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How social dominance orientation shapes perceptions of police

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Abstract

Purpose
There remain several underaddressed issues in the procedural justice literature. The authors draw from a rich body of psychological research on how the sociopolitical orientation to group inequality influences individual views on government and apply this to perceptions of procedural justice.

Design/methodology/approach
This study uses a laboratory-style experimental design to examine the extent to which social dominance orientation (SDO) shapes how people view the language of law enforcement. Four treatments are tested: procedural justice, rapport, deference, and direct.

Findings
The authors find that, overall, exclusively emphasizing rapport – as opposed to procedural justice, deference, or directness – is not beneficial to fostering positive perceptions of police. Additionally, a higher SDO score is associated with lower perceptions of officer respect in the video and regardless of condition. Finally, while higher SDO score is correlated with greater trust in police (both a specific officer and the police in general), it is also associated with a lower sense of obligation to obey both the officer in the video and the police as an institution. Further, procedural justice or direct communication styles can attenuate the negative impact of SDO on views of police better than rapport or deference communication styles. Thus, the picture that emerges from this research is more nuanced than a straightforward relationship between SDO and support for police.

Originality/value
This study used an experimental design to examine for the first time the role that a sociopolitical orientation may play in procedural justice theory. While research finds strong links between procedural justice and increased cooperation with police, obligation to obey, and trust in police, few studies have delved into the individual-level factors that research has yet to delve into whether sociopolitical orientation may play a role in informing police actions and communication training.

In the course of everyday police work, officers regularly speak with citizens, through both officer-initiated and citizen-initiated contacts. The Bureau of Justice Statistics estimated that in 2015 about one-fifth of all US adults – 53.5m people – had at least one contact with a police officer (Davis *et al.*, 2018). These encounters included traffic stops and accidents, street stops and calls for help. Each

interaction has the potential to shape how a citizen views the police. More specifically, procedural justice theory posits that police gain legitimacy in the eyes of the public when they treat people fairly, respectfully and allow citizens an opportunity to voice questions (Sunshine and Tyler, 2003). Procedural justice forms the basis for much discussion among police reformers, partially due to its emphasis on a positive interactional process, rather than a positive outcome, to foster police legitimacy (Ramsey and Robinson, 2015).

Despite being a prominent and well-supported theory in criminal justice, there remain several underaddressed issues in the procedural justice literature including debate over conceptualization of key terms, how procedural justice operates across populations, and individual-level variation in perceptions of procedural justice and legitimacy. To expand this literature, we draw from a rich body of psychological research on social dominance orientation (SDO) – a sociopolitical orientation to how group inequality influences individual views on government (Pratto *et al.*, 1994). This study uses an experimental design to examine how SDO shapes perceptions of an officer's language and how this language, in turn, influences perceptions of the police. The results have implications for both procedural justice theory and tailoring police communication training.

Background

This literature review is organized into three sections. First, it provides an overview of procedural justice theory and policing. Second, it discusses social dominance theory and SDO. Finally, it argues for the utility of examining these theories alongside one another to better understand police–citizen interactions.

Procedural justice

Procedural justice theory maintains that people's willingness to obey the law and to comply with orders is closely tied to the perceived legitimacy of legal institutions and the authority figures who operate within them (Sunshine and Tyler, 2003; Tyler, 2006; Tyler and Huo, 2002). Importantly, the greatest predictor of legitimacy is the degree to which legal institutions and their personnel are deemed to have acted in a procedurally just manner. Individuals are more likely to view a legal encounter as procedurally just when people: (1) are afforded input, or "citizen voice," prior to a decision being made; (2) perceive the decision-making process as impartial; and (3) feel as though they were treated respectfully by legal actors. Thus, police can be viewed as legitimate and as procedurally just even when receiving an undesirable outcome, such as getting a ticket (Tyler and Huo, 2002).

Research has found that people who view law enforcement as legitimate are more likely to voluntarily obey the law, cooperate with the police and support initiatives that enable the police to perform their jobs, among other positive outcomes (Sunshine and Tyler, 2003; Tankebe, 2013). The influence of procedural justice theory on policing cannot be understated; it is emphasized within the

President's Task Force on 21st Century Policing (Ramsey and Robinson, 2015) and has prompted numerous policing initiatives across the country, including a shift toward evidence-informed policies and greater emphasis on community policing [1]. Scholars have analyzed procedural justice theory and police–citizen reactions in numerous ways, from the role of race in perceived police legitimacy (Kearns *et al.*, 2020; Mazzerolle *et al.*, 2011; Weitzer and Tuch, 2004), to how immigrant communities view police (Chenane *et al.*, 2017; Menijvar and Bejarano, 2004; Wu *et al.*, 2011), to whether procedural justice theory can be generalized to incarcerated individuals' perceptions of authority (Jenness and Calavita, 2018).

