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**Article (Accepted version)  
(Refereed)**

**Original citation:**

Gerber, Monica, González, Roberto, Carvacho, Héctor, Jiménez-Moya, Gloria, Jackson, Jonathan. (2017). *On the justification of intergroup violence: The roles of procedural justice, police legitimacy and group identity in attitudes towards violence among indigenous people* [Psychology of Violence](#) ISSN 2152-0828.

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Available in LSE Research Online: November 2017

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# **On the justification of intergroup violence: The roles of procedural justice, police legitimacy and group identity in attitudes towards violence among indigenous people**

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## **Abstract**

### **Objective**

Why do people justify intergroup violence? In this paper we examine attitudes towards violence perpetrated by indigenous activists to claim for rights and violence by police officers against indigenous people. We assess the role that perceived police legitimacy, procedurally just policing towards the indigenous minority group and group identity play in the justification of intergroup violence.

### **Method**

We present findings from two surveys (Study 1, n=1493, Study 2, n=198) and an experiment (Study 3, n=76) conducted among indigenous people in Chile. Studies 1 and 2 measure perceptions of police procedural justice towards indigenous people. Study 3 manipulates the fairness with which police officers treat indigenous people. Effects of procedural justice on police legitimacy (Studies 2 and 3) and attitudes towards violence for social change and social control (Studies 1-3) are analyzed.

### **Result**

Higher perceptions of procedurally just policing towards indigenous people predict more support for police violence and less support for violence perpetrated by indigenous activists. These effects are mediated by perceived police legitimacy and moderated by identification with the minority group. Among people who identify strongly with their indigenous group, perceiving high procedural justice predicts greater police legitimacy, greater support for police violence, and lesser support for violence perpetrated by indigenous activists.

### **Conclusions**

Findings contribute to an emerging literature on the roles of procedural justice and legitimacy in violence perceptions. Fair, respectful and neutral treatment of police officers may reduce the support for violence among minority group members and increase trust in the violence used by police officers.

**Keywords:** Intergroup violence, social identity, procedural justice, legitimacy

**Acknowledgements:** This research was funded by CONICYT/FONDECYT Postdoctorado Nr. 3140182; The Center for Social Conflict and Cohesion Studies (COES), CONICYT/FONDAP/15130009; and The Interdisciplinary Center for Intercultural and Indigenous Studies (CIIR), CONICYT/FONDAP/15110006. We would also like to thank the Department of

Sociology of Universidad la Frontera (in particular, Jaime Garrido) for their support in the collection of the data used to write this paper.

## **On the justification of intergroup violence: The roles of procedural justice, police legitimacy and group identity in attitudes towards violence among indigenous people**

Violent conflicts between national states and ethnic minority groups have been widespread during the last century (Mays, Bullock, Rosenzweig, & Wessells, 1998). Acts of intergroup violence refer to situations where violence is conducted by the in-group against an out-group (Castano, 2008). Yet, under what circumstances do people justify intergroup violence? We start from the premise that people react differently to violence depending on its intergroup implications (Blumenthal, 1972; Gerber, Carvacho, & González, 2016; Henry, Sidanius, Levin, & Pratto, 2005). While intergroup violence has often been conceived as a means of maintaining status quo by dominant or majority group members (violence for social control or violence for dominance), violence can also be used by subordinate or minority group members to resist the domination of dominant social groups and promote change (violence for social change or violence for counter-dominance).

Our goal in this paper is to consider the links between attitudes towards the acceptability of intergroup violence, judgements about the legitimacy of the police as an institution (do members of the public believe that the police has the right to power and is entitled to be obeyed?) and beliefs about the procedural justice that officers enact towards indigenous minority group members. According to a relational model of procedural justice, when people perceive that authorities use fair, just and neutral procedures, they feel valued and supported, and are more likely to act in ways that are beneficial for society (Tyler & Blader, 2000). Procedural justice also predicts the extent to which people perceive authorities to be legitimate actors (Mazerolle, Antrobus, Bennett, & Tyler, 2013; Tyler, 2006a, 2006b) and legitimacy predicts people's willingness to defer to and cooperate with authorities (Jackson et al., 2012; Sunshine & Tyler, 2003).

Procedural justice is particularly relevant when considered in an intergroup context. Unfair treatment given by authorities to minority group members can become a powerful sign of rejection, creating distance between minority and majority group members and eroding police legitimacy (see Gau & Brunson, 2015). While most of the literature on procedural justice and legitimacy has focused on their roles in increasing compliance with the law and public support for the police, recent research has shown that procedural justice and legitimacy also predict public acceptance of violence used by the police (Bradford, Milani, & Jackson, 2017; Gerber & Jackson, 2017) and by protestors (Jackson, Huq, Bradford, & Tyler, 2013; Maguire, Barak, Cross, & Lugo, 2016). The argument is that police legitimacy encourages citizens to endorse the idea that legal authorities have a rightful monopoly over the use of violence in society. In short, legitimacy crowds out the acceptability of private citizen violence. Surprisingly, however, no study has thus far addressed the issue in the context of intergroup relations and intergroup violence.

In this paper we present findings from two surveys (Studies 1 and 2) and one experiment (Study 3) conducted among indigenous people in Chile. In Chile, the long and persistent conflict between the Chilean State and the largest indigenous minority group (the mapuche people) has become increasingly violent in recent years (e.g. Carruthers & Rodriguez, 2009). On the one hand, indigenous activists have resorted to violence against the police as well as against the property of private landowners and companies to claim for rights to ancestral land. On the other hand, Chilean authorities have reduced procedural rights and increased use of force and criminal sentences (Carruthers & Rodriguez, 2009; González, Gerber, & Carvacho, 2016; Mella Seguel, 2007). Focusing on indigenous people in Chile, we measure and manipulate the perceived fairness of procedures and treatment used by police officers when dealing with minority group members. We examine the link between procedural justice and attitudes towards two types of intergroup violence: violence perpetrated by indigenous people to reclaim rights and land (violence for social change); and violence perpetrated by the police against indigenous people (violence for social control). We test the

hypothesis that people who believe that the police are procedurally just towards the minority group will also tend to believe (a) that the police are legitimate, (b) that it is acceptable for the police to use a reasonable amount of violence against the minority group, and (c) that it is unacceptable for minority group members to use violence to achieve social change. We also examine the potentially moderating role of social identity. If procedural justice communicates identity-relevant information, it might be particularly important among people who identify strongly with the group receiving the treatment (Tyler, 2000). For example, Murphy, Cramer, Waymire and Barkworth (2017) found that subordinate identity among Arab Australians moderated the relationship between perceived police bias (a concept not synonymous with procedural justice but the measures capture some similar sentiments, e.g. ‘the police are especially suspicious of people from my ethnic/racial group’). We thus expect that procedural justice will be a stronger predictor of police legitimacy and attitudes towards intergroup violence among highly identified indigenous people (compared to lowly identified indigenous people).

