The role of procedural justice in the relationship between the police and citizens

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Preface

Almost 7 years ago, I started working at Ghent University on a doctoral project. However, after a few months I became an assistant with teaching tasks as well, such as the exercises for statistics in criminology in the first bachelor year, supervising internships, etc. Combining my teaching tasks with my doctoral research was not always easy, especially in the last two years of my research. Sometimes it felt like I was having too little time to finish my doctoral research. Nevertheless, if I could begin again, I would definitely choose the assistant trajectory again. I would not have wanted to miss the teaching tasks at all.

In this preface I would like to take the opportunity to thank a number of people who have made (finishing) my doctoral research possible. I would like to start with thanking the person who gave me the opportunity for doing this doctoral research, namely my supervisor Prof.dr. Lieven Pauwels. Lieven, thank you for having confidