

It's not depersonalization, It's emotional labor: Examining surface acting and use-of-force with evidence from the US

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ABSTRACT

Using data from one urban police department in the United States, this study gauges the effects of individual officer characteristics on use-of-force. Consistent with prior research, we find Emotional Exhaustion to be a negative correlate to use-of-force: Emotionally-exhausted officers avoid engaging with others. However, unlike previous research, we examine administrative data on actual use-of-force and include emotional labor into the model to reveal Surface Acting as a positive and significant correlate to use-of-force, while depersonalization has no effect. Other positive and statistically-significant correlates to use-of-force include number of primary calls and perceived need for use-of-force. In contrast, sex, years of experience, and prior military experience do not explain variations in use-of-force, nor does perceived organizational support or serving in a line officer capacity. We conclude with suggestions for further research, including examining use-of-force as a workplace stressor and the potential for emotional suppression to alter officer interpretations of suspect behavior.

“Work is what horses die of. Everyone should know that.”

One Day in the Life of Ivan Denisovich, Solzhenitsyn (1971, p. 23).

Hurt people hurt people. In the practice of law enforcement, this well-known maxim warns that officers with unattended stress are at higher risk of harming others. In social science research on law enforcement, one oft-repeated result is that burned-out officers use more force (Kop et al., 1999; Kop and Euwema, 2001; Queiros et al., 2013). We know that emotional labor, specifically surface acting, leads to burnout (Guy et al., 2008). We wonder whether emotional labor plays a role in officer use-of-force as a precursor to burnout; in which case, attending to the emotional labor demanded by a job is the means by which use-of-force is addressed.

Using force on behalf of the state produces unknown effects on the officer because the effects of use-of-force on the enforcer have not been examined. Conforming to occupational display rules routinely demands emotional labor. Nor have the display rules surrounding use-of-force been studied. Anecdotally, we know that the dominant display rule in law enforcement is to display no emotion at all: No frustration, no relief, no anger. This constraint implies an occupational display rule of comprehensive suppression. Emotional labor theory predicts a range of ill effects arising from emotional suppression, particularly cognitive impacts due to the suppression of anger and negative emotions (Gutshall et al., 2017; Richards and Gross, 1999).

In this study, we invoke emotional labor theory to complicate received wisdom about use-of-force in law enforcement. The received wisdom is that burned-out officers use more force. Is it indeed the case, however, that burned-out officers no longer see the humanity in others and rush to use lawful force to compel compliance when other approaches might work as well? Or instead, does

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repeated emotional suppression bring about both burnout and the default to lawful force, only to demand further emotional suppression and a retrenchment into further cycles of burnout and reliance on force? Furthermore, we consider use-of-force in context: In the case of lawful force, it is used in response to a threat of harm or in pursuit of a lawful end (such as arrest). Resistance and assault by suspects demand further emotional suppression from officers: No frustration or anger, thereby launching another potentially-destructive cycle.

Using data on emotional labor, burnout, and use-of-force from one urban police department in the United States, we find surface acting to be a positive and statistically-significant correlate to officer use-of-force. Importantly, we employ department data on individual officer use-of-force, rather than self-reports of use-of-force or perceptions about hypothetical scenarios and examine those data alongside officer responses to validated scales of emotional labor, depersonalization, and emotional exhaustion. We confirm [Kop and Euwema \(2001\)](#) and find emotionally-exhausted officers avoid engaging with citizens and suspects, such that emotional exhaustion is a negative and statistically-significant correlate to use-of-force. We do not, however, find an effect of depersonalization on use-of-force but rather reveal the role of surface acting, which is a positive and significant correlate to the use-of-force. Contrary to previous research, then, it is not depersonalization that explains greater officer use-of-force; it is emotional labor. In the context of professional police, hurt people are hurting.

Our study proceeds as follows: In Section 1.0 we discuss the fundamental role of use-of-force in law enforcement. Among all public service professions, police officers are authorized to use force and expected to do so in the ordinary course of doing their jobs. We then discuss the research linking burnout and use-of-force and the role of emotional labor. In Section 2.0, we describe the current study: A survey of law enforcement personnel in one urban police department in the western United States. We also gather department data on use-of-force during the 30 days of the survey period. A Poisson model tests hypotheses about the roles of emotional exhaustion, depersonalization, emotional labor, as well as officer characteristics and occupational characteristics—gender, years of experience, prior military experience—and officer use-of-force. In Section 3.0 we explore indirect relationships among use-of-force, burnout, and surface acting with structural equation modeling to capture the mediating effect of emotional labor on the relationship between burnout and use-of-force. In Section 4.0, we conclude with a discussion of the implications of our results, their limitations, and directions for future research.

1. Review of the literature

1.1. Use-of-force and individual-level correlates

Legal use-of-force is “arguably the most defining aspect of police work” ([Klahm and Tillyer, 2010](#), p. 215), which makes police responsible for “responding to such a wide variety of situations” ([Bolger, 2015](#), p. 466) from traffic accidents and property crimes to domestic violence and crimes against children. Use-of-force is central to policing: “It is the use of coercive force that distinguishes the field of policing from all other professions” ([Lersch and Mieczkowski, 2005](#), p. 565). Officers are unique among professions to possess a right to use force and are not only lawfully permitted, but in fact *expected* to use force to preserve public safety: “In some situations, there is no other way to deal with aggressive civilians than to use physical force, which may include pushing, hitting, or even shooting” ([Kop and Euwema, 2001](#), p. 634).

Use-of-force is a rare but defining aspect of law enforcement. It is a rare occurrence, in light of the full range of an officer's duties ([Bolger, 2015](#); [Harris, 2009](#); [Hickman et al., 2008](#); [Klahm and Tillyer, 2010](#); [Noppe and Verhage, 2017](#)). Furthermore, only a small percentage of officers account for most use-of-force ([Manzoni and Eisner, 2006](#)). Although rare, use-of-force is fundamental to officer identity due to its centrality to policing ([Schaffer and Tewksbury, 2018](#)). Use-of-force is essential to the officer identity because no other profession is permitted to use force as part of its role and every officer must be prepared to use force at any time.

The uncertainty pervading policing represents an additional stressor: “As an inherent part of their policing function, police officers may suddenly find themselves in unexpected situations in which they have to make split-second decisions on how to react and whether or not to use force” ([Noppe and Verhage, 2017](#), p. 278). Use-of-force is frequently found in the course of an arrest ([Brandl and Stroshine, 2012](#)) so officers who are more active would be involved more often in use-of-force situations. But studies of antecedents of use-of-force find few consistent predictors other than when arrests are made and when suspects resist.

Two comprehensive reviews of use-of-force examine suspect, officer, and encounter characteristics ([Brandl and Stroshine, 2012](#); [Klahm and Tillyer, 2010](#)). Neither found consistent officer-level correlates to use-of-force; in fact, officer-level characteristics vary by how force is defined. [Bolger \(2015\)](#) also examines suspect, encounter, and officer characteristics in his meta-analysis of police use-of-force decisions, and he also adds community-level attributes to his analysis. While community characteristics were not correlated with use-of-force, [Bolger \(2015, p. 484\)](#) does find that although men, minorities, and suspects from lower socioeconomic classes are more likely to have force used against them, “race plays a significant, but relatively minor role in officer decision making.” Furthermore, while there was a small but statistically significant effect of officer gender on use-of-force decisions, the result may be explained by variations in officer assignments by sex: “Female officers may be assigned by agencies to tasks and locations where officers are less likely to use force in general” ([Bolger, 2015, p. 484](#)).

A number of researchers have responded to [Bolger \(2015\)](#) as well as several high-profile lethal force incidents involving white officers and minority race suspects and have focused on the interplay between officer race, suspect race, and use-of-force. [Johnson et al. \(2019, p. 1\)](#) review fatal officer-involved shootings and “find no overall evidence of anti-Black or anti-Hispanic bias,” and this result has been documented by other scholars as well ([Menifield et al., 2019](#)). One limitation of all these studies is they use *fatal* encounters as the source of analysis, and while overall use-of-force is a rare event in policing, fatal officer use-of-force is an even smaller subset of general use-of-force.

In sum, use-of-force is a grave responsibility borne by law enforcement officers. Despite sustained interest from scholars, practitioners, and the media, the broad research findings fail to substantiate the role of individual-level officer characteristics as the primary explanation for use-of-force. The consistent lack of findings suggests a simpler answer: In the aggregate, police use-of-force is a rare but defining and expected aspect of the professional role of policing. We turn then to explore the role of emotional labor, perhaps the best researched and most accepted predicate of burnout in public sector employees generally (Guy, Newman, and Mastracci, 2008), and police specifically (Adams and Mastracci, 2019; McCarty and Skogan, 2013; Schaible and Six, 2016) in police use-of-force.

1.2. Stress and burnout in policing

Policing is stressful work, and stressors arise both on and off the street (Brown and Campbell, 1990). Officers tend to be more cynical, dissatisfied, and exhausted, and are more likely to suffer high blood pressure, have more marital problems, and self-medicate using alcohol and tobacco (Manzoni and Eisner, 2006). Stress and self-medication remain chronic problems in policing “in part because many officers continue to be guarded in expressing their job-related stress problems because of lingering stereotypical views of such candor as an indication of personal weakness” (Garcia et al., 2004, p. 34). Police officers “are expected to be able to handle all situations with a calm and collected demeanor, even when their lives are in danger” (Gutshall et al., 2017, p. 463). Their authority and effectiveness will be compromised if they fail to control their emotions (Pogrebin and Poole, 1988).

Stoicism is the dominant display rule in policing. Both the public and the officers themselves impose this display rule strictly, and it applies beyond outward displays and admissions of stress to include suppressing a wide range of emotions. Chronic workplace stress leads to burnout, which is defined by three phenomena: Emotional exhaustion, depersonalization, and lack of professional accomplishment. Burnout is the culmination of unsuccessful coping with stress “and therefore represents a long-term consequence” (Manzoni and Eisner, 2006, p. 621). Chronic stress and burnout underlie the litany of medical conditions associated with policing: “Burnout can lead to fatigue, loss of motivation, and even chronic disease. Burnout is also associated with negative organizational outcomes, such as absenteeism and lowered productivity” (Kop and Euwema, 2001, p. 633). Emotional exhaustion and depersonalization are viewed as the core components of burnout because the absence of personal accomplishment correlates only weakly to burnout across studies (Purvanova and Muros, 2010). Emotional exhaustion is a sense of feeling drained and emotionally hollow, but also physically fatigued. Depersonalization underlies the cynicism often linked to policing: “Constant confrontation with the human face of our country’s most severe social problems almost inevitably engenders in some officers such a dim view of the public they are supposed to serve” (Daus and Brown, 2012, p. 306). While other first responders arrive on scene welcomed as heroes and saviors, police officers are unwelcome to at least half of the parties involved in a call. And by the end of some incidents, everyone is unhappy.

General strain theory explains use-of-force as a function of stress experienced by police officers. The literature testing this explanation, however, is not consistent with respect to the ‘stressed-out-officer’ explanation for the use-of-force. Once chronic stress manifests as burnout, however, Kop et al. (1999, p. 338) find a link between burnout—particularly depersonalization—and use-of-force: “Observations suggest that emotionally-exhausted officers try to avoid confrontations with civilians ... [but] police officers who are cynical and detached will use violence against civilians more easily.” Kop and Euwema (2001, p. 648) also draw this conclusion and determine: “This suggests a typical negative interaction pattern, whereby the depersonalized officers behave more forcefully toward civilians, who will in response react in an unfriendly and less cooperative manner; such responses will reinforce the negative attitudes the officer had about civilians.” This important result has been replicated using samples of officers in several countries, including India (Roz and Raval, 2017), Norway (Burke and Mikkelsen, 2005), Poland (Baka, 2015; Basinska et al., 2014), South Africa (Myendeki, 2008; Strauss, 2003; Wiese et al., 2003), South Korea (Cheong and Yun, 2011; Kim, 2014), and Taiwan (Wu, 2009). All rely upon self-reported use-of-force data alongside officer self-reports of their own attitudes about using force.