This paper builds on the current literature in two ways. On the one hand, while the procedural justice model has been applied to different law-related attitudes, it has only recently been applied to attitudes towards violence (Bradford et al., 2017; Jackson et al., 2013). On the other hand, there is little understanding of the intergroup dynamics of these attitudes and of the effects of perceiving procedural justice being applied against one’s group. We proceed as follows. We first summarize research on attitudes towards intergroup violence and discuss how procedural justice and legitimacy might be relevant predictors. Second, we describe the ongoing conflict between the Chilean State and the mapuche people in Chile. Third, we present findings from two surveys and an experiment carried out among indigenous minority group members. We finish by discussing the implications of the current research for the reduction of violence in intergroup conflicts.

### **Attitudes towards intergroup violence**

A good deal of research in psychology (e.g. Anderson & Bushman, 2002; Anderson & Huesmann, 2003) and criminology (e.g. Ferguson, 2009; Jones, 2000) has addressed why people act in aggressive and violent ways. In the current paper, however, we are concerned not with violent behavior as such, but with attitudes towards violence. Uncovering public attitudes towards violence is important because studies in different contexts have shown that the extent to which individuals display attitudes that are favorable towards using violence predicts their likelihood of engaging with violence themselves (e.g. Huesmann & Guerra, 1997; Markowitz, 2001). A collective rejection of intergroup violence might also influence a government’s use of violence as a response to minority groups.

Violence is understood following Anderson and Bushman (2002, p. 298) as “physical aggression at the extremely high end of the aggression continuum, such as murder and aggravated assault”. In this paper we define intergroup violence (in line with Castano, 2008) as violence that is conducted by the in-group against an out-group. Attitudes towards intergroup violence are defined as beliefs about the acceptability or unacceptability of one group using violence against another group. Research has shown that people react differently to violence depending on its intergroup implications (Blumenthal, 1972; Gerber et al., 2016; Henry et al., 2005). While intergroup violence has often been conceived as a means of maintaining status quo by dominant or majority group members (violence for social control or violence for dominance), violence can also be used by subordinate or minority group members to resist the domination of dominant social groups and promote change (violence for social change or violence for counter-dominance). However, the literature has been quite vague in relation to the definition of both types of violence.

In this paper we seek to understand different types of violence in terms of who the perpetrator of violence is, as well as the aim of violence. Violence for social control refers to those situations in which violence is exerted by dominant-majority groups over subordinate-minority groups or where

the aim of violence is to reduce the potential for change in the hierarchical or normative structures of society. Violence for social change, on the other hand, refers to those situations where violence is exerted by subordinate-minority groups over dominant-majority groups or where the aim of violence is to create a change in the hierarchical or normative structures of society. The current research focuses on one example of violence for social change (violence applied by indigenous activists against the police or the property of private companies and landowners) as well as one example of violence for social control (violence applied by the police against indigenous group members). While police use of force can be categorized as being reasonable or excessive (Gerber & Jackson, 2017) in this paper we consider only support for reasonable use of force, i.e. violence that is “proportionate to the seriousness of the threat, using the minimum amount required for police officers to carry out their job” (p. 80). We focus on reasonable use of force given that past research has shown that violence of this type is closely linked to people’s perceptions of police legitimacy, while excessive use of force tends to be more ideological in nature (Gerber & Jackson, 2017). In the following, when we discuss “support for violence carried out by the police,” we will be referring to reasonable use of force.

### **Support for violence, procedural justice and legitimacy**

According to the procedural justice literature, people place a good deal of significance on the fairness of the procedures that power-holders use to wield their authority (Tyler & Blader, 2000).<sup>1</sup> Perceiving that authorities act in ways that are fair, just and neutral is relevant for at least two reasons. First, procedures are important because they provide identity-relevant information within a group setting (Blader & Tyler, 2009; Bradford, Hohl, Jackson, & MacQueen, 2015; Bradford, Murphy, & Jackson, 2014; Tyler & Blader, 2000, 2001, 2003). Individuals evaluate their own status within the group and the status of their group among other groups (status judgments) based on how they are treated by authorities. People seek to achieve a positive identity and they derive part of their identity – their social self – from the groups they belong to (Abrams & Hogg, 1988; Tajfel & Turner, 1979). Experiencing fair and just procedures leads people to feel valued members of the group that the authority represents. Under these circumstances, the group can provide positive implications for the self and individuals will be more likely to identify with the group, internalize group values, and act in ways that are beneficial to the group.

Second, procedural justice shapes the extent to which people perceive authorities to be legitimate actors. Legitimacy is the recognition that authorities have the right to rule and the authority to dictate appropriate behavior (Beetham, 1991; Jackson et al., 2012; Trinkner & Tyler, 2016; Tyler, 2006a; Tyler & Jackson, 2013). Legitimacy is relevant because it allows authorities to rule effectively without having to rely on the use of force or incentives. Prior research on legitimacy has shown that when individuals perceive the police to act in fair ways, they tend to believe to a greater extent that they share values and norms with the police and feel the police should be obeyed (Jackson et al., 2012; Mazerolle et al., 2013; Murphy & Cherney, 2012; Sunshine & Tyler, 2003; Tyler, 2006a, 2006b; Tyler & Jackson, 2014). Greater police legitimacy, in turn, is associated with increased willingness to comply with the law (Murphy, Bradford, & Jackson, 2016), cooperate with authorities (Jackson et al., 2012; Tyler, 1990, 2006b, 2011) and empower the police (Sunshine & Tyler, 2003).

The extent to which people perceive police officers to be fair and legitimate actors is relevant in understanding why they comply with the law and are willing to cooperate with authorities. But the past few years have seen a new line of research into whether procedural justice and legitimacy can also help explaining why people justify the use of violence in different contexts. Jackson et al (2013)

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<sup>1</sup> The same has been found to be true when observing procedural justice being applied to others (Van den Bos & Lind, 2001).

argued that perceiving the police as a legitimate authority should lead people to grant the police the monopoly of the use of force and to reject the use of force by private individuals or groups. These authors found that perceptions of procedural justice and legitimacy predicted lower levels of support for private citizen violence (see also Tankebe, 2009 for research on support for vigilantism). Building on these findings, Gerber and Jackson (2017) and Bradford et al (2017) showed that people who legitimize the police are also more willing to accept police use of force, but only to the extent that the use of force is reasonable. The argument emerging from these two studies is that legitimacy involves granting the police the right to decide what behavior is appropriate for both themselves and citizens, therefore trusting that their use of violence is justified. Finally, Maguire et al (2016) provided evidence that perceptions that the police were unjust in the treatment of Occupy DC participants predicted stronger support for the use of violence against the police among protesters.

### **Violence in Chile: the conflict between the Chilean State and the mapuche people**

The mapuche people are the largest indigenous group in Chile (INE, 2013) and ancestral mapuche lands in Southern Chile have been occupied by the Chilean State since the end of the nineteenth century. The territory was divided in reservation lands and redistributed to non-indigenous buyers, and although multiple actions have been recently taken by the Chilean State to repair the inflicted harm, these policies have proved insufficient. Clashes have occurred between the demands of indigenous people and industrial (hydroelectric and forestry) interests (Carruthers & Rodriguez, 2009; Mella Seguel, 2007; Richards, 2010; Simon & González, 2010). Mapuche activists have used a number of strategies to claim for land and resource rights, ranging from peaceful demonstrations to the occupation of land and the setting on fire of property of private companies and landowners (Skjævestad, 2008). The judiciary has responded by applying anti-terrorist and international security laws (Carruthers & Rodriguez, 2009; Mella Seguel, 2007) that are considered to have important limitations to the rights of the defendants (Mella Seguel, 2007; Richards, 2010; Skjævestad, 2008). There have also been reports of the police acting in violent ways and mapuche territories becoming militarized (Carruthers & Rodriguez, 2009; Mella Seguel, 2007).

Nowadays, mapuche people face discrimination in multiple ways: they are poorer than non-indigenous Chileans (Agostini, Brown, & Roman, 2010; Skjævestad, 2008) and have lower education levels (Cantero & Williamson, 2009). They are stereotyped as being lazy, rude, violent (Saiz, 1986; Saiz, Rapimán, & Mladinic, 2008) and prone to conflict (Simon & González, 2010), and both mapuche and non-indigenous people in Chile display implicit negative attitudes towards this minority group (Haye et al., 2010).

### **The present research**

Research so far has found procedural justice and legitimacy to be relevant predictors of public support for violence. This is consistent with the idea that just and fair treatment from justice authorities fosters legitimacy and the belief that it is appropriate for the police to use force to achieve social control. In this context, people might grant the police with the monopoly of the use of force and be critical towards violence that is perpetrated by private individuals or groups, in particular if this violence seeks to achieve social change. This paper aims to extend these findings to the study of intergroup violence. We explore the role of procedural justice and legitimacy in predicting attitudes towards two types of intergroup violence among indigenous people in Chile: violence perpetrated by indigenous activists to claim for rights (violence for social change), and violence perpetrated by the police against indigenous people (violence for social control). An innovative feature of our work is the focus on inter-group conflict and the extent to which members of the indigenous community identify with their group.

We test three hypotheses. First, we hypothesize that indigenous respondents who perceive that their group is being treated in a procedurally fair manner by the police will be more likely to support

police violence ( $H_{1a}$ ) and less likely to support indigenous violence ( $H_{1b}$ ). Second, consistent with previous research, we argue that part of the reason why perceptions of procedural justice predict attitudes towards violence is because they increase people's perceptions that the police is a legitimate actor. We therefore hypothesize that the effects of perceived procedural justice on support for police ( $H_{2a}$ ) and indigenous ( $H_{2b}$ ) violence are mediated by perceived police legitimacy. Finally, the fairness of the procedures used by police officers should be particularly relevant for those respondents who identify with the group who is receiving the treatment because it is in these instances where procedural justice will hold identity-relevant information (Murphy et al., 2017; Tyler, 2000)<sup>2</sup>. We hypothesize that perceived procedural justice will be particularly relevant in predicting police legitimacy, support for police violence and support for indigenous violence among those indigenous minority group members who highly identify with their minority group ( $H_3$ ). That is, we hypothesize a moderated mediation effect of procedural justice on support for violence.

## Study 1

### Methods

**Sample.** A survey was administered by Centro de Estudios Públicos between March and May 2016 to a sample of 18-years and older self-identified mapuche ( $n=1,493$ ) and non-indigenous ( $n=1,606$ ) respondents (Centro de Estudios Públicos, 2016a, 2016b). Only mapuche respondents were considered in this study. The sample was drawn from urban and rural areas in five regions of Chile where more than 90% of mapuche people live. The sample was chosen using a three-stage cluster sampling (area, household, person) and interviews were conducted face to face. Of all respondents selected to answer the questionnaire, 7.1% had to be replaced.

**Measurement.** Support for violence perpetrated by indigenous activists was measured by asking respondents whether they thought violence to reclaim land was (1) always justified (8.4%), (2) sometimes justified (32.6%), or (3) not justified (57.7%). As a proxy for procedural justice, the survey included a measure of people's perceived positive relationship with the police. Respondents were asked how friendly their relationship with the police was (1= Very friendly, 2= Somewhat friendly, 3= A little friendly, 4= Not at all friendly). Since more than 50% of respondents chose "very friendly", the remaining categories were collapsed into one reference category called "Somewhat to not at all friendly". This proxy is closest to the motive-based trust element of the procedural justice concept, in the sense that a friendly positive relationship with the police likely overlaps with the belief that officers would take one's interests into account when wielding their authority (Tyler & Blader, 2000, 2003). We also included a measure on perceptions of discrimination by the courts. Respondents were asked whether they themselves or someone from their family has had the experience of being discriminated against for being mapuche in a court or tribunal (from 1=No discrimination to 5= A