Several recent studies examine procedural justice using experimental designs that allow for causal inferences. Randomized field trials, such as Mazzerolle *et al.*'s (2011) procedural justice experiment in Australia, test the messages of procedural justice in a real-world setting. However, a separate set of studies using a laboratory-style design allow for additional language manipulations that would be impossible to examine in a field setting. These studies have tested the effects of various language strategies on perceptions of police, including overly accommodative (deferential) language (Lowrey *et al.*, 2016) and harsh, negative language (Maguire *et al.*, 2017). Similarly, the present study also draws from a linguistic theory – politeness theory (Brown and Levinson, 1987) – and uses an experimental design to examine the relationship between respondents' SDO, perceptions of the police–citizen interaction, views of the specific officer and views of police in general.

Social dominance orientation

Social dominance theory arose out of the observation that all human societies – regardless of their geographic location, cultural disposition or religious orientation – privileged certain groups above others (Pratto *et al.*, 1994). The theory provided an explanation for how societies created and sustained systematic oppression against lesser-valued groups (Sidanius, 1993; Sidanius and Pratto, 1993). This preferential ranking system minimized conflict within societies by unofficially labeling which groups had “positive” versus “negative” social value and thus, which groups would be most advantaged in the allocation of resources, such as housing, employment, health care and education (Pratto *et al.*, 2006).

According to social dominance theory, group-based inequalities are supported through the use of hierarchy-legitimizing myths, which endorse the superiority, merit or deservingness of one group over another. Examples of these myths include Social Darwinism or the belief that certain sexes, races, ethnicities or socioeconomic classes are less valuable (Pratto *et al.*, 1994). The term “myth” refers to the fact that these value judgments are not based in empirical reality, but rather “that everyone in the society perceives these ideologies as explanations for how the world is” (Pratto *et al.*, 1994, p. 741). These myths hold great power over society in that they actively endorse the dominance of one group over another. Social dominance theory postulates that these inequalities

pervade all levels of social life including interactions between individuals, intergroup dynamics and system-wide institutional discrimination (Pratto *et al.*, 2006).

Social dominance theory draws upon multiple other theories to “understand the processes producing and maintaining prejudice and discrimination at *multiple* levels of analysis” (Pratto *et al.*, 2006, p. 272, italics original). For purposes of the present study, the most salient of these is group position theory (Blumer, 1958; Bobo and Hutchings, 1996). Group position theory maintains that a group's hierarchical position in society may affect their perception of particular events. In other words, a group's perception represents “a subjective image of where the in-group ought to stand vis-à-vis the out-group” (Blumer, 1958, p. 4). Indeed, previous studies have found that “out groups,” such as immigrants, may have less favorable perceptions of law enforcement than “in groups” (Wu *et al.*, 2011; Weitzer and Tuch, 2006).

SDO provides the set of criteria to measure “an individual's *foundational orientation* towards social group relations” (Castelán Cargile, 2017, p. 40). Thus, SDO assesses “the degree to which one favors intergroup hierarchy over equality between groups” (Kearns *et al.*, 2018, p. 4). SDO was initially formulated as a 14-point scale that was unidimensional (Pratto *et al.*, 1994; Appendix 1). Subsequently, Ho *et al.* (2012) found that SDO contained two subdimensions: social dominance orientation–dominance (SDO-D) and social dominance orientation–egalitarianism (SDO-E). These dimensions are highly correlated; the primary difference is that SDO-D measures active forms of oppression, whereas SDO-E captures more exclusionary forms of oppression (Ho *et al.*, 2012). For example, SDO-D emphasizes overt racism, whereas SDO-E maintains the unequal distribution of resources between groups (Ho *et al.*, 2012). Studies generally combine both dimensions into a single measure of a person's preference for group-based hierarchy; our study adopts this approach.

Scholars have drawn upon SDO to assess individuals' political ideologies and intergroup behavior. Cross-disciplinary research has found SDO to predict discrimination against: Blacks (Kugler *et al.*, 2010), women (Eagly *et al.*, 2004), immigrants (Thomsen *et al.*, 2008), homosexuality (Eagly *et al.*, 2004), nonnative accents (Hansen and Dovidio, 2016) and racial and ethnic minorities (Kteily *et al.*, 2011). Further, individuals with higher SDO are also more likely to prefer “hierarchy-enforcing professional roles” (Pratto *et al.*, 1994, p. 741) compared to individuals with lower SDO. Thus, certain careers – such as law enforcement – may be particularly attractive to individuals with high SDO. Indeed, White police officers score especially high in SDO (Sidanius *et al.*, 1994).

Interestingly, existing SDO literature has not yet analyzed how high-SDO individuals perceive the police's treatment of themselves or others. While we know that high-SDO individuals are more likely to be drawn to a career in law enforcement, we do not know how those same individuals respond to law enforcement imposing authority upon them or others. Moreover, existing literature also does not address whether high-SDO individuals' perception of law enforcement would vary dependent upon how procedurally just or unjust the officer appears to be.

