The force of fear: Police stereotype threat, self-legitimacy, and support for the use force

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Abstract

Researchers have linked concern about appearing racist among police officers-a kind of stereotype threat-to racial disparities in the use of force. This study presents the first empirical test of the psychological mechanism linking stereotype threat to support for police violence among officers. Drawing from psychology and criminology, we argue that threat undermines officers' self-legitimacy, which encourages overreliance on force and coercion to maintain situational control. To test this argument, surveys were distributed to officers from the patrol division of a large urban police force. Respondents completed measures assessing their experience of stereotype threat, self-legitimacy, resistance towards the department's use of force policy, approval of using excessive force, and endorsement of procedurally fair policing. Structural equation models showed that stereotype threat was associated with lower self-legitimacy, which in turn was associated with more resistance to the department's force policy, more approval of excessive force, and less endorsement of fair policing, net of demographic controls. These results suggest that concerns over appearing racist may actually produce increased force—in turn possibly further eroding public trust and concerns with racial bias.

Significance

Drawing from psychology and criminology, we argue that concerns with appearing prejudiced undermine police officers' selflegitimacy, which encourages overreliance on force and coercion to maintain situational control. To test this argument, surveys were distributed to officers from the patrol division of a large urban police force. These results suggest that concerns over appearing racist may actually produce increased endorsement of unreasonable use of force—in turn possibly further eroding public trust. These findings serve as the first integration of two psychological literatures: stereotype threat and procedural justice. They also highlight an under-explored mechanism of urgent scientific and policy concern.

Introduction

Popular explanations of excessive police use of force-especially racial disparities in that force-often reduce to issues of officer characteristics (e.g., general aggression, racial bias). Despite the widespread popularity of this lay theory, it is at odds with the scientific consensus that attitudes are relatively weak predictors of behavior, only explaining about 10% across contexts (Dovidio, 2001; LaPiere, 1934; Wicker, 1969). If attitudes are not the primary drivers of bad police behavior, what is? Consistent with other psychological science (Steele, Spencer, & Aronson, 2002), we examine how situational vulnerabilities—in this case, stereotype threat: officer concerns with appearing racist-play an ironic and underexplored role in producing support for excessive use of force among police officers.

Why would concerns with appearing racist produce greater officer violence? Richardson and Goff (2014) argue that because officers rely on their moral authority to exert control, authoritythreatening situations elevate the belief that force is needed to maintain control. Put another way, concerns with appearing racist (officer stereotype threat) undermine officers' sense of self-legitimacy, the belief that their power is earned and respected, in turn increasing reliance on physically coercive tactics in order to maintain control. The goal of this paper is to provide the first empirical test of this argument using data from active duty police officers. Because the stereotype threat literature originated as a way to explain educational disparities and the legitimacy literature began concerned with legal compliance, the two literatures have never before intersected. This paper represents the first attempt to integrate them.

Specifically, we examine how officer stereotype threat about appearing racist predicts their endorsement of excessive force. We further test the role of selflegitimacy as the underlying mechanism to that relationship. Consistent with our theoretical integration, we show that the experience of stereotype threat undermines officers' sense of legitimate authority, which in turn predicts resistance to policies dictating appropriate uses of force, support for using unnecessary violence, and rejection of tactics espousing respectful and fair treatment.

Stereotype Threat in the Police Context

The "racist police officer" stereotype is one of the most enduring stereotypes of law enforcement in America (Tyler & Huo, 2002). Over the last few years this social representation has become even more salient amidst continuing racial disparities throughout the criminal justice system (Goff et al., 2016; Travis, Western, & Redburn, 2014) and a seemingly unending string of highly publicized controversial incidents involving police officers and non-Whites, particularly young Black men. Despite this salience, relatively little is known about the effects that awareness of this stereotype has on officers and the way they approach citizens

Stereotype threat refers to concerns with confirming a negative stereotype relevant to a valued group of which one is a member (Steele, Spencer, Aronson, 2002). Such threats can arise whenever a person is in a situation where they believe they will be judged in terms of the negative stereotype. Threats represent challenges to one's social identity and self-worth (Trinkner & Goff, 2016). At the same time, they also represent challenges to one's social group, as confirming a negative stereotype affects the way people view the group and its members (Steele et al., 2002). As a result, people are especially motivated to reduce the dissonance and apprehension associated with the threat, often by aggressing against or avoiding the source altogether (Branscombe et al., 1999; Goff et al., 2008). Ironically, experiencing stereotype threat can increase the likelihood of engaging in stereotype-confirming behavior (Steele et al., 2002).

The handful of studies examining the potential effects of stereotype threat on officers' behavior have come to come to similar conclusions as the general stereotype threat literature: officers concerned about appearing racist are also more likely to engage in behavior that confirms the stereotype (Trinkner & Goff, 2016). For example, in a study of officers from a large urban police department Goff and colleagues (2012) found a positive association between stereotype threat and greater use of force against Blacks. In a second study of an even larger department, stereotype threat was unassociated with disparities in the frequency of use of force, but was positively associated with more severe force against Blacks, but not against Latinos or Whites (Goff & Martin, 2012). These findings emerged even while controlling for the explicit and implicit

racial biases of the officers. Taken together, they indicate that racial disparities in police behavior, to some extent, can emerge without racial prejudice on the part of officers. On its face, this pattern is counterintuitive. However, the psychological literature is replete with examples of stereotype threat inducing stereotypeconfirming behavior (Steele et al., 2002).