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<sup>2</sup> Identification with the national group can also be expected to mediate the effect of perceived procedural justice on attitudes towards violence. In line with the Group Engagement Model (Tyler & Blader, 2003), perceiving that authorities are fair and respectful towards one's group might lead people to identify to a greater extent with the national group that authorities represent. Identification with the national group might then predict a stronger support for violence perpetrated in defense of the national group (in this case police violence) and to reject violence perceived as attacking the national group (in this case violence carried out by indigenous activists). Yet, to simplify a paper with already numerous strands, we chose not to focus on the possible mediating effect of identification with the national group. It is important to note, however, that controlling for national identification in Study 2 does not substantially change the observed relationships. Furthermore, in Study 3 manipulating procedural justice did not have a significant effect on the identification with the national group. Finally, identification with the national group might also moderate the effect of perceived procedural justice. Nonetheless, Sargeant et al (2016) found no significant interaction effect between an experimental manipulation of procedural justice and identification with the Australian community on police legitimacy.



great deal of discrimination). Finally, years of education, age, area (urban and rural), socio-economic status (low, medium and high) were included to rule out alternative explanations.

**Analysis.** We fitted a multinomial logit model to predict the odds of answering that it is always justified to use violence to reclaim land (compared to not justified, i.e. the reference category) and the odds of answering that it is sometimes justified (compared to the reference category). We also included control variables (see above), quality of police treatment, and perceived discrimination by courts into the model.

## Results

Table 1.

*Multinomial logistic regression coefficients predicting justification of using violence to regain land (ref: not justified)*

	Always justified			Sometimes justified		
	B	OR	Sig.	B	OR	Sig.
Constant	.077		.941	.784		.255
Years of education	-.043	.958	.286	-.044	.957	.107
Age	.005	1.005	.607	-.009	.991	.113
Rural area (ref: Urban)	-.551	.576	.051	-.029	.971	.871
Woman (ref: Man)	-.015	.985	.952	-.108	.897	.503
High socioeconomic status (ref: low)	.513	1.670	.668	1.409	4.091	.040
Medium socioeconomic status (ref: low)	.081	1.084	.792	.144	1.155	.471
Experienced friendly relationship with the police	-.605	.546	.018	-.466	.628	.006
Perceived discrimination in courts and tribunals for being mapuche	.157	1,170	.046	.066	1,068	.213

Results of the fitted multinomial logit model are shown in Table 1. There is only one significant statistical effect among the control variables: the odds of answering that it is sometimes justified to use violence (as compared to not justified) are higher among high status respondents (as compared to low status respondents),  $OR=4.09$ ,  $p=0.04$ . On the other hand, the perceived procedural justice measures are significant predictors of attitudes towards indigenous violence. Indigenous minority respondents who perceived encounters with the police to be very friendly (as opposed to somewhat to not at all friendly) have odds that are 45.4% lower when it comes to saying that violence is always justified ( $OR=0.546$ ,  $p=0.02$ ) and 37.2% lower when it comes to saying that violence is somewhat justified ( $OR=0.628$ ,  $p=0.006$ ). Finally, for every one unit increase in perceived discrimination of mapuche people in courts and tribunals (in a scale ranging from 1=No discrimination to 5=A great deal of discrimination) the expected odds of thinking that indigenous violence is always justified increase by 17% ( $OR=1.170$ ,  $p=0.046$ ). Perceived discrimination has no significant effect on responding that the use of violence is sometimes justified.

Consistent with  $H_{1b}$  these results provide evidence that perceived positive relationship with the police and lower levels of perceived discriminations from court are related to lower acceptability of indigenous violence. However, further studies are needed to (1) examine the effect of perceived procedural justice using more appropriate multiple indicator measures, (2) compare the effects of

perceived procedural justice on attitudes towards both indigenous and police violence, and (3) extend our knowledge on the mechanisms by which procedural justice predicts support for violence, considering the mediating effect of police legitimacy and the moderating effect of identification with the indigenous minority group.

## Study 2

### Methods

**Samples and procedures.** A survey was conducted between October 2014 and February 2015 in the region of La Araucanía in Southern Chile (region with the largest mapuche population in Chile). A non-representative sample of 198 self-identified mapuche respondents was selected using quotas by gender and age. Survey takers were instructed to contact people who fulfilled the requirements in terms of ethnicity, gender and age. Participants were contacted in public locations, via social media, among others. Surveys were conducted in a face to face manner. The final sample included respondents ranging from 18 to 85 years old ( $M=38.5$ ,  $SD=16.6$ ) and 50% were female. Participants were asked to read and sign a consent form before participating in the study.

**Measurement.** We used items drawn from the Support for Violence in Intergroup Conflict Scale (SVIC) developed by Gerber and colleagues (2016) to measure support for violence in the Chilean context. Four items measured whether people justified different situations of violence carried out by indigenous activists (scale ranging from 1=*never justified* to 5=*almost always justified*), e.g. “Mapuche groups throw stones to police officers to avoid being evicted from a land occupation” and “Mapuche groups set fire to trucks that belong to forestry companies” ( $M=1.77$ ,  $SD=1.12$ ,  $\alpha=0.92$ ). Three items captured whether people justified situations of violence perpetrated by the police against indigenous group members, e.g. “Police officers use tear gas to break up demonstrations that support the demands of the Mapuche people” ( $M=1.75$ ,  $SD=0.88$ ,  $\alpha=0.76$ ). We use these items as examples of “reasonable” use of force because they capture situations of violence frequently used by police officers in Chile and are justified by many as required given the seriousness of the threat posed by some indigenous activists<sup>3</sup>.

Perceived procedural justice towards indigenous people was measured asking respondents how often police officers in Chile “treated mapuche people with dignity and respect”, “are fair when arresting a mapuche person who has committed a crime” and “allow mapuche people to express their points of view before apprehending them for a crime” ( $\alpha=0.78$ ). Identification with the indigenous minority group was measured using three items (scale ranging from 1=Strongly disagree to 5=Strongly agree), e.g. ‘I identify with the mapuche people’ ( $\alpha=0.87$ ). Following Jackson (2015), perceived police legitimacy was measured along two dimensions (three items for each): felt obligation to obey (e.g. “It is my duty to obey the police all the time”,  $\alpha=0.83$ ) and normative alignment with the police (e.g. “The police in Chile want the same things for the community as I do”,  $\alpha=0.85$ ). Finally, age, sex, education and physical trait aggressiveness (Bryant & Smith, 2001) were used as control variables. Physical trait aggressiveness is a sub-scale of Bryant and Smith’s (2001) Trait Aggressiveness Scale. It measures a disposition towards aggression in the physical domain. We added this scale since aggressiveness has been found to predict support for State Violence (Kalmoe, 2013) and it is important to control for the possible effect of positive dispositions towards violence in general. A list of all items used to measure the different scales can be found in the Appendix.

