Racial Prejudice and Police Stops: A Systematic Review of the Empirical Literature

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Abstract

A police stop must be based on founded suspicion, an officer's ability to correctly discriminate suspicious behavior. However, police stops can be influenced by negative attitudes towards Black individuals. We conducted a systematic review of empirical articles published from 2014 until 2019 that investigated the relationship between racial prejudice and police stops on PsycInfo, using keywords such as "race", "ethnic", "police stop", "traffic stop", and "stop and frisk". Results included 16 studies conducted in the United States (US), England, Wales, and the Netherlands, and showed that: Black men were the most frequent targets of police stops; many individuals who have been stopped by the police reported negative perceptions of the police force; the Stop, Question, and Frisk strategy used by some US police departments proved to be a type of stop that favors racial selectivity; and that traffic stops were favorable environments for racially biased actions by officers. We conclude that institutional racism in police stops proves to be a problem shared by several countries, including Brazil. We suggest more investigations to characterize institutional racism in the police force and in other settings and interventions aimed at reducing individual biases and collective racist practices.

Keywords: police stop, Terry stop, Stop and Frisk, systemic racism, racial prejudice, racial issues

Racial Prejudice and Police Stops: A Systematic Review of Empirical Studies

In recent years, murders of Black¹ men by White police officers have sparked outrage around the world. In Brazil, in 2013, Amarildo Dias de Souza, a Black man who worked as a bricklayer helper and who lived in Rio de Janeiro's *Rocinha* slum, disappeared after a police operation. Twenty-five officers were sued for Amarildo's disappearance, generating eight convictions, but the case is still under investigation. In 2014, a White officer murdered the 18-year-old Black American Michael Brown. Investigations showed that the young man was unarmed. The event sparked protests across the country (Chaney, 2015). These are just two examples of the many cases where police officers abused their power during operations (Barret et al., 2014; Cerqueira & Moura, 2013; Sinhoretto, Batitucci, et al. 2014).

The police, an armed corporation responsible for maintaining and restoring order, is the primary public security service with which the community interacts. To pursue its mission, it carries out ostensible activities such as conducting stops, which can be defined as the "technique of stopping an individual or a group of people . . . with signs of suspicion; who have practiced or are on the verge of committing criminal offenses, to investigate, guide, warn, arrest, assist, etc." (Boni, 2006, p. 29). Police stops should limit individual freedom according to the collective interest and be based on founded suspicion—a concrete and sure presumption of the level of suspicion of the individuals stopped (Boni, 2006). Although most police forces have operational manuals to guide its procedures, the way an officer conducts a police stop and/or search depends on their personal evaluation, which may be influenced by negative attitudes, for example about the suspect's race.

¹ The term "Black" (*negro* in Portuguese) is used here to denote individuals with African ancestry. In Brazil, the term is used both by government agencies and by individuals themselves.

An attitude can be seen as a favorable or unfavorable evaluation of a stimulus or set of stimuli (e.g., Eagly & Chaiken, 1993). Attitudes regarding racial issues have been discussed with related concepts such as: (1) *racism*, which can be seen as an ideology based on the belief that biological, phenotypic, and/or cultural differences are inherently related to moral, intellectual, and aesthetic characteristics of individuals (Munanga, 2004); (2) *racial prejudice*, a set of negative attitudes regarding an individual or group of individuals, based on this individual/group characteristics, such as skin color, type of hair and size of lips (Nogueira, 2006); and (3) *institutional racism*, a systemic form of prejudice which can be defined as “the failure of institutions and organizations to provide a professional and adequate service to people due to their color, culture, racial or ethnic origin” (Brasil, 2006, p. 22).

The influence of police officers’ racial prejudices and the police institutional racism on Black individuals have been found, for instance, in Brazilian studies that: interviewed police officers and individuals who were stopped (Ramos & Musumeci, 2004; Souza & Reis, 2014), directly observed police stops (Ramos & Musumeci, 2004; Silva, 2009; Sinhoretto, Batitucci, et al., 2014), analyzed police lethality data (Cerqueira & Moura, 2013; Sinhoretto, Silvestre, et al., 2014), and examined statistical data resulting from the formalization of complaints (Duarte et al., 2014). This is a fundamental social issue, as the alarming number of young Black men killed in police encounters demonstrates. As one example, Sinhoretto, Silvestre, et al. (2014) analyzed 734 cases of deaths resulting from police conduct in the state of São Paulo, Brazil, between 2009 and 2011, and found that 61% were of Black individuals—while only approximately 30% of the population from São Paulo are Black.