To explain these findings, Richardson and Goff (2014) argued that the experience of stereotype threat undermines officers' confidence in their moral authority to control situations in non-coercive ways. Officers have two broad forms of authority to rely on in order to maintain control of situations (see also Alpert and Dunham, 2004). The first is the moral authority imbued in the role of law enforcement. The second is the physical authority they are allowed to use in response to physical threats. Typically, officers are trained to use their moral authority whenever possible to resolve conflict. However, when officers believe that citizens view them as racist or prejudiced, they may be more likely to believe that citizens will not respect them or their moral authority (Goff et al., 2013; Richardson, 2015). As a result, ambiguously threatening stimuli may produce greater reliance on physical coercion under conditions of threat because it undermines moral authority. Racial disparities may emerge because experiencing stereotype threat is highest when officers are interacting with non-White members of the community.

Self-Legitimacy as Normative Moral Authority

The argument put forth by Richardson and Goff (2014) concerning the impact of officers' moral authority on coercive styles of policing is consistent with recent theorizing in criminology examining officers' perceptions of the legitimacy of their own authority. Bottoms and Tankebe (2012, 2013) have argued that legitimacy arises from negotiated engagement between power holders and non-power holders. Essentially, power holders make claims on the ability to use the power in their station to regulate society and non-power holders either recognize or reject those claims. Legal authorities obtain a normatively justified monopoly on the power to regulate citizens to the extent that non-power holders accept the claims. From this perspective, police legitimacy is separated into two constructs. First, there are citizens' views of whether the police are legitimate authorities audience legitimacy. Equally important, though widely understudied in comparison, are officers' views of their position in society and confidence in using the power inherent in that role-self-legitimacy.

Despite the paucity of research, scholars have argued that officers' perception of selflegitimacy influences the way they approach, interpret, and react to citizens (Bottoms & Tankebe, 2012, 2013; Tankebe, in press). As Bradford and Quinton (2014) summarized, officers who believe in the normative justifiability of their power may be more likely to confront difficult situations with citizens in a calmer manner, looking for constructive ways to resolve conflict and relying on force as a last resort. Those lacking such confidence will be less able to draw from their normative authority, increasing the likelihood of reacting in confrontational ways. Self-legitimate officers have been shown to be more committed to fair treatment and respecting suspects' rights (Bradford & Quinton, 2014; Meško et al., 2017). Moreover, when officers are not confident in the justifiability of their power, they have difficulty maintaining control over situations,

particularly those in which force is an available response option (Bottoms & Tankebe, 2013).

However, prior work is equivocal with respect to the relation between selflegitimacy and the use of force. In a 2011 study, Tankebe found that self-legitimacy was unassociated with support for the use of force net of officer and organizational controls. However, in a follow-up study asking officers how they would respond to a belligerent person, self-legitimacy was associated with decisions to resolve the situation by issuing a verbal warning instead of threatening the use of force (Tankebe & Meško, 2014). Alternatively, Bradford and Quinton (2014) found that self-legitimacy was associated with greater support for using force when interacting with the public.

In addition to the ambiguity about the effect of self-legitimacy on officers' attitudes and behavioral intentions, the source(s) of officers' self-legitimacy is not well understood (Bottoms & Tankebe, 2013; Tankebe & Meško, 2014). Most work has examined organizational factors given that self-legitimacy is inherently tied to officers' sense of identity (Bradford & Quinton, 2014; Bottoms & Tankebe, 2013) and officers' identity is largely shaped by their organization, supervisors, and co-workers (Crank, 2004; Trinkner & Goff, 2016).

However, recent work has highlighted that self-legitimacy is intricately tied to officers' beliefs about how citizens perceive and evaluate them. Officers are more likely to see themselves as legitimate when they believe citizens support them (Bradford & Quinton, 2014, Tankebe & Meško, 2014). Cynical officers who believe citizens are apathetic toward the police are less likely to see themselves as legitimate as well (Trinkner et al., 2016). Low self-legitimacy is also associated with exposure to negative media portrayals in the news (Nix & Wolfe, 2017). Although none of these studies examined the impact of stereotype threat specifically, they are consistent with the argument that officers' apprehension over being negatively evaluated by citizens' can diminish their sense of moral authority.

Current Study

Stereotype threat within police officers has been argued to promote excessive police violence via its effects on the self-legitimacy of police officers (Richardson & Goff, 2014). We provide the first empirical test of the mechanism linking stereotype threat to coercive policing using survey data from an urban police department. We expected that (1) stereotype threat would be negatively associated with self-legitimacy, (2) selflegitimacy would be negatively associated with support for coercive police behavior and positively associated with supportive for non-coercive policing, and (3) that selflegitimacy would mediate the relation between stereotype threat and coercion.

Method

Participants

The sample consisted of 786 line officers and sergeants from the patrol division of a large urban police force. Researchers approached officers during roll calls to complete questionnaires. For every completed questionnaire returned, a \$20 donation was made to a local police memorial foundation. Of those that returned the survey, 514 officers provided complete data. Further examination revealed that in a majority of cases officers completed the measures, but withheld basic demographic information. See below for how missing data was handled. Demographics and response rates are shown in Table 1.

