third, officer interactions are patterned at the squad level. Although some overlap in work schedules exists, officers working in the same group are more likely to interact with each other on a routine basis than with other officers (see Crank, 2004: 64). Through these daily interactions, shared attitudes emerge and are manifest at this level of the formal organizational environment.

Central to this aspect of the framework is the concept of *emergence*. A concept is emergent "*when it originates in the cognition, affect, behaviors, and other characteristics of individuals, is amplified by their interactions, and manifests as a higher-level, collective phenomenon*" (Kozlowski and Klein, 2000: 55, italics in original). Emergent concepts have two essential features: elemental content (i.e., substantive components) and interactive processes (i.e., how the concept becomes a collective phenomenon). Different types of emergence have been identified based on how interactive processes are assumed to relate to elemental content. We view emergence from what multilevel theorists refer to as a compositional perspective that is built on the notion that individuals will share or perceive elemental content in similar ways (i.e., isomorphism).[2] These shared perceptions are derived from interactions as well as from exposure to common features of their environments.

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2. The other major type of emergence is compilational, which assumes that individuals' perceptions of elemental content will differ or lack consensus rather than converge. Multilevel theorists note that the process by which emergence takes place may vary by the nature of the elemental content being examined or context. Thus, it is essential that the type of emergence be made explicit in one's

As such, individual perceptions converge and emerge as collective phenomena (Kozlowski and Klein, 2000).

Applied in this study, officers' orientations toward central components of police culture comprise the elemental content. Although these orientations are manifest attitudinally at the individual level, individual variation lessens as a result of officers' routine interactions with other officers in their workgroup. These interactions lead to attitudinal convergence producing shared cultural conceptions. As a result, individual attitudes become amplified, resulting in a collective feature of officers' workgroup environments.

In essence, we propose that workgroups represent viable cultural contexts in departments. Within workgroups, officers are exposed to common features of the broader occupational and organizational environments, such as types of citizenry, crime levels, and frontline supervision. Furthermore, patrol tasks and goals are undertaken collectively, creating a degree of interdependence among officers assigned to the same workgroup. Routine interactions also are patterned at the workgroup level, leading to shared understandings for how to cope with the problems associated with these environments. As such, a degree of cultural homogeneity emerges within workgroups. Finally, workgroups represent the structural boundaries of the formal organization of policing. These structural boundaries likely serve to produce meaningful differences in officers' environments, leading to cultural variation across groups.

CURRENT STUDY

The primary research objective is to examine the extent to which workgroups serve as viable contexts of police culture. Consistent with prior conceptualizations, we conceive of police culture in terms of the attitudinal ways in which officers approach fundamental aspects of their occupation in dealing with citizens on the street and supervisors within the organization. As such, two main research questions are tested:

1. Do officers within workgroups share occupational attitudes, and if so, how strongly?
2. Are there significant cultural differences across workgroups, even after controlling for individual officer attributes as well as the nesting of workgroups within higher formal organizational levels?

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theoretical framework. See Kozlowski and Klein (2000: 66) for a detailed typology of emergence.

Table 1. Description of Study Sites

Characteristics	APD	PPB	CSPD	FWPD	KPD
City					
Population	513,124	538,133	374,112	248,423	182,337
% non-White	28.4	22.1	19.3	24.5	20.3
% female-headed households	8.0	6.3	7.1	9.8	8.0
% below poverty	10.0	8.5	6.1	9.6	14.4
% unemployed	3.8	4.5	3.1	4.3	3.9
UCR part I crimes/1,000 population	67.0	65.6	49.5	43.6	81.4
Department					
Total # sworn officers	986	989	669	457	382
# officers/1,000 population	1.9	1.8	1.8	1.8	2.1
UCR part I/officer	34.9	35.7	27.7	23.7	39.0
# of precincts	5	5	4	4	2
# of shifts	4	3	3	3	4
Patrol Officer					
Total number of patrol officers	429	364	314	212	141
% male	86.0	85.7	86.9	91.0	90.8
% White	57.1	86.5	80.9	85.4	91.5
% Black	2.3	3.6	6.1	9.9	5.0
% Hispanic	38.5	3.3	9.2	3.3	.0
% other	1.4	5.8	3.9	.5	3.5
Median age (years)	33.9	36.6	36.9	36.2	34.0
Average experience (years)	5.6	8.9	9.3	9.7	6.8

NOTE: Percentage totals for race may not equal 100 percent because of rounding. *ABBREVIATIONS:* APD = Albuquerque Police Department; CSPD = Colorado Springs Police Department; FWPD = Fort Wayne Police Department; KPD = Knoxville Police Department; PPB = Portland Police Bureau; UCR = Uniform Crime Reports.

METHODOLOGY

DATA AND STUDY DEPARTMENTS

The data for the current inquiry are drawn from the *Assessing Police Use of Force Policy and Outcomes* project, a National Institute of Justice (NIJ)-funded study designed to examine a host of causes and consequences of the use of force. One primary component of this project involved administering a survey to patrol officers in participating agencies, which include Albuquerque, NM (Albuquerque Police Department [APD]); Colorado Springs, CO (Colorado Springs Police Department [CSPD]); Fort Wayne, IN (Fort Wayne Police Department [FWPD]); Knoxville, TN (Knoxville Police Department [KPD]); and Portland, OR (Portland Police Bureau [PPB]). For the purposes of this study, we focus on those questions from the survey that explicitly address cultural dynamics.