This differential treatment for people of color can produce a distrusting relationship between the population and the police. For example, in a Brazilian survey

on racial and ethnic characteristics of the population (Instituto Brasileiro de Geografia e Estatística, 2011), 68.3% of the participants considered that justice and police were the fields with the greatest influence of racial biases, suggesting that Brazilians do not trust their own public security system. The consequences of this inefficiency have been discussed in the literature as institutional racism, which can be seen in the treatment given to Black users by institutions in different areas, such as education, health and security.

Of course, racially skewed police stops are not exclusive to Brazil. Since the 1990s, after episodes of police violence directed at young Blacks, the United States (US) has intensified the assessment of police practices in addressing the so-called street crimes. For instance, Gelman et al. (2007) analyzed 5,000 cases of Stop, Question, and Frisk (SQF) police approaches (also known as Terry Stops in some states), a US Street Police Department policy that allows police officers to search civilians in suspicious behaviors, looking for weapons or smuggled items. The results indicated that more Blacks and Hispanics were stopped, even when the study controlled for geographic variables, such as racial characteristics of the neighborhoods and criminal indexes of each district. Thus, Black and other underrepresented individuals are more prone to being stopped by the police. And during stops, they are more prone to suffer unnecessary use of force (Cerqueira & Moura, 2013; Sinhoretto, Batitucci, et al., 2014). This produces immense behavioral consequences both to their relationship with the police itself and to other areas of their lives. For instance, the number of occurrences towards underrepresented groups could be higher due to the disproportional number of times they are stopped. In fact, Mizael and Sampaio (2019), in a behavioral and cultural analysis of the Brazilian police force, argued that the “war on drugs” (the policy of trying to reduce drugs trafficking at any cost) leads to higher policing of

underprivileged areas, where there are more Blacks and people of color. Also, the unnecessary use of force towards underrepresented groups could lead to responses such as escape and avoidance in the form of freezing or hiding from the police, which could be seen by police officers as suspicious behavior, leading to more stops (and more fear and escape or avoidance responses by the individuals being stopped). Additionally, the unnecessary use of force could lead to a difference in attitude towards the police: while Whites could be more prone to see the police force as a positive and necessary group in the society, Blacks and other underrepresented groups could be more likely to relate the police force with negative attributes.

In this respect, any behavior analyst or social scientist working with this public or interested in them should be aware of the most recent evidence regarding the matter. The first step to planning any type of intervention is being aware of the current data. This facilitates the identification of gaps and the proposition of additional research and future application. More importantly, any professional interested in contributing to alter this fundamental social issue, should be familiar with empirical work that could inform organizational and cultural interventions (e.g., training and educational activities, culturo-behavior science and organizational behavior management applications) to pursue that end. In this direction, we carried out a systematic review of the literature to analyze recent results of empirical, archival and/or statistical research that investigated the relationship between racial prejudice and police stops.

Method

We searched PsycInfo, which covers themes of the behavioral and social sciences, with keywords related to racial issues and police stops: [race OR racial OR ethnic] AND [police stop OR traffic stop OR stop AND search OR stop AND frisk]. We also searched for the Portuguese translation of the keywords. Keywords must have

appeared in the abstract. The search was filtered by type of document (journal articles only) and time period (2014 to 2019), and was carried out in October 2019. The inclusion criteria for the studies were: to be an empirical research (e.g., reviews and mathematical modeling studies were excluded) and to have primarily investigated the relationship between racial prejudice and police stops. The selected studies were analyzed regarding: (1) authors, (2) aims, (3) study design, (4) participants, (5) country, (6) dependent variables, (7) independent variables, and (8) main results found. The recommendations of the PRISMA group (Liberati et al., 2009) were considered for the presentation of the results.

Results

In the identification stage, no studies written in Portuguese and 23 studies written in English were found (with no repeated results). Of these, seven studies were eliminated: two for being non-empirical, and five for not being primarily related to racial prejudice and police stops. Thus, 16 studies were read in full and evaluated for eligibility, all of them being included. Table 1 summarizes the reviewed studies' main characteristics. The studies were carried out in the US, England, Wales, and the Netherlands; and mainly analyzed database or survey data.