Measures

All items used a 5-point unipolar response scale and were coded so that higher scores indicated a greater amount of the measured construct. The measure of stereotype threat tapped into officers' anxiety over confirming a racist stereotype when interacting with citizens (Goff et al., 2012). The *self-legitimacy* measure assessed the degree to which officers were confident in their authority and societal position as agents of the law (Trinkner et al., 2016). Support for coercive policing was measured in three ways. First, we created a measure of resistance to the department's use of force *policy* to tap officers' tolerance of policy violations and beliefs about its restrictiveness. The second measure examined officers' approval of the use of unreasonable force. Finally, we included a measure of officers' support for procedurally just policing (Trinkner et al., 2016). These items were designed to tap into five areas of procedurally just behavior: voice, respect, accountability, benevolence, and neutrality.

Procedure

Researchers attended roll calls over an 8week period. At each session, they explained the organization they represented and the purpose of the survey. It was stressed that completion of the survey was voluntary, all surveys would remain anonymous, and raw data would not be released to the public or command staff. Researchers then addressed any questions and handed out survey packets. Each survey packet contained a description of the goals of the study, contact information for the research team, the questionnaire, and a postage paid return envelope. If officers could not complete the survey immediately, they were told to complete it whenever they could and mail it back. Extra survey packets were left for officers that were not in attendance. Approximately 1-2 weeks after the first site visit, researchers returned to each location to remind officers to complete the survey and hand out additional packets if needed.

Analytic Strategy

First, we used multiple regression to examine the relation between stereotype threat and self-legitimacy, with a specific focus on race. Although research in the general stereotyping literature shows that Whites tend to be more susceptible to stereotype threat (Richeson & Shelton, 2003), similar findings have not emerged in studies of police officers. To explore this further, we examined the degree to which (1) race predicted stereotype threat, (2) stereotype threat predicted self-legitimacy, and (3) race moderated that relation.

Second, structural equation modeling (AMOS 24, Arbuckle, 2016) was used to test whether self-legitimacy mediates the relation between stereotype threat and coercive policing. We estimated three models, one for each measure of coercive policing, using maximum likelihood estimation.¹ For each model, stereotype threat, self-legitimacy, and the measure of coercive policing were entered as latent constructs. Age, experience, rank, sex, college education, and race were added as control variables. Indirect effects were estimated with bootstrapping (3,000

¹ We also ran a model in which all three measures were included as outcomes. This model was substantively identical to the results presented here with regard to the primary variables of interest. Results from this model as well as all other additional analyses discussed but not presented are available at <withheld for author anonymity>.

samples) and 95% bias-corrected confidence intervals.

For the model examining support for procedurally just policing, items were put into five parcels of procedurally fair behavior which were included as indicators of the latent outcome. We used parceling because our interests were in the structural relationships among latent variables, rather than the measurement portion of the model (Little et al., 2002). To guard against possible bias, we ran separate models where items for each parcel were entered as indicators of a latent outcome. The results were substantively identical to the overall model presented below in terms of the variables of interest, but small discrepancies with the controls emerged. In all cases, the direction of the association was identical to the overall model but significance varied. Follow-up equality tests showed that the discrepancies were not significantly different.

Finally, to account for the problem of missing data, we estimated each model using only complete cases and with missing values imputed using full information maximum likelihood estimation. Results from the two sets of analyses were substantively identical with respect to the primary variables of interest with one exception. Stereotype threat maintained a significant direct link to approval for unreasonable use of force in the model with imputed data, while it was not significant in the complete data model. As before, followup equality tests showed the discrepancies were not significantly different. Because AMOS cannot perform bootstrapping or calculate SRMR with missing data, we present the results from the complete data only.

Results

Results from the regression analyses are presented in Table 3. None of the control variables were significantly related to stereotype threat, including race, precluding the suggestion that race may affect selflegitimacy via its influence on officers' experience of stereotype threat. As expected, stereotype threat was associated with lower perceptions of self-legitimacy. As was the case with stereotype threat, race was not associated with self-legitimacy. Older officers were more likely to see themselves as legitimate authorities, while greater job experience was associated with less selflegitimacy. Finally, the relation between stereotype threat and self-legitimacy was not significantly different between White and non-White officers.

The estimates from the structural models are presented in Table 4 (factor loadings and fit statistics are shown in Table 2. The models accounted for between 15%-43% of the variance across the three outcomes. In each case, similar to the regressions discussed previously, officers' experience of stereotype threat was associated with less confidence in their authority. Age and experience were positive and negative predictors of self-legitimacy respectively. Unlike previous analyses, rank was a significant predictor with sergeants more likely to report being confident in their legitimacy than line officers.

As expected, self-legitimacy was strongly associated with each of the outcomes. To the degree that officers' viewed themselves as legitimate authorities, they were less resistant to the department's policy concerning the use of force, less approving of unreasonable uses of force, and more supportive of utilizing procedurally just policing tactics when interacting with citizens. The indirect effects between stereotype threat and each outcome were significant. In the case of unreasonable use of force and procedural justice, self-legitimacy fully mediated the relation between threat and the two outcomes. However, it still maintained a large direct positive association with resistance. Officers' reporting greater stereotype threat were also more likely to be resistant to the department's policy concerning the use of force regardless of their beliefs about the legitimacy of their authority.