However, there are important limits to consider in the literature linking depersonalization and use-of-force. In Kop and Euwema’s (2001) original study, the operationalization of “use-of-force” is inadequate because, initially, the authors did not observe the volume of use-of-force incidents they expected, and so they turn to self-reports of use-of-force and *verbal* force instead. Including verbal force as measured by observers, in fact, captures an emotive output and not a physical one. For self-reports, researchers asked officers: “Did you use physical force, *such as a push or grip*, against civilians in the last 12 months?” Moreover, the inclusion of ‘gripping’ makes reliance on the measure very suspect. Gripping could be, for example, to help someone off the ground, or to restrain a suspect’s hands during an arrest, or to guide them into the back of a patrol car. Some gripping could be required by physics or policy or training, such as to handcuff a suspect, thereby moving “use of force” out of the discretion of the officer and into the realm of policy adherence. Without clearer operationalization, it is not clear how to interpret the initial findings.

We agree that a negative cycle arises between officers and the public, but we look to the literature on emotional labor as an alternate explanation for use-of-force. Just as surface acting reliably predicts burnout (Guy et al., 2008; Mastracci and Adams, 2018) via the cognitive dissonance experienced when felt emotions differ from expressed emotions, so might surface acting explain use-of-force.

1.3. Emotional labor

Emotional labor is the expression and suppression of emotions for the purpose of complying with organizational or occupational display rules; the expected and accepted behavior of workers in an organization or occupation. “Professional conduct norms dictate that officers must remain calm and in control, constantly guarding their emotions” (Pogrebin and Poole, 1991, p. 402). Emotional labor includes eliciting expected or required behavior from others as well. For example, use-of-force is one option a police officer can

use to achieve compliance from a suspect. Emotional labor is a fundamental aspect of policing: “Officers must consistently work in situations where they must monitor and regulate their own and others’ emotion” (Daus and Brown, 2012, p. 309). Emotional laborers can take different approaches to fulfilling their duty to the occupation or organization: They can just go through the motions, or they can convince themselves of the rightness of display rules and the importance of adhering to them. The former approach—faking it—is referred to as *surface acting*, while the latter is *deep acting* (Guy et al., 2008). Surface acting is the prevailing approach to emotional labor because first responders such as police cannot fully anticipate their reactions in advance; they manage their emotions on scene (Mastracci and Adams, 2019b). Bakker and Heuven describe the range of emotions officers are expected to display. While they agree with Pogrebin and Poole (1991) that officers are expected to display neutrality, Bakker and Heuven further describe a common scenario demanding a very different outward display (2006, p. 426):

“Police officers are expected to manage their emotions to obtain a facial and physical expression that is neutral, solid, and controlled ... on the other hand, police officers are also asked to show compassion and understanding toward, for example, victims of crime. Thus, police officers need to master the art of constantly switching between human and disciplinary emotional expression.”

The range of emotional displays required of police officers only increases the need to pretend expression or to take the time and energy to convince themselves of the appropriateness of the emotional display. If authentic feelings are already in line with occupational display rules, then little emotional labor is required, just as when an officer’s identity is in line with her values (Schaible, 2018). However, requirements to use coercion can result in cognitive dissonance that results in greater depersonalization in officers (Schaible and Six, 2016). The gulf between felt emotions and display rules demands more emotional labor; more surface acting or deep acting. Conservation of resources theory predicts that increased demand for emotional labor further depletes emotional resources and leads to burnout (Bakker and Heuven, 2006). Emotional labor has been found by at least one group of researchers to be among the most stressful parts of policing. Brown et al. (1999, p. 315) find evidence of extensive stress due to the nature of police work, including the management of emotion:

Professional socialization requires the officer to develop appropriate skills in controlling affective responses to tragic or unpleasant circumstances. Police officers are expected to act personally but in a detached manner, rather than becoming personally involved when dealing with distressing operational instances with their effectiveness being compromised if they fail to maintain this distinction. Emotional control is an important part of the officer’s occupational identity, both in terms of the public’s expectations and the demands of the informal culture.

Guided by the previous literature, particularly the findings of Kop and Euwema (2001), we formulate hypotheses for formal testing. The first hypothesis directly tests two important findings from Kop and Euwema (2001):

H1a. As a police officer becomes more emotionally exhausted, he or she is less likely to use force.

H1b. As a police officer becomes more depersonalized, he or she is more likely to use force.

An additional hypothesis tests for a significant relationship in a proposed confounding variable—surface acting:

H2. As a police officer engages in more surface acting, he or she is more likely to use force.

Following theory testing, we turn toward building a theory of use-of-force and emotional labor. We propose there are alternative causal models for understanding the relationships between use-of-force, emotional exhaustion, and surface acting. While we examine the data first using one approach—regression analysis—we proceed to a different approach with gentler assumptions about the nature of relationships among surface acting, depersonalization, and use-of-force. Regression is too limited a tool to unpick the causal relationships on their own, particularly with cross-sectional data both here and in Kop and Euwema (2001). We, therefore, employ structural equation models (SEM) to explore a research *proposition*:

Proposition 1. *Use-of-force has both a direct and indirect relationship with emotional exhaustion, and that relationship is mediated by surface acting.*

This proposition is centered on the idea that there are emotional outcomes from use-of-force. Violence is a difficult act for police officers, and their allowable emotional responses are bound and defined by display rules in the form of professional and societal expectations.

2. A survey of patrol officers

The research team embarked on a multi-agency study of wellness in law enforcement in late 2017. In early 2018, we contacted and met with representatives of three departments in the largest metropolitan area in one state in the western US. Surveys were distributed electronically with support from each agency’s chief executive, who communicated with their agency’s personnel to introduce the research team and the project. A total of 657 unique, anonymous URL links were emailed to employees in the subject department on July 25, 2018. Researchers sent three reminder emails before the survey closed one month later, on August 25, 2018. A total of 322 responses were collected, and those with extensive nonresponse—less than 20% of the survey completed—were dropped, yielding 314 observations, or a 49% response rate. Responses to the survey include both sworn and non-sworn employees of all ranks and job designations. For the present study, only sworn officers with a rank of lieutenant or lower are investigated, so the total number of respondents is reduced to 146. Sworn officers take an oath of office and carry a firearm, have arrest power, and have

a badge. By focusing on sworn officers at the rank of lieutenant or lower, this study examines street-level patrol officers with extensive interpersonal interactions.