**Analysis.** Confirmatory factor analysis was first carried out using Lavaan in R 3.3.2. to examine whether the scales measured different concepts. A model was tested including factors for: (a) support for violence perpetrated by the police against indigenous group members, (b) support for violence carried out by indigenous activists, (c) perceived procedural justice towards indigenous people, (d)

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<sup>3</sup> It is important to highlight that in Chile it is legal for police officers to use tear gas (Muñoz León, 2016).

identification with the indigenous minority group, (e) perceived police legitimacy (second order factor with two factors: felt obligation to obey and moral alignment with the police) and (f) physical trait aggressiveness. The model had a good fit according to conventional criteria ( $\chi^2(192) = 263.51$ ,  $p < .01$ ;  $\chi^2/df = 1.37$ ; CFI = 0.97; RMSEA = 0.04). Averages were then calculated for all scales. Perceived procedural justice towards, and identification with the indigenous minority group were further standardized to be used for the interaction analysis. Finally, age, sex, education and physical trait aggressiveness were used as control variables.

A path analysis with observed variables (mean scores) was then fitted. First, a model was fitted including the effects of perceived procedural justice and identification with the indigenous minority group on police legitimacy, as well as on attitudes towards violence carried out by the police and indigenous activists. The product of procedural justice and identification with the indigenous minority group (interaction effect) was included as a predictor of police legitimacy and support for violence to examine whether both variables interacted in predicting the outcome variables (see Brambor, Clark & Golder, 2006). However, non-significant direct effects of the interaction effect on police and indigenous violence, as well as a non-significant direct effect of procedural justice on indigenous violence, were excluded from the model. The final model had a good fit according to conventional criteria:  $\chi^2(2)=3.89$ ;  $p=0.14$ ;  $\chi^2/df = 1.95$ ; CFI= 0.99; RMSEA=0.07. Finally, simple slopes were calculated to interpret the interaction effect between perceived procedural justice and identification with the minority group on legitimacy and support for violence. Specifically, the effect of perceived procedural justice was estimated separately for respondents with low (one standard deviation below the mean) and high (one standard deviation above the mean) levels of identification (see Brambor et al., 2006).

## Results

Figure 1 shows the fitted model. Overall, the model explains 25.2% of the variance in attitudes towards police violence, 40.8% of the variance in attitudes towards indigenous violence and 40.5% of the variance in perceived police legitimacy. Four relevant findings can be highlighted. First, respondents who perceive to a greater degree that the police are legitimate tend to support to a greater extent police violence ( $\beta=0.27$ ,  $p<0.01$ ) and to a lesser degree indigenous violence ( $\beta=-0.33$ ,  $p<0.01$ ). Second, there is a significant and positive effect of perceived procedural justice on police legitimacy. Third, the statistical effect of perceived procedural justice on police legitimacy is moderated by identification with the indigenous minority group, i.e. the effect of perceived procedural justice on police legitimacy is different depending on the level of identification with the indigenous minority group. Simple slope analysis was used to compute the effect of procedural justice separately for people low in indigenous identification (one standard deviation below the mean) and those high in indigenous identification (one standard deviation above the mean). As expected, procedural justice has a stronger statistical effect among those indigenous respondents who identify highly with their in-group ( $\beta=0.45$ ,  $p<0.01$ ) than among respondents with low identification ( $\beta=0.21$ ,  $p=0.01$ ). Finally, perceiving procedural justice towards the indigenous group has indirect effects on support for violence, mediated by police legitimacy: indigenous group members who perceive procedural justice tend to legitimize the police more and the latter predicts more positive attitudes towards police violence and less positive attitudes towards indigenous violence. However, this indirect effect also differs according to the level of identification with the indigenous group. Indirect effects of perceived procedural justice on support for violence were computed for people with low and high identification with the indigenous group. The indirect effect of perceived procedural justice on support for police violence is higher among those with high identification ( $\beta=0.12$ ,  $p<0.01$ ) than among those with low identification ( $\beta=0.06$ ,  $p=0.05$ ). The same is true for the support of indigenous violence: the indirect

negative effect of procedural justice is higher among high identifiers ( $\beta=-0.15$ ,  $p<0.01$ ) than among low identifiers ( $\beta=-0.07$ ,  $p=0.03$ ).

These findings are consistent with the proposed model. But given the correlational nature of the data, the question remains whether perceived procedural justice has a causal relationship with police legitimacy and support for violence. It is also not clear whether perceived procedural justice predicts legitimacy and not the other way around. Study 3 seeks to replicate these findings using an experimental design.