The present study

Although both extensively researched in their respective fields, there are a number of unanswered questions relating to procedural justice theory and SDO. Within procedural justice theory, it is well established that there is a causal connection between how an officer interacts with a citizen and the citizen's perceptions of the officer's legitimacy and of the legitimacy of the policing institution as a whole. Previous research has examined a range of other factors that may play a role in this causal link, including social identity (Bradford, 2014), morality and self-control (Reisig *et al.*, 2014), defiance (Murphy, 2016), incarceration status (Jenness and Calavita, 2018), victimization experience, police contact, fear of crime, neighborhood disorder and neighborhood crime rate (Wolfe *et al.*, 2016). Together, this body of literature suggests individual personality traits, views and attitudes factor prominently in assessments of authorities' legitimacy. As of yet, however, little attention has been given to sociopolitical orientation, defined as “general ideological tendenc[ies] based on attitudes and beliefs about sociopolitical issues” (Hastie, 2007, p. 260). As a lens through which people see the world, sociopolitical orientation may have a strong effect on how the actions of authority figures, including police officers, are interpreted.

The present study adds to the literature by examining the role of SDO on perceptions of police and their interactions with citizens. Law enforcement is a hierarchy-enforcing institution, thus individuals with higher SDO should have more positive overall views of police. However, a person's SDO may also relate to their sensitivity to communication styles that officers employ with citizens. Specifically, stemming from their preference for group-based hierarchy, people with higher SDO may view a police–citizen interaction more negatively when the officer treats the citizen with respect.

To test this, the police–citizen interactions in this study vary in their linguistic approach to create four conditions – procedural justice, rapport building, deference and direct – each of which may be viewed differently as a function of a person's sociopolitical orientation toward social dominance. Despite the prominence and popularity of procedurally just policing and efforts to build community–police relationships, people with higher SDO may not respond well to efforts that emphasize rapport and mutual respect between officers and citizens, since this conflicts with their hierarchical views of society. To our knowledge, ours is the first study to analyze how language styles mediate the relationship between high-SDO individuals and their perceptions of police officers. These relationships between SDO and perceptions of police communication style are explored further.

Method

Participants

The survey research firm Survey Sampling International (SSI) was hired to recruit participants. SSI compensates its participants for completing surveys and primarily recruits through opt-in panels. The

target sample consisted of US adults. Participants were recruited from December 28, 2016, to January 12, 2017, and 656 US adults completed the questionnaire.

Procedure

The survey was designed by the first author and formatted in Qualtrics [2]. When participants accessed the survey link, they were presented with information on the study and provided informed consent. Participants were first randomly assigned to one of four treatments described in detail further. Each condition included a video, filmed from a body-camera perspective, depicting a traffic stop for speeding. The same actors were used in all videos – a White male driver in his mid-20s and a White male officer. The officer's language varied according to the condition, while the driver's language remained the same in all conditions. After watching the video, participants answered questions about their perceptions of the officer in the video, their attitude toward police in general and their SDO. The order of questions was randomized to control for order effects bias. Finally, participants were asked demographic questions, asked for feedback and debriefed. In total, the instrument consisted of 44 questions, of which two were open-ended questions not used in the present study and two were feedback items. On average, participants completed the survey in approximately 11 min [3].

Treatments

The experimental treatment consisted of videos filmed from the perspective of a police body camera. Each condition's language and interaction style were adapted from experimental field trials (Mazzerolle *et al.*, 2011; Sahin, 2014) and laboratory-style procedural justice experiments (Lowrey *et al.*, 2016; Maguire *et al.*, 2017; Johnson *et al.*, 2017). The four conditions consisted of different interaction styles: procedural justice, rapport, deference and direct. Each condition is described in detail further, and all scripts can be found in Appendix 1.

The procedural justice condition emphasized respect, neutrality, trustworthiness and citizen participation – the four main components of a procedurally just interaction. The officer begins the interaction with a greeting (“Good evening, sir”) and introduces himself by name, both of which convey respect for the citizen. To incorporate neutrality into the interaction, the officer explains the reason for the stop (“I've stopped you because the posted speed limit is 30 miles per hour, and you were going 48 miles per hour”). Additionally, the officer respectfully asks for paperwork (“May I have your license and registration, please, sir?”). After the driver provides the required documentation, the officer thanks him. Officer trustworthiness was incorporated via the officer emphasizing that the goal of traffic stops like this one is public safety (“Listen, every year, people die on these roads from speeding and we're just trying to keep that from happening. Our goal is to keep the roads safe by making sure people drive the speed limit”). At several points the officer asks the driver if he has any questions (citizen voice/participation). Finally, the officer closes by thanking the driver and wishing him well.

The rapport condition contained the same basic elements of the traffic stop, but instead emphasized social similarity between the officer and the citizen. This condition was operationalized based on linguistic politeness theory (Brown and Levinson, 1987) [4]. While the traffic stop follows the same basic pattern as the procedural justice condition, earlier, the officer in this condition is instead very friendly and informal with the driver. This is accomplished through the use of informal address terms (“Hey there man”), colloquial language (“Hang tight” and “Here's the deal”) and informal pronunciation (e.g. “K” instead of “Ok,” “Ya” instead of “You” and “Speedin” instead of “Speeding”). The informal and friendly nature of this interaction sets it apart from the other conditions.

