

Viewing Firearm Danger Through the Lens of Police Officers

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Abstract

Despite danger being an integral part of officer decision-making during potentially lethal encounters (see *Graham v. Connor*), the study of officers' perceptions of danger is scarce. Using a survey of over 800 police officers located in a large metropolitan police department, this study assesses officers' perceptions of danger in different types of armed citizen situations involving various levels of citizen resistance. It also identifies various contextual factors and officer characteristics in relation to danger. The findings are used to inform future research, departmental policy, officer training, and the “objective reasonableness” standard put in place by the Supreme Court.

Keywords

officer danger, objective reasonableness, officer perceptions, armed citizens, firearms

Introduction

One of the major issues facing the criminal justice system today is the tension that exists between the police and the communities they serve. Much of this strain is the result of continuing high-profile instances of police use of lethal force (e.g., Michael Brown, George Floyd, Laquan McDonald, Tamir Rice, and Eric Garner), which has led to widespread calls for increased research and police reform (The President's Task Force on 21st Century Policing, 2015). Despite having seen great strides in recent years with attention paid to procedural justice (Rosenbaum et al., 2017;

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Weisburd et al., 2022), body-worn cameras (Koslicki et al., 2019; White, 2019), and de-escalation (Goh, 2021; White et al., 2021), there exists numerous other important areas that have yet to be explored. One such area in need of further study are officer perceptions of danger (Marenin, 2016). Early ethnographic research detailed the fundamental role that danger plays in the minds of officers on a day-to-day basis (Bayley & Bittner, 1984; Bittner, 1970; Brown, 1988; Muir, 1977; Reuss-Ianni, 1983; Skolnick, 1966, Westley, 1970). This originates from a belief shared by officers that any encounter with citizens, regardless of how innocuous it may seem, could evolve into a potentially life-threatening situation.

Though both scholars and practitioners acknowledge the significance of officers' perceptions of danger in their daily work, the current state of empirical research in this area is surprisingly limited. Much of this is due to how danger has been operationalized in past studies. For example, measures used in the prior literature have frequently consisted of highly aggregated assessments of danger, such as the degree to which officers believe they work in a dangerous occupation, or whether they agree that their job is more dangerous than other professions (Cullen et al., 1983; Ingram et al., 2013; Paoline et al., 2021; Paoline & Gau, 2018; Somers & Terrill, 2022; Terrill et al., 2003). Further, the current discourse surrounding the danger of policing, especially in armed suspect situations, is largely being led by members of the public, media, and politicians. Such discussion often neglects to include the viewpoints of the officers who are actually facing potentially dangerous situations.¹ Thus, conducting a systematic study of how officers view danger in armed suspect encounters is much needed, with enormous potential for informing the "objective reasonableness" standard for police use of force put forth by the Supreme Court (see *Graham v. Connor*, 1989).

The goal of the current study is to advance police scholarship in three ways. First, we assess how officers view danger in specific types of armed suspect encounters that varies by the level of resistance displayed. Second, we seek to understand what types of additional contextual factors increase officers' perception of danger. Third, we examine the extent to which various officer-based factors are related to officer perceptions of danger. We begin with a review of the prior literature that discusses the role of danger within policing and how it relates to the objective reasonableness standard. From there, survey data of officers from a large metropolitan police department are used to analyze their perceptions of danger. The study closes with a discussion of the key findings, along with research and policy implications.

Literature Review

Danger and Policing

Coping with danger has long been viewed as an essential component of what it takes to be a police officer (Skolnick, 1966; Westley, 1970). The ever-present possibility of being seriously hurt or killed while on the job forces officers to constantly be aware of

their surroundings and causes some to maintain an edge when interacting with citizens (Bayley & Bittner, 1984; Paoline, 2003; Paoline & Gau, 2018). This socialization toward danger is so pervasive within policing that it is often at the forefront of the pre-service academy, daily roll call meetings, in-service trainings, and informal discussions amongst officers (Marenin, 2016; Reuss-Ianni, 1983; Sierra-Arévalo, 2021). What differentiates policing from other dangerous professions (i.e., construction, logging, and fishing), is that in addition to injury from workplace accidents, serious harm or death can also be the product of intentional violence perpetrated toward an officer (Cullen et al., 1983; Wenz, 1979). As a result of the importance officers place on managing potential threats on a day-to-day basis, numerous ethnographic and empirical studies of police culture have detailed the impact of danger on officer attitudes as well its connection to their use of coercion (Bittner, 1970; Brown, 1988; Cullen et al., 1983; Loftus, 2010; Manning, 1977; Muir, 1977; Paoline, 2003; Paoline et al., 2021; Paoline & Gau, 2018; Paoline & Terrill, 2014; Reuss-Ianni, 1983; Rydberg & Terrill, 2010; Silver et al., 2017; Skolnick, 1966; Terrill et al., 2003; Van Maanen, 1974; Westley, 1970; Worden, 1993).

For instance, Paoline (2003) provided a theoretical framework for how various facets of police culture (particularly danger) fit together to shape how some officers view their occupational environments. Within his path-like model, Paoline (2003) relied on numerous prior studies (see Rubinstein, 1973; Skolnick, 1966; Van Maanen, 1974; Westley, 1970) to detail how officers' perceptions of danger could lead to increased stress within officers. In turn, this stress may cause officers to develop negative coping mechanisms in the form of being suspicious of citizens and a need to take coercive control of citizen interactions. Further, the cumulative impact of danger is posited to result in extreme loyalty between officers and a "we versus they" mentality toward the public (Brown, 1988; Paoline, 2003; Paoline & Gau, 2018; Terrill et al., 2003; Westley, 1970).

Many of the prior measures used in studies that aim to tap into officer perceptions of danger have mainly relied on aggregated assessments of their job overall. The items that are included typically ask some variation of whether the officer feels as though they work in a dangerous job, if they feel that policing is a more dangerous occupation than other professions, or whether they believe that an officer stands a good chance of being hurt while on the job (Paoline et al., 2021; Somers & Terrill, 2022).² Though this body of research has been informative in terms of police culture and occupational attitudes, it offers little insight into how officers view danger within specific types of encounters. One type of encounter that is of particular importance are interactions that involve an armed suspect. These situations are significant for two reasons. First, a suspect being armed has been found to be one of the most consistent predictors of an officer's decision to use lethal force (Crawford & Burns, 1998; White, 2002). Second, officers' views toward danger and their decision-making in armed suspect encounters are at the very heart of the "objective reasonableness" standard put in place by the Supreme Court (*Graham v. Connor*, 1989).

