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THE FORMATION OF A CITIZEN-POLICE ENCOUNTER AND ITS EFFECT ON

DISPOSITIONAL OUTCOMES FOR TRAFFIC STOPS IN A CITY AND COUNTY

JURISDICTION

By

DARBY AUTUMN SEMENZA

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Approved by:

Scott Whittenburg, Dean of The Graduate School
Graduate School

Dr. Dusten Hollist, Chair
Sociology Department

Dr. James Burfeind
Sociology Department

Dr. Laura Kirsch
Psychology Department

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The Formation of a Citizen-Police Encounter and Its Effect on Dispositional Outcomes for Traffic Stops in a City and County Jurisdiction

Chairperson: Dusten R. Hollist, Ph.D.

   This research extends Donald Black's (1976) theory of law to a large, more diverse sample of traffic stops than previous research. The theory suggests that with every citizen-police encounter, there is social distance separating the two parties. This distance is based on observable characteristics of both the officer and citizen involved. Specifically, their gender, age, race, demeanor, and whether they differ across these variables or not. A large difference in "social distance" increases the likelihood that an officer will cite a motorist; while a small distance reduces this likelihood. Social distance is the amount of diversity between two parties in conflict (Black 1976). Camera recordings from body-worn and police vehicle camera systems were viewed to retrospectively study traffic stops (n=320) conducted by both a city and county law enforcement agency. Both agencies were taken into consideration to control for outside variables and to increase the generalizability of the results. Data analysis supported Black's theory in that greater amounts of social space increased the likelihood of motorists being cited. The opposite is also true in that officers who were more similar to motorists often let them off with a warning. Using logistic regression, social space was a significant predictor at the 99% confidence interval. No notable differences between city and county jurisdictions was found, suggesting that characteristics outside of those observable of an individual, do not have a large impact on the disposition of a traffic stop.

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Introduction

Research on law enforcement discretion is a common area of exploration in sociological literature. Discretion is the authority given to law enforcement officials to determine whether they will pursue formal or informal action when an individual breaks the law. A few researchers have begun to examine and apply Donald Black's (1976) theory of law to police discretion (Girard 2010; Schulenberg 2009; Tucker 2015). This includes the idea that social space exists between officers and civilians. Social space is defined by the amount of "intimacy, inequality, and diversity of the parties in a conflict" (Tucker 2015:293). The social distance that separates the two is argued to have an influence on police discretion (Black 1976). None of the prior studies, however, have assessed the difference in social space between an encounter of an officer and a civilian in a city's jurisdiction, compared to an encounter between a deputy and a civilian in the jurisdiction of a county.

This thesis expands on existing research conducted by Andrew Girard (2010) in his application of Black's theory of law to traffic enforcement. Even with a relatively small sample size of 45 traffic stops from eight municipal police departments, Girard was able to determine that the age of the driver has a slight impact on social space, and inherently on an officers' decision to warn, cite, or arrest an individual. Girard suggests that with a large, more diverse sample, other observable characteristics such as gender and race may prove to have an impact on officers' discretionary practices. This research examines these characteristics in an analysis of 320 traffic stops conducted by both officers of a municipal police department and deputies of a county sheriff's office.

By studying the amount of social space that exists between officers and citizens in each jurisdiction, this research highlights the variables that have the most significant impact on officers' decision making. Previous research conducted by Girard presents preliminary support for Black's theory of law and its application to law enforcement encounters with citizens during routine traffic stops. Expanding on these findings with a larger sample may highlight additional variables that contribute to social space and impact an officer's decision to warn, cite, or arrest an individual during a traffic stop.

This project also takes into account that city and county jurisdictions are unique to the population and geography that they serve. One could anticipate outside variables having a different impact on officers' decisions to warn or cite in each jurisdiction. It is important to emphasize that Girard's findings may not be generalizable to law enforcement agencies of all jurisdictions due to the different work environments each organization encounters.