In contrast to the informality of the rapport condition, the deference condition instead linguistically emphasized that the driver is of a higher social standing. As in the procedural justice condition, the driver uses respectful language (“Sir” and “please”), with the addition of pauses, hesitation markers (“Ummm and “ahhh”) and hedges (e.g. “Could I *just* have your license and registration…?”). The officer also expresses reluctance to give the driver a ticket (“Unfortunately… I'm going to have to give you a ticket for the speed”). Together, these linguistic cues that signal that the driver was of a higher social status than the officer (Brown and Levinson, 1987).

Finally, the direct interaction style consisted of the same basic elements as the aforementioned conditions – an officer stops a driver for speeding, obtains the driver's documentation and issues a ticket for speeding. However, rather than being procedurally just, emphasizing rapport or exhibiting deference, the direct condition instead consisted of the officer issuing direct commands to the driver (“Give me your license and registration,” “Wait here” and “Sign on the bottom line”). Thus, although accomplishing the same ultimate goal (delivering a ticket for speeding), the direct condition did not incorporate the key messages of procedural justice, nor did the officer emphasize social similarity or deference to the driver.

Measures

This study includes eight outcomes that tap into three general ideas – procedural justice in the encounter, views of the officer in the encounter, and views of police overall – that should be impacted by the officer's interaction style and the respondent' SDO level. The first set of two dependent variables measure perceptions of procedural justice in the encounter, specifically: the officer's respect for the driver and the officer's neutrality and fairness [5]. The second set of three dependent variables measure perceptions of the *specific* law enforcement officer: the respondents' willingness to cooperate, obligation to obey, and trust in the officer. The final set of three dependent variables measure perceptions of the respondents' willingness to cooperate, obligation to obey and trust the police in *general*. Questions measuring each of eight dependent variables were averaged to create final scores (see Appendix 2 for survey items and Appendix 3 for descriptive statistics). The dependent variables all range 1–5 with higher scores indicating more positive views.

Participants' level of SDO was captured with eight items measuring SDO-D and SDO-E. (Ho *et al.*, 2012). Each item was measured on a five-point scale. As is standard practice in the literature on SDO, items were then recoded as needed and averaged to create a total SDO score that ranged from 1 to 5 where higher scores indicate higher SDO (Kearns *et al.*, 2018; Ho *et al.*, 2012; Sidanius, *et al.*, 1994) [6]. Across all models we also control for three participant demographics – race, gender, and age – that have been shown to impact views of police (Engel, 2005; Brunson, 2007; Hurst and Frank, 2000). Race and gender are measured as binary indicators for whether or not the participant is White and male, respectively. Age is measured in years. Table 1 summarizes participant demographics and descriptive statistics [7].

Results

We are interested in how both officer's language and interaction style and respondent's social dominance orientation influence perceptions of the officer's treatment of the citizen in a traffic stop, views of the specific officer in the stop and views of police in general. In this section, we first examine how the treatments along with respondents' SDO are related to the outcomes. We then estimate models to examine relationships between the outcomes and respondents' SDO for each condition separately.

SDO and views of police across conditions

All models are estimated using ordinary least squares regression with robust standard errors. We first examine how treatments along with respondents' SDO are related to the outcomes, as shown in Table 2. Across outcomes, participants evaluated officers in the rapport treatment more negatively, so this condition was used as the reference category. Compared to the rapport condition, participants in the procedural justice, deference and direct conditions generally have more positive views of both how the officer treated the citizen in the encounter and of the specific officer himself but, for the most part, these views do not generalize to police as a whole. People with higher SDO view the officer's treatment as less respectful and feel less obligation to obey both the specific officer in the video and the police in general even when controlling for treatment and other participant demographics.

SDO and views of police by condition

We next test whether officer interaction style can minimize the influence of SDO on each of our outcomes by estimating models separately for each treatment (Table 3). In both the procedural justice and direct conditions, SDO is not related to any of the outcomes, which may suggest that procedurally just or direct interactions mitigate the influence of SDO on views of police. In the rapport condition, higher SDO is associated with lower willingness to cooperate with the specific officer in the video, a relationship not found in the overall sample. This may suggest that a rapport approach to communication can mitigate the influence of SDO on some negative views of police but introduce another problem. Finally, in the deference condition, higher SDO is associated with lower willingness

to obey the specific officer, as found in the overall sample. Other relationships from the overall sample are not found, which may suggest that deference too can mitigate the influence of SDO on some negative views of police. Taken together, both procedurally just and direct communication styles show the most promise for mitigating the negative relationships between SDO and participants' views of police.