Danger and Reasonableness

In *Graham v. Connor* (1989), the Supreme Court held that force used by police officers (both lethal and non-lethal) must be judged under an “objectively reasonable” standard.³ As such, assessing the legality of force must come “from the perspective of a reasonable officer on the scene, rather than with the 20/20 vision of hindsight” and “in light of the facts and circumstances confronting them, without regard to their underlying intent or motivation.” Use of the term “reasonableness” originates from the Fourth Amendment, as coercion used by police constitutes seizures (Klinger & Brunson, 2009, p. 118). Despite this standard having been put into place to provide clarity to the issue of excessive use of force, it also creates a great deal of ambiguity. As stated by Terrill (2016, p. 491), “what constitutes ‘objectively reasonable’ force almost inherently requires a subjective interpretation (Terrill, 2009), and therein lies the proverbial rub. Hence, two people may view the same incident and come to two different conclusions.”⁴

In other words, this standard often creates great difficulty when attempting to come to a consensus of whether force used in an encounter is reasonable. This is especially the case when it comes to the use of deadly force, as officers must assess the degree of threat to themselves as well as others (see *Tennessee v. Garner*, 1985). In some situations, the threat may seem fairly evident. A suspect who is brandishing a firearm and points it at an officer or others is undoubtedly posing a deadly threat. However, other interactions may be less clear. A citizen who is holding a gun at his side and verbally resisting police orders to drop it could be considered a deadly threat to some, but not others.⁵

Reasonableness is further complicated when factoring in the totality of situational circumstances present during a use of force incident (Klinger & Brunson, 2009; Reiss, 1980; Terrill, 2001, 2003, 2005, 2009). For instance, over 20 years ago Terrill (2001) noted that one must consider the development nature of police-suspect encounters and the various factors present during the interaction to better assess force appropriateness. For example, factors such as offense severity, if the suspect has a violent history, whether officer back up is present, the number of citizen bystanders on scene, whether the suspect is impaired, and so forth. Knowing whether these elements are present during an encounter helps determine the legality of force used.

Whether the use of force in an encounter is objectively reasonable has also been central to more contemporary cases that have captivated the nation’s interests and caused civil unrest in recent years (e.g., the conviction of Derek Chauvin for the murder of George Floyd). Lacking consensus and the ambiguity that surrounds what qualifies as objectively reasonable force, judges and juries are left to determine how they view such without any reliance on systematic data as to how everyday officers view reasonableness. This is problematic as judges and juries may lack the experience necessary to accurately assess the level of danger, stress, and split-second decision-making that can occur in force situations (Klinger & Brunson, 2009). Considering the legal standard revolves around what a “reasonable officer” would have perceived in a

situation, there is a growing need for a systematic assessment of officers' perceptions of danger, especially in armed suspect encounters.

Current Study

Understanding how a large body of officers view factors such as where a firearm is located (i.e., in a suspect's hand, on their person and reaching, or not reaching), the type of resistance displayed (i.e., nonphysical, defensive physical, and aggressive physical), whether other situational factors (i.e., citizen is impaired, citizen is a known violent offender, the presence of back-up or other citizens, available cover, etc.) increase perceptions of danger, and what officer-based factors are related to danger perceptions, would assist judges and juries in helping to inform reasonableness. More specifically, according to Terrill (2009), "determining reasonableness is an elusive task for a variety of reasons, but it is nearly impossible without a better understanding of officers' perceptions, which can only be gleaned by going to the source – officers themselves." (p. 167).

The current study addresses the limitations of prior research by surveying nearly 800 officers and presenting them with varying vignette scenarios to assess their perceptions of danger in different armed suspect encounters, which vary both by location of the firearm and the reaction of the suspect to verbal commands. Further, we also examine officers' responses to how different contextual factors may increase their feelings of danger in these encounters. The current study is one of the first to provide a systematic evaluation of how police officers view danger. Findings from this study can be used to inform future research and policy, as well as implications toward unpacking objective reasonableness.

Methods

Data

The data for the current inquiry stems from the *Officer Perceptions of Danger* study conducted within a large metropolitan police department employing more than 1,000 officers and serving a population of over a million residents. While patrol officers were the primary target of the study and make up the majority of the sample, we also surveyed specialized officers from the department's SWAT and Fugitive Apprehension Units. In terms of the former, patrol officers are expected to respond and handle a wide variety of calls for service, some of which may include suspects with a firearm. In relation to the latter, specialized unit officers rarely respond to everyday calls for service and have vastly different job functions, particularly with respect to the frequency in which such officers interact with armed suspects (Parks et al., 1999). In essence, a reasonable presumption is that encountering firearm danger is more unpredictable within a patrol framework, and more predictable within a specialized unit function.

After numerous iterations with a working group of various police department personnel and the research team, and pre-testing the survey with officers from a neighboring police department, data collection began in December of 2019 with patrol officers during their daily roll-call sessions. A series of coordinated steps were taken to maximize the potential response rate. First, the police chief and lead project researcher recorded a short video describing the study, human research subject protections, and the importance of better understanding how officers view potential firearm danger. The video was then included as part of officers' daily roll-call sessions the week leading up to the researchers being on site to administer the survey. Second, researchers sent emails to all patrol supervisors across the department's precincts to ensure they were aware of the project. The email reiterated the message from the video and also contained a signed authorization from the chief. This also allowed the supervisors to verify their rosters, change the date of the survey if needed, and ask any questions they may have had. Finally, given that each shift was assigned two squads who shared an overlap workday, the survey was scheduled and administered on these double-squad days to maximize efficiency. Fortunately, all patrol officer surveys were completed by March, 2020 when the COVID-19 pandemic began impacting departmental and university restrictions. Unfortunately, this delayed surveying the specialized unit officers until April of 2021. The process for surveying these officers was fairly straightforward compared to patrol, as we simply coordinated with unit commanders to administer the survey on a day when all officers were assigned to work. Overall, the final sample resulted in 850 completed surveys with a response rate of 85%.