Discussion

This study examined the degree to which the experience of stereotype threat by police officers facilitates the endorsement of coercive policing by reducing officers' belief in the normative justifiability of their power, their self-legitimacy (Richardson & Goff, 2014). We found broad support for that hypothesis. Greater apprehension over being perceived as racist was associated with less self-legitimacy. Lower selflegitimacy was associated with more resistance to the department's use of force policy and greater approval of using excessive violence. Additionally, lower selflegitimacy was associated with less support for procedurally just policing, the anti-thesis of coercive tactics. Interestingly, the race of officers may not be as important to the experience of racist stereotype threat among officers as one might expect. Few differences between White and non-White officers emerged. The potential negative influence of threat were of equal concern to all officers.

This presents a particularly insidious problem for law enforcement and the public. Coercive policing strategies erode citizens' trust in the police over time (Jackson et al., 2013; Trinkner & Tyler, 2016; Tyler & Trinkner, in press). Police departments depend on community trust and cooperation to manage social disorder and crime effectively (Tyler, 2011). Because stereotype threat is more likely to be activated when interacting with non-White citizens, concerns with appearing racist may inadvertently encourage racially disparate rates of police coercion, further eroding trust in communities that can least afford that (Trinkner & Goff, 2016). In other words, just the fear of being perceived as racist among officers can spark a vicious circle that hinders the capacity for public and police cooperation towards public safety.

Given the meager research on stereotype threat among police officers there are multiple areas that need further examination. Perhaps the most obvious are the sources of stereotype threat. Based on the current findings, officer demographics seem to have little to do with the experience of threat, meaning it is unlikely that changing recruitment standards would have a sizable effect on officers' resilience to threat.

Instead, it might be more fruitful to look at contextual factors that surround officers as they go about their daily activities. One potential source that deserves scrutiny is the media, which often reports about racial bias among law enforcement. Prior work has shown that negative media reports about the police are associated with lower selflegitimacy among officers (Nix & Wolfe, 2017), but without investigating the role stereotype threat might play. Further research is necessary to investigate how best to report on racial tensions and or prepare officers for media coverage of bias in policing.

It may also be useful to examine interventions for reducing stereotype threat

and promoting legitimacy. Our model suggests that concerns about self-legitimacy partially mediate the relationship between concerns with appearing racist and negative police action intentions/orientations. A logical hypothesis, then, is that bolstering legitimacy may protect against the negative consequences of stereotype threat. Previous research demonstrates that trainings in procedural justice can bolster perceptions of legitimacy (Trinkner, Tyler, & Goff, 2016). Similarly, previous research has demonstrated that using standardized scripts both attenuates stereotype threat (Avery, Richeson, Hebl, & Ambady, 2009) and promotes perceptions of legitimacy (Mazerolle, Antrobus, Bennett, & Tyler, 2013). These promising interventions could be expanded to the domain of policing, potentially attenuating aggressive attitudes behavioral intentions about force and community engagement.

Limitations

While the present results were consistent with the argument that stereotype threat undermines normative authority increasing the likelihood of excessive violence, we were unable to examine if this is more likely to occur when officers' interact with non-Whites. Although prior work has linked stereotype threat to racial disparities, a more robust test would compare officers' experience of threat and subsequent behavior when interacting with different racial groups. Another limitation was using self-report measures of intention rather than objective indicators of officers' behavior. This is a widespread problem in research examining officers' attitudes and street behavior. While behavioral intention measures are not ideal, intention is predictive of actual behavior (Fishbein &

Ajzen, 2011). Moreover, stereotype threat has been associated with objective indicators of police behavior (Goff et al., 2012). Finally, because this was a cross-sectional correlational study, it cannot address issues of directionality. For example, low selflegitimacy may lead to more susceptibility to stereotype threat. Alternatively, the relation between self-legitimacy and threat could be reciprocal whereby threat undermines self-legitimacy, which in term increases the propensity to experience threat in a continuous downward spiral. Experimental and/or longitudinal methodology is needed to disentangle these issues fully.

Conclusion

When the public discusses stereotypes in policing it is typically focused on the stereotypes officers bring with them while on patrol. These stereotypes influence police behavior (Smith & Alpert, 2007). However, officers are also influenced by concerns with appearing racist, leading to more support for police violence. In this respect, losses to self-legitimacy are not only a threat to officer morale, but to the ability to do the job of public safety without unnecessary coercion. In this sense, concerns about appearing racist can actually erode equitable policing and promote racialized police violence to the extent that they are most likely to occur among non-White populations that already feel the brunt of police power. For the sake of both science and broadly held public values, these questions deserve more attention in the laboratory, the field, and at the policy table.

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	Completed	% Missing	М	SD	Min	Max
Age	590	24.9	43.15	8.56	25	63
Experience	679	13.6	14.34	7.86	0	40
Rank [†]	714	9.2	.10		0 (Officer)	1 (Sergeant)
Sex [†]	720	8.4	.80		0 (woman)	1 (man)
College Graduate [†]	742	5.6	.79		0 (no)	1 (yes)
White [†]	690	12.2	.55		0 (non-White)	1 (White)

Table 1 – Sample demographics.