Discussion

While procedural justice theory has been widely researched, the influence of sociopolitical orientation on views of police has not been examined. To address this gap, this study used an experimental design to examine respondents' social dominance orientation – and its interaction with various officer communication styles – on perceptions of an officer and the police generally. Among the four communication styles, the rapport approach was associated with the least favorable views of the police–citizen interaction, the specific officer in the video, and – to a much lesser extent – police in general. The rapport condition is a highly informal interaction, and thus respondents – regardless of their SDO level – may have been particularly likely to rate this interaction as less classically "respectful" or "fair" and be less willing to cooperate with or trust that officer. In short, this finding suggests that overly friendly and casual communication can potentially hinder public views of an officer. The second, and more puzzling, set of findings speaks to the influence of SDO on views of the interaction, the specific officer and police in general. Specifically, higher SDO was associated with viewing the officer as less respectful and reporting a lower reported obligation to obey the officer in the video and police in general. When viewed in light of the SDO literature, this finding is somewhat surprising. In previous research, individuals with higher SDO have been found to have a stronger preference for "hierarchy-enforcing professional roles" (Pratto *et al.*, 1994, p. 741), such as law enforcement. Further, police have a rank-and-file organizational structure that appeals to people with high SDO (Hall *et al.*, 2016) and police officers themselves have been found to have high SDO scores (Sidanius *et al.*, 1994). Thus, we might expect that higher SDO is associated with across the board support and favorable views of police.

Yet, contrary to this expectation from the literature, we found that respondents with higher SDO reported a *lower* sense of obligation to obey both the officer in the video and the police in general. Why might this be the case? One possible explanation is that a person may support an institution as an abstract entity and even seek to join it, yet resist it when that authority is imposed upon them. Further, it is possible that higher-SDO individuals are more likely to resist authority, even when that authority is being exerted by a member of an institution (the police) that the same high-scoring SDO individual respects.

We also examined the influence of SDO on perceptions of police across treatment conditions. Our results suggest that some communication styles can attenuate the negative associations described earlier (i.e. viewing the officer as less respectful and reporting a lower reported obligation to obey) while others present new negative relationships. In both the procedural justice and direct

conditions, SDO scores are unrelated to views of police, which suggests that these communication approaches can minimize negative influences of SDO on views of police without introducing new issues. This is not the case for the rapport and deference conditions. In the rapport condition, the negative relationships between SDO and views of officer respect or obligation to obey disappear, but higher-SDO individuals indicate less willingness to cooperate with the officer in the video. For respondents with higher SDO, the highly informal rapport communication approach likely runs counter to their hierarchy-supporting views and expectation of how an officer should behave, thus high-SDO respondents may have been particularly likely to indicate lower willingness to cooperate with the officer in this video. Yet, it remains unclear why SDO did not influence other officer-specific measures in the rapport condition.

In the deference condition, there is no longer a relationship between SDO and views of the officer's respectfulness or felt obligation to obey the police in general. However, higher-SDO individuals still indicate lower obligation to obey the officer in the video. Perhaps in the deference condition, participants high in SDO may have reacted negatively to a perceived show of weakness by a law enforcement officer. Although this is merely speculation on our part, the findings suggest that SDO, at least in a laboratory-style experimental setting, is a significant predictor of how a citizen interprets an officer's language, and that effect is in a negative direction.

The picture that emerges from our research is more nuanced than a straightforward relationship between SDO and support for police. Higher SDO was associated with lower perceived respectfulness by the officer and lower perceived obligation to obey the police, both specific to the video and in general. Yet, the procedural justice and direct communication styles attenuated the relationships between SDO and negative views of police while neither rapport nor deference communication styles fully did. Thus, the relationship between SDO and perceptions of police communication is complex.

Implications

Our work falls into a new phase of research into procedural justice theory, one that focuses on a deeper understanding of how individual characteristics may color perceptions of police legitimacy (Bradford, 2014; Reisig *et al.*, 2014; Wolfe *et al.*, 2016). Of particular relevance to contextualizing the present study is Murphy (2016), which examined how procedural justice impacts individuals who are defiant toward authority. The study found that procedural justice promoted compliance even for people who were resistant or dismissive of authority. Murphy (2016) concludes that “procedural justice is likely to be a good general strategy for promoting compliance across all types of people” (p. 102). Consistent with this conclusion, we found that procedural justice was a beneficial strategy even for high-SDO participants.

Moreover, other researchers have found that perceived procedural (in)justice may, in turn, lead to involvement in the justice system and this pathway is moderated by individual attitudes. For

example, Wolfe and McLean (2017) found that experiencing procedural injustice was related to violent victimization, a relationship that was moderated by risky lifestyle (Wolfe and McLean, 2017). Similarly, reoffending is more likely among youth who view the law and legal authorities as less legitimate *and* were psychosocially mature (Fine *et al.*, 2018). Our study builds upon this existing work by concluding that sociopolitical orientation also influences how procedurally just communication is received and interpreted. Procedural justice, therefore, appears to be just one piece in a larger puzzle explaining how views of the police and the justice system are formed.