Scenarios and Measures

We began by asking officers to assess their perception of danger on a scale of 1 to 10, from 1 = least dangerous to 10 = most dangerous, when responding to three different vignette scenarios (i.e., suspect *holding* a firearm, suspect *reaching* for a firearm, and suspect *not reaching* for a firearm) and in relation to three different subject responses (i.e., passive/verbal *nonphysical* resistance, *defensive physical* resistance, and *aggressive physical* resistance). Thus, for each scenario officers ranked the danger level three different times based on the subject's action (i.e., a total of nine situations). When designing the scenarios, the working group posited that Scenario 1 would be more dangerous than Scenario 2, and Scenario 2 more dangerous than Scenario 3. Additionally, in relation to resistance types within each scenario, the group posited that aggressive physical resistance would pose the most danger, followed by defensive physical resistance, and then nonphysical resistance. Further, as seen within each of the scenarios below, we had two versions of the survey where we randomly varied the race of the suspect between being white and nonwhite when administering to assess whether suspect race may alter perceptions.⁶

Scenario 1: You receive a call from dispatch of a [white/non-white] male subject reportedly in possession of a firearm. Upon arrival, the subject is holding a firearm

(or what appears to be a firearm), but it's not raised nor pointed at anyone. The police give a verbal command to drop it, but he fails to comply while (1) Passively or verbally resisting, but provides no physical resistance; (2) Physically attempts to allude police by backing away or fleeing; (3) Physically moves toward police or others.

Scenario 2: You receive a call from dispatch of a [white/non-white] male subject reportedly in possession of a firearm. Upon arrival, the subject has a firearm (or what appears to be a firearm) on his person or within close proximity, and is reaching for it, and he (1) complies with police commands to stop reaching for it, but verbally resists; (2) complies with police commands to stop reaching for it, but physically attempts to allude the police by backing away or fleeing; (3) complies with police commands to stop reaching for it, but physically moves toward the police.

Scenario 3: You receive a call from dispatch of a [white/non-white] male subject reportedly in possession of a firearm. Upon arrival, the subject has a firearm (or what appears to be a firearm) on his person or within close proximity, but is NOT reaching for it, and he (1) complies with police commands not to reach for it, but verbally resists; (2) complies with police commands not to reach for it, but physically attempts to allude the police by backing away or fleeing; (3) complies with police commands not to reach for it, but physically moves toward the police.

For each of the nine situations, we then asked officers to identify up to five contextual factors that they believe would make the situation *more dangerous* from the following list of options developed by the working group: subject female, younger or older, impaired, agitated, known history of violence, attire, severity of current offense, no backup officers, bystanders present, high crime area, night/darkness, available cover, handgun or rifle, and other. Additionally, in a follow-up section of the survey we asked about a series of officer-based factors, including race, gender, education, experience (i.e., years on the job), military experience, as well as assigned shift, precinct, and whether the officer worked patrol or in a specialized unit.

Analytic Strategy

The analysis progresses as follows. First, we begin with computing and comparing the means scores within and across the three scenarios and forms of resistance displayed by the suspect. We follow this with a similar breakdown by suspect race, as well as by suspect/officer race dyads. Next, we detail the contextual factors officers identified as danger enhancements (i.e., making the situation even more dangerous). Finally, we compute and compare mean scores by the officer-based factors captured. Variable coding and descriptive statistics for all the measures used in the analyses are presented in Table 1.⁷

Table 1. Variable Coding and Descriptive Statistics.

Variable	N	Range	Mean	SD
Danger perceptions				
Scenario 1				
Passive/verbal nonphysical	778	1–10	7.46	2.04
Defensive physical	772	1–10	7.58	1.97
Aggressive physical	763	1–10	9.10	1.38
Overall	760	5–30	24.14	4.36
Scenario 2				
Passive/verbal nonphysical	773	1–10	6.80	2.18
Defensive physical	767	1–10	6.83	2.18
Aggressive physical	762	1–10	7.94	1.82
Overall	755	3–30	21.57	5.30
Scenario 3				
Passive/verbal nonphysical	764	1–10	6.07	2.11
Defensive physical	754	1–10	6.50	2.25
Aggressive physical	759	1–10	7.77	1.95
Overall	750	3–30	20.34	5.63
Correlates				
Suspect nonwhite	795	0–1	0.51	0.50
Suspect white/officer nonwhite	746	0–1	0.17	0.37
Suspect nonwhite/officer nonwhite	746	0–1	0.17	0.38
Suspect white/officer white	746	0–1	0.32	0.46
Suspect nonwhite/officer white	746	0–1	0.33	0.47
Officer male	760	0–1	0.85	0.34
Officer education	775	1–3	2.38	0.59
1 = high school, 2 = some college, and 3 = bachelors				
Officer experience (years)	769	1–3	2.13	0.82
1 = 0–2 years, 2 = 2–7 years, and 3 = 7+ years				
Officer military	782	0–1	0.30	0.45
Officer shift	795	1–3	1.97	0.78
1 = first, 2 = second, and 3 = third				
Officer precinct	795	1–3	2.25	0.66
1 = low crime, 2 = medium crime, and 3 = high crime				
Officer special unit	774	0–1	0.05	0.23

Findings

Overall Perceptions of Danger

Table 2 illustrates the mean scores across the three scenarios by the varying forms of suspect resistance. A number of notable findings can be gleaned. First, looking at the overall composite mean scores, the level of danger reported by officers is in the anticipated direction, with Scenario 1 scoring the highest (24.14), Scenario 2 next (21.57), and Scenario 3 the lowest (20.34). Second, looking at the resistance types by the

Table 2. Perceptions of Danger by Scenario and Suspect Resistance Type.