[†]Binary variable Note: *n*=786

Table 2 – Standardized factor loadings for models predicting resistance, unreasonable uses of force, and procedural justice support.

		Factor Loadin	gs
	Resistance	Unreasonable Use of Force	Procedural Justice Support
Stereotype threat			
How much do you worry that people may think of you as racist because you are a police officer?	.75	.75	.75
How much do you worry that people you deal with on the job might misinterpret something you say as racist?	.77	.77	.76
How much do you worry that because you are a police officer you may get negative reactions from people who are minority group members?	.84	.84	.85
How much do you worry that being a police officer makes it harder for you to be friendly with people from minority groups?	.81	.81	.81
How much do you worry that you being a police officer influences what people who are minority group members think of you?	.81	.81	.81
How much do you worry about whether you come across as racist when you deal with people from minority groups?	.76	.75	.75
Self-Legitimacy			
How much do you, as a police officer, feel you represent the values of the public in areas where you work?	.51	.50	.60
How confident are you in using the authority that has been given to you as a police officer?	.74	.73	.66
How much do you believe that, as a police officer, you occupy a position of special importance in society?	.63	.64	.61
Resistance to Use of Force Policy			
How restrictive are the department rules regarding the use of force?	.34		
How justifiable are violations of the department's use of force policies?	.33		
How often are you in situations where it is necessary to use more force than allowed by department policy?	.82		
How tolerable is it to sometimes use more force than what is necessary?	.60		
How much are the police restricted from using as much force as is often necessary?	.57		
Approval of Unreasonable Use of Force			
How much would you approve of a police officer striking a community resident who had said vulgar or obscene things to the officer?		.73	
How much would you approve of a police officer striking a community resident who was being questioned as a suspect in a murder case?		.74	
Support for Procedurally Just Policing $^{^{\dagger}}$			
Voice			.94
Respect			.82
Accountability			.75
Benevolence			.93
Neutrality			.63
Chi-Square(df)	373.38(140)	216.71(89)	380.08(140)
Chi-Square sig	<.00	<.00	<.00
RMSEA	.06	.05	.06
TLI	.91	.94	.94
SRMR	.05	.04	.04
Number of Observations	507	511	516
	507	511	510

[†]Individual items available at <withheld for author anonymity>

	Ster	eotype 7	Threat	Self-I	egitim	acy	Self-	Legitim	acy
	β	b	SE	β	b	SE	β	b	SE
Age	07	01	.01	.20**	.02	.01	.20**	.02	.01
Experience	05	01	.01	16*	02	.01	16*	02	.01
Rank	.02	.06	.16	.09	.23	.12	.09	.23	.12
Sex	01	03	.11	.05	.10	.09	.05	.10	.09
College Graduate	05	13	.11	03	06	.09	03	07	.09
White	.06	.11	.09	08	13	.07	09	14	.07
Stereotype Threat				15**	12	.03	21**	17	.05
Stereotype Threat(x)White							.09	.09	.07
Constant		2.55	.34		3.48	.28		3.57	
F(df)	1	.64(6,52	21)	4.18(7,515)*	**	3.89	(8,514)	***
F(df) R^2		.02		,	.05			.06	

Table 3 – Estimates from multiple regressions examining the relations among demographics, stereotype threat, and self-legitimacy.

n.02.03* p < .05 ** p < .01 *** p < .001Note: Sex: 1=man; College graduate: 1=yes; White: 1=White; Rank: 1=Sergeant

			Mo	del 1					Mo	del 2					Mod	lel 3		
	Self-I	egitima	<u>icy</u>	Resistance			Self-I	Self-Legitimacy			Unreasonable Use of Force			Self-Legitimacy			Procedural Justice Support	
	β	b	SE	β	b	SE	β	b	SE	β	b	SE	β	b	SE	β	b	SE
Self-Legitimacy				25***	17	.05				41***	46	.09				.64***	.71	.08
Stereotype Threat	21***	14	.04	.22***	.10	.03	21***	14	.04	.09	.07	.04	20***	16	.05	.05	.04	.04
Sex	.07	.10	.08	03	03	.05	.07	.09	.07	.004	.01	.08	.06	.10	.09	07	13	.08
College graduate	02	03	.08	.07	.07	.05	03	04	.07	01	01	.08	03	05	.09	05	09	.08
White	08	08	.06	12*	10	.04	07	08	.06	05	06	.07	09	12	.07	08	11	.06
Age	.23*	.02	.01	.05	.002	.004	.23*	.01	.01	17	01	.01	.25**	.02	.01	.07	.01	.01
Experience	20*	01	.01	.04	.002	.004	20*	01	.01	.11	.01	.01	21*	02	.01	.04	.004	.01
Rank	.13*	.25	.11	07	09	.07	.13*	.24	.10	07	14	.11	.12*	.26	.13	09*	23	.11
R^2		.09			.15			.09			.23			.09			.43	
Indirect Effect(95%	CI)		.05(.0)2<β<.11)					.09(.03	<β<.16)		.09(.03<β<.16)13(22<β<04				<β<04)		

Table 4 – Parameter estimates for SEM models predicting resistance to the department's use of force policy, approval of unreasonable uses of force, and support for procedurally just policing.