Black's theory of law was used to show that discretionary practices may be the result of dissimilarities that separate two individuals in social space, rather than the biases of a police officer, or the policies set by their institution. This research attempts to determine if characteristics such as demeanor, gender, age, and race, contribute to the formation of social space and can be used to predict formal versus informal outcomes in a traffic stop encounter. Additionally, this research seeks to examine if traffic stops in both a city and county jurisdiction yield different statistically significant variables, expanding on the assumption that each jurisdiction is impacted differently by outside variables in similar traffic stop situations.

Literature Review

Black's theory of law is a form of "pure sociology". As explained by Mark Cooney (2006:52), most modern criminological theorists explain the crime and offender by the "nature" of the criminal act. For example, when an officer uses their discretionary authority, traditional criminologists would look to the biases of the police officer, the standards set by their organization, or the structural features of society to explain the outcome. Black's (1976) theory of law, rather, focuses on the distance between two opponents in social space. That is, the social distance that is constructed between two individuals by cause of diversity and opposing viewpoints. Black (1976) defines the two parties as being the state and its citizens. Law enforcement officials are representatives of society's most influential organization, the state, while everyday motorists and citizens are not.

The distance between the state and its citizens is measurable and therefore law and its application is a quantitative variable (Shields 1982). To measure social space, Black developed a multi-dimensional analysis. Five variables are included in his model: stratification (distribution of resources), morphology (social interactions/relationships), organization (collective action among members), culture (education, language, etc.), and social control (customary response to deviant behavior) (Black 1976). These dimensions of social space combine to create social distance between two adversaries to the extent that there are differences across each dimension. The disposition of a traffic stop is then predicted on the amount of social space that exists between the parties in each dimension of Black's analysis. The smaller the social distance, the less formal action taken by the

state; in the case of a traffic stop, this may mean the motorist is issued a warning. When the social distance is sizeable, however, a citation or arrest is more likely to result (Black 1976).

The Construction of Social Space in Traffic Encounters

Without utilizing Black's theory of law, researchers have unknowingly broken down his multi-dimensional perspective to study independent variables and their effect on police discretion. An examination of this pertinent literature is necessary to identify what observable and situational characteristics are believed to contribute to the formation of social space in traffic encounters between law enforcement officials and motorists.

Demeanor

Black proposes that etiquette varies directly with rank. He states, "aristocrats have more etiquette than peasants, adults more than children, masters more than slaves or other servants" (Black 1976:34). In a traffic enforcement situation, police officers hold a higher authority than the citizen they have pulled over, producing social space. When an individual of a lower rank violates normative etiquette against someone of a higher rank, more serious responses are likely to occur (Black 1976). Black infers that when a driver is impolite or offensive towards an officer, the officer assumes his rank over the individual and exerts it to a greater extent. In an earlier study, Black (1970) found that the more deferential a complainant is toward the police, the greater the likelihood of official recognition of their complaint. Recent research has shown that demeanor has a significant impact on police decision making in traffic encounters in that disrespectful individuals

are punished more harshly than those who are pleasant (Engel, Sobol, and Worden 2000; Girard 2010; Liu and Cook 2005).

Gender

Black's theory implies that two individuals of opposite gender would have intrinsic social space between them due to differences in their social roles. Contrary to this assumption, the popular view on gender bias would assert that a woman driver would be less likely to receive a citation from a male officer. Some findings support this view and assert that males are less likely to be warned than females when gender is measured independently of other variables (Brown and Frank 2006; Lundman 1979; Tillyer and Engel 2013). Other researchers have determined that there is no statistically significant relationship between the gender of the driver and the outcome of the traffic stop (Blalock et al. 2011; Lui and Cook 2005).

Age

Researchers have found evidence that young drivers are treated more leniently, suggesting that age may be an additional factor in understanding the social structure of a traffic encounter (Black 1980; Blalock et al. 2011; Lui & Cook 2005; Pickerill, Mosher, and Pratt 2009). Conversely, Tillyer and Engel (2013) discovered that drivers below the age of thirty were more likely to be cited compared to drivers thirty years of age and older. Regardless of the direction, Black suggests that individuals of different ages possess different education levels and life experience, creating separation in values, culture, and social space.