	Suspect resistance			Overall
	Nonphysical	Defensive	Aggressive	
Scenario				
Scenario 1 (hand)	7.46	7.58	9.10	24.14
Scenario 2 (reaching)	6.80	6.83	7.94	21.57
Scenario 3 (not reaching)	6.07	6.50	7.77	20.34

Table 3. Perceptions of Danger by Scenario, Suspect Resistance Type and Race.

	Suspect resistance and race				Kruskal
	Nonphysical W/NW	Defensive W/NW	Aggressive W/NW	Overall W/NW	
Scenario					
Scenario 1 (hand)	7.47/7.44	7.66/7.51	9.10/9.10	24.23/24.05	2.11
Scenario 2 (reaching)	6.88/6.72	6.97/6.70	8.03/7.85	21.88/21.27	3.27
Scenario 3 (not reaching)	6.17/5.98	6.68/6.33	7.85/7.69	20.70/20.00	3.53

Note. W = White; NW = Nonwhite.

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$.

scenarios, we also see mean scores in the anticipated direction. For example, in terms of defensive physical resistance, officers rated Scenario 1 as the most dangerous (7.58) and Scenario 3 as the least (6.50). As another example, we see in Scenario 2 that officers reported nonphysical resistance as the least dangerous (6.80), followed by defensive (6.83), and then aggressive (7.94). Finally, when we compare Scenario 1, aggressive resistance to Scenario 3, nonphysical resistance, we see officers rate the former as the most dangerous (9.10) and the latter as the least dangerous (6.07) of the nine situations.

Race and Perceptions of Danger

In Table 3, we provide a similar breakdown as depicted in Table 2, but we include a comparison of suspect race. First, a key finding here is how little variation there is by race. In other words, there is very little difference between the level of danger officers reported by whether the suspect was white or nonwhite. For example, looking at Scenario 1 involving nonphysical resistance, the mean score for white is 7.47 and for nonwhite 7.44, and a similar type of pattern unfolds throughout the other situations. Second, with the exception of Scenario 1 aggressive physical resistance, where the mean score is identical at 9.10 by race, the remaining small differences are in the direction of officers reporting slightly more danger in relation to white suspects, but none are statistically significant.⁸

Table 4. Perceptions of Danger by Scenario, Resistance Type, and Suspect/Officer Race.

	Suspect race/officer race				Kruskal
	W/NW	NW/NW	W/W	NW/W	
Scenario					
Scenario 1 (hand)	24.43	24.42	24.06	23.91	3.72
Scenario 2 (reaching)	22.09	21.76	21.57	20.90	6.09
Scenario 3 (not reaching)	21.30	19.84	20.23	19.94	4.93

Note. W = White; NW = Nonwhite.

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$.

Table 4 offers a more nuanced assessment by examining suspect/officer dyads across the varying scenarios and resistance situations. Once again, and similar to the findings presented in Table 3, there is not a great deal of variation. The white suspect/nonwhite officer dyad yielded the highest danger scores for each scenario. Moreover, a similar pattern is found in both Scenario 1 and Scenario 2, with white suspect/nonwhite officer as the most dangerous and nonwhite suspect/white officer as the least dangerous. For Scenario 3, the least dangerous situation is found with nonwhite suspect/nonwhite officer.

Contextual Factors Enhancing Danger

For each scenario and suspect resistance type, we also asked officers to identify up to five contextual factors that would make the situation more dangerous. For parsimony, we present the primary findings in Table 5 with a summary account of such factors, while specific findings for each scenario and resistance type can be found in the Appendix. As shown in Table 5, there is a high level of consistency in relation to which contextual factors officers believe are most relevant to increasing the level of danger. More specifically, officers ranked three factors (i.e., when suspects display signs of impairment and are agitated, as well as when there are no backup officers present on the scene) as danger enhancements across all nine situations. Three additional factors (i.e., when bystanders are present, suspect has known history of violence, and the severity of the current offense) were identified by officers in eight of the nine situations. At the opposite end of the spectrum, seven of the items listed as possible danger enhancements by the working group were never listed in the top five by officers who were surveyed. These included encounters occurring in a high crime neighborhood, those occurring at night, available cover, the distinction between a suspect having a handgun versus rifle, as well as a suspect's attire, gender, or age.

Officer Correlates and Danger

We also examined the potential effect of seven additional officer-based factors (beyond race) in relation to danger perceptions. Beginning with officer gender, we see in Table 6 there are little differences in how male and female officers view danger

Table 5. Contextual Factors Enhancing Danger.

Top 5 factors overall	
Subject impaired (listed 9 of 9)	
Subject agitated (listed 9 of 9)	
No backup officers (listed 9 of 9)	
Bystanders present (listed 8 of 9)	
Subject has known history of violence (listed 8 of 9)	
Severity of current offence (listed 8 of 9)	
Top 5 factor never listed	
Location a high crime area	
Subjects' attire	
Subject gender	
Subject age	
It is night (dark)	
Available cover	
Handgun/rifle	

Table 6. Perceptions of Danger by Scenario/Resistance Type and Officer Gender.

Scenario	Gender		Kruskal
	Female	Male	
Scenario 1 (hand)	24.80	24.04	0.53
Scenario 2 (reaching)	22.23	21.40	1.18
Scenario 3 (not reaching)	20.90	20.21	0.33

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$.

regardless of the scenario.⁹ While females viewed danger slightly higher than males, the differences were small. As an example, the greatest distinction is found in Scenario 1, but even here the overall mean score for female officers is 24.80 and for male officers 24.04, which is not statistically significant.

Next, we assessed whether an officers' educational level was related to perceptions of danger. Similar to gender, none of the comparisons produced a statistically significant difference as seen in Table 7. One potentially interesting finding is seen with high school educated officers compared to those with some college or a 4-year degree. Officers with no college ranked both Scenario 1 and Scenario 2 less dangerous than officers with college, but ranked Scenario 3 more dangerous than the latter two groups of officers. Recall that Scenario 1 was considered the most dangerous by the working group, as well as assessed as such overall by officers surveyed, while Scenario 3 the least dangerous. Hence, those with at least some college followed this trend while those with no college exposure did not. Nonetheless, as noted such differences are not statistically significant.

Table 7. Perceptions of Danger by Scenario/Resistance Type and Officer Education.