The description in table 1 of the five study sites reveals similarities across many of the city, department, and patrol officer characteristics. For example, in terms of racial demographics, all five sites had a non-White minority population ranging between 19.3 and 28.4 percent. In relation to

departmental factors, the number of sworn officers per 1,000 residents ranged from 1.8 (CSPD) to 2.1 (KPD). Additionally, each department was broken down geographically into two to five precincts with three to four shift allocations (i.e., day, afternoon, split, and night). Finally, most officers were male, White, and had between 5.6 and 9.7 years of experience on average.

SURVEY DESIGN AND ADMINISTRATION

To develop a structured plan for survey administration, project staff members coordinated with each agency to obtain an official organizational roster of patrol officer assignments. After pretesting the survey on a sample of current and former police officers from other agencies, it was administered during organizational roll call sessions by trained project staff before the start of the officers' shifts. FWPD was the one exception because it did not use a roll call system; hence, the survey was administered during annual in-service training sessions. In administering the 116-item survey, project staff was on site for 1 week to 10 days where the goal was to visit every patrol shift, across each geographic location, at least twice.

Our aim was to survey the population of police officers assigned to patrol. Of the 1,460 patrol officers eligible to be surveyed across the five departments, 1,053 were present at roll calls. Of those officers in attendance, 1,022 completed the survey. Thus, on average, approximately 70 percent of all patrol officers were surveyed, with a range of 60 percent (CSPD) to 85 percent (FWPD and KPD). For those officers physically present during the administration times, nearly all (i.e., approximately 97 percent) took the survey. Collectively, the results suggest that the officers surveyed in each site are representative of the patrol population for each department. The high percentage of officers surveyed and high response rates are indicative of sample representativeness across each site.

WORKGROUP OPERATIONALIZATION

Workgroups are composed of officers assigned to the same squad or work schedule, on the same shift, and in the same precinct.[3] Officers were

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3. In APD, FWPD, and KPD, officers were assigned to squads or teams on each shift. For example, in APD, the morning shift in precinct A had three teams assigned to it. Officers on each team worked the same days on duty. For these three departments, each squad or team reflects a workgroup. In PPB and CSPD, officers' work assignments on each shift were staggered based on their days on duty. For these two sites, workgroups consisted of officers who had the same days on (and off) duty. In other words, at these two sites, workgroups consisted of officers who held the same work schedule, on the same shift, in the same precinct.

coded into their respective workgroups based on information from each department's work rosters. In all, 187 total workgroups were available for analysis. The number of workgroups for each of the five sites is as follows: APD ($N = 48$), PPB ($N = 50$), CSPD ($N = 39$), FWPD ($N = 36$), and KPD ($N = 14$). Workgroups had an average of 7.56 officers assigned to them (ranging from 6 to 10 officers), and approximately 72 percent of officers were surveyed on average within each workgroup. Overall, these results suggest that the survey data should provide an accurate representation of officers' occupational attitudes within workgroups.

In each of the five departments, patrol assignments were based on a bidding system, conducted annually, with allotted openings and seniority serving as primary determinants. The survey was administered toward the end of the year in each department to try and obtain a sample of workgroups that had been working together for an extended period of time, as opposed to newly formed workgroups. Thus, with the exception of transfers, retirements, or terminations, officers held their assignments for at least 9 to 11 months.[4] Furthermore, new recruits placed in their probationary assignments for less than 1 month were excluded from the sample. Workgroups also were embedded within the larger organizational structure of patrol operations and frontline supervision. With respect to the structure of patrol, workgroup schedules overlapped with other workgroups on the same shift and in the same precinct to varying degrees. Although multiple sergeants were assigned to each shift, one sergeant was assigned to each squad or had the same work schedule as officers in workgroups.

PATROL OFFICER ATTITUDINAL MEASURES

The attitudinal survey items used in the current study were derived from prior research, as they have a lineage of producing reliable and valid constructs of police culture. For example, several survey items also were used by the Project on Policing Neighborhoods study, and the research generated from this project has generally reported reliable and valid psychometric attitudinal properties (see, for example, DeJong, 2004; Engel and Worden, 2003; Paoline, 2001, 2004; Paoline, Myers, and Worden, 2000; Paoline and Terrill, 2005; Sun, 2002, 2003; Terrill, Paoline, and Manning, 2003). Second, scholars have noted the importance of developing consistent measures for the attitudinal dimensions that characterize police culture so that the results can be compared and findings can become cumulative (Paoline, Myers, and

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4.   In terms of longevity, officers in workgroups had the same patrol squad assignment an average of 18 months (i.e., the workgroup mean) in APD and KPD at the time of the survey. Unfortunately, we could not capture systematically the longevity of workgroups across the other departments.

Worden, 2000; Worden, 1995). By using measures from prior research, the current study further builds on the results in this area.