[Insert Table 1 about here]

The studies main results on the relationship between racial prejudice and police stops showed, first, that a larger proportion of Black people (vs. other races), especially men, were stopped and exposed to excessive use of police force (Ariza, 2014; Motley & Joe, 2018; Morrow et al., 2017; Svensson & Saharso, 2015). Black men *with low-income* were especially prone to that (Motley & Joe, 2018). Furthermore, living in communities where the use of police force is common or racially skewed was associated with poor health (Sewell, 2017).

As for the perceptions about interactions with the police, young Black participants reported having difficulty communicating with officers—especially for those that were not proficient at English, but also because some of them were afraid to ask questions, arguing that the police could see this type of behavior as defiance behavior, i.e., “being smart” (Barret et al., 2014). They also reported abuses of power and “over-policing” directed towards them, i.e., a more intense and frequent policing than necessary to maintain order (Barret et al., 2014). Additionally, research has found that Black participants reported more negative attitudes towards the police (Nadal et al., 2017). The only experiment included in our review further found that social contextual framing factors, such as the local climate of police-community relations, the legality of the stop, and the officer’s work history have a similar or even higher effect than the race of participants on how citizens perceive and evaluate videos of actual police-citizen encounters (Braga et al., 2014).

During traffic stops, Black drivers were also stopped more often during the day than Whites, suggesting a racial bias, since it is harder to ascertain an individual’s race during darkness (Ritter, 2017; Taniguchi et al., 2017). In addition, specific police units (e.g., the HEAT team) presented greater racial disparity in the number of stops conducted (Taniguchi et al., 2017). Blacks and Latinos received more traffic tickets than White drivers, and Black individuals were disproportionately targeted for discretionary searches (Gilliard-Matthews, 2017). Compared to White drivers, African-American drivers were more likely to experience an investigative stop, to experience more invasive inquiries in this kind of stop, and to receive a formal complaint (Epp et al., 2017).

The study by Vito et al. (2017) found that traffic stops with Black drivers were less likely to generate citations compared to that of other races, but the researchers

suggested that this could be explained because officers believed Blacks were involved in more serious crimes. According to Voigt et al. (2017), police officer's utterances spoken to White community members during vehicle stops were consistently more respectful, but not more formal, than those directed at Black individuals, even after controlling for contextual factors such as the severity of the offense or the outcome of the stop. Related to that, a deteriorated setting was associated with a driver's race being described as African-American (Barnum & Miller, 2014).

One study even found that officers' categorization of Black women's body weight in police stops' reports were racially biased, with Black women being more likely than White women to be labeled heavy and to be stopped in private rather than public spaces, even after controlling for diverse variables (Kwate & Threadcraft, 2015).

Discussion

Institutional racism can be measured by the low level of access, quality or satisfaction with products and services (e.g., education, health) provided for specific racial/ethnic group(s) by an institution. This form of racial prejudice is a fundamental element in the maintenance of racial inequality in a society. As stated in the Brazilian *Handbook to Fighting Institutional Racism*, "what institutional racism produces is not only the lack of access and the low quality of access to services and rights, but it is also the perpetuation of a structural condition of inequality in our society" (Brasil, 2006, p. 13).

Taking those measures of institutional racism into account, the studies we reviewed clearly demonstrate the institutional racism present in police stops—at least in the countries where the research was conducted. Black people are systematically harmed by police actions, as evidenced in the studies reviewed. Having a biased police force interferes with the population's trust in the alleged aims of the police, that is,

safety and order, especially by people of color and other underrepresented individuals. That produces a negative perception of police officers, reported by participants from studies carried out in three countries: the US (Braga et al., 2014), England (Barret et al., 2014), and in the Netherlands (Svensson & Saharso, 2015).