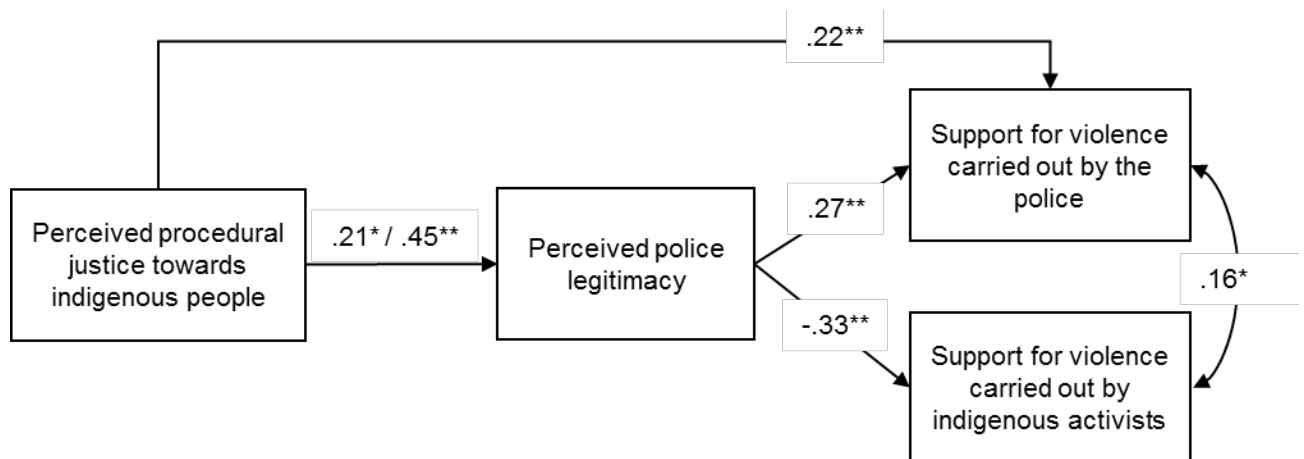


Figure 1. Path analysis of the effects of perceived procedural justice towards indigenous people and police legitimacy on attitudes towards police and indigenous violence (n=198). Each step controls for age, sex, education and trait aggressiveness. Standardized coefficients are shown. The path from perceived procedural justice towards indigenous people to police legitimacy shows separate effects for Low (-1SD) and High (+1SD) identification with the indigenous minority group.

### Study 3

#### Method

**Procedure.** An experimental design with three conditions (low procedural justice, high procedural justice, control) was employed. Participants were invited to participate in a study on attitudes towards indigenous matters. They were contacted through a variety of means – invitations to take part in the study were posted on social media, different organizations working with indigenous groups were contacted and participants were asked to refer to other mapuche people. The experiment was carried out at quiet locations that were agreed on with participants. Participants were first asked to read and sign a consent form. They were then asked to complete questionnaires from two allegedly different studies. The first questionnaire included socio-demographic measures, as well as identification with the indigenous minority group. In the second questionnaire participants were randomly assigned to read one out of three reports. In the low procedural justice condition (n=26) participants read that the procedures used by police officers in treating indigenous minority group members were becoming more and more unfair. Quantitative and qualitative results from an alleged study were used to try to persuade respondents that indigenous people perceived that police officers were becoming more disrespectful, discriminated more against them and did not allow them to express their opinion. In the high procedural justice condition (n=24) participants read that the procedures used by police officers in treating indigenous minority group members were becoming a little fairer<sup>4</sup>. Finally, the control

<sup>4</sup> Given that situations of unfair treatment by police officers towards indigenous people have been commonplace in Chilean news during the last years, it would not have been possible to convince respondents that the situation

condition (n=26) read an unrelated text (with the same format) stating that indigenous people living in Santiago were getting older. After reading the report respondents were asked to complete a three-alternatives question to check whether they had understood its content. Attitudes towards violence and police legitimacy were then measured. At the end of the questionnaire, respondents were asked to report how procedurally fair they thought the police was when treating indigenous minority group members. Finally, respondents were asked to report whether they believed the report they had read was credible (scale ranging from 1=Not credible at all to 5=Very credible). Respondents were debriefed and received a gift card worth 5.000 Chilean pesos (approximately 8 USD).

**Sample.** 88 self-identified mapuche respondents participated in the experiment between December 2016 and February 2017 in Santiago, Chile. Three responses were excluded because participants failed to respond correctly to the follow-up question that captured whether they understood the content of the text. Nine responses were excluded because the respondents reported that they believed the report they had read was not credible at all. The final sample of 76 respondents included individuals ranging from 18 to 81 years of age ( $M=36.1$ ,  $SD=14.8$ ). Just under two-thirds of respondents were female.

**Measurement.** The same items as in Study 2 were used to measure attitudes towards violence carried out by indigenous activists ( $M=2.16$ ,  $SD=1.23$ ,  $\alpha=0.91$ ), attitudes towards police violence ( $M=1.42$ ,  $SD=0.57$ ,  $\alpha=0.70$ ), perceived procedural justice towards indigenous people ( $\alpha=0.92$ ) and identification with the indigenous minority group ( $\alpha = 0.85$ ). Police legitimacy ( $\alpha = 0.86$ ) was measured using a slight variation of the items used in Study 2 (see Appendix).

**Analysis.** As before, confirmatory factor analysis was first carried out to examine whether the scales measured different concepts. A model was tested including factors for: (a) support for violence perpetrated by the police against indigenous group members, (b) support for violence carried out by indigenous activists, (c) identification with the indigenous minority group, and (d) perceived police legitimacy (second order factor with two factors: felt obligation to obey and moral alignment with the police). The model had a good fit according to conventional criteria ( $\chi^2(96) = 145.08$ ,  $p < 0.01$ ;  $\chi^2/df = 1.51$ ; CFI = 0.93; RMSEA = 0.08). Averages were then calculated for all scales. Identification with the indigenous minority group was standardized to be used for the interaction analysis.

A path analysis with observed variables (mean scores) was fitted. First, a model was fitted including dummy variables for high and low procedural conditions (the control condition worked as the reference category), identification with the indigenous minority group and their interaction on police legitimacy, as well as on attitudes towards police and indigenous violence. However, non-significant direct effects of the interaction effect as well as non-significant direct effects of both procedural justice conditions on support for police and indigenous violence were excluded from the model. The final model had a good fit according to conventional criteria:  $\chi^2(9)=8.85$ ,  $p=0.45$ ;  $\chi^2/df = 0.98$ ; CFI= 1.00; RMSEA=0.00. As before, simple slope analyses were conducted to examine the effect of the procedural justice manipulation for low and high identification with the minority group.

## Results

**Manipulation check.** There were significant differences in the perceived procedural justice of the treatment of police officers towards indigenous people among the different conditions ( $M_{high}=2.31$ ,  $M_{low}=1.69$ ,  $M_{control}=1.49$ ),  $F(2, 72) = 8.60$ ,  $p<0.01$ . Post hoc comparisons using the Tukey HSD test showed significant differences in perceptions of procedural justice between the high and low procedural justice conditions ( $p<0.01$ ) and between the high procedural justice and control conditions ( $p<0.01$ ), yet not between the low procedural justice and the control conditions ( $p=0.58$ ). These

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was actually fair these days. This is why the text reported an only slight improvement in the way in which police officers treated indigenous people.

findings confirm that the manipulation was successful in affecting people's beliefs about the justice of the procedures used against the minority group. The lack of difference between the low justice and control conditions suggests that people have situations of unfair treatment in mind when they are not primed to think otherwise.