Nineteen survey items on the patrol officer survey were used to measure eight cultural dimensions (see table 2). These dimensions represent central features of the occupational and organizational environments of policing that culture is theoretically said to cover (i.e., orientations toward citizens on the street, supervisors within the organization, the scope of the police role, how the role should be performed, and satisfaction with the occupation), and they have been part of both of the aforementioned (and divergent) monolithic and typology classifications scheme empirical examinations of police culture. Each of these survey questions was based on a four-point Likert scale and measured the extent to which officers agreed with the statement posed. Overall, the 19 questions reflect five multi-item constructs measured as additive indices (i.e., top management, direct supervisors, job satisfaction, citizen distrust, and order maintenance), whereas single-item measures were used for orientations toward law enforcement, aggressive patrol, and selective enforcement.[5] For all dimensions, items were coded so that higher values represent more negative orientations toward top management and direct supervisors, greater job satisfaction, greater distrust of citizens, less acceptance of order maintenance roles, greater acceptance of the law enforcement role, and more positive orientations toward aggressive patrol tactics and selective enforcement of the law. Descriptive statistics, question items, and psychometric properties for the attitudes are reported in table 2. Among other things, the table reveals that reliability and validity tests for the five multi-item indices indicated acceptable psychometric properties.

ANALYSIS AND RESULTS

The analysis of workgroup influence on police culture proceeds in two stages. First, we provide the statistical approach and results for assessing how strongly officers within workgroups share attitudes toward central features of their work environments. Second, we discuss the analytic strategy

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5. Even though the attitudes captured here represent prominent features of monolithic and typological accounts of police culture, there were some attitudes for which we did not examine (e.g., loyalty to peers, social isolation, machismo, laying low from supervisors, etc.). Although this provided a degree of parsimony in detailing and measuring culture, it also represents incompleteness for future researchers to build on. Moreover, like previous police research, we also were constrained, at times, with single-item measures. Prior research, however, has used the same single-item measures used in the current study (Engel and Worden, 2003; Paoline, 2001, 2004; Paoline, Myers, and Worden, 2000; Paoline and Terrill, 2005; Sun, 2003; Terrill, Paoline, and Manning, 2003).

Table 2. Descriptive Statistics of Measures

Measures	N	Mean	SD	Minimum	Maximum	Description
Top management	999	8.58	2.13	3.00	12.00	Additive index of three items: 1) When an officer does a particularly good job, top management will publicly recognize his/her performance; 2) when an officer gets written up for minor violations of the rules, he or she will be treated fairly by top management; and 3) when an officer contributes to a team effort rather than looks good individually, top management will recognize it (Eigenvalue = 2.09; 69.67% variance explained; loadings > .81; Cronbach's α = .78). Higher values indicate more negative views.
Direct supervisors	1,012	3.67	1.47	2.00	8.00	Additive index of two items: 1) My supervisor looks out for the personal welfare of subordinates and 2) my supervisor's approach discourages extra effort (Eigenvalue = 1.54; 77.07% variance explained; loadings > .88; Cronbach's α = .70). Higher values indicate more negative views.
Job satisfaction	1,001	9.12	1.80	3.00	12.00	Additive index of three items: 1) I would not consider taking another job, 2) I like my job better than the average police officer does, and 3) I find real enjoyment in my job. Higher values indicate greater job satisfaction (Eigenvalue = 1.78; 59.35% variance explained; loadings > .71; Cronbach's α = .63).
Citizen distrust	1,008	4.95	1.53	2.00	8.00	Additive index of two items: 1) Police officers have reason to be distrustful of citizens and 2) police officers have reason to be suspicious of citizens (Eigenvalue = 1.68; 83.85% variance explained; loadings > .92; Cronbach's α = .81). Higher values indicate more distrust.

(Continued)

Table 2. Continued

Measures	N	Mean	SD	Minimum	Maximum	Description
Order maintenance	1,009	13.83	3.24	6.00	24.00	Additive index of six items: Law enforcement officers should have to address: 1) public nuisances, 2) neighbor disputes, 3) parents who do not control their kids, 4) nuisance businesses, 5) litter and trash, and 6) family disputes (Eigenvalue = 2.68; 44.60% variance explained; loadings > .62; Cronbach's α = .75). Higher values indicate less acceptance of order maintenance roles.
Law enforcement	1,017	2.93	.74	1.00	4.00	Single item: Enforcing the law is by far a patrol officer's most important responsibility. Higher values indicate stronger agreement with the statement.
Aggressive patrol	1,016	3.11	.75	1.00	4.00	Single item: A good police officer is one who patrols aggressively by stopping cars, checking out people, running license checks, and so forth. Higher values indicate stronger agreement with the statement.
Selective enforcement	1,009	1.91	.73	1.00	4.00	Single item: An officer is more effective when he or she patrols for serious felony violations rather than stopping people for minor traffic violations and misdemeanors. Higher values indicate stronger agreement with the statement.

ABBREVIATION: SD = standard deviation.

for testing the extent to which culture differs across workgroups, followed by the results of this analysis.

ARE OCCUPATIONAL ATTITUDES SHARED WITHIN WORKGROUPS?