Race

Steven Briggs (2007) highlights differential treatment of minorities by police in an article titled, "People and places: An examination of searches during traffic stops in Minneapolis." Although Briggs does not specifically test Black's theory of law in traffic enforcement, it is plausible to assume that, with regard to culture, a motorist and an officer of a different race and ethnic background will have more social space between them than those of the same race. Briggs (2007) found that racial and ethnic minority drivers are more likely to be searched in the course of a traffic stop. This suggests that officers may distrust minority drivers which further creates a separation in social space.

Traffic enforcement studies surrounding racial profiling have long produced mixed results. "Driving while black" is a phrase termed by the suspected unequal treatment that minority individuals receive by law enforcement officials (Lundman and Kaufman 2003; Warren et al 2006). Robin and Calnon (2004) conducted an analysis on data derived from a national survey on traffic stops. The data focused on the race of each driver as well as the reason and disposition of each stop. They found that young black male drivers were more likely to be issued a citation, searched, arrested, and have force used against them by police than any other racial/ethnic group (Robin and Calnon 2004). Similar studies have also supported the notion that minority drivers are subject to coercive treatment by law enforcement (Antonovics and Knight 2009; Dharmapala and Ross 2004; Knowles, Persico, Todd 2001; Pickerill, Mosher, and Pratt 2009). Research on racial profiling, however, has also produced findings that indicate little evidence of racial profiling in traffic encounters (Black 1970; Grogger and Ridgeway 2006; Higgins

et al. 2012). This illustrates the controversial role that race plays on police decision making, and therefore makes it important to include in any study of police discretion.

Although literature has found race to be a factor in police officers' decision making in traffic stops, Black's theory of law suggests it to be one of numerous factors that create social distance between an officer and a driver. Like any other variable, race is not the single defining factor that predicts the outcome of a traffic stop. Race contributes to the culture measurement in Black's multi-dimensional theory, implying that the culture dividing the officer and motorist is only one of five main influences on the social distance that exists between them.

Research reveals multiple characteristics that may produce social space in a traffic stop. Rather than pointing out a single variable, Black suggests that it is the combined differences among these variables between an officer and a motorist that affect the dispositional outcome of a stop. His theory is additive in nature in that the more different a motorist is from an officer, the greater the likelihood they will receive a citation.

Policing in the City and County

There is a void in the existing literature regarding the differences in rural and urban police work. Policing in the jurisdiction of a city versus the jurisdiction of a county can vary in many aspects. Although the jurisdiction of a county includes the cities within it, most police work conducted by county deputies focus more on the outskirts that are not already being policed by municipal law enforcement (Christensen and Crank 2001).

Christensen and Crank (2001) suggest that generalizing results from urban police research does not always translate to a rural setting and argue there are nuances specific

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to rural policing that must be acknowledged. As previously noted, Girard's application of Black's theory of law to traffic enforcement only investigated municipal police departments. Christensen and Crank's (2001) concern suggests that Girard's preliminary findings may only be applicable to other municipal departments and not county agencies. Gathering data from both a county and a municipal department will address this void.

With rural officers policing a larger area, it is expected that they experience a longer wait time when it comes to receiving backup from another officer. If the situation were to escalate, assistance from the public is also less likely on an isolated road that runs along the county line. In this setting, an officer may feel that they are at a disadvantage. Black (1976) asserts that in situations where social control is weak, law will be greater in respect to how officials respond to those circumstances. City jurisdictions are expected to have shorter backup response times, suggesting that being at a disadvantage in an encounter with a citizen may have less of an impact for municipal officers than a county deputy who may have to wait an undesirable amount of time. This suggests that rural traffic stops may be more likely to result in a citation as a way for the officer to gain control over the situation.

In previous research, Crank (1990) found that in rural communities, higher arrest rates are associated with higher percentages of minorities. Crank found this to be the same for urban communities, however the increase was larger in rural communities. He suggests that rural communities are more homogenous in nature, putting a minority or stranger in an unfavorable position in the community and with law enforcement (Crank

1990). This assertion implies that social space between an officer and a driver in a rural setting would have more of an effect than it would in a more diverse urban setting.