* p < .05 ** p < .01 *** p < .001Note: Sex: 1=man; College graduate: 1=yes; White: 1=White; Rank: 1=Sergeant; Indirect effect: Indirect effect of stereotype threat on outcome

Supplemental Information for Stereotype Threat, Self-legitimacy, & Policing Project.

Supplemental Appendix

Measure: Support for Procedurally Just Policing

Voice

- 1) When interacting with community residents, how important is it to show an interest in what they have to say?
- 2) When interacting with community residents, how important is it to allow community residents to voice their opinions when you make decisions that affect them?
- 3) When interacting with community residents, how important is it for you, as a police officer, to let community residents talk, even if they are complaining about their problems?
- 4) When interacting with community residents, how important is it to use language that makes it clear you are listening to them (e.g., "I understand")?

Respect

- 5) How much do people who break the law deserve to be treated with respect?
- 6) When interacting with community residents, how important is it to be sensitive to their feelings?
- 7) When interacting with community residents, how important is it for you to treat everyone with respect regardless of how they act?
- 8) When interacting with community residents, how important is it for people to be treated with respect, regardless of their respect for the police?

Accountability

- 9) How weak do you think you look when you explain your decisions to community residents?
- 10) How much of a waste of time do you think it is to explain your decisions to the community residents?
- 11) How necessary is it to give everyone a good reason for why they are being stopped, regardless of their respect for the police?
- 12) How necessary is it to stop and explain when people ask why they are being treated the way they are?

Benevolence

- 13) When interacting with community residents, how important is it to try to gain rapport with them?
- 14) When interacting with community residents, how important is it to show them that you care about their problems?
- 15) When interacting with community residents, how important is it for police to be responsive to issues that community residents think are important, even if they are minor issues?

Neutrality

- 16) In this job, how inevitable is it to make judgments based on appearance?
- 17) How often can you tell whether the people you deal with on the street are up to no good, based upon who they are and how they are acting?
- 18) When interacting with community residents, how important is it to be impartial with them?
- 19) When interacting with community residents, how important is it for police officers to treat all community residents the same way?

Supplemental Table 1 – Parameter estimates from a single SEM model predicting resistance, unreasonable use of force, and procedural justice support.

	Self-I	egitima	CV	Re	sistance			easonabl	_		lural Jus	stice	
	<u>5011 1</u>	ogninin	<u>iej</u>	100	sistance		Use	of Forc	e	Support			
	β	b	SE	β	b	SE	β	b	SE	β	b	SE	
Self-Legitimacy				49***	29	.06	57***	57	.08	.74***	.85	.09	
Stereotype Threat	20***	15	.05	.17**	.08	.03	.07	.05	.04	.07	.06	.04	
Sex	.06	.09	.10	03	03	.05	.00	.01	.09	07	13	.08	
College graduate	02	03	.09	.06	.06	.05	01	01	.08	04	08	.08	
White	09	11	.08	14*	11	.04	08	10	.07	08	12	.07	
Age	.32**	.02	.01	.13	.01	.00	09	01	.01	00	.00	.01	
Experience	26*	02	.01	02	00	.00	.06	.01	.01	.07	.01	.01	
Rank	.13*	.27	.13	03	04	.07	05	10	.12	12*	28	.12	
R^2		.11			.30			.36			.55		
SRMR						.0	6						
Chi-Square(df)					7	47.14(2	278)***						
TLI						.9							
RMSEA	.06												
n						49	00						

* p < .05 ** p < .01 *** p < .001Note: Sex: 1=man; College graduate: 1=yes; White: 1=White; Rank: 1=Sergeant

Supplemental Table 2 – Parameter estimates for models predicting each procedural justice factor from the parceled model presented in the paper.

(*Note: Factor loadings not displayed, but available upon request. Displayed results include only participants with complete data)

			Predicti	ng Voice		
	<u>Self</u>	Legitimacy			Voice	
	β	b	SE	β	b	SE
Self-Legitimacy				.64***	.67	.08
Stereotype Threat	20***	15	.05	.08	.06	.04
Sex	.06	.10	.09	07	12	.08
College graduate	03	04	.09	06	09	.07
White	08	10	.07	09*	12	.08
Age	.26**	.02	.01	.06	.004	.01
Experience	23*	02	.01	.04	.004	.01
Rank	.13*	.27	.13	11*	24	.11
R^2		.09			.44	
Chi-Square(df)			269.97(122)***		
RMSEA			.0	<i>'</i>		
TLI			.9			
SRMR			.0			
			Predicting	g Respect		
	Self-	Legitimacy			Respect	
	β	b	SE	β	b	SE
Self-Legitimacy				.49***	.43	.07
Stereotype Threat	21***	15	.04	.03	.02	.03
Sex	.07	.10	.08	08	11	.06
College graduate	03	04	.08	03	04	.06
White	08	09	.07	17***	18	.05
Age	.25**	.02	.01	.12	.01	.01
Experience	22*	02	.01	04	003	.01
Rank	.13*	.26	.12	10*	17	.09
R^2		.09			.31	
Chi-Square(df)			314.09(122)***		
RMSEA			.0	<i>'</i>		
TLI			.9			
SRMR			.0			