To assess the shared nature of the occupational attitudes that embody police culture, within-group agreement indices were used. This method has been used widely in the field of organizational psychology for more than 25 years as a way to examine attitudinal agreement among people working in various formal and informal organizational entities (Burke and Dunlap, 2002; Burke, Finkelstein, and Dusig, 1999; James, Demaree, and Wolf, 1984; Kozlowski and Hattrup, 1992). Such indices are defined as "the degree to which ratings from individuals are interchangeable: that is agreement reflects the degree to which raters provide essentially the same rating" (Bliese, 2000: 351). Statistically, they assess the extent to which people within the same group provide the same score for an attitudinal item by measuring the amount of dispersion present in group members' ratings (Bliese, 2000; Burke, Finkelstein, and Dusig, 1999; Lebreton and Senter, 2008).

The current study used the average deviation (AD_M) index (Burke and Dunlap, 2002; Burke, Finkelstein, and Dusig, 1999) to examine the extent to which officers within workgroups shared occupational attitudes.[6] For each attitudinal item, an AD_M index is calculated using the following equation from Burke, Finkelstein, and Dusig (1999):

$$AD_M = \frac{\sum_{k=1}^{N} \left| x_{jk} - \bar{x}_j \right|}{N}$$

where N is the number of officers in the group, x_{jk} is the kth officer's rating on the item, and $\bar{x}_j$ is the group mean of officers' scores on the item.

The AD_M index represents "the extent to which each item rating differs from the mean ... item rating, summing the absolute values of these deviations ..., and dividing by the number of deviations" (Burke, Finkelstein, and Dusig, 1999: 53). For multiple-item measures, $AD_{M(J)}$ values are calculated by taking the average of the individual item AD_M values (Burke and Dunlap, 2002).

The AD_M index was chosen for the current study for three reasons. First, the results are more readily interpretable relative to other types of

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6. Several different within-group agreement indices have been developed to assess agreement (see Lebreton and Senter [2008] for an in-depth discussion of each index type). It should be noted that even though each index type represents a different approach for examining agreement levels, they are all derived similarly (Lebreton and Senter, 2008).

agreement indices. AD_M results are interpreted in relation to the scale used where lower values indicate greater levels of agreement. For example, AD_M values of zero would indicate perfect agreement among officers within a workgroup, whereas values of .50 would indicate that officers' responses within a workgroup were on average half a unit apart on the Likert scale (Burke and Dunlap, 2002; Lebreton and Senter, 2008).

Second, the AD_M index has an empirical threshold for determining acceptable levels of agreement. Although lower AD_M values indicate greater agreement, it also is useful to compare the calculated values with an upper limit cutoff to examine the magnitude of agreement levels. The upper limit cutoff serves as an empirical standard and is derived by dividing the number of response options in the Likert scale by six (Burke and Dunlap, 2002). In the current study, the empirical standard for determining acceptable levels of agreement is .67, and it was calculated by taking the number of Likert responses for the survey items (i.e., 4) and dividing by the denominator of six: $4/6 = .67$ (see Burke and Dunlap [2002] for derivation of the appropriate denominator). AD_M values less than .67 denote acceptable levels of agreement. Furthermore, AD_M values below the .67 threshold are referred to as practically significant, meaning that "a reasonable consensus exists" among group members on the attitudinal item (Dunlap, Burke, and Smith-Crowe, 2003: 357).

Finally, within-group agreement indices provide agreement estimates for each workgroup under study. For the current study, this means that there are 187 individual AD_M values for each measure. The decision to determine whether there are acceptable levels of agreement across the entire sample of workgroups for each measure is made by examining the distribution of AD_M values and reporting the median value. If the median is below .67, then acceptable attitudinal agreement is exhibited in the sample (Dunlap, Burke, and Smith-Crowe, 2003). Additionally, the percentage of workgroups with AD_M values below the .67 cutoff (i.e., those that displayed practically significant levels of agreement) also is reported for each dimension. As such, this approach allows one to examine the distribution of agreement levels across the entire sample of workgroups.

Table 3 reports the within-group agreement summary results based on the values calculated for each of the 187 workgroups. An examination of the distribution of AD_M values shows that the median values across the eight attitudes ranged from .48 (i.e., aggressive patrol and selective enforcement) to .56 (i.e., citizen distrust), meaning that within workgroups, officers' responses were, on average, approximately a half a unit apart on the Likert scale. The median values for all eight of the attitudes indicated acceptable agreement levels and all met the threshold of practical significance (i.e., median AD_M values $< .67$). Furthermore, the percentages of workgroups that displayed practically significant levels of agreement were high for all eight

Table 3. Within-Group Agreement (AD$_M$) Results ($N = 187$ Workgroups)

Measures	Median	Minimum	Maximum	N Practical Significance	Percent Practical Significance
Top management	.55	.00	1.11	145	77.5
Direct supervisors	.55	.00	1.11	134	71.7
Job satisfaction	.51	.00	.83	162	86.6
Citizen distrust	.56	.00	1.25	121	64.7
Order maintenance	.54	.17	.92	147	78.6
Law enforcement	.50	.00	1.50	144	77.0
Aggressive patrol	.48	.00	1.00	144	77.0
Selective enforcement	.48	.00	1.50	147	78.6

ABBREVIATIONS: *N* Practical Significance = number of workgroups with practically significant values; Percent Practical Significance = percentage of workgroups with practically significant values.

dimensions. For example, almost two thirds of workgroups displayed acceptable levels of agreement for the measure of citizen distrust, the lowest percentage of any of the measures. For the remaining seven measures, the percentage of workgroups with practically significant AD$_M$ values ranged from 71.7 percent (i.e., direct supervisors) up to 86.6 percent (i.e., job satisfaction).