	Education			Kruskal
	High school	Some college	Bachelors degree	
Scenario				
Scenario 1 (hand)	22.97	24.11	24.36	2.18
Scenario 2 (reaching)	21.41	21.49	21.68	0.22
Scenario 3 (not reaching)	20.46	20.31	20.39	0.29

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$.

Table 8. Perceptions of Danger by Scenario/Resistance Type and Officer Experience.

	Experience			Kruskal
	0–2 years	2 ± 7 years	7+ years	
Scenario				
Scenario 1 (hand)	23.63	24.63	24.20	8.10*
Scenario 2 (reaching)	21.05	21.46	21.82	2.82
Scenario 3 (not reaching)	20.09	20.24	20.48	0.50

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$.

Table 9. Perceptions of Danger by Scenario/Resistance Type and Military Experience.

	Military		Kruskal
	No	Yes	
Scenario			
Scenario 1 (hand)	24.17	24.03	0.02
Scenario 2 (reaching)	21.53	21.51	0.01
Scenario 3 (not reaching)	20.53	20.22	0.38

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$.

Turning to Table 8 and officer experience, we see there is a difference in Scenario 1. Officers in the middle group (2–7 years of experience) assessed danger the highest with an overall mean score of 24.63, while officers with 2 years or less of experience rated danger the lowest at 23.63. While this difference is statistically significant, we would offer a degree of caution in terms of being substantively significant given the mean difference is just 1.00.

In Table 9 we examine whether there is a relationship between officers with military experience and perceptions of danger. As shown, there are no significant differences and the overall mean scores are nearly identical across the comparisons.

Table 10. Perceptions of Danger by Scenario/Resistance Type and Officer Shift.

	Shift			Kruskal
	First	Second	Third	
Scenario				
Scenario 1 (hand)	24.32	23.87	24.29	0.77
Scenario 2 (reaching)	22.33	21.47	20.81	8.71*
Scenario 3 (not reaching)	20.97	20.07	19.93	4.24

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$.

Table 11. Perceptions of Danger by Scenario/Resistance Type and Officer Precinct.

	Precinct			Kruskal
	Low crime	Medium crime	High crime	
Scenario				
Scenario 1 (hand)	23.02	20.94	19.43	4.53
Scenario 2 (reaching)	24.19	21.58	20.25	1.34
Scenario 3 (not reaching)	24.45	21.71	20.71	3.97

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$.

For example, in Scenario 2 officers with no military experience ranked danger at 21.53, while those with military experience scored danger at 21.51. The greatest difference is found in Scenario 3, but even here the difference is only 0.31 in terms of the overall mean score.

The next comparison examines officers’ shift assignment and danger perceptions as shown in Table 10. We see officers assigned to first shift (i.e., day) consistently ranked danger the highest for each of the three scenarios. Additionally, we find a statistically significant difference across shifts within Scenario 2, with officers working the night shift viewing danger the least. Perhaps officers working the day shift, when crime is generally less frequent, are more sensitive to the scenarios presented as they may less frequently encounter armed suspects, while officers working the night shift are less sensitized to firearm danger to a degree.

In Table 11, we assess officers’ precinct area assignment and danger perceptions. A somewhat similar finding is found in relation to what we found in terms of shift. In this case, officers working in low crime precincts consistently reported higher perceptions of danger across the three scenarios. Thus, officers assigned during times and in areas where there is less crime are more cognizant of danger when assessing the overall mean scores. However, note that despite the mean differences, which are the greatest of the officer-based correlates examined, none of the comparisons for precinct are statistically significant.

Table 12. Perceptions of Danger by Scenario/Resistance Type and Unit Assignment.

	Unit		
	Patrol	Special	Kruskal
Scenario			
Scenario 1 (hand)	24.13	24.07	0.01
Scenario 2 (reaching)	21.45	22.06	0.21
Scenario 3 (not reaching)	20.22	21.02	0.73

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$.

Finally, we examine whether officers assigned to special units (i.e., SWAT and Fugitive Apprehension) view danger differently than officers working patrol as depicted in Table 12. We found that officers working in specialized units view danger similarly to officers assigned to patrol. In one respect, this may be a bit surprising given specialized SWAT and Fugitive Apprehension officers generally interact with suspects that presumably would be armed more frequently than patrol officers, and thus may be more accustomed to weapons and not view them as dangerously as patrol. Conversely, however, perhaps this finding is not overly surprising in the sense that a firearm is a firearm and officers regardless of assignment assess the threat of such the same.

Discussion

The legality of police use of force is bound to *Graham v. Connor* (1989), which held that force must be judged under an “objectively reasonable” standard, and importantly, “from the perspective of a reasonable officer on the scene.” Yet, the scientific community, let alone the public at large, has little to no empirical data on what reasonable officers view as objectively reasonable force, which leaves juries and judges to apply their own views. Moreover, as stated by Terrill (2009, p. 167), “determining reasonableness is an elusive task for a variety of reasons , but it is nearly impossible without a better understanding of officers’ perceptions, which can only be gleaned by going to the source – officers themselves.” As such, the current inquiry seeks to gather such insight by surveying nearly 800 officers from a large metropolitan agency to assess how they view danger in specific types of situations involving armed suspects who display varying levels of resistance. Collecting and assessing such data is a crucial first step in moving toward a better understanding of how officers view danger, with the goal of a subsequent study drawing on such findings to better understanding what types of responses officers view as reasonable when faced with armed suspects. Additionally, we also quired officers about the types of contextual factors they believe increase potential danger. Finally, we also examined the extent to which various officer-based factors are related to their danger perceptions.