Jennifer Schulenburg's (2009) study found that the use of discretion varied to some extent by the type of community, whether it be urban, suburban, or rural (Schulenberg 2009). Collective action within a community occurs when an outsider chooses to deviate from its cultural values. What a community perceives to be a serious crime may impact an officer from that same community's decision to divert from an informal to a formal response (Schulenberg 2009). To illustrate, when a gang-related youth from a metropolitan community commits a crime in a suburban neighborhood, social space develops between the community's law enforcement and the youth. It is therefore necessary to examine traffic stops conducted by a city agency versus a county agency with regard to unfamiliar motorists in their communities. Recording the state of the license plate of the stopped vehicle will shed light into how a motorist appearing to be part of a different community, is responded to by each agency.

Current Study

To test Black's theory of law and the idea of observable social space, this research accounts for age, race, gender, and demeanor of both the officer and the driver as each of these variables are believed to have an impact on creating social distance. The number of occupants in the vehicle, type of violation, number of violations, state where the license plate of the vehicle is issued, physical condition of the vehicle, location and time of stop, and the weather, are also studied as independent variables that contribute to the structure of a traffic stop. These characteristics are examined to account for outside influences and

confounding variables that may affect the disposition of a traffic stop outside of the two parties involved. Each traffic stop possesses a unique amount of social space between an officer and a motorist, and that social space may have a different amount of impact across jurisdictions with varying outside influences. The aim of this research is to show that discretionary practices may be the result of dissimilarities that separate two individuals in social space, rather than the preconceptions of the law enforcement official or their institution.

Hypothesis

When the social space between a law enforcement official and a motorist increases by differences in age, race, gender, and demeanor, the greater the likelihood a citation will be issued.

Methods

Traffic stop interactions were retrospectively observed via recorded video footage. Each law enforcement agency utilizes a body-worn and vehicle camera system to record and retain video of citizen-police encounters. To avoid the consequences of the Hawthorne Effect that are involved with riding with an officer and recording data as stops occur, the existing video footage from previous traffic stops are observed, coded, and entered in a database for analysis. Through an approved Data Use Agreement, the researcher was granted access to the stored video footage from both a city and county law enforcement agency. This agreement between the researcher and the agencies gained IRB approval due to the data being secondary to the researcher and primary to each agency. 160 traffic stops were viewed, coded, and recorded from each jurisdiction, resulting in

320 total cases. The Law Enforcement Record Management System (LERMS) was used to record characteristics of both the traffic stop and the stopped motorist. LERMS is a database utilized by both jurisdictions to document criminal incidents and characteristics of those incidents, including traffic stops. Characteristics of the traffic stop consisted of the disposition, physical location, and time of stop. Physical characteristics of the stopped motorist, such as race, gender, and age, were made available through the LERMS database as well. The WorkForce Telestaff database which records demographic characteristics of departmental staff, was additionally approved for the purposes of recording demographic characteristics of the investigating officers. The data was recorded and the results are reported in a de-identified manner to protect the privacy of the motorists, officers, and agencies.

Traffic stops are identified in the LERMS database with unique incident numbers. Incident numbers from a four-month investigation period, dating from the first of July to the first of November 2017, were entered into the research database. A random sample of 150 traffic incidents were pulled from each agency to view and record. Random sampling was used to control for outside events that may influence traffic dispositions and to ensure that multiple officers were included in the dataset. Each video was viewed at the department's location under the supervision of departmental staff.

Independent variables such as the demeanor of both the officer and driver and the stopped vehicles' physical condition were coded carefully by the researcher. One of the pitfalls of not riding along with an officer and recording observations, is the inability to question officers about their perceptions of these variables at the time of the stop.

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However, an advantage to the researcher coding these variables is that a single objective rater will be making the determination instead of multiple accounts that include a party involved in the interaction. For each of these observable characteristics, an ordinal level of measurement with a rating scale of poor, fair, or good was used to code and record each variable. An individual's poor demeanor was characterized by them raising their voice, using foul language, being argumentative, and not cooperating during the stop. An individual whose demeanor was coded as fair is characterized as at first being reluctant to cooperate, having a passive aggressive attitude, and one who raises their voice a few times during the interaction. An individual who has an overall cooperative and pleasant attitude was coded as having a good demeanor. A vehicle's physical condition was coded as poor when the outside of the vehicle was dirty, there were noticeable dents to the exterior, equipment such as side view mirrors were broken off, and the color was rusting or fading. If the vehicle was dirty and there were one or two dings to the exterior, it was coded as being in fair condition. A clean, well-maintained vehicle was coded as in good condition.