Recall that a current deficiency in the police culture literature is that there is no established threshold for establishing officer agreement or how strongly officers share orientations toward their occupational and organizational environments (Paoline, 2003). The results reported in this study, based on AD$_M$ criteria, provide empirical support regarding the degree of cultural agreement of officers within workgroups. Although the distribution of AD$_M$ values varied across workgroups, the median values were all below the .67 upper limit cutoffs. Overall, the findings suggest that within a large percentage of the sample workgroups, agreement levels were strong enough to conclude that officers within groups shared each of the eight measures.

IS THERE EVIDENCE OF CULTURAL DIFFERENCES ACROSS POLICE WORKGROUPS?

To answer this question, we begin with a multilevel analysis that includes eight one-way, random-effect ANOVA models using Mplus software (Muthén and Muthén, 2007), where each attitudinal measure represents the outcomes of interest, and officers' workgroup membership represents the independent variable. These unconditional models provide three important pieces of information about the nature and extent of attitudinal differences across workgroups.

First, the ANOVA models partition the variation in officer occupational attitudes into both within- and between-level components, and the

models test whether the between-group variance components are significant. Second, an intraclass correlation coefficient (ICC) for each of the eight models is calculated. These ICC values represent the amount of variation in officers' occupational attitudes that can be explained by group membership and serve as an indication of the magnitude of group effects (Bliese, 2000; Raudenbush and Bryk, 2002). Finally, the models can account for the nesting of workgroups within higher organizational levels (i.e., shifts, precincts, and departments) by adjusting the standard errors at the workgroup level to ensure that type 1 errors are not made (Muthén and Muthén, 2007). If significant between-group variation in officer occupational attitudes at the workgroup level remains after accounting for clustering by higher organizational levels, then support for workgroup effects is strengthened.

The results for the eight unconditional models are presented in the upper portion of table 4. Based on the between-group variance components reported in the model 1 column, significant between-group variability was found for six of the eight measures: top management, direct supervisors, job satisfaction, citizen distrust, order maintenance, and aggressive patrol. The only measures that failed to vary significantly between workgroups were officers' views toward law enforcement and selective enforcement. The ICC values revealed that between 6 (i.e., citizen distrust) and 17 (i.e., top management) percent of the variation in these six attitudes can be explained by workgroup membership.[7] Models 2 through 4 in the upper portion of table 4 report the results of the separate one-way, random-effect ANOVA models that account for the nesting of workgroups within higher organizational levels.[8] Overall, the results in these models reveal that views of top management, direct supervisors, job satisfaction, citizen distrust, order maintenance, and aggressive patrol still significantly vary across workgroups after accounting for the clustering of workgroups within higher formal organizational levels.

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7. The ICC values for the five multi-item indices were calculated using the standard formula from Raudenbush and Bryk (2002): $\tau_{00}/\tau_{00} + \sigma^2$. The attitudes of aggressiveness, selectivity, and crime fighting are treated as ordinal variables in the between-group analyses because they are single-item measures based on four-point Likert scales. Here, categorical ANOVA models based on the logistic distribution were conducted in Mplus. To calculate the ICC values for these measures, prior research has substituted $\pi^2/3$, or the assumed variance of the logistic distribution, for the within-level variance component (Guo and Zhao, 2000; Hedeker and Gibbons, 2006).

8. Mplus allows only two cluster variables to be included at a time. Furthermore, these models only adjust the standard errors of the between-group means and variance components to take into account nonindependence and do not provide separate between-level effect estimates for the higher levels (Muthén and Muthén, 2007).

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Table 4. Workgroup-Level Random-Effect ANOVA and ANCOVA Results

Measures	ICC	Model 1 Baseline		Model 2 Clustering by Shift		Model 3 Clustering by Precinct		Model 4 Clustering by Department	
		Var. Comp.	SE	Var. Comp.	SE	Var. Comp.	SE	Var. Comp.	SE
Unconditional Models									
Top management	.17	.78***	.16	.77***	.17	.77***	.22	.77*	.31
Direct supervisors	.15	.31***	.06	.31***	.07	.31***	.07	.31***	.07
Job satisfaction	.13	.41***	.09	.41***	.10	.41***	.09	.41***	.11
Citizen distrust	.06	.14**	.05	.14*	.06	.14*	.06	.14*	.07
Order maintenance	.10	1.00***	.27	1.00***	.27	1.02***	.24	1.02***	.24
Law enforcement‡	.02	.06	.07	.06	.07	.06	.07	.06	.10
Aggressive patrol‡	.11	.39**	.11	.39***	.12	.39***	.13	.39*	.18
Selective enforcement‡	.00	.00	.01	.00	.01	.00	.01	.00	.01
Officer-Adjusted Models††									
Top management	.14	.63***	.16	.63***	.18	.63**	.23	.63*	.31
Direct supervisors	.10	.21**	.06	.21**	.06	.21**	.07	.21***	.05
Job satisfaction	.07	.22**	.08	.22*	.09	.22*	.09	.22***	.06
Citizen distrust	.03	.06	.05	.06	.05	.06	.04	.06	.04
Order maintenance	.08	.85**	.26	.85**	.26	.87***	.25	.87***	.14
Law enforcement‡	.00	.00	.01	.00	.01	.00	.01	.00	.01
Aggressive patrol‡	.07	.23*	.10	.23*	.10	.23*	.10	.23†	.14
Selective enforcement‡	.00	.00	.01	.00	.01	.00	.01	.00	.01