Several lessons from this research may be incorporated into police training. In short, when it comes to choosing a communications style, we found that rapport and deferential communication can reduce the impact of SDO on some but not all outcomes. In contrast, both the procedurally just and direct communication styles mitigate the negative relationships between SDO and these outcomes without introducing new negative perceptions. Taken with other findings, this suggests that both procedurally just and direct communication styles have the most benefits and fewest drawbacks on balance.

Limitations and future directions

There are several possible limitations to our study, one of which is the delivery method of the treatments. The videos used here as treatments are a vicarious experience and, as such, may result in a weaker effect than in-person interactions. Thus, future research conducted in the field should further examine the relationship between SDO and perceptions of police communication. A second limitation is the sample, as it was a nonrepresentative sample of US adults recruited through an online recruitment company. This study should be replicated with a representative sample of respondents and delivered via different methods.

Finally, the results reported here suggest that examining the intersection of personality traits and perceptions of police communication is a fruitful future direction of research. Researchers should also examine other personality traits, such as the big-five personality traits (Goldberg, 1993), in order to refine our understanding of procedural justice theory and how different individuals form their perceptions of police. Additionally, our study analyzed police–citizen interactions from the perspective of “in-groups”; both actors in our study were White males and thus represent a group that, per the SDO literature, is more likely to prefer hierarchy. Future research could vary the citizen's race and the officer's race to better understand the role of race in this relationship.

Conclusion

This study used an experimental design to examine for the first time the role that a personality trait may play in procedural justice theory. In examining the relationship between SDO and the perceptions of police, we find that there is no expected straightforward, positive, relationship. On the contrary, there is a complex interplay between SDO, communication style, perceptions of an officer

and perceptions of the police institution as a whole. Our research speaks to theoretical debates in the procedural justice literature, in particular the role of individual and contextual factors in the causal link between fair treatment and legitimacy, and can inform police communication training.

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Notes

1.See, for example, https://www.theiacp.org/projects/21st-century-policing-blueprint

2.Although the survey instrument was not formally pretested, many of the same measures have previously been used in prior research (Lowrey *et al.*, 2016; Maguire *et al.*, 2017; Johnson *et al.*, 2017).

3Participants who completed the survey in under 250 s (approximately 4 min) were excluded from the sample. Participants who completed the survey in over 3,600 s (60 min) were excluded for the purposes of calculating the average time to complete the survey but responses were retained for the analyses.

4.The deference and the rapport conditions were designed to reflect *negative politeness* and *positive politeness* in politeness theory. For the sake of clarity, we renamed the term positive politeness "rapport" and negative politeness "deference" in the present study. It is, however, important to note that the rapport condition could be considered to be a very informal speech style. The informality of these language strategies is precisely how this style mitigates the threat of requests. By using language to emphasize social similarity, a person can attend to the social consequences of making a request or command and soften the blow to the recipient's face.

5.As shown in Appendix 2, we also included three items to measure the officer's willingness to allow citizen participation. While these items were derived from established sources in the procedural justice literature, the Cronbach's alpha score for these three items was 0.58, which is below the common threshold of 0.7. Given the low Cronbach's alpha score, we do not include citizen participation as an outcome variable in this study.

6.We also estimated models with an additive index for SDO but opted to follow convention in the literature and present models with a summed SDO score for each participant. This approach also eases interpretation since SDO is measured on a 1–5 scale as are all the outcome variables.

7.The correlation among the independent variables ranges from 0.02 to 0.29.

Table 1
Demographics and descriptive statistics

	Frequency (*N*)	Mean (SD)	Median	Range	α
Dependent variables					
Officer treatment: respect		4.33 (0.73)	4.33	1–5	0.83
Officer treatment: fairness		4.15 (0.74)	4	1–5	0.75
Specific officer: cooperation	—	4.07 (0.81)	4	1–5	0.77
Specific officer: obligation to obey	—	4.22 (0.76)	4	1–5	0.93
Specific officer: trust	—	4.14 (0.76)	4	1–5	0.76
General police: cooperation	—	4.30 (0.72)	4.25	1–5	0.91
General police: obligation to obey	—	4.03 (0.72)	4	1–5	0.71

	Frequency (*N*)	Mean (SD)	Median	Range	α
General police: trust	—	3.90 (0.83)	4	1–5	0.86
Independent variables					
SDO (overall)	—	2.25 (0.71)	2.25	1–5	0.81
Male	44.5% (*N* = 292)	—	—	—	—
White	81.4% (*N* = 534)	—	—	—	—
Age	—	48.42 (16.44)	49	18–87	—

Table 2
Views of the police (*N* = 636)