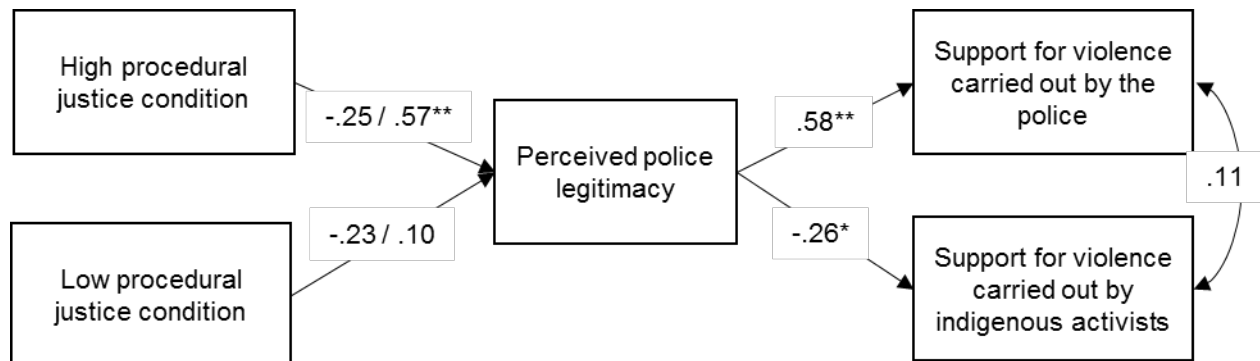


Figure 2. Path analysis of the effects of perceived procedural justice towards indigenous people and police legitimacy on attitudes towards police and indigenous violence (n=76). Standardized coefficients are shown. The path from perceived procedural justice to police legitimacy shows separate effects for Low (-1SD) and High (+1SD) identification with the indigenous minority group.

**Path analysis.** Figure 2 shows the fitted model. The model explains 33% of the variance in attitudes towards police violence, 19.6% of the variance in attitudes towards indigenous violence and 22.7% of the variance in perceived police legitimacy. Results are to a great extent consistent with Study 2 and with Hypotheses 1-3. First, perceived police legitimacy predicted attitudes towards police ( $\beta=0.58$ ,  $p<0.01$ ) and indigenous ( $\beta=-0.26$ ,  $p<0.05$ ) violence. Second, a significant interaction effect was found between the experimental condition and identification with the indigenous minority group. To examine this interaction in detail, differences in the perceptions of police legitimacy among experimental conditions were computed separately for people with low identification with the indigenous group (one standard deviation below the mean) and for people with high identification with the indigenous group (one standard deviation above the mean). Results show that reading that indigenous people were being treated more fairly than before (as compared to the control group) led to higher average perceptions of police legitimacy, but only among respondents who highly identified ( $\beta=0.57$ ,  $p<0.01$ ) and not among respondents who lowly identified ( $\beta=-0.25$ ,  $p=0.30$ ) with the indigenous minority group. Third, among highly identified respondents, a significant indirect statistical effect of the high procedural justice condition was found on attitudes towards police violence ( $\beta=0.33$ ,  $p=0.01$ ), while a marginally significant effect was found on attitudes towards indigenous violence ( $\beta=-0.15$ ,  $p=0.07$ ). The indirect effect of the high procedural justice condition did not significantly predict attitudes towards police ( $\beta=-0.14$ ,  $p=0.30$ ) and indigenous ( $\beta=0.07$ ,  $p=0.34$ ) violence among respondents with low identification with the indigenous minority group. No significant differences in perceived legitimacy and support for violence were found between respondents in the low procedural justice condition compared to the control condition.

### Discussion

Findings from two surveys and an experiment conducted among indigenous people in Chile support the hypotheses proposed in this paper. First, higher levels of procedural justice in the treatment of police officers towards indigenous people were related to higher support for police violence ( $H_{1a}$ ) and lower support for violence carried out by indigenous activists ( $H_{1b}$ ). Second, part of the reason why perceived procedural justice predicted attitudes towards police ( $H_{2a}$ ) and indigenous ( $H_{2b}$ ) violence

was due to its effect on police legitimacy. Finally, the effect of procedural justice on police legitimacy (and indirectly on support for violence) was stronger among those who highly identify with the indigenous minority group (H<sub>3</sub>). These findings support previous research on the role of procedural justice and legitimacy on the acceptability of violence among citizens (Bradford et al., 2017; Gerber & Jackson, 2017; Jackson et al., 2013). Furthermore, in the current paper we have extended previous literature by placing violence in an intergroup context. Indigenous minority group members who perceive fairness in the treatment received from the police were less likely to support violent means to achieve social change (even if the latter could be in their own self-interest). At the same time, when the police were seen to be procedurally just, indigenous minority group members were more likely to legitimize the police and their actions (even if violence is carried out against their own group members). While support for police violence applied against indigenous people was generally low among indigenous minority members, it is still noticeable that minority group members might increase their support for police violence when police treatment is perceived to be fair. Further research should explore the circumstances under which minority group members might support violence carried out against their own group members.

The presented findings also show that perceiving procedural justice (or injustice) towards members of one's ingroup can be a relevant antecedent of intergroup attitudes. These findings speak to a growing literature on procedural justice being applied to others (e.g. Bos & Lind, 2001). The fairness with which police officers treat members of certain groups can have an effect above and beyond those persons actually receiving the treatment. Observing police officers treating members of a group in a fair or unfair manner communicates something about the place of that group in society. Furthermore, if someone identifies with the group that is receiving that treatment, the mere observation can change attitudes towards the police and dispositions to support violence as a response. These findings are consistent with the argument of Tyler (2000) according to whom procedural justice should be particularly relevant when it holds identity-relevant information (see also Murphy et al, 2017). Thus, the effect of perceiving procedural justice applied to others should always be evaluated considering whether the observer actually identifies with the person or group receiving the treatment. Future research should also draw on recent work showing that among minority groups in Australia, the link between perceived procedurally just policing and willingness to cooperate with the police is moderated by a number of different factors (Madon, Murphy & Sargeant, 2016, 2017; Murphy, 2017; Murphy, Madon & Cherney, 2017)