NOTE: Models are based on analysis of 1,022 officers in 187 workgroups.
ABBREVIATIONS: ICC = intraclass correlation coefficient; SE = standard error; Var. Comp. = between-group variance component.
†$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$ (two-tailed).
‡Results based on categorical models.
††Models control for individual officer demographic characteristics (gender, race, education, and years of experience).

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Although the unconditional models serve as a preliminary test for workgroup effects on occupational outlooks, a major contention of the typology perspective is that individual officer characteristics account for cultural differences (Paoline, Myers, and Worden, 2000). Furthermore, officers were assigned or selected into workgroups based, in part, on their seniority. Thus, to examine the extent to which culture varies across workgroups independent of individual attributes, we conducted a second set of multilevel models that control for officer demographics (i.e., gender, race, educational level, and years of experience) that might influence officers' occupational attitudes or their selection into workgroups.[9] These models represent one-way, random-effect ANCOVA models (Raudenbush and Bryk, 2002). The officer demographic characteristics were included as level 1 control variables and grand mean centered. For these models, the between-group variance components reflect attitudinal variation across workgroups after adjusting for individual officer attributes (see Enders and Tofighi, 2007).

The results for the eight officer-adjusted models are presented in the lower portion of table 4. With the exception of views of citizen distrust, significant between-group variability remained for orientations toward top management, direct supervisors, job satisfaction, order maintenance, and aggressive patrol even after accounting for officer demographics (see the model 1 column). Although somewhat attenuated, the ICC values for these five attitudes ranged from 7 (i.e., job satisfaction and aggressive patrol) to 14 (i.e., top management). Finally, the officer-adjusted results in models 2 through 4 reveal that these results hold after accounting for the nesting of workgroups within higher organizational levels, although aggressive patrol does become only marginally significant after taking into account the department level.

Collectively, the between-group variability results serve as a starting point for examining the importance of patrol workgroups in understanding police culture. Recall that conceptual arguments have noted that there must be variation in culture for it to be a meaningful concept (e.g., Mastrofski, 2004; National Research Council, 2004). The results from the random-effect ANOVA and ANCOVA models show significant variation between workgroups for five of the eight cultural dimensions (i.e., top management, direct supervisors, job satisfaction, order maintenance, and aggressive patrol) after controlling for officer demographics and the clustering of workgroups within higher formal organizational levels.

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9. Both gender (male = 1) and race (White = 1) were coded as dummy variables. Education reflected officers' highest educational level attained and was measured on a scale of 1 (less than high school) to 8 (graduate degree). Officer experience refers to years of service based on their date of hire through the time that the survey was administered.

Furthermore, workgroup membership accounted for approximately 7 to 14 percent of the variation in these five cultural dimensions. Although the ICC values seem to be low in magnitude, it is important to view these results in relation to the nature of attitudinal data. For example, prior research has acknowledged the difficulty of obtaining high ICC values when using attitudinal scales. When response options are limited, as is the case for Likert-type scales, the amount of variation that can be observed is inherently restricted. For example, Bliese (2000) noted that ICC values for attitudinal scales will likely be in the range of .05 to .20 because of range restriction issues. Simulations conducted on this issue also have found ICC values to be significantly underestimated for measures based on Likert scales (Beal and Dawson, 2007). Thus, the magnitude of workgroup effects in the current inquiry does fall within the expected range of values reported by prior research and could be underestimated.

With respect to the three nonsignificant findings, the patterning of the results within our analytic framework suggests that orientations toward law enforcement and selective enforcement could be a function of the police occupation.[10] Law enforcement activities are a core feature of the police role and, therefore, may be viewed similarly by most officers at the occupational level (e.g., Crank, 2004). On the other hand, citizen distrust seems to be driven more by individual-level factors as illustrated in the officer-adjusted models. Specifically, the level 1 results for the officer-adjusted model (not reported) showed that more experienced officers were significantly less likely to be distrustful of citizens. Once accounted for, the workgroup effect became nonsignificant. Another potential explanation relates to the aforementioned range restriction issue. Although these three components of police culture may certainly be driven by other individual, organizational, or occupational factors rather than by the workgroup, the lack of results also may be a function of using single- or two-item measures. Overall, whereas workgroup effects were found to be modest in nature, the results provide empirical evidence of cultural variation at the workgroup level and are within the range reported by prior research in the organizational sciences. As such, the results raise some interesting points to consider regarding the extent and nature of cultural variation across workgroups.

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10. Additional models (not reported) were conducted for these two measures at the shift, precinct, and department levels. Selective enforcement was not found to vary significantly across any of the other formal organizational levels. Although a significant shift effect was found for the law enforcement role, the effect became nonsignificant after controlling for individual officer demographics. This finding suggests that these two cultural measures may be a function of either the police occupation or perhaps more informal departmental entities (e.g., peers) not examined in the current inquiry.