	Officer treatment		Specific officer			General police		
	Respect	**Fairness**	**Cooperation**	**Obligation to obey**	**Trust**	**Cooperation**	**Obligation to obey**	**Trust**
PJ	*0.53** (0.08)*	*0.28** (0.08)*	*0.23* (0.09)*	0.12 (0.09)	*0.32** (0.08)*	−0.0008 (0.08)	0.13 (0.08)	0.02 (0.09)
Deference	*0.48** (0.09)*	*0.32** (0.08)*	*0.19* (0.09)*	*0.22** (0.08)*	*0.44** (0.08)*	0.05 (0.07)	*0.20** (0.07)*	0.15† (0.08)
Direct	*0.56** (0.09)*	*0.43** (0.08)*	*0.29** (0.09)*	*0.22* (0.09)*	*0.39** (0.08)*	0.01 (0.08)	0.12 (0.08)	0.10 (0.09)
SDO	*−0.12** (0.04)*	0.004 (0.04)	−0.08† (0.05)	*−0.10* (0.04)*	−0.08† (0.05)	−0.06 (0.04)	*−0.09* (0.04)*	0.09† (0.05)
Male	−0.02 (0.06)	*−0.17** (0.06)*	−0.10 (0.06)	*−0.12* (0.06)*	*−0.15** (0.06)*	*−0.15** (0.06)*	*−0.19** (0.06)*	−0.08 (0.06)

	Officer treatment		Specific officer			General police		
	Respect	Fairness	Cooperation	Obligation to obey	Trust	Cooperation	Obligation to obey	Trust
White	*−0.23*** *(0.07)*	−0.08 (0.08)	0.08 (0.10)	−0.06 (0.08)	−0.07 (0.08)	*0.20** *(0.09)*	0.12 (0.08)	*0.39*** *(0.09)*
Age	*0.005*** *(0.001)*	*0.006*** *(0.002)*	*0.01*** *(0.002)*	*0.004** *(0.002)*	*0.01*** *(0.002)*	*0.009*** *(0.002)*	*0.01*** *(0.002)*	*0.01*** *(0.002)*

Note(s): OLS models presented with unstandardized coefficients and robust standard errors

†$p < 0.10$. *$p < 0.05$. **$p < 0$ 0.01Italic indicates significant coefficients

Table 3
Views of police by condition

	Officer treatment		Specific officer			General police		
	Respect	Fairness	Cooperation	Obligation to obey	Trust	Cooperation	Obligation to obey	Trust
Procedural justice (N = 167)								
SDO	−0.11† (0.07)	−0.03 (0.08)	0.06 (0.11)	−0.02 (0.09)	−0.09 (0.08)	0.03 (0.11)	−0.14† (0.08)	0.08 (0.10)
Male	−0.10 (0.10)	*−0.32** (0.11)*	−0.14 (0.12)	−0.19 (0.13)	*−0.25* (0.11)*	−0.18 (0.13)	*−0.25* (0.12)*	−0.13 (0.14)
White	−0.08 (0.15)	0.009 (0.15)	−0.21 (0.21)	−0.08 (0.18)	−0.08 (0.18)	−0.02 (0.20)	0.009 (0.17)	0.16 (0.19)
Age	0.003 (0.003)	0.006† (0.003)	0.005 (0.004)	0.003 (0.004)	*0.01** (0.003)*	*0.009* (0.003)*	*0.01** (0.004)*	*0.009* (0.004)*
Rapport (N = 145)								

	Officer treatment		Specific officer			General police		
	Respect	Fairness	Cooperation	Obligation to obey	Trust	Cooperation	Obligation to obey	Trust
SDO	−0.11 (0.11)	−0.03 (0.09)	*−0.20* (0.10)*	−0.11 (0.09)	−0.06 (0.09)	−0.08 (0.07)	−0.10 (0.08)	0.07 (0.09)
Male	0.09 (0.14)	−0.06 (0.12)	−0.07 (0.13)	−0.007 (0.13)	−0.14 (0.12)	−0.11 (0.10)	−0.07 (0.11)	−0.11 (0.12)
White	−0.29 (0.20)	0.16 (0.18)	0.26 (0.18)	−0.008 (0.19)	−0.03 (0.15)	0.27† (0.15)	0.15 (0.19)	*0.40* (0.20)*
Age	*0.008* (0.003)*	*0.008* (0.004)*	*0.009* (0.004)*	0.007† (0.004)	*0.01** (0.003)*	*0.01** (0.003)*	*0.02** (0.003)*	*0.01** (0.004)*
Deference (N = 163)								
SDO	−0.12 (0.08)	0.07 (0.10)	−0.11 (0.11)	*−0.19* (0.09)*	−0.12 (0.11)	−0.11 (0.09)	−0.10 (0.07)	0.05 (0.11)

	Officer treatment		Specific officer			General police		
	Respect	Fairness	Cooperation	Obligation to obey	Trust	Cooperation	Obligation to obey	Trust
Male	0.04 (0.10)	−0.14 (0.11)	−0.08 (0.13)	−0.16 (0.11)	0.05 (0.11)	−0.16 (0.11)	*−0.19* (0.09)*	−0.04 (0.12)
White	*−0.30* (0.12)*	−0.18 (0.14)	−0.04 (0.22)	−0.15 (0.13)	−0.06 (0.15)	0.23 (0.19)	0.22 (0.14)	*0.48* (0.20)*
Age	0.005† (0.003)	*0.007* (0.003)*	*0.008* (0.004)*	0.005† (0.003)	*0.007* (0.003)*	*0.008* (0.003)*	*0.01** (0.002)*	*0.009** (0.003)*
Direct (N = 161)								
SDO	−0.14 (0.08)	−0.01 (0.09)	−0.06 (0.10)	−0.07 (0.09)	−0.06 (0.09)	−0.06 (0.09)	−0.007 (0.09)	0.19† (0.10)
Male	−0.12 (0.11)	−0.19 (0.12)	−0.15 (0.14)	−0.15 (0.13)	*−0.30* (0.12)*	−0.16 (0.13)	*−0.24* (0.12)*	−0.06 (0.14)