* *p* < .05 ** *p* < .01 *** *p* < .001

Note: Sex: 1=man; College graduate: 1=yes; White: 1=White; Rank: 1=Sergeant

		Pr	edicting A	<u>ccountability</u>		
	Self	Legitimacy	•	Acc	countability	
	β	b	SE	β	b	SE
Self-Legitimacy				.53***	.28	.05
Stereotype Threat	21***	15	.04	03	01	.02
Sex	.06	.10	.09	04	04	.04
College graduate	03	04	.08	.04	.03	.04
White	07	09	.07	13**	09	.03
Age	.26**	.02	.01	.07	.002	.003
Experience	23*	02	.01	.04	.002	.003
Rank	.13*	.26	.12	14**	15	.06
R^2		.09			.35	
Chi-Square(df)			382.78(122)***		
RMSEA			.0			
TLI			.9			
SRMR			.0			
			Predicting	Neutrality		

]	Predicting	<u>Neutrality</u>		
	Self	Legitimacy		<u>1</u>	Veutrality	
	β	b	SE	β	b	SE
Self-Legitimacy				.52***	.21	.06
Stereotype Threat	21***	15	.04	.06	.02	.02
Sex	.07	.10	.08	02	01	.03
College graduate	03	04	.08	07	04	.03
White	07	08	.07	11	05	.03
Age	.25**	.02	.01	02	001	.003
Experience	22*	02	.01	.19	.01	.003
Rank	.13*	.26	.11	07	06	.05
R^2		.09			.31	
Chi-Square(df)			305.84(1	22)***		
RMSEA			.0			
TLI			.9	2		
SRMR			.0	4		

		Predicting Benevolence										
	Irealiting Benevolence Self-Legitimacy Benevolence β b SE β b - .66*** .68 20*** 16 .05 .08 .07 .06 .10 .10 06 10 03 04 .09 05 09 08 11 .08 06 09 .28** .02 .01 .05 .004 23* 02 .01 .04 .003 .12* .27 .13 09 22 .09 .45 .45 .06 .94 .04 .04 .04											
	β	b	SE	β	b	SE						
Self-Legitimacy				.66***	.68	.08						
Stereotype Threat	20***	16	.05	.08	.07	.04						
Sex	.06	.10	.10	06	10	.08						
College graduate	03	04	.09	05	09	.08						
White	08	11	.08	06	09	.06						
Age	.28**	.02	.01	.05	.004	.01						
Experience	23*	02	.01	.04	.003	.01						
Rank	.12*	.27	.13	09	22	.11						
R^2		.09			.45							
Chi-Square(df)			261.60(105)***								
RMSEA												
TLI			.9	4								
SRMR												

* p < .05 ** p < .01 *** p < .001Note: Sex: 1=man; College graduate: 1=yes; White: 1=White; Rank: 1=Sergeant

Supplemental Table 5 – Comparisons of divergent parameter estimates between the parceled procedural justice models (displayed above) and the overall support for procedural justice model presented in the article.

*Note: We used the equality of regression coefficients put forth by Paternoster and colleagues (1998). Coefficients in the procedural justice support model represent the path linking the control variable in question to the latent outcome variable.

		<u>al Justice</u> t Model	Parceled	l Model	
	b	SE	b	SE	z-test
White→Voice	-0.11	0.06	-0.12	0.08	0.10
White→Respect	-0.11	0.06	-0.18	0.05	0.90
White→Accountability	-0.11	0.06	-0.09	0.03	-0.30
Rank→Neutrality	-0.11	0.06	-0.06	-0.05	-0.64
Rank→Benevolence	-0.11	0.06	-0.22	0.11	0.88

* p < .05 ** p < .01 *** p < .001

Note: White: 1=White; Rank: 1=Sergeant

Paternoster, R., Brame, R., Mazerolle, P., & Piquero, A. (1998). Using the correct statistical test for the equality of regression coefficients. *Criminology*, *36*(4), 859-866.

Supplemental Table 4 – Standardized factor loadings for SEM models presented in article, but missing data imputed using full information maximum likelihood estimation.

		Factor Loading	<u>gs</u>
	Resistance	Unreasonable Use of Force	Procedural Justice Suppo
itereotype threat			
How much do you worry that people may think of you as racist because you are a police officer?	.75	.75	.75
How much do you worry that people you deal with on the job might misinterpret something you say as racist?	.77	.76	.76
How much do you worry that because you are a police officer you may get negative reactions from people who are minority group members?	.85	.85	.85
How much do you worry that being a police officer makes it harder for you to be friendly with people from minority groups?	.78	.78	.78
How much do you worry that you being a police officer influences what people who are minority group members think of you?	.82	.82	.82
How much do you worry about whether you come across as racist when you deal with people from minority groups?	.72	.72	.82
elf-Legitimacy			
How much do you, as a police officer, feel you represent the values of the public in areas where you work?	.50	.50	.59
How confident are you in using the authority that has been given to you as a police officer?	.71	.71	.66
How much do you believe that, as a police officer, you occupy a position of special importance in society?	.68	.68	.64
Resistance to Use of Force Policy			
How restrictive are the department rules regarding the use of force?	.34		
How justifiable are violations of the department's use of force policies?	.31		
How often are you in situations where it is necessary to use more force than allowed by department policy?	.61		
How tolerable is it to sometimes use more force than what is necessary?	.79		
How much are the police restricted from using as much force as is often necessary?	.52		
Unreasonable Use of Force			
How much would you approve of a police officer striking a community resident who had said vulgar or obscene things to the officer?		.72	
How much would you approve of a police officer striking a community resident who was being questioned as a suspect in a murder case?		.72	
YJ/De-escalation			
Voice			.94
Respect			.83
Accountability			.74
Benevolence			.93
Neutrality			.64
Chi-Square(df)	550.01(140)	330.81(89)	533.31(140)
Chi-Square sig	.00	.00	.00
RMSEA	.06	.06	.06
	.87	.90	.92
RMR	N/A	N/A	N/A
	11/17	11/1	11/17

Note: SRMR cannot be calculated with missing data.