Perhaps the most important finding gleaned from the study is that officers discern various levels of firearm danger. There was a consistent ranking by officers as to danger perceptions, whereby they distinguished suspects with a firearm in their hand to be more dangerous than simply reaching for one, as well as distinguishing suspects reaching for a gun as more dangerous than simply having one on their person and not reaching for it. One reaction to this finding may be to say how is such a finding “important” rather than simply expected. We would argue that by officers discerning the level of danger by the scenarios presented (i.e., in one’s hands, vs. in one’s possession and reaching for it, vs. in one’s possession and not reaching for it), along with the suspects reaction and resistance levels (i.e., passive/verbal resistance vs. defensive physical resistance, vs. aggressive physical resistance), demonstrates that officers do not simply treat all suspects with a firearm similarly. This is incredibly important in that it suggests a suspect simply having a firearm may not merit the use of lethal force *a priori*. While we did not ask officers to indicate how they would respond to such threats of danger (which is Phase II of the study), when we compared officers mean scores they ranked suspects with a firearm in their hand engaging in aggressive resistance as the most dangerous (9.10 out of 10) of the situations presented to them, while suspects with a gun in their possession engaging in nonphysical resistance as the least dangerous (6.07 out of 10). Hence, the often-heard refrain after a police shooting that the suspect had a gun, and the subsequent initial reaction by some (or perhaps many) is that in and of itself must mean it was a justifiable/legal shooting, may not actually be viewed similarly by “reasonable” officers if we place merit in the danger distinctions uncovered in the present study.

Another key finding is that suspect race was not a statically significant factor in terms of how officers viewed danger. Officers presented with scenarios in which the suspect was white versus nonwhite reported nearly identical danger scores. The largest difference was extremely small and found in Scenario 3 (i.e., suspect has a firearm on his person, not reaching for it), with overall mean scores of white suspects at 20.70 and nonwhite suspects at 20.00. Moreover, the small differences all leaned toward officers reporting greater danger when the suspect was white. Nonetheless, it is important to recognize that while we randomized the survey distribution based on suspect race, it is possible if not likely, that officers receiving surveys where the suspects were nonwhite may have been sensitive to that fact and took this into account when reporting danger scores (i.e., underestimating the danger for fear of appearing to be racially motivated).

A third, and related key finding, is the lack of significant correlates overall. Beyond suspect race, we examined the potential effect of seven officer-based factors across three different scenarios in relation to perceptions of danger. Out of the 21 overall mean comparisons only two were statically significant (i.e., officer experience in the hands scenario and officer assigned shift in the reaching scenario). Hence, the take-away is that who the officer is in terms of the demographics assessed, and when or where she or he is assigned, has little to no effect on the perception of danger. In short, the situation drives the danger perception not the officers in general.

Fourth, while officer-based factors do not have much effect on their perceptions of danger, there are a number of contextual factors officers consistently identified as danger enhancements across all nine situations examined (i.e., suspect impairment, suspect agitated, and no backup officers present). Moreover, three additional factors (i.e., bystanders present, suspect history of violence, and severity of crime) were identified by officers as increasing the level of danger in eight of the nine situations. Conversely, a number of contextual factors were never listed as a top five factor in terms of enhancing the level of danger by officers (i.e., neighborhood location, night, available cover, handgun vs. rifle, suspect's attire, gender, or age).

Although the current study is relatively large in terms of scale, compared to prior research, and seeks to provide valuable insight on how officers view danger across specific types of scenarios and situations, it is important to note the limitations and not overstate the findings. This is just one study, with one police agency, at one point in time. As a result, readers should be cautious to not over generalize the findings beyond similarly situated large U.S. metropolitan cities (e.g., to rural areas, smaller towns, or other countries).¹⁰ Second, given the sensitivity surrounding the potential role that race may play in terms of officer perceptions of danger, readers should be cautious to conclude race plays no role. While we did not find a race effect, we refer back to our first comment (i.e., one study). Moreover, as noted in the discussion above, it is certainly possible officers may have underestimated danger for fear of appearing to be racially motivated. Third, while we considered a number of officer-based factors in relation to danger perceptions, by no means is it an exhaustive list, and future research should expand in this area, as well as to incorporate non-officer-based factors that may be conceptualized to be related to perceptions.

Additionally, while the present study offers insight into what officers' view as more and less dangerous when faced with suspects armed with a firearm, a crucial next step is an attempt to link how officers perceive danger to what types of responses they believe are appropriate or more aptly noted—reasonable. Although it was tempting to ask officers both their perceptions of danger and how they should react to the different situations within the same survey, we wanted to be sure to fully flesh out the “perception” element prior to delving into the “response” element. As a result, the next stage of the study is to query officers as to what they believe are appropriate responses to varying levels of firearm danger so juries and judges can more accurately assess “reasonableness.”

Finally, from a policy implication standpoint during an era when there are widespread calls for increased officer training (see The President's Task Force on 21st Century Policing, 2015), knowing the specific factors that enhance officers' perceptions of danger could be translated into training situations. For example, the findings could be used to develop a scenario-based training environment involving a situation where an officer who does not have backup is confronted with an agitated or impaired citizen who is armed (i.e., hand, reaching, not reaching and presenting various levels of resistance (i.e., nonphysical, defensive, and aggressive). Offering officers simulated repetitions in handling these types of encounters could increase their levels of confidence when confronting them on the street.

Appendix. Contextual Factors Enhancing Danger.

Scenario 1

Nonphysical resistance	N	%
Subject impaired (mental, alcohol, and drug)	666	86
Subject has known history of violence	625	81
Subject agitated	552	71
No backup officers	529	68
Bystanders present	361	47
Defensive physical resistance	N	%
Subject has known history of violence	578	76
Subject impaired (mental, alcohol, and drug)	565	74
No backup officers	525	69
Subject agitated	427	56
Bystanders present	370	49
Aggressive physical resistance	N	%
Subject impaired (mental, alcohol, and drug)	607	80
Subject has known history of violence	603	79
No backup officers	588	74
Subject agitated	557	70
Bystanders present	297	39

Scenario 2

Nonphysical resistance	N	%
Subject impaired (mental, alcohol, and drug)	639	84
Subject has known history of violence	594	79
Subject agitated	545	72
No backup officers	543	72
Bystanders present	292	39
Defensive physical resistance	N	%
Subject has known history of violence	576	77
Subject impaired (mental, alcohol, and drug)	573	76
No backup officers	532	71
Subject agitated	464	62
Bystanders present	325	43
Aggressive physical resistance	N	%
Subject impaired (mental, alcohol, and drug)	639	85
Subject has known history of violence	612	81
No backup officers	598	80
Subject agitated	537	72
Severity of current offense	266	36