The century-old idea that Black and other non-White individuals are inferior influences the behavior of members of a society, being reinforced in and by several institutions (e.g., religious, educational). Being present and reinforced in several contexts, this incorrect and outrageous idea becomes naturalized, that is, people tend to see it as a normal or natural feature of the environment and to avoid any form of countercontrol (see Sidman, 1989). However, a system that maintains institutional racism directly interferes with the quality of life of those targeted by racial selectivity during the stops and can generate popular protests and riots. In Nadal et al. (2017), for example, a 19-year-old Black American man reported: "I felt as if I did something wrong, despite me knowing that I didn't do anything. I felt bad about myself" (p. 820). In addition to eliciting emotional responses often referred to as fear and nervousness in the presence of police officers, helplessness is also a common outcome, as expressed by an 18-year-old Latino man also from the Nadal et al. study: "It happens a lot, so it really doesn't matter" (p. 821).

The SQF approach was mentioned by two studies (Motley & Joe, 2018; Sewell, 2017) from different countries (the US and England). These studies used police departments' data on stops to assess whether this practice disproportionately targets Blacks. Common results showed a racial discrepancy in the frequency of stops. As officers register the citizen's race according to their own pre-judgments, however, it is important to note that Barnum and Miller (2014) results suggest such data can be

influenced by factors such as the stop site being a lower-income neighborhood, where officers tend to report the person as Black.

We found no research reported in Portuguese or conducted with Brazilians or other Portuguese-speaking citizens. This may be due to the keywords being searched in only one database. Thus, the selection of a single database is a limitation of our review. Despite that, data regarding institutional racism in the Brazilian police can also be found. According to Cerqueira et al. (2017), the number of registered deaths occurring in police interventions in Brazil during 2015 was extremely high (3,320), even higher than the number of deaths after a robbery (2,314). Critically, during the same year, 71% of murdered people in the country were Black. There are no data regarding the percentage of Black people killed during police interventions, but one can expect numbers at least equal to that for total murders. The negative perception of police officers by Black people is also present in Brazil. For example, a survey showed that 68.3% of Brazilian respondents believed that the police acted in a racially biased manner (Instituto Brasileiro de Geografia e Estatística, 2011).

Future research should investigate traffic stops—which proved to be a favorable environment for racial discrepancies in police procedures in the US (Barnum & Miller, 2014)—in different countries, assessing the generality of this unfortunate phenomenon and its cultural particularities. Due to social and racial inequalities in Brazil, for instance, White people tend to have more financial resources, which influences the purchase of goods such as vehicles. In addition, cars are especially expensive in Brazil. Since we could not find studies relating racial prejudice and traffic stops in Brazil, researchers could investigate, for example, whether it is more common for police officers to stop Black people driving cars that are considered expensive, compared to White individuals and whether Black drivers are stopped more than Whites.

The absence of studies in Brazil and other countries might also be due to the difficulty of accessing data on police stops. These data may not have been produced or made publicly available. Therefore, movements that demand constant production and publicity of data are paramount for researchers being able to collect data that could help delineate public policies.

Behavior analysts have contributed to studies on racial prejudice and institutional racism (de Carvalho & de Rose, 2014; Mizael & de Rose, 2017; Mizael et al., 2016; Mizael & Sampaio, 2019). In that line, future research could investigate, for instance, the cumulative effect of prejudice in organizations such as the police force and some of the individual and cultural consequences that permits the maintenance of these behaviors, thus describing the components of the macrocontingencies involved (cf. Glenn et al., 2016; Mizael & Sampaio, 2019). These can help design cultural interventions aimed at reducing this and other types of prejudices—one thing that was unfortunately lacking in literature we reviewed. Interventions to fight racial prejudice and institutional racism are badly needed, and a behavior-analytic perspective might just be what is missing for us to win this battle.

A possible way that behavior analysts could ameliorate racial bias in police stops could be by analyzing strategies already used, such as training programs. Generally, those types of programs focus on presenting the audience (police officers) written and visual material describing how to better interact with civilians. According to Machado and Lugo (in press), this type of strategy could be effective to change verbal behavior. However, to establish specific skills (e.g., to use force only when no other alternative is possible), it could be more effective to use performance and competency-based strategies. In this sense, behavior analysts could evaluate the use of video modeling or behavior skills training to decrease racial bias in police stops.