Our survey gathered information from respondents on burnout, emotional labor, perceived organizational support, individual perceptions of use-of-force, and a range of demographics. After the survey closed, we requested and received department administrative data on use-of-force and the total number of primary calls handled by officers from July 25 to August 25, 2018; the same period during which emotional labor and burnout information were gathered. Taken together, these data provide us with information to test hypothesized relationships between officer characteristics and use-of-force.

Number of Use-of-force Incidents (30 days) = f [Emotional Exhaustion, Depersonalization, Surface Acting, Perceived Organizational Support, Perceived Need for Use-of-force in General, Total Primary Calls (30 days), Line Officer (y/n), Prior Military Experience (y/n), Female (y/n), Years of Law Enforcement Experience]

In the model, the Number of Use-of-force Incidents is the actual number of times an officer used force during the 30-day survey period according to the police department. These data were obtained directly from the participating police department and are not self-reports from survey respondents. Force is defined as any use of a Taser, OC (oleo capsicum) spray, strike with hands or feet, or directly pointing one's firearm at a suspect. Verbal commands or threats are *not* part of this definition. Our operationalization of use-of-force would have captured lethal force, but no such incidents occurred during the study period. Emotional Exhaustion and Depersonalization are each comprised of four and three survey items, respectively, to capture workplace burnout (based on Maslach et al., 1986, and following the two-dimension definition of burnout in Demerouti et al., 2003 and described by Purvanova and Muros, 2010).

2.1. Control variables

Perceived Organizational Support is captured using seven items based on Eisenberger et al. (1986). This measure has been validated in a variety of contexts, but is essential in the police context specifically. There is often a gap in trust between line officers and administration in US police departments (Crank, 2015). In the context of police use-of-force, this gap includes a perception by officers that management will not support them in the wake of using force (Johnson et al., 2019). Further, lower perceived organizational support is both a direct and indirect covariate of emotional exhaustion in police officers (Adams and Mastracci, 2019) and a correlate of hopelessness among police officers (Gutshall et al., 2017). Increased trust among officers towards the public generally has recently been linked to increases in job engagement, including proactive policing and arrest activity (Mourtgos et al., 2019).

Perceived Need for Use-of-force is gauged by three survey items inspired by Schaible and Six (2016). In response to the question, "How often are you required to do the following as part of the lawful objectives of your job?" respondents indicated the frequency of these actions:

- Use your physical and verbal demeanor to gain compliance from individuals you deal with.
- Threaten the physical use-of-force as a tool to make someone comply with your lawful commands.
- Respond with physical use-of-force to make someone comply with laws, rules, or other lawful considerations.

Measuring the *perceived* need for use-of-force is intended as an analytic control for an individual officer's own experience with the coercive aspects of police work. This measure is similar to one used by Kop and Euwema (2001) to capture self-reported use-of-force. As discussed earlier, the construction of Kop and Euwema's question was poorly operationalized because it includes gripping as an example of force in the self-reported use-of-force measure, and verbal force in the observed measure. Gripping can arise in the progress of a range of actions, and verbal force is arguably not use-of-force at all. Despite these issues, however, we concur that some effort to capture an individual officer's experience with use-of-force is important as a model control. Presumably, an officer's experience and perception of this type of demand affect their current experience, and this effect is captured in a way that a direct measure of an officer's years of experience does not. In other words, two officers could have joined the police department on the same day, but their experience with the demand for use-of-force could be very different. Similarly, officers who have spent the same number of years in a department but may have been assigned to relatively rougher districts or beats can have varying perceptions of the demand for use-of-force as part of their job. This measure is intended to stand in for that experience through a measure of the officer's perception of how often—not at all, a little, a moderate amount, a lot, a great deal—they are called upon to threaten or use physical force.

Total Primary Calls is the actual number of times an officer was the primary responder on a call during the 30-day survey period, which was obtained separately from the participating police department. *Line Officer* (y/n) indicates whether the respondent is a line officer or not, while *Military Experience* captures whether the respondent has any prior or current experience in the military. *Female* (y/n) indicates whether the respondent identifies as female, and *Years of Law Enforcement Experience* is a self-reported measure of the number of years that the respondent has served in the profession in the current agency and any other departments. Descriptive statistics are found in Table 1 below:

3. Results

The distribution of the dependent variable, Number of Use-of-force Incidents, requires us to estimate the model described earlier as a Poisson-distributed model. Across our sample, the Number of Use-of-force Incidents is highly skewed, with most observations

Table 1
Descriptive statistics (n = 117).

Variable	Mean	Standard Deviation	Minimum	Maximum	Cronbach's α
Use-of-force Incidents	0.32	0.65	0	3	n/a
Emotional Exhaustion	3.81	1.44	1	6.5	0.8554
Depersonalization	5.03	1.29	1	7	0.6403
Prior Military Experience	0.27	0.45	0	1	n/a
Surface Acting	4.46	1.27	1	7	0.7947
Perceived Org. Support	3.48	1.53	1	6.71	0.9555
Perceived Need for UoF	2.71	0.73	1	5	0.6258
Line Officer	0.85	0.35	0	1	n/a
Total Primary Calls	39.45	36.82	0	184	n/a
Female	0.06	0.24	0	1	n/a
Years of Experience	12.92	7.31	0	33	n/a

Table 2
Results from Poisson regression of use of force count (n = 117).