The four independent variables that construct social space are gender, age, race, and demeanor. The dependent variable is the form of response used by law enforcement to dispose of the traffic stop, such as a warning or citation. The social distance between the stopped motorist and the investigating officer was measured by how many of these four variables they differed in. When a citizen and an officer scored the same in each area, very small social space existed, and a minimum score of 1 was recorded. A traffic

encounter where the motorist and officer differed in each variable, had a very large social distance between them, and a maximum score of 5 was recorded.

Analytic Strategy

Logistic regression was used to assess the relationship the independent variables had on the likelihood of a motorist receiving a citation versus a warning (dependent variable) during a traffic stop. Logistic regression was an appropriate mode of analysis due to the dichotomous nature of the dependent variable and the nature of the hypothesis that was tested. Prior to running any statistics, the data was screened for outliers and missing data. Four incidents were discarded in the analysis due to missing values. This was done to keep the data consistent being that the officer pulling these individuals over did not explicitly state what they were being stopped for. This resulted in 316 total traffic stops available for analysis. Eighty different officers from two agencies are included in the dataset.

Descriptive statistics were run on all variables in the dataset to provide an overview of the basic features of the data. A crosstabulation was run to illustrate to the reader the relationship between social space and the disposition of the stop. All of the officers' characteristics, except for the omitted incidents, were entered into the first regression model. The second model illustrates only the motorists' characteristics. The vehicles' characteristics were presented in model three and the incidents' characteristics were displayed in model four. The calculated social space between the motorist and the officer, measured by their differences in race, gender, age, and demeanor, were presented

in model five. Finally, in addition to social space, all variables including officer, motorist, vehicle, and incident characteristics, were entered into model six.

Results

The descriptive results for each of the variables are reported in Table 1. 24.4% of traffic stops resulted in the motorist receiving a citation. Investigating officers that conducted the stops were primarily White (88.9%), male (85.5%), 36-45 years of age (47.2%), and had a good demeanor during the traffic encounter (92.1%). Similarly, the majority of motorists were White (82.3%), male (62%), 36-45 years of age (24.7%), and had a good demeanor during the stop (81.6%). Drivers often had nobody other than themselves in the vehicle (55.7%) and were most frequently stopped for driving 10-14 miles per hour over the posted speed limit (34.8%). With the majority of officers and motorists being similar in observable characteristics, it is no surprise that the majority of the incidents were categorized as having a small amount of social space between the officer and the motorist (42.4%). Vehicles that were stopped were primarily in good condition (71.5%) and displayed in-state registration (85.1%), The majority of stops were conducted during the daytime (52.8%) and under cloudy weather conditions (37.3%). 51.9% of all stops were conducted on a populated city street. These percentages include both city and county agency traffics stops.

Table 2 provides the logistic regression analysis results. Model 1 included the officers' characteristics. The variables gender, age, race, and demeanor were not significant at the .05 level or below. This is also true for the motorists' characteristics

Table 1. Descriptive Statistics for All Traffic Stops Under Examination (n=316)

Variables	Percent	Standard Deviation
Officer Characteristics		
Gender		0.35
Male	85.5	
Age		0.75
36-45	47.2	
Race		1.07
White	88.9	
Minority	11.1	
Demeanor		0.29
Poor	0.3	
Fair	7.6	
Good	92.1	
Motorist Characteristics		
Gender		0.49
Male	62	
Age		1.30
36-45	24.7	
Race		1.07
White	82.3	
Minority	17.7	
Demeanor		0.50
Poor	3.8	
Fair	14.6	
Good	81.6	
Social Space (Officer*Motorist)		0.87
Very Small	10.1	
Small	42.4	
Medium	33.9	
Large	12.7	
Very Large	0.9	
Outcome/Disposition		0.43
Warning	75.6	
Citation	24.4	
Incident Characteristics		
Good vehicle condition	71.5	0.58
In-state vehicle registration	85.1	0.36
No more than 1 person occupying vehicle	55.7	0.70
Most frequent violation - Speeding 10-14 over	34.8	3.91
Location of stop - Populated city street	51.9	1.20
Daytime time of stop	52.8	0.50
Cloudy weather conditions	37.3	2.27