(continued)

Appendix (continued)

Scenario 3		
	<i>N</i>	%
Nonphysical resistance		
Subject impaired (mental, alcohol, and drug)	632	85
Subject has known history of violence	599	81
Subject agitated	547	74
No backup officers	542	73
Severity of current offense	282	38
Defensive physical resistance		
Subject impaired (mental, alcohol, and drug)	597	82
Subject has known history of violence	582	80
No backup officers	536	73
Subject agitated	479	65
Bystanders present	315	43
Aggressive physical resistance		
Subject impaired (mental, alcohol, and drug)	631	86
Subject has known history of violence	613	83
No backup officers	585	80
Subject agitated	530	72
Severity of current offense	259	35

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Notes

1. To the best of our knowledge, this is the first empirical study that has attempted to assess officers' views of danger within specific armed-citizen encounters.
2. As pointed out by an astute reviewer, danger is inherently linked with the police profession similar to other public safety occupations (e.g., private security and military). In effect, there are cases where suspects deliberately intend to hurt the police. Contrast this with other dangerous occupations where danger is more accidental and predominantly a byproduct of the work (e.g., logging, roofing, and farming).

3. The concept reasonableness in relation to appropriate police use of force is an element in other democratic countries as well. For example, Section 3 of the United Kingdom Criminal Law Act (1967) states: "A person may use such force as is reasonable in the circumstances in the prevention of crime, or in effecting or assisting in the lawful arrest of offenders or suspected offenders or of persons unlawfully at large." See also the United Nations Human Rights, Basic Principles on the Use of Force and Firearms by Law Enforcement Officials (1990) for a broader view.
4. Terrill (2005) discusses the importance of measuring force usage in relation to both proportionality and incrementalism, as well as analyzes the extent to which officers apply such behaviors in the field.
5. Sierra-Arévalo (2021) observed and interviewed officers who completed a "shoot-do not-shoot" use of force simulation that used a similar type of encounter. Officers who decided to shoot (with the suspect verbally resisting but not having raised the weapon) noted that they would fear for their life in that situation and that the use of lethal force was reasonable.
6. The working group believed few officers, if any, would indicate suspect race as a contextual danger enhancement, so the group felt the best approach to assessing the potential role of race was to randomize as part of the scenarios. While breaking the nonwhite race category out more specifically would be preferable, concern over the number of permutations that would result and low N 's prompted the decision to use white/nonwhite categories. Moreover, it is important to note the limitations of such a design in terms of seeking to assess the role of race. It is certainly possible, if not likely, that officers would pick up on identifying the suspect as being either white or nonwhite—and for fear of appearing to be racially motivated artificially underestimate danger levels for nonwhite suspects.
7. For the experience measure, the original intention was to have two separate 3 to 5 and 6 to 10 years tenure groups based on Paoline and Terrill's (2007) work on experience and force. However, only 11 officers in the sample had between 6 and 10 years of tenure due to a prior hiring freeze within the department. Thus, the decision was made to code those cases into 2 to 7 year (25–84 months) and 7+ year groups (85+ months). For the precinct measure, we assessed crime rates across the department's precincts. Reported index crimes for violent and property offenses were obtained for the 2 years prior to data collection (2018–2019). To obtain the population within each precinct, ArcGIS software was used to overlay the department's precinct onto a Shape file from the Census Bureau to get the population of citizens that lived within each precinct. From there, crime rates based on violent, property, and total offenses were created for the precincts. Once ranked from high to low, the top 30% precincts were labeled as "high-crime," the middle 40% were demarcated as "medium-crime," and the bottom 30% were categorized as "low-crime." The rankings of precincts were also relatively stable regardless of whether it was property, violent, or overall index crimes.
8. For parsimony we report the Kruskal-Wallis in comparing the *overall* mean scores by the correlates examined, as opposed for each type of resistance. Kruskal-Wallis tests are similar to ANOVA, and are preferable to use when the independent variables consist of two or more groups and there is non-normality in the distribution of the dependent variable (McKnight & Najab, 2010; Piza et al., 2021).
9. Given relatively little variation found, we do not report individual mean scores by resistance type, but rather draw on the overall mean danger totals to assess the effect of each potential correlate on danger perceptions for the remaining tables.
10. Given the disparity in the number of legal firearms that are owned by U.S. citizens when compared to members of other countries (see Lankford, 2016; Masters, 2017), we might

expect vastly different perceptions of danger were this a sample of international police officers. For example, in a country where private gun ownership is low, police are probably less likely to encounter citizens who have a firearm. This could potentially raise their perceptions of danger regardless of gun placement or citizen resistance and it presents an interesting empirical question that future research may consider addressing.