Independent Variable (X)	IRR	Standard Error	z-score	p-value
Emotional Exhaustion	0.704**	0.102	-2.420	0.015
Depersonalization	0.962	0.167	-0.220	0.823
Surface Acting	1.456**	0.255	2.140	0.032
Perceived Org. Support	0.844	0.104	-1.370	0.169
Perceived Need for Use-of-force	2.136**	0.645	2.510	0.012
Total Primary Calls	1.012***	0.004	2.820	0.005
Line Officer (y/n)	1.205	0.675	0.330	0.739
Prior Military Experience (y/n)	0.509	0.208	-1.660	0.098
Female (y/n)	0.340	0.351	-1.050	0.296
Years of Experience	0.985	0.028	-0.530	0.599
Constant	0.038	0.063	-1.950	0.051
Model log-likelihood	-75.699			
Intercept-only	-88.189			
Likelihood Ratio (df = 9)	24.98			
Likelihood p-value	0.003			

reporting zero Use-of-force Incidents. A Poisson count model is typically used in such cases. However, the dependent variable is slightly overdispersed ($\bar{x} = 0.315$, $s^2 = 0.396$), and so a formal test of overdispersion is required to determine if a negative binomial specification should be used. Chi-squared tests of model goodness-of-fit ($p > \chi^2 = 0.8909$) and Pearson goodness of fit ($p > \chi^2 = 0.0693$) suggest a Poisson distribution is sufficient, and the more complex negative binomial is not required. Zero-inflated specifications were tested in both Poisson and negative binomial variants, and results show the general Poisson specification is best. We leverage agency data, and there are no unmodeled paths to a zero measure in use-of-force, so a zero-inflated model is not required. Coefficient values are reported in their exponentiated form as an incident rate ratio (IRR). The IRR represents the odds an officer will be involved in a use-of-force incident given a one-unit increase in the value of the independent value, compared to the odds of using force in the absence of that increase.

Iterations of the complete model are significant at the 0.01 level. Statistical significance is found for relationships between Use-of-force and Emotional Exhaustion, Surface Acting, Perceived Need for Use-of-force, and Total Primary Calls.

Our general findings both support and conflict with previous studies. Results provide support for [Hypothesis 1a](#), which posits that officers experiencing greater Emotional Exhaustion will engage in Use-of-force less often. When other variables are held constant, if an officer's Emotional Exhaustion score were to increase by one unit, their rate ratio for using force is expected to decrease by a factor of 0.704. Depersonalization levels were not a significant correlate for using force, and so we fail to reject the null of [Hypothesis 1b](#), which predicted that officers with higher Depersonalization levels use higher levels of force. This finding contradicts other studies, including [Kop and Euwema \(2001\)](#), which found that officers with higher levels of depersonalization more likely to use force. Though our results find the relationship is not statistically significant, it is worth noting that the direction of the relationship is negative, also in contrast to the previous findings.

We find initial support for [Hypothesis 2](#), which states a link between surface acting and use-of-force due to the comprehensive display rules surrounding police use-of-force. When all else is held constant, as officers report a one-unit increase in the Surface Acting measure, their rate ratio for using force is expected to increase by a factor of 1.456. Locating a role for surface acting in understanding police use of force is a key finding, and one that is built upon in the next section, which uses structural equation modeling to explore varying causal explanations.

There are interesting results in the model controls as well. As other studies predict, an officer's job activity level is associated with more uses of force. In our analysis, for every call an officer takes as the primary officer, their rate ratio for using force is expected to increase by a factor of 1.012. The marginal effect is relatively small, but given the average number of calls taken during the study

period was approximately 40, and 205 for the most active officer, the overall odds of using force can increase significantly by volume of primary calls alone.

The only other control variable to achieve significance is the officers' self-reports of their perception of how often force is required as part of their job. All else held equal, for every increase in this five-point scale, officers' rate ratio for using force is expected to increase by a factor of 2.136. This substantial and statistically significant effect is surprising, and a finding with too many interpretations to fully explore here. However, at least one obvious inference is that officers are well-positioned to judge their own relative odds of using force, given their perception of how often it has been needed in the past. An alternate interpretation is that an officer who has been involved in an elevated number of force incidents in the past has increased odds of being involved in higher numbers of force incidents in the future. While these two interpretations are not necessarily opposed to one another, or the only interpretations possible, the underlying relationship was included to control for individual exposure to use-of-force incidents. We recommend this correlate be explored more fully in future research.

Of further interest in the results is the lack of statistical significance found for officer-level demographic data. Neither gender, nor years of experience, nor line officer capacity, nor military experience are statistically significant predictors of use-of-force. The lack of effect from these variables is in line with a long tradition of research that fails to explain use-of-force with officer characteristics. Finally, despite previous findings that link Perceived Organizational Support to officer burnout (Adams and Mastracci, 2019), in our analysis the relationship is not statistically significant.

Kop and Euwema (2001) find a positive correlation between officers' attitudes toward Use-of-force and actual Use-of-force. What is more, higher Depersonalization is a positive correlate, and Emotional Exhaustion a negative correlate, to the actual use-of-force, according to Kop and Euwema (2001). We will return to a discussion of how our mixed support for these earlier findings, but first we turn to exploring the causal relationships between the statistically-significant variables of interest from our regression analysis.

3.1. Chicken/egg

We are not able to specify or infer a causal model with the previous regression design. Use of regression analysis imposes a particular causal sequence, but because we rely upon cross-sectional data, we do not know for sure. In alternative methods not reported here (available as an addendum), models with outcomes of Emotional Exhaustion and Surface Acting (where use-of-force is a predictor) have similarly acceptable outcomes. In other words, because the relationships between Surface Acting, Emotional Exhaustion, and Use-of-force are robust across regression models, and because the data relied upon is cross-sectional, regression analysis is not sufficient to infer causality.

Use-of-force is a statistically significant predictor in regression models when Surface Acting or Emotional Exhaustion are the outcomes. In part, this finding is similar to Kop and Euwema (2001), who propose that emotionally-exhausted officers use less force. There is no way to disentangle the relationship between use-of-force, emotional exhaustion, and surface acting through simple regression model comparisons. Structural equation modeling can help model the indirect relationships found here as well as compare nested models with goodness-of-fit indicators (such as Akaike's and Bayesian Information Criterion), and non-nested models with other goodness-of-fit indicators such as chi-square and RMSEA statistics.