Body-worn cameras (BWCs)—cameras attached to a police officer chest area or head that record their interactions with civilians—are another strategy already in use (see Voigt et al., 2017). According to Machado and Lugo (in press), they are used by the US Department of Justice since 2005, and, each year, more cameras are available to police officers. According to the authors, BWCs could be seen as an antecedent manipulation that could evoke socially congruent behavior (covert rules or overt behavior), and/or increase the probability of behavior that could avoid the punitive consequences related to racial misconduct (Machado & Lugo, in press). Those videos could also be used in sessions where a trainer reinforces professional behavior (e.g., by adding points that could lead to a higher salary) and where unprofessional behavior, such as the abusive use of force is accountable (e.g., the police officer loses points that decrease their salaries).

Racial bias in police stops is an urgent and fundamental matter affecting different aspects of society (e.g., health, traffic, imprisonment). Our review confirms the unfortunate and systematic presence of this social issue in different countries. We hope that such information can be useful in furthering more basic and applied research, helping to formulate interventions to reduce individual biases and to implement measures to decrease institutional racism.

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Table 1*Summary of the Studies Reviewed*

Authors	Aims	Study Design	Participants	Country	Dependent Variables	Independent Variables	Main Results
Ariza (2014)	Factors that affect the likelihood of police contacts with individuals	Statistical Analysis of Survey Data	4,600 people aged between 10 and 25, who had experienced contact with the police in 2005	England and Wales	Probability of contacts initiated by the police; type of contact with the police	Sex, type of housing (owned/rented), family income, age, and race	Having friends in conflict with the law, being male, being aged 14 to 17, and being part of a racial minority (especially being Black) increased the likelihood of police initiating contacts.
Barnum & Miller (2014)	Relations between characteristics of a neighborhood and perceptions of race in ambiguous conditions, such as poor lighting	Statistical Analysis of Database and Survey Data	Drivers stopped by the Davenport PD between late 2010 and early 2011	US	Observers' perception of the driver's race	Social characteristics of a neighborhood (e.g., abandoned houses, poor lighting); time of day during the stop (night/day)	Poor lighting and abandoned houses were significantly related to the likelihood of observers indicating the driver's race as African-American.
Barret et al. (2014)	Level of satisfaction of minority communities with the police service	Mixed-methods approach	45 ethnic minorities participants living in Northern England	England	Level of satisfaction with the police force	Being a victim of a crime; how communities were supervised by the police	Communication with the police was described as being hampered by language difficulties and fear of asking questions. Young people, especially Blacks, reported "over-policing" and abuses of power during police stops.
Braga et al. (2014)	Effects of social contextual variables on the evaluation of officers' behavior during stops	Experimental	1,361 participants aged 18+, living in 15 US cities	US	The perception of police procedures in traffic and street stops	3 videos of appropriate and inappropriate police use of force; race, sex, age, and income of participants; previous history with the police and political ideology	Negative professional history of the police officer, police-community climate in the city, citizen characteristics, and legal circumstances engendered negative evaluations of police officer's behavior
Kwate & Threadcraft (2015)	Factors associated with officers' categorization of Black women's body weight	Statistical Analysis of Survey Data	All NYPD police stops from 2003 to 2012	US	Police officer's categorization of body weight	Suspect's race, age, height, and weight; frisked or not; Black precinct or not; date of the stop; inside or outside stop	Black women were more likely than White women to be labeled heavy and to be stopped inside rather than outside, even after controlling for all other variables.