presented in Model 2, with the exception of the motorists' demeanor. At a significance level of .001, a driver's demeanor that was unfavorable was the largest predictor of a motorist receiving a citation compared to the other three social space characteristics.

Demeanor remained a strong predictor at the .001 significance level after officer, vehicle, and incident characteristics were controlled for. A motorist experienced a 72.8% increase in odds of receiving a citation when they exhibited an unfavorable demeanor toward the officer.

Model 3 included the characteristics of the vehicle that was involved in the stop. The physical condition of the vehicle proved to be a more significant predictor ($p<.01$) of a driver receiving a citation rather than if the vehicle was registered in the state of Montana. However, when all other variables were considered in the final model, the condition of the driver's vehicle lost its significance considerably.

The incident characteristics were analyzed in Model 4. The number of violations the driver was investigated for was a significant predictor of them being issued a citation ($p<.001$). Controlling for all other characteristics in Model 6 marginally altered the significance of this finding ($p<.01$). Specifically, a motorist was three times more likely to receive a citation when they were investigated for more than one traffic offense.

A motorist who had additional occupants in the vehicle also had greater odds of receiving a citation. When all other variables were controlled for in Model 6, additional occupants increased the odds of receiving a citation by 85.1% ($p<.05$). The law enforcement agency that conducted the stop (city versus county), was not a statistically significant predictor of a motorist receiving citation versus a warning.

Table 2. Logistic Regression Results

Variables	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Exp(B)	Standard Err	Exp(B)	Standard Err	Exp(B)	Standard Err	Exp(B)	Standard Err	Exp(B)	Standard Err	Exp(B)	Standard Err
Officer Characteristics												
Gender	1.362	.367									1.253	.451
Age	.899	.185									1.000	.229
Race	1.202	.117									1.083	.167
Demeanor	.588	.423									1.539	.564
Motorist Characteristics												
Gender			1.427	.298							.895	.369
Age			.911	.116							1.087	.131
Race			1.118	.128							.919	.167
Demeanor			.178***	.283							.272***	.342
Vehicle Characteristics												
Condition of Vehicle					.553**	.210					.734	.257
In-State Registration					1.792	.345					2.312	.437
Incident Characteristics												
Violation							1.012	.036			1.012	.042
Number of Violations							4.322***	.420			3.975**	.496
Number of Occupants							2.233***	.197			1.851*	.246
Location							1.231	.136			1.265	.168
Time of Day							.859	.343			.711	.392
Weather Conditions							.994	.075			1.006	.088
Law Enforcement Agency							1.766	.355			1.881	.424
Social Space									2.706***	.173	2.159**	.253
Nagelkerke R^2	.020		.221		.048		.162		.173		.381	

*p<.05   **p<.01   ***p<.001   (two-tailed)

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Model 5 investigated the impact on the odds of receiving a citation based on differences in social space. At a significance level of 99.9%, incidents where officers and motorists were separated in social distance were 1.7 times more likely to be disposed of by means of a citation. When all other variables were controlled for in the final model, social space remained statistically significant at the .01 level. The Nagelkerke R^2 value for the final model was 0.381, which suggests 38.1% of the variance in the dependent variable is explained by the model.