References

- Bayley, D. H., & Bittner, E. (1984). Learning the skills of policing. *Law and Contemporary Problems*, 47, 35–60.
- Bittner, E. (1970). *The functions of the police in modern society* (vol.88). National Institute of Mental Health.
- Brown, M. K. (1988). *Working the street: Police discretion and the dilemmas of reform*. Russell Sage Foundation.
- Crawford, C., & Burns, R. (1998). Predictors of the police use of force: The application of a continuum perspective in Phoenix. *Police Quarterly*, 1(4), 41–63.
- Cullen, F. T., Link, B. G., Travis, L. F., & Lemming, T. (1983). Paradox in policing: A note on perceptions of danger. *Journal of Police Science & Administration*, 11(4), 457–462.
- Goh, L. (2021). Did de-escalation successfully reduce serious use of force in Camden County, New Jersey? A synthetic control analysis of force outcomes. *Criminology and Public Policy*, 20(2), 207–241.
- Graham v. Connor*, 490 U.S. 386 (1989).
- Ingram, J. R., Paoline, E. A. III., & Terrill, W. (2013). A multilevel framework for understanding police culture: The role of the workgroup. *Criminology*, 51(2), 365–397.
- Klinger, D. A., & Brunson, R. K. (2009). Police officers' perceptual distortions during lethal force situations: Informing the reasonableness standard. *Criminology & Public Policy*, 8(1), 117–140.
- Koslicki, W. M., Makin, D. A., & Willits, D. (2019). When no one is watching: Evaluating the impact of body-worn cameras on use of force incidents. *Policing and Society*, 30(5), 569–582.
- Lankford, A. (2016). Public mass shooters and firearms: A cross-national study of 171 countries. *Violence and Victims*, 31(2), 187–199.
- Loftus, B. (2010). Police occupational culture: Classic themes, altered times. *Policing and Society*, 20(1), 1–20.
- Manning, P. K. (1977). *Police work: The social organization of policing*. MIT Press.
- Marenin, O. (2016). Cheapening death: Danger, police street culture, and the use of deadly force. *Police Quarterly*, 19(4), 461–487.
- Masters, J. (2017). *U.S. gun policy: Global comparisons*. Council on Foreign Relations. <https://www.cfr.org/backgrounder/us-gun-policy-global-comparisons>
- McKnight, P. E., & Najab, J. (2010). Kruskal–Wallis test. In I. B. Weiner & W. E. Craighead (Eds.), *The Corsini Encyclopedia of psychology* (p. 904). John Wiley & Sons.
- Muir, W. K. (1977). *Police: Streetcorner politicians*. University of Chicago Press.
- Paoline, E. A. III. (2003). Taking stock: Toward a richer understanding of police culture. *Journal of Criminal Justice*, 31(3), 199–214.
- Paoline, E. A. III., & Gau, J. M. (2018). Police occupational culture: Testing the monolithic model. *Justice Quarterly*, 35(4), 670–698.
- Paoline, E. A. III., & Terrill, W. (2014). *Police culture: Adapting to the strains of the job*. Carolina Academic Press.

- Paoline, E. A. III., Terrill, W., & Somers, L. J. (2021). Police officer use of force mindset and street-level behavior. *Police Quarterly*, 24(4), 547–577.
- Parks, R. B., Mastrofski, S. D., DeJong, C., & Gray, M. K. (1999). How officers spend their time with the community. *Justice Quarterly*, 16, 483–518.
- Piza, E. L., Szkola, J., & Blount-Hill, K. L. (2021). How can embedded criminologists, police pracademics, and crime analysts help increase police-led program evaluations? A survey of authors cited in the evidence-based policing matrix. *Policing: A Journal of Policy and Practice*, 15(2), 1217–1231.
- President's Task Force on 21st Century Policing. (2015). *Final report of the president's task force on 21st century policing*. Office of Community Oriented Policing Services.
- Reiss, A. J. Jr. (1980). Controlling police use of deadly force. *The ANNALS of the American Academy of Political and Social Science*, 452(1), 122–134.
- Reuss-Ianni, E. (1983). *Two cultures of policing*. Transaction Publishers.
- Rosenbaum, D. P., Maskaly, J., Lawrence, D. S., Escamilla, J. H., Enciso, G., Christoff, T. E., & Posick, C. (2017). The police-community interaction survey: Measuring police performance in new ways. *Policing: An International Journal of Police Strategies & Management*, 40(1), 112–127.
- Rubinstein, J. (1973). *City police*. Farrar, Straus, and Giroux.
- Rydberg, J., & Terrill, W. (2010). The effect of higher education on police behavior. *Police Quarterly*, 13(1), 92–120.
- Sierra-Arévalo, M. (2021). American policing and the danger imperative. *Law & Society Review*, 55(1), 70–103.
- Silver, J. R., Roche, S. P., Bilach, T. J., & Bontrager Ryon, S. (2017). Traditional police culture, use of force, and procedural justice: Investigating individual, organizational, and contextual factors. *Justice Quarterly*, 34(7), 1272–1309.
- Skolnick, J. (1966). *Justice without trial: Law enforcement in a democratic society*. John Wiley.
- Somers, L. J., & Terrill, W. (2022). Examining the relationship between the unique work experiences and cultural orientations of police officers. *Criminal Justice Studies*, 35, 182–199.
- Tennessee v. Garner*, 471 U.S. 1 (1985).
- Terrill, W. (2001). *Police coercion: Application of the force continuum*. LFB Scholarly Publishing.
- Terrill, W. (2003). Police use of force and suspect resistance: The micro-process of the police-suspect encounter. *Police Quarterly*, 6(1), 51–83.
- Terrill, W. (2005). Police use of force: A transactional approach. *Justice Quarterly*, 22(1), 107–138.
- Terrill, W. (2009). The elusive nature of reasonableness. *Criminology & Public Policy*, 8(1), 163–172.
- Terrill, W. (2016). Deadly force: To shoot or not to shoot. *Criminology & Public Policy*, 15(2), 491–496.
- Terrill, W., Paoline, E. A. III., & Manning, P. K. (2003). Police culture and coercion. *Criminology*, 41(4), 1003–1034.
- Van Maanen, J. (1974). Working the street: A developmental view of police behavior. In H. Jacob (Ed.), *The potential for reform of criminal justice* (pp. 83–130). SAGE.
- Weisburd, D., Telep, C. W., Vovak, H., Zastrow, T., Braga, A. A., & Turchan, B. (2022). Reforming the police through procedural justice training: A multicity randomized trial at crime hot spots. *Social Sciences*, 119(4), 1–6.
- Wenz, F. (1979). Death anxiety among law enforcement officers. *Journal of Police Science and Administration*, 7(2), 230–235.

- Westley, W. A. (1970). *Violence and the police: A socio-logical study of law, custom, and morality*. MIT Press.
- White, M. D. (2002). Identifying situational predictors of police shootings using multivariate analysis. *Policing: An International Journal of Police Strategies & Management*, 25(4), 726–751.
- White, M. D. (2019). Translating the story on body-worn cameras. *Criminology & Public Policy*, 18, 89–91.
- White, M. D., Mora, V. J., Orosco, C., & Hedberg, E. C. (2021). Moving the needle: Can training alter officer perceptions and use of de-escalation? *Policing: An International Journal*, 44(3), 418–436.
- Worden, A. P. (1993). The attitudes of women and men in policing: Testing conventional and contemporary wisdom. *Criminology*, 31(2), 203–241.

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