DISCUSSION

The purpose of the current study was to take a multilevel approach to the study of police culture. In doing so, we provided a theoretical argument for establishing patrol officer workgroups as salient organizational entities that structure interaction patterns and expose officers to similar features of their primary work environments. As such, this results in similarity in outlooks within workgroups and cultural variation across workgroups. The results from within-group agreement analyses indicated that officers in the same workgroup shared occupational outlooks. Furthermore, the between-group variability analyses revealed that several attitudes that embody police culture varied significantly across workgroups. Overall, our findings indicate that monolithic characterizations of police culture might have overstated the widespread attitudinal homogeneity among occupational members, as we find that officers are adapting to the strains of the job in different ways. Such adaptations also are shared by those in the same workgroup, suggesting that the fragmentation in occupational attitudes is not so individualized that there are no commonalities among officers. In adding to what was presented in this study, future research may benefit by applying multilevel theoretical and analytical approaches to the study of police culture, and attitudinal studies in general.

The study of police culture has long been based on the notion that officers share attitudes toward central features of their primary work environments. When theoretical constructs are based on such notions, it is important to test them to assess the extent to which the constructs indeed reflect shared properties (Bliese, 2000). Thus, the use of within-group agreement analyses should continue to be implemented and refined in studies of officer attitudes to assess shared constructs. This approach coupled with between-group variability analyses also provides an analytic framework for establishing the construct validity of higher level measures (Kozlowski and Klein, 2000: 36). Once established, multilevel frameworks of police culture can be extended and applied to other types of research questions.

For example, the current results warrant extending the multilevel framework taken in this study. To the extent that workgroups demonstrated a degree of cultural homogeneity and to the extent that significant cultural differences between workgroups were found, empirical support exists for treating officers' occupational attitudes as collective, contextual properties of this midlevel setting. In this regard, treatment of culture would be similar to the treatment of workgroup climates in the organizational psychology literature (Bliese, 2000; James, 1982; Kozlowski and Klein, 2000) or collective efficacy (Sampson, Raudenbush, and Earls, 1997) and neighborhood culture (Berg et al., 2012) in criminology. Workgroup-level cultural measures could be constructed and examined as collective influences on police

practices and behaviors, such as the use of force, arrest practices, or allegations of misconduct. This could be done in conjunction with theoretically relevant individual- and encounter-level measures. Such an approach would be a way for future research to apply multilevel frameworks to a key aspect of police culture: its usefulness as a determinant of officer behaviors (Manning, 2005; National Research Council, 2004).

Although our findings highlight the role of the workgroup in understanding police culture, they are not without limitations. First, whereas the current study did control for officer demographic characteristics, we could not include other officer-based factors that might serve as alternative influences on the ways in which patrol officers view their occupational world. Many of these elements have been eloquently detailed in foundational ethnographic studies of police (e.g., Banton, 1964; Manning, 1977; Muir, 1977; Van Maanen, 1974), and whereas they have yet to be empirically established as systematic correlates in quantitative studies, they are certainly worthy of consideration. Such dimensions include prepolicing experiences (e.g., upbringing, prior interactions with police, etc.), early policing experiences (e.g., academy training, field training socialization, etc.), positive police experiences (e.g., awards, influential mentors, etc.), work and life stressors (e.g., organizational discipline, failure to be promoted, divorce, health issues, etc.), life events (e.g., marriage, birth of a child, etc.), and external relationships (e.g., religion, family, etc.). The incorporation of these factors in capturing the comprehensive backgrounds of police officers would perhaps help to tease out independent workgroup effects on police culture.

Furthermore, our approach did not allow for the direct examination of *how* culture is transmitted across organizational members. That is, although we find a statistical relationship between the workgroup and occupational attitudes, we do not know precisely how the causal process operates. One aspect that is important to consider is whether the effects reflect socialization or selection processes.[11] In other words, are officers' occupational views influenced by their interactions and exposure to their workgroup peers through a socialization process, or are similarly oriented officers (i.e., based on a variety of factors, including those noted earlier), who are familiar with the practices of a particular workgroup, selecting (or being

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11. Jermier et al. (1991: 176) contended that when cultural similarities (i.e., shared beliefs regarding central features of the police work) are found across groups of officers and are patterned by such factors as "departments, shifts, or seniority groupings," they are likely to be "socially constructed by interacting participants." This result suggests a socialization process over self-selection. Because we find patterning in occupational attitudes, via workgroup membership (a shift-based measure), one could reasonably infer that socialization is, in fact, operating. Unfortunately, without longitudinal data to capture such nuances in teaching and learning, this interpretation remains speculative.

selected by a supervisor) into that environment? The latter argument suggests a degree of work selection autonomy, which for many police agencies, including the five in this study, is extended to officers based on their level of experience (i.e., a bidding process whereby senior officers can choose preferred assignments based on available openings). In fact, this served as one impetus for the officer demographic analysis (table 4) that included experience level, which found workgroup effects independent of such characteristics. While we have scratched the surface of this issue, future work directed at this particular concern could provide the detail needed to assess whether attitudes associated with police culture are transmitted through a workgroup socialization process or whether "birds of a feather" flock together.