To better illustrate the relationship, Table 3 presents the crosstabulation results for social space and incident outcome of all stops under analysis. Spatial distance was assessed by examining the gender, age, race, and demeanor of both the officer and motorist. When the officer and the motorist scored the same in each of these areas, the incident was characterized as having very small social space. 93.8% of all incidents with a very small amount of social space ended in the motorist receiving a warning, while only 6.3% of these resulted in a citation. When the officer and the motorist differed in three of the four variables, a large social distance was recorded. A citation was used to dispose of the traffic stop in the majority of these situations (60%), while 40% were issued a warning. The results began to contradict Black's theory of law when looking at incidents with very large social distances. If none of the four variables were the same for the officer and the motorist, the social distance was coded as being very large. The majority of these incidents resulted in the motorist receiving a warning (75.6%), while only 24.4% ended in a citation.

Table 3. Crosstabulation of Social Space and Disposition

	Social Space				
	Very Small	**Small**	**Medium**	**Large**	**Very Large**
	n = 32	n = 134	n = 107	n = 40	n = 3
% of Warnings	93.80%	85.10%	72.90%	40.00%	75.60%
% of Citations	6.30%	15%	27.10%	60.00%	24.40%
Totals	100%	100%	100%	100%	100%

The researcher had preliminary thoughts that the city and county agencies would differ among variables in this study considerably. However, the analysis revealed that the agencies were more similar than different in regard to many variables. One notable similarity emerged when comparing how traffic stops by each department varied in regard to social space. 41.5% of city traffic stops compared to 43.3% of stops in county were characterized as having a small amount of social space between the officer and the motorist. When examining traffic stops with large amounts of social distance, 12.7% of city stops and 12.6% of county stops are recorded under this category. An additional example is that 15.9% of motorists in the jurisdiction of the city compared to 13.8% of those stopped by county deputies, were operating their vehicle with out-of-state registration. The agencies were also similar when considering the number of occupants in the vehicle, the stopped vehicle's physical condition, and the time of day the stop was conducted. Due to these similarities and their foreseeable outcomes, the data set was analyzed as a whole and was not divided between the two agencies to be analyzed further.

Discussion

This study advances current knowledge about police discretion by extending Girard's (2010) preliminary findings to a large, more diverse sample. Although multiple studies have examined the effects of age, gender, race, and demeanor on police discretion, Donald Black (1976) was the first to introduce a theoretical framework that disregarded the goals and motivations of the investigating officer. Instead, Black's framework focuses on observable characteristics of both the officer and the motorist and asserts that these characteristics together create some amount of spatial distance between the two opposing parties. This distance is a separation in social space, where larger distances result in officers imposing harsher punishments on motorists and smaller distances result in more leniency.

The analysis revealed that the theory is supported, however, it appears that there is inconsistency when examining very large social distances. The hypothesis states that the greater the social space between a law enforcement official and a motorist in terms of age, race, gender, and demeanor, the more likely a formal outcome, such as a citation. Alternatively, the more similar law enforcement officials are with motorists with regard to the same variables, the more likely an informal outcome, or warning, will be used to dispose of the traffic stop. The majority of all incidences that were categorized as having very small to small amounts of social space between the officer and the motorist, resulted in a warning. The majority of traffic stops where there were large amounts of social space resulted in a citation, which supports the theory further. The one exception to this was instances that resulted in a very large social distance separating the officer and the

motorist. The majority of these stops resulted in warnings, which is opposite of what Black's theory suggests. There is a strong possibility that this finding may be due to the fact that only three traffic stops in total resulted in very large social distances. Only on three occasions did the officer and motorist differ in all four variables. Therefore, this result could very well be a function of the small group size rather than an error in the theory.

The analysis also revealed that motorist demeanor, rather than proximity in age, gender, race, or other characteristics alone, can predict the disposition of a traffic stop in this dataset. This finding supports what other researchers have previously found regarding the effects of demeanor on traffic stop outcomes (Engel, Sobol, and Worden 2000; Girard 2010; Liu and Cook 2005). When a motorist exhibits an unfavorable demeanor to the investigating officer, formal means of control are likely to result. Other characteristics such as the number of violations the motorist was stopped for and the number of occupants in the vehicle also have the ability to predict the outcome alone in the dataset at lower significance levels. Black (1976) asserts that in situations where social control is weak, law will be greater with respect to how officials respond to those circumstances. The officer having to control for more than one occupant in the vehicle was recognized as the officer having less social control over the situation, and the results show that this is a significant predictor of a motorist receiving a citation, which supports Black's theory (1976).