	Officer treatment		Specific officer			General police		
	Respect	**Fairness**	**Cooperation**	**Obligation to obey**	**Trust**	**Cooperation**	**Obligation to obey**	**Trust**
White	−0.20† (0.11)	−0.18 (0.14)	0.18 (0.18)	−0.02 (0.16)	−0.07 (0.15)	0.25 (0.17)	0.14 (0.16)	*0.49*** *(0.17)*
Age	0.001 (0.003)	0.002 (0.003)	0.008† (0.004)	0.002 (0.004)	0.002 (0.004)	*0.009** *(0.004)*	*0.009** *(0.004)*	0.008† (0.004)

Note(s): OLS models presented with unstandardized coefficients and robust standard errors

†$p < 0.10$. *$p < 0.05$. **$p <$ 0 0.01Italic indicates significant coefficients

	Response options: five-item scale, strongly agree to strongly disagree. Radio buttons. Within this set, item order should be randomly generated
Dignity/respect	The officer was disrespectfulThe officer was politeThe officer used an appropriate tone
Fairness/neutrality	The officer was fair to the driverThe officer was unbiasedThe officer treated the driver the same way he would treat anyone else

	Response options: five-item scale, strongly agree to strongly disagree. Radio buttons. Within this set, item order should be randomly generated
Citizen participation**note that the Cronbach's alpha score here was below the common threshold of 0.7 and thus we do not use this outcome variable in our analyses*	The officer was unwilling to listen to the driver's concernsThe officer gave the driver an opportunity to ask questionsThe officer explained the reasons for his actions
	Response options: five-item scale, strongly agree to strongly disagree. Radio buttons. Within this set, item order should be randomly generated
Cooperation	I would provide information to help this officer find a suspectI would report suspicious activity to this officerI would provide information to help this officer solve a crime
Obligation to obey police	I would feel a moral obligation to follow this officer's instructionsI would feel a moral obligation to do what this officer told me to doI would feel a moral obligation to obey this officer's commands
Trust and confidence	I would think this officer was untrustworthyI could count on this officer to do his job wellI would have confidence in this officer

	Response options: five-item scale, strongly agree to strongly disagree. Radio buttons. Within this set, item order should be randomly generated
Cooperation	I would assist the police if askedI would call the police to report a crimeI would provide information to the police to help solve a crimeI would report suspicious activities to the police
Obligation to obey police and the law	I feel a moral obligation to follow the law, even if I do no't agree with itI feel a moral duty to obey the lawIt is okay to go against the law if you think it is wrongI feel a moral obligation to do what the police tell me to do, even if I disagreeI feel a moral duty to follow police ordersIt is okay to disobey the police if you think they are wrong
Trust and confidence	Police are untrustworthyI have confidence in policeMost police officers do their jobs wellThe police can be trusted to make the right decisions
	Response options: five-item scale, strongly agree to strongly disagree. Radio buttons. Within this set, item order should be randomly generated. Randomize block placement within survey
SDO-D	An ideal society requires some groups to be on top and others to be on the bottomSome groups of people are simply inferior to other groupsNo one group should dominate in societyGroups at the bottom are just as deserving as groups at the top
SDO-E	Group equality should not be our primary goalIt is unjust to try to make groups equalWe should do what we can to equalize conditions for different groupsWe should work to give all groups an equal chance to succeed

Table A1

Descriptive statistics for outcome variables across treatment conditions

	Rapport		**Procedural justice**		**Deference**		**Direct**	
DV	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**
Officer treatment: respect	3.93	0.85	4.46	0.59	4.40	0.67	4.51	0.65
Officer treatment: fairness	3.88	0.73	4.17	0.72	4.20	0.71	4.32	0.73
Specific officer: cooperation	3.90	0.82	4.12	0.78	4.06	0.79	4.18	0.82
Specific officer: obligation	4.08	0.77	4.19	0.78	4.28	0.68	4.30	0.79
Specific officer: trust	3.84	0.77	4.16	0.73	4.27	0.72	4.25	0.74

	Rapport		Procedural justice		Deference		Direct	
DV	M	SD	M	SD	M	SD	M	SD
General police: cooperation	4.30	0.63	4.29	0.79	4.32	0.67	4.29	0.78
General police: obligation	3.89	0.66	3.99	0.74	4.04	0.58	3.97	0.75
General police: trust	3.84	0.77	3.87	0.85	3.98	0.79	3.90	0.89