Earlier, we offered a research proposition that surface acting is a mediator for the relationship between officers' burnout and use-of-force. We turn to that proposition and extend our earlier finding that surface acting is a statistically significant correlate of use-of-force with SEM techniques. SEM is more than a series of regressions, or the "mini-tests of model components that are conducted on an equation-by-equation basis" (Tomarken and Waller, 2005, p. 34). The method allows for exploring "dependency (and arguably 'causal') relations in multivariate data in the behavioral and social sciences" (McDonald and Ho, 2002, p. 64). The ability to construct causal relations is done through comparing the performance and fit statistics of alternative SEM models, each of which posits a different causal relationship among our three variables of interest. In this way, researchers can distinguish between alternative causal explanations and formally test and identify the best performing among similarly constructed models. For space considerations, alternative model specifications are reported in appendix.

Following alternative model testing, the model depicted above is suggested as the best specification among the alternatives tested (see appendix table A2 for details on alternative model specification). When the baseline model is tested against the data, the model fit is excellent: $\chi^2(18) = 20.01$, $p > \chi^2 = 0.3323$; RMSEA = 0.028; TLI = 0.992; CFI = 0.995.

The model offers a novel contribution to understanding the relationships between the three variables. Use-of-force is an emotionally-costly part of the job for officers, as they attempt to comply with the display rules of the profession through Surface Acting. Surface Acting increases as an officer's use-of-force count increases, and Surface Acting is a robust, statistically-significant predictor of Emotional Exhaustion. This model is consistent with our research proposition that surface acting is a key mediator of the relationship between use-of-force and emotional exhaustion in police officers.

The model in Fig. 1 uses maximum likelihood and imputes missing values ($n = 146$). As an officer is involved in a use-of-force incident, the model expects a small increase in the use of Surface Acting, which in turn leads to a large increase in Emotional Exhaustion. This finding supports our research proposition that Surface Acting is the critical component to examine in seeking to understand officer Emotional Exhaustion. The overall model performs very well according to goodness of fit statistics, and the overall likelihood chi-squared test shows the complete model performs well against the baseline. The path significance results are more complicated, with only the large direct effect from Surface Acting to Emotional Exhaustion attaining statistical significance on its own.

Overall, the findings from the exploratory section of the study are promising, though far from definitive. Building upon the regression results from hypotheses testing, which also found surface acting was a significant correlate of use of force, the exploratory

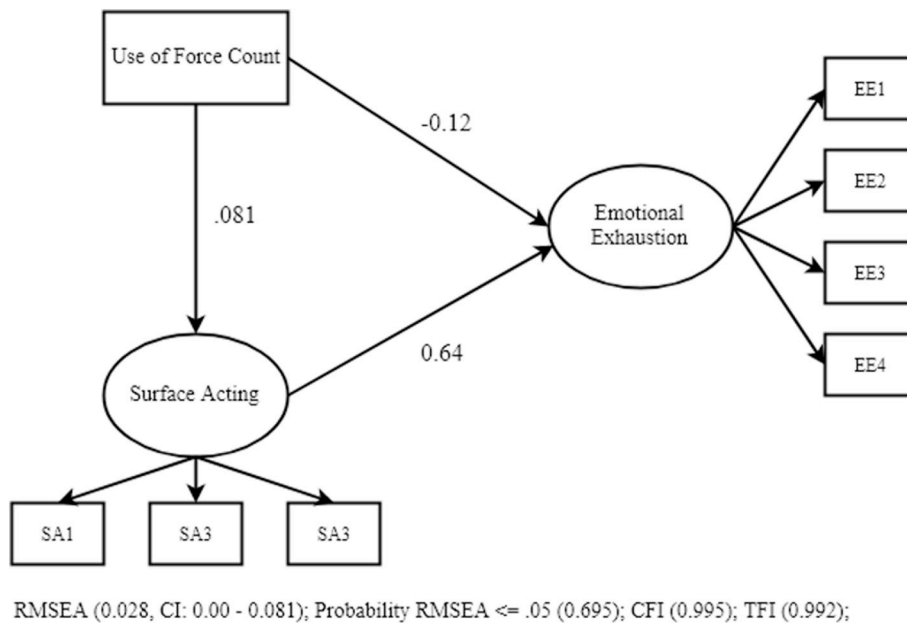


Fig. 1. Structural equation model of use-of-force and outcomes.

methods suggest that the most correct causal specification is that use-of-force acts directly upon both surface acting and indirectly through surface acting on emotional exhaustion. However, at this point, the causal link is limited. More definitive inference requires further research with, at minimum, a longitudinal component.

4. Discussion

Given the cross-sectional nature of the study, the design limitations discussed below, and the exploratory nature of this part of the study, our findings are novel but not declaratory. The validity and generalizability of the findings can only be determined with more extensive future research. An alternative to the preferred SEM model presented above, and one that cannot be addressed in the present study, is that there is a recursive relationship between Use-of-force, Surface Acting, and Emotional Exhaustion. That is, as use-of-force increases surface acting, and surface acting leads to increased emotional exhaustion, the increasingly emotionally exhausted officer uses less force as he retreats from proactive public contact. This is a syllogism without clear evidence in our study. It is an exciting possibility suggested by our regression analysis, but one that cannot be satisfactorily explored in our more prospective analysis with SEM in such a constrained model. Given the suggestive preliminary results here, however, the potential of future studies to introduce a longitudinal analysis to the relationship should be a part of future research.

Ultimately, we do not disagree entirely with the conclusions of the two highly influential studies of use-of-force (Kop and Euwema, 2001; Kop et al., 1999). Specifically, Kop and Euwema conclude (2001, p. 648):

Rather than the objective situation, it is the personal characteristics of the police officer that determine the use-of-forceful behavior. All observed force was conducted by officers scoring high on emotional exhaustion and depersonalization ... officers who are cynical and detached were more readily inclined to use force against civilians. This suggests a typical negative interaction pattern, whereby the depersonalized officers behave more forcefully toward civilians.