These findings demonstrate that Black's theory of law is applicable to traffic stops and may be a useful way of conceptualizing, explaining, and testing other criminological

phenomena. The theory is more testable than many other teleological and social psychological models due to its simplicity (Cooney 2006). It examines facts and actions rather than thoughts and motivations. Research around traffic enforcement has long examined motivations of officers and police organizations. Black's theory argues that there are no real motivations behind why officers make the decisions they do, rather these choices are a reflection of how similar or dissimilar they are to a motorist they pull over. This theory additionally helps us understand why one person receives a citation and another does not for similar offenses under similar circumstances (Girard 2010). The disposition of a traffic stop is a function of the social space that exists between the officer and the motorist. Black's theory of law is a form of pure sociology that is just starting to gain attention from criminologists (Cooney 2006). This research is a small step in applying the theory to traffic enforcement and officers' discretionary practices. It is by no means the absolute truth, as no theory ever is, however it is one that should be considered and not ignored as it has something different to offer.

Limitations and Future Research

As with any study, there are limitations that need to be addressed. One down fall to this research was that it was conducted on two departments in the same county. In addition to the restricted generalizability of this study's results, the county in the current investigation is primarily White followed by a relatively small subset of individuals who are Native American. For this reason, 82.3% of motorists who were entered into the regression models are white. If this study was carried out in a more metropolitan area, with a diverse population, race may play a larger role in the analysis. The investigation

period of three months was also quite short, and may have not included officers who were on various types of leave, the influx of out-of-state motorists who vacation to the research site during summer months, and numerous other factors such as significant changes in weather and high-profile police incidents. The factors may have an outside effect on the disposition of a traffic stop.

It was discussed that having a single objective rater, rather than a party who is a part of the interaction code demeanor and the condition of motorists' vehicles, was a strength of this study because consequences of the Hawthorne Effect would be avoided. To control for researcher bias, incident videos were viewed and coded before the LERMS database was accessed to reveal the traffic stop dispositions. Although the researcher took measures to be as impartial and consistent as possible, there is an inherent possibility that consistency could have fluctuated across viewing sessions. Replicated studies are strongly encouraged to also invite an independent rater to view the same incidents in order to compare across these subjective ratings.

Social space was additionally measured by how many of the four variables the officer and motorist differed in categorically. The researcher did not account for how much they differed across each of the variables in the analysis. For example, the age difference between a motorist who was sixty years of age and an officer who was thirty, was not taken into consideration. The two were more simply placed in different age cohorts. Future research should account for how much spatial distance exists among each variable to provide for more comprehensive conclusions. Due to time and money constraints, these proposals were not feasible for the current study.

One last limitation to address is the inability to question the officers regarding the disposition they imposed immediately following the stop. Although this would not be achievable in a study that retrospectively studies traffic stop incidents, future research could uncover the specific reasoning officers have for issuing a warning versus a citation when all vehicle and incident characteristics are considered.

Conclusion

Black's theory of law disregards the purposes and motivations of the individual, this allows for social explanations to be more simplified (Cooney 2006). The chance of an informal outcome being used to dispose of a traffic stop through means of a warning, increases when social distance is decreased. No claim is made by Black's theory regarding the goals and motivations of the investigating officer. The motorist and the officer are simply similar or dissimilar, and the disposition is a reflection of these differences. This research contributes to the general field of knowledge surrounding police discretion by expanding on Girard's preliminary findings that suggest that Black's theory of law may have applicability to citizen-police encounters when a larger sample size is used. This was fully supported in the above analyses with the exception of a discrepancy that was most likely the result of small group size. It further increases the credibility of Black's theory of law. Evidence also indicated that social space was not impacted differently by outside variables inherent to urban and rural jurisdictions, although replicated research should examine departments that are more dissimilar to each other than those that were included in this study. A comparison of a metropolitan police agency to a more rural agency was outside the scope of this study, however research that

does such may have different findings and may be able to contribute further to those presented in this research. Further investigation is ultimately needed to develop these findings and increase their generalizability.

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