Supplemental Table 5 – Parameter estimates for SEM models predicting resistance, unreasonable use of force, and procedural justice support with missing data imputed using full information maximum likelihood estimation.

			Moo	del 1					Mo	del 2					Mod	lel 3		Model 3					
	Self-Legitimacy			Resistance			Self-Legitimacy			Unreasonable Use of Force			Self-Legitimacy			Procedural Justice Support							
	β	b	SE	β	b	SE	β	b	SE	β	b	SE	β	b	SE	β	b	SE					
Self-Legitimacy				17**	11	.04				32***	36	.07				.61***	.71	.07					
Stereotype Threat	20***	14	.04	.26***	.13	.03	19***	14	.04	.13*	.11	.04	19***	16	.04	.03	.03	.04					
Sex	.09*	.12	.06	05	05	.04	.09*	.13	.06	.01	.01	.07	.09	.14	.08	08*	15	.07					
College graduate	03	04	.06	.04	.04	.04	03	04	.06	02	02	.07	04	06	.07	07*	13	.06					
White	11*	12	.05	14**	11	.04	12*	13	.05	10*	12	.06	12*	15	.06	06	09	.06					
Age	.18*	.01	.01	.02	.001	.004	.16	.01	.01	22*	02	.01	.20*	.02	.01	.10	.01	.01					
Experience	15	01	.01	.03	.002	.004	14	01	.01	.14	.01	.01	16	01	.01	.02	.002	.01					
Rank	.09	.17	.09	13**	16	.06	.09	.17	.09	10*	20	.10	.09	.20	.11	08*	19	.09					
R^2		.08			.14			.08			.18			.08			.42						

* p < .05 ** p < .01 *** p < .001Note: Sex: 1=man; College graduate: 1=yes; White: 1=White; Rank: 1=Sergeant

Supplemental Table 6 – Comparisons of divergent parameter estimates between models using only complete data and imputed data.

(*Note: We used the equality of regression coefficients put forth by Paternoster and colleagues (1998). Coefficients in the procedural justice support model represent the path linking the control variable in question to the latent outcome variable).

	RESISTA	RESISTANCE MODEL				
	<u>Complete</u>		Imputed			
	b	SE	b	SE	z-test	
White→Self-Legitimacy	-0.08	0.06	-0.12	0.05	.51	
Experience→Self-Legitimacy	-0.01	0.01	-0.01	0.01	<.00	
Rank→Self-Legitimacy	0.25	0.11	0.17	0.09	.56	
Rank→Resistance	-0.09	0.07	-0.16	0.06	.76	

UNREASONABLE FORCE MODEL

	<u>Complete</u>		Imputed		
	b	SE	b	SE	z-test
Sex→Self-Legitimacy	0.09	0.07	0.13	0.06	43
White→Self-Legitimacy	-0.08	0.06	-0.13	0.05	.64
Age→Self-Legitimacy	0.01	0.01	0.01	0.01	<.00
Experience→Self-Legitimacy	-0.01	0.01	-0.01	0.01	<.00
Rank→Self-Legitimacy	0.24	0.1	0.17	0.09	.52
Threat→Force	0.07	0.04	0.11	0.04	71
White→Force	-0.06	0.07	-0.12	0.06	.65
Age→Force	-0.01	0.01	-0.02	0.01	.71
Rank→Force	-0.14	0.11	-0.2	0.1	.40

PROCEDURAL JUSTICE SUPPORT MODEL

	Complete		Imputed		
	b	SE	b	SE	z-test
White→Self-Legitimacy	-0.12	0.07	-0.15	0.06	.33
Experience \rightarrow Self-Legitimacy	-0.02	0.01	-0.01	0.01	71
Rank \rightarrow Self-Legitimacy	0.26	0.13	0.2	0.11	.35
Sex \rightarrow Procedural Justice	-0.13	0.08	-0.15	0.07	.19
College Graduate \rightarrow Procedural Justice	-0.09	0.08	-0.13	0.06	.40

* *p* < .05 ** *p* < .01 *** *p* < .001

Sex: 1=man; College graduate: 1=yes; White: 1=White; Rank: 1=Sergeant

	β	SE	р	95% Confidence Interval [†]
Resistance	.05	.02	.002	$.02 < \beta < .11$
Unreasonable Use of Force	.09	.03	.002	$.03 < \beta < .16$
Procedural Justice Support	13	.04	.002	$22 < \beta <04$

Supplemental Table 6 – Bootstrapped estimated indirect effects of stereotype threat on each outcome.

[†] Bias-corrected