### **Limitations**

A number of limitations can be identified in the current research. First, only Study 1 provided evidence from a random probability sample of indigenous minority group members; Studies 2 and 3 used small convenience samples. At the same time, Study 1 used single items to capture proxies of perceptions of procedural justice and only captured attitudes towards violence carried out by indigenous activists (and not police violence). Future research should replicate the findings of this paper drawing on large probabilistic samples. Second, in Study 3 we used an experimental design to provide stronger evidence on whether the found relationships were indeed causal. We asked participants to read a report stating that the treatment was worse than before (low justice condition) or better than before (high justice condition). A third group read an unrelated text (control condition). Convincing respondents that the treatment had improved was a real challenge given the salience of low justice in the actual treatment of police officers towards indigenous people in Chile. We were thus only able to create a scenario in which treatment was slightly better than before (and even with this scenario, a number of respondents failed to believe the content of the report). This might have reduced the treatment effect. Future research should evaluate ways of replicating these findings improving the credibility of the experimental conditions. Finally, while our paper has focused on predicting attitudes towards reasonable use of force, future research should extend these analyses to the study of

support for excessive use of force. This is particularly relevant given that previous research has shown that the support for excessive use of force does not depend on perceived police legitimacy as reasonable use of force does (see Bradford et al., 2017; Gerber & Jackson, 2017).

### **Research implications**

The current paper has provided evidence on the role of procedural justice in the treatment of minority group members by the police on the justification of intergroup violence. We have shown that perceptions of procedural justice are relevant in predicting support for violence perpetrated by the police (violence for social control) as well as violence perpetrated by indigenous activists (violence for social change). We would like to highlight three implications for future research. First, our research makes a significant contribution to the literature because it is the first (to our knowledge) to extend the empirical assessment of the effect of procedural justice on attitudes towards violence to an intergroup context. We have analyzed a particular case of intergroup conflict: namely, the conflict between the state and the largest indigenous minority group in Chile. Future research is needed on the relationship between procedural justice and attitudes towards violence in other intergroup conflicts. Second, we have provided further evidence that procedural justice can be relevant even if applied towards others. We have shown that highly identified minority members respond to unjust treatment applied against other members of their in-group. However, more research is needed to understand the effects of observing unfair treatment towards the members of an out-group. If procedural justice communicates the status of a given group, observing an unfair treatment against an out-group member might provide information about that group in society, having possible effects on intergroup attitudes and behaviors. More research is needed to address this hypothesis. Finally, this work also gives further evidence of the need to consider situational factor to understand violence. The case of the intergroup conflict between mapuche communities and the Chilean state has developed for many centuries and the roots of the conflicts can be traced back to the Spanish colony (González, Gerber, & Carvacho, 2016). However, the use of more extreme forms of violence between these groups has varied across the years. This variation can be explained by situational factors that generate the conditions for violence to emerge. Here we have shown how that procedural justice in the treatment of mapuche people by the police may increase the justification of intergroup violence and create a climate that facilitates the emergences of more severe forms of violence.

### **Policy implications**

In three studies we have provided evidence for the importance of police officers convincing indigenous communities that they act according to principles of procedural justice. Believing that the police are procedurally just to one's minority group is associated with judging the police to be legitimate and believing that the police monopolize the rightful use of violence in society. These findings have important implications for the support of violence in intergroup conflict. Unfair and discriminatory treatment of authorities signals to minority members that they are not accepted members of society, creating further distance between minority members and legal authorities. On the opposite, "Crime-control strategies that revolve around treating community members with respect, dignity, and equality can be a welcome improvement over those that devalue and dehumanize" (Gau & Brunson, 2015, p. 146). As such, support for violence for social change might be reduced if police ensure a fair, respectful and neutral treatment of minority members. Fair treatment might also increase minority group members' trust in the reasons why police officers use violence. Perceptions of fair treatment can be improved in police encounters if officers make sure to explain reasons for engaging the minority member, allow them to express their opinion, treat them with respect and dignity, make neutral and unbiased decisions, communicate trustworthy motives (Mazerolle et al., 2013), respect the limits of their rightful authority (Huq, Jackson, & Trinkner, 2017) and treat individuals as people to protect rather than objects of suspicion (Tyler, Jackson, & Mentovich, 2015).



We would like to finish with one thought. Fair treatment of police officers towards minority members can have a positive effect on intergroup relationships. Just procedures communicate to minority group members that they are valued members of the group and encourage identification with the national majority group. Yet, this situation might also reduce minority group members' dispositions to act in ways that promote social change. Procedural justice might thus have the perverse effect of improving intergroup relationships while also reducing conflict that might be necessary to improve the live conditions of the minority group. It remains to be seen whether improving police treatment of minority group members will have a positive effect in the long run.

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## Appendix

### Study 2 Items

#### *Support for violence carried out by indigenous activists*

Mapuche groups destroy machinery of agricultural landowners

Mapuche groups set fire to warehouses that belong to forestry companies

Mapuche groups throw stones to police officers to avoid being evicted from a land occupation

Mapuche groups set fire to trucks that belong to forestry companies

#### *Support for violence carried out by the police*

Police officers use force to raid mapuche communities

A police officer hits a mapuche person who is resisting arrest

Police officers use tear gas to break up demonstrations that support the demands of mapuche people

#### *Perceived procedural justice towards indigenous people*

How often do police officers in Chile treat mapuche people with dignity and respect

How often are police officers in Chile fair when arresting a mapuche person who has committed a crime

How often do police officers in Chile allow mapuche people to express their points of view before apprehending them for a crime

#### *Identification with the indigenous minority group*

I identify with the mapuche people

I feel committed to the mapuche people

I feel close to the mapuche people

#### *Perceived police legitimacy - Felt obligation to obey*

It is my duty to obey the police all the time

It is my duty to obey the police even if I do not agree with them

It is my duty to obey the police's decisions, even if I do not agree

#### *Perceived police legitimacy - Moral alignment with the police*

The police in Chile want the same things for the community as I do

In general, the police in Chile have the same beliefs as I do about what is right and wrong

The police's values are similar to mine

### Study 3 Items<sup>5</sup>

#### *Perceived procedural justice towards the indigenous people (manipulation check)*

How often do police officers treat mapuche people with dignity and respect?

How often are police officers just in treating mapuche people?

How often do police officers allow mapuche people to explain their points of view?

#### *Perceived police legitimacy - Felt obligation to obey*

You need to respect the decisions made by the police even if you do not agree

You have to obey the police's instructions without asking questions

You have to support the police's decisions even if they make a mistake

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<sup>5</sup> Only items that differ from Study 2 are shown