Svensson & Saharso (2015)	Relationship between proactive policing and unequal treatment of young ethnic minorities	Survey	231 people aged between 12 and 25 years old	Netherlands	Young people's perceptions of preventive contacts with the police	"Dutch" physical appearance, sex, data of individual delinquency, and association with delinquent groups	Young individuals with a non-Dutch stereotypical appearance reported a greater number of preventive contacts with the police, a greater frequency of the use of instruments such as sprays and batons against them, and lower quality in the interactions.
Epp et al. (2017)	Racial disparities in the number of occurrences, reasons, and formalization of complaints in police stops	Survey	245 Kansas PD officers and 2,329 drivers stopped	US	Racial disparities in police stops	Frequency, reason given for stopping, citation, violations, driver's race, type of clothing they commonly wear, age, sex, vehicle's make, model, year, location of the stop	African Americans were 2.7 times more likely to experience an investigative stop.
Gilliard-Mathews (2017)	To compare, in 1999 and 2008, under which conditions drivers received most traffic tickets	Statistical Analysis of Survey Data	Residents over 16 years old with one or more encounters with the police in the past 12 months	US	A driver receiving a traffic ticket	Legal reasons for stopping, geographic dimensions of the place, sex, age and number of occupants of the vehicle	Young people received traffic tickets more often. Blacks and Latinos received more traffic tickets than White drivers. 47% of drivers stopped were Black.
Morrow et al. (2017)	Circumstances, prevalence, and predictors of the use of force in Terry stops	Statistical Analysis of Survey Data	Police officers from the NYPD	US	Excessive use of police force and perceptions of police actions	Age, sex, income, race (Black/White), situational characteristics of the suspected individual, type of police unit in the region	Non-weapon use of force occurred more frequently against Blacks and Hispanics, compared to Whites.
Nadal et al. (2017)	To describe perceptions of law enforcement in the community, and how unjustifiable interactions with the police affect participants' responses	Mixed-methods approach	503 college students and/or members of Black fraternities: 124 Whites, 97 Blacks, 291 Latinos/Asians	US	Perceptions of law enforcement in their daily lives	Race, age, sex, intersections between race and gender	Negative views of the police were more common among Blacks, in comparison with Whites and Latinos.
Ritter (2017)	Whether driver's race and time of day	Statistical Analysis of Database Data	Officers of and people stopped by	US	A police officer's decision to stop a	Race and period of the day	The percentage of Blacks drivers being stopped was between 5% and 7%

	predicted an officer's decision to stop		the Minneapolis PD in 2002		driver and conduct a search		lower during darkness, compared to the percentage of White drivers
Sewell (2017)	Relationship between reported health and living in neighborhoods with frequent excessive use of police force	Statistical Analysis of Database and Survey Data	36,188 US residents and 2009-2012 New York City SQF Database	US	Health indices (diabetes, hypertension, and obesity)	Degree of use of force in police stops, race of the person stopped, characteristics of the neighborhood where the stop took place	Living in minority communities with common use of police force against pedestrians was associated with an increased risk of presenting obesity and diabetes. Living in a White community where the use of police force is racially skewed was correlated with an increased risk of obesity, diabetes, hypertension, and poor or fair reported health
Taniguchi et al. (2017)	Relationship between lightening of day and number of Black/White drivers stopped by the police unit	Statistical Analysis of Database Data	Drivers and police officers living in Durham	US	Racial disproportionality in stops	Time of day (day, sunset, night), year (2010-2015), sex, law enforcement unit (Uniform patrol, HEAT, Traffic Services or interdiction)	A significant relationship was found between daylight and race for Black male drivers. The HEAT Team was 62% more likely to stop a Black man during the day than at other times.
Vito et al. (2017)	Circumstances in which police officers generate citations	Statistical Analysis of Database Data	Louisville PD's officers and individuals stopped in 2002	US	Citations as a result of a stop	Driver's race and sex, police officer's motives related to a stop (according to focal concerns theory)	34% of drivers stopped were Black, and 70% were men; 67% of the stops generated citations. Black drivers were 42% less likely to issue a citation compared to other races (supposedly, because officers believed Blacks were involved in more serious crimes).
Voigt et al. (2017)	Level of respect in the language police officers used in stops with White and Black individuals	Analysis of police officers' body-worn camera footage	628 Black drivers, 299 White drivers, 245 officials of Oakland, CA	US	Statements emitted by police officers to Black and White drivers in police stops	Level of respect, cordiality, formality, impartiality, etc. present in the statements	Statements given to White drivers were more respectful than those emitted towards Black drivers (even when controlling the context of the interaction)
Motley & Joe (2018)	Examine self-reported exposure and perceptions of the use of police force by Black and White individuals	Statistical Analysis of Survey Data	US residents aged 16 or more: 59 Blacks, and 366 Whites	US	Excessive use of police force and perceptions of police actions	Age, sex, income, race: Black/White	The lower the income, the greater the excessive use of force for both race groups, in both sexes. Black men reported a higher frequency of excessive use of force, such as handcuffing and pushing.

Note. The studies are ordered by year of publication. SQF = Stop, Question and Frisk. HEAT = Police team responsible for carrying out services such as proactive problem solving, and drug transfers at street level. PD = police department. NYPD = New York Police Department. Excessive use of police force = Degree of force above the appropriate level to a given situation, ranging from giving a warning to the lethal use of force with a weapon.

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