However, we depart from the path they used to arrive at their destination. We submit that the display rules surrounding use-of-force may bring about the burnout that exacerbates the negative effects of subsequent emotional suppression. Like Kop and Euwema, we employ cross-sectional data. Future longitudinal research may help disentangle the causes and effects involved. Unlike earlier research, we demonstrate the mediating role of emotional labor.

In their review of the research on police use-of-force, Klahm and Tillyer (2010) similarly find no consistent evidence that the characteristics of suspects or encounters explain variations in the use-of-force. And while they also examine officer characteristics, they focus on demographic characteristics and not psychological indicators such as the extent to which the officer has experienced stress or is burned out in her role. Officer demographics failed to explain variations in the use-of-force consistently, and only officer depersonalization is a consistent and significant correlate of the use-of-force. Nearly every study using cross-sectional data has imposed a causal order from burnout to use-of-force, however, and it is this presumption that we critique in this paper.

Previous literature looking at the nexus of use-of-force and burnout has tended to diminish or ignore the effect that using force in a professional context has on police officers. This oversight ignores the reality that officers are people, and people have emotional reactions to seeing, being the target of, and using violence. In the context of US policing, the reasonable use-of-force is only to be employed in defense of self or others. Our study is intentionally aimed at better understanding use-of-force in this context, and while

unlawful and excessive use-of-force has broad academic and societal interest, this study sidesteps that issue by holding focus on one month of 'typical' force incidents in a single department. By focusing on the typically atypical, we question and ultimately interrupt the accepted causal design of previous studies that draw a direct line between emotive measures and variation in using force.

The study findings demonstrate that emotional exhaustion is as likely to be the *result* of using force as it is to be a cause of it. Further, in the more prospective second portion of the study, specifying and comparing multiple causal explanations suggests that the most parsimonious and well-fit model is that surface acting links use-of-force and emotional exhaustion, rather than the latter two leveraging any effect on one another. In this way, we show how the inclusion of an emotive mechanism as a mediator allows for a more comprehensive view of the dynamics between burnout and police use-of-force. Together, the finding is an important contribution to the police use-of-force literature, and one that re-centers the inquiry to emphasize officers as fully emotional human beings, albeit ones that face highly circumscribed emotional display rules.

4.1. Limitations

Our results are innovative, but not without limitations. The present study was conducted in a metropolitan area in the United States and used results from a study of Dutch police officers as its point of departure (Kop and Euwema, 2001). What is understood as 'force' varies by culture, however, and definitions of force have been unclear in the literature. Furthermore, just as emotional labor varies by culture (Mastracci and Adams, 2018, 2019a), so might emotional exhaustion and depersonalization. Burnout rates among Dutch officers (Kop and Euwema, 2001) is on average much lower than average depersonalization and emotional exhaustion rates found among law enforcement officers in the US, including officers in this study.

Like burnout and the definition of use-of-force, use-of-force rates may vary by culture as well. Importantly, much of what was defined as force in the Netherlands study would not have been included in this study's definition of force. Kop and Euwema (2001) include verbal commands and self-reports of use-of-force, while the definition of force in this study includes only physical force. Moreover, gripping and pushing comprised fully half of the use-of-force incidents in the Netherlands study. Just as the results of this study are limited by culturally-shaped roles of law enforcement, definitions of force, and experiences of burnout, so are the implications of Kop and Euwema's (2001) conclusion that depersonalized officers use force more frequently, a result we were not able to replicate once force was measured more exactly and more in line with US expectations of what "force" means. In this way, our findings are more correctly viewed as an expansion of previous findings in the US context, rather than a failure to replicate the original findings.

Not only have definitions of force varied across research contexts, but several studies have also relied upon third-party observer interpretations of study subjects' actions to define use-of-force. For example, in one frequently-cited study (Worden and Shepard, 1996): "Force was deemed improper if an officer *appeared to be 'kicking ass'* according to observers" (Harris, 2009, p. 31, emphasis supplied). We suggest the reliance upon third-party interpretations introduces intersubjectivity into the analysis, which potentially introduces variability in inter-rater perceptions of kicking ass, even if commonly understood in the same cultural context. Differences across intersubjective understandings of force frustrate attempts to measure it, as would cross-cultural understandings of 'kicking ass.' In other words, findings from a study of use-of-force from Dutch policing might not inform examinations in other contexts, even if common definitions were used and self-reports were avoided as primary sources of data.

4.2. Conclusion

Display rules surrounding the profession of policing demand extensive emotional labor. "Such an emotionally-demanding job requires switching back and forth between negative and positive emotions, and sometimes officers may be expected to demonstrate conflicting emotions within the same situation that such switching between negative and positive emotions is more laborious than a 'prototypically' high emotional labor job such as customer service" (Daus and Brown, 2012, p. 320). Use-of-force is a responsibility unique to policing, and one that is emotionally costly for officers. The display rules surrounding use-of-force trigger cognitive dissonance that is addressed mainly through surface acting. Basinska, Wiciak, and Daderman find: "of all negative emotions, the suppression of anger is the emotion that increases exhaustion the most" (2014, p. 669). Surface acting demands grow as an officer's use-of-force increases, and surface acting has long been a robust, statistically-significant predictor of emotional exhaustion. Our model of the relationships among depersonalization, use-of-force, and surface acting upends the existing understanding of burnout and use-of-force, and yet it is consistent with the collage of findings from other use-of-force studies that fail to establish individual officer characteristics as predictors of use-of-force.

While we agree that a negative cycle arises between officers and the public (Mourtgos and Adams, 2019), we look to the literature on emotional labor as an alternate, ultimate, explanation for use-of-force. Kop and Euwema conclude that "depersonalization, a cynical attitude toward work and civilians, appears to be the key variable related to forceful behavior" (2001, p. 649). Our key takeaway is to integrate emotional labor theory to explain the relationship between depersonalization and use-of-force. We identify at least four additional directions for further research: Intersubjectivity and the effects of emotional suppression on cognitive function, response to resistance, dirty work, and the human resource management implications of use-of-force research.