Finally, and related to the previous limitation, was the inability to account fully for what may be best characterized as "workgroup dynamics." For example, we do not know the exact manner in which various workgroups were formed (short of officer bidding for assignments and generic supervisory oversight practices) or, perhaps more importantly, how they operated. Hence, we cannot answer questions that may (or may not) be important to understanding the dynamics of the police workgroup, such as follows: Are there informal organizational processes operating that bypass seniority bidding in staffing police workgroups? If peer socialization is occurring at the workgroup level, then how long does an officer have to belong to a group in order to be influenced or influence others? To the extent that officers change workgroups, what is the impact of previous membership on the current attitudes of officers in their new workgroup (i.e., do orientations change, and if so, how does this operate)? In what ways, if any, do prior life and police experiences interact with workgroup experiences in shaping officers' occupational outlooks? How long do workgroups stay together, and what does such (in)stability mean for the attitudes of the group? Do officers in the various workgroups even realize that they are attitudinally similar to one another? These worthy questions are beyond the scope (and data capabilities) of the current study but may serve as a useful direction for future inquiries, especially those that incorporate qualitative components.

Our conclusions regarding workgroups highlight the need for researchers to consider this midlevel perspective, between highly monolithic and individual-level ones, in understanding police culture. In doing so, our approach was a quantitatively driven, cross-sectional analysis of structured survey responses from a large sample of police officers across five departments of varying size and locale. In building on the findings reported in this study, as well as in addressing that which we did not do, future research could use a holistic approach to the study of police workgroups that incorporates a variety of research methodologies and designs.

For instance, the incorporation of qualitatively based extended interviews with police would allow for valuable insight into a variety of past and present experiences that have occurred both personally and professionally, which also might account for cultural similarities and differences across personnel. Such techniques also could query officers regarding their perceptions of the workgroup as a mechanism that helps them deal with the strains of the occupation versus the role of previous experiences and/or workgroup affiliations. In addition, researchers could use these interviews to expand the scope of occupational attitudes beyond those measured here as part of our structured survey questionnaire. Finally, in-depth dialogues with officers could provide needed insight into how workgroups are formed, as well as whether the shared orientations within workgroups reflect a socialization or selection process.

In conjunction with extended interviews, future studies could include an observational methodology whereby the unit of analysis is the workgroup. Observations could be conducted in a variety of settings that work to shape police culture (e.g., in the department during roll calls, briefings, on the street during encounters with citizens, during meals and personal breaks, etc.) to tap into the various aforementioned dynamics of workgroups and to examine the extent to which group orientations are transmitted across members. The use of observation would not have to be independent of qualitative interviews, as the two methods could be combined so that discussions with workgroup members occur inside and outside of the department. Cumulatively, this would allow researchers to assess the ways in which workgroup attitudes are shaped, shared, and applied in different organizational and occupational arenas. Such mixed-method approaches have been used in several foundational studies of police culture, although at the individual versus group level (e.g., Brown, 1988; Skolnick, 1966; Westley, 1970).

Besides incorporating qualitative interviews and observational methods, future studies of the role of the workgroup in understanding police culture would benefit from longitudinal research designs. This would enable researchers to decipher how culture develops and how it is transmitted across police officers located in various workgroups. By studying officers over time, researchers could tease out socialization versus selection effects, as well as the role that various personal and occupational experiences play in the outlooks of respective workgroup members. Perhaps the ideal template to follow would be that of John Van Maanen (1974), who longitudinally tracked the metamorphosis of officers' occupational orientations from the police academy through their first 2.5 years of experience. Starting in the academy would be ideal as it would allow researchers to establish baseline occupational attitudes and life experiences prior to officially joining the police profession. Group thinking (over individualism) is first introduced to potential occupational members at the academy. Another critical point in

time would be at the conclusion of field training, as this experience is influential in shaping initial orientations regarding how to deal with the strains of the occupational and organizational environments (Van Maanen, 1974). Tracking officers during their first assigned workgroup also would represent critical points in assessing the degree to which (and how) occupational attitudes are acquired and/or shared among group members. Following officers through additional workgroup assignments would add to our understanding of the life span, malleability, and influence of these salient organizational entities. Cumulatively incorporating these mixed-method and alternative research designs would shed further insight into the emergent nature of police culture, as well as allow for the documentation of workgroup dynamics and operations as they play out temporally during key formative, developmental, and normative phases (see also Kozlowski and Bell, 2003: 365).

In critiquing previous police culture research, Fielding (1988: 185) explained, "if occupational culture is to serve as an empirically satisfactory concept as well as theoretically necessary one, the sense of its internal variations and textures must be brought out in the same fashion as have conceptions of culture in relation to delinquency." In working toward this aim, we acknowledge that the focus on the workgroup in understanding police culture should not come at the expense of examining other collective entities, both formal and informal. That is, as complications in the study of police culture continue to progress, scholars should construct and test theoretical models that tease out disparate influences. In fact, in detailing the various "normative orders" that comprise the police (sub)culture, Herbert (1998) contended that variation in (and prioritizing of) such values could be structured across organizations, divisions, and individuals. As such, we urge researchers to continue empirical inquiries on police culture into various formal and informal entities above and beyond that of the primary workgroup.

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