Richards and Gross (1999) have demonstrated the negative effects of emotional suppression on working memory, and Gutshall et al. (2017) reveal similar effects among a sample of police officers. To the extent that police officers must interpret others' behavior and recall information accurately for reporting purposes, the effects of constant emotional suppression are crucial to understand. Officers may falter in their interpretations of others' behaviors and intentions with important consequences: "Officers may interpret the characteristics and actions of participants in such a way that force is more likely to be used" (Brandl and Strohshine, 2012, p. 565).

Officer interpretations of others' behaviors can lead to use-of-force: "Those who appear intoxicated, mentally deranged, disrespectful or filled with anger or fear ... offend society's—and the police officer's—standards about proper behavior or appear to lack the requisite self-control and in either case, are more deserving of police-applied control and punishment" (Terrill and Mastrofski, 2002, p. 217). The effects of chronic surface acting can distort officers' cognitive function.

Use-of-force research may be reframed as "Response to Resistance," given the circumstances found to precede it: "Those who reported engaging in potentially provoking behaviors were much more likely to report being the recipients of police force" (Hickman et al., 2008, p. 588). Use-of-force research may also profitably invoke the literature on "dirty work" (Dick, 2005). Dirty work is defined as occupational activities that "run counter to the more heroic of our moral conceptions" (Hughes, 1958, p. 50). Use-of-force may contradict an officer's perception of public service, and prior research has shown officers are aware that their profession incurs public disapprobation (Adams and Mastracci, 2019). Finally, further research on the human resource management implications of use-of-force research would benefit policing practice. To the extent that an organization can shape occupational display rules, police administrators can attenuate some strain experienced by officers: "Organizations can impact burnout significantly through their contextual requirements for emotional expression and suppression" (Daus and Brown, 2012, p. 309). Noppe and Verhage underscore the organization's role in use-of-force: "Police officers should be provided with training, coaching, and aftercare as part of an effort to support the added responsibility that comes with the power to apply force" (2017, p. 287). Use-of-force and demands on officers to maintain a continual readiness to use force are highly plausible workplace stressors that demand a deeper appreciation than the easy explanations proffered thus far.

Appendix Materials

In appendix table one below, various outcome specifications are tested in a regression environment. We include depersonalization as an outcome measure as it was originally tested by Kop and Euwema (2001). Our results are similar in not finding a significant relationship between depersonalization and use-of-force.

Table A1
Alternative regression specifications for variables of interest.

Variables	Force count	Emotional exhaustion	Surface	Depersonalization
	Poisson regression, unstandardized coefficient	OLS	OLS	OLS
Emotional exhaustion	−0.350** (0.145)		0.402*** (0.0781)	0.101 (0.0948)
Depersonalization	−0.0389 (0.174)	0.105 (0.0985)	0.171* (0.0875)	
Surface	0.376** (0.175)	0.498*** (0.0966)		0.203* (0.104)
Perceived Org Support	−0.170 (0.124)	−0.205** (0.0826)	−0.127* (0.0754)	−0.249*** (0.0798)
Fear ²³⁴	0.759** (0.302)	0.357** (0.157)	−0.344** (0.141)	0.519*** (0.149)
Total primary calls	0.0122*** (0.00433)	−0.00186 (0.00310)	−0.00458* (0.00275)	0.00304 (0.00303)
Line officer	0.187 (0.560)	0.194 (0.300)	0.235 (0.269)	−0.139 (0.295)
Military (ever)	−0.676* (0.408)	−0.895*** (0.248)	0.740*** (0.225)	−0.627** (0.250)
Female	−1.079 (1.033)	−0.0597 (0.449)	0.327 (0.403)	−0.610 (0.436)
Years LEO	−0.0148 (0.0281)	0.00220 (0.0158)	−0.0295** (0.0139)	−0.0139 (0.0155)
Force count		−0.334** (0.167)	0.306** (0.150)	−0.0469 (0.167)
Constant	−3.277* (1.033)	1.046 (0.449)	3.476*** (0.403)	3.595*** (0.436)
Observations	117	117	117	117
R-squared	n/a ^b	0.462	0.444	0.354
Model Log Likelihood	−75.699			

^a Fear²³⁴ is Perceived Need for Use of Force based on Schaible and Six (2016).

^b R² not recommended for Poisson models, alternative measures include McFadden (0.142), McFadden adjusted (0.028), Cox-Snell/ML (0.192), and Craig-Uhler/Nagelkerke (0.247).

Appendix table two below reports on alternative SEM model specifications. Goodness of fit statistics for the three best performing models are very similar, but distinguishable using formal tests. All four models are significant following the χ^2 test, and have good to very good RMSEA values. All four models can be compared using AIC and BIC tests. Akaike's Information Criterion (AIC) is calculated such that $\Delta i = AIC_i - AIC_{min}$, and the 'best' model $\Delta i = 0$. Bayesian Information Criterion (BIC) is calculated and reported similarly. Both AIC and BIC results suggest model one is preferred. The preferred model is presented visually in the main body of the paper.

Table A2

Alternative SEM specifications for causal analysis.

→(direct path) => (indirect path)	df	AIC (Δ)	BIC (Δ)	RMSEA	Prob > χ^2
1. UoF → Surface & EmoEx; UoF => EmoEx (preferred)	18	3291.915 (0)	3363.521 (0)	0.028	0.3323
2. EmoEx and Surface →UoF; Surface => UoF	18	3295.915 (4)	3373.488 (9.97)	0.028	0.3323
3. UoF and Surface → EmoEx; Surface => EmoEx	18	3295.915 (4)	3373.488 (9.97)	0.028	0.3323
4. EmoEx and Depersonalization →UoF	18	3446.016 (154.101)	3523.589 (160.068)	0.048	0.1524

Note: EmoEx = Emotional Exhaustion; Surface = Surface Acting; UoF = Use-of-force count; AIC = Akaike's Information Criterion; BIC = Bayesian Information Criterion; RMSEA = Root Mean Square Error of Approximation.

Appendix B. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ijlcrj.2019.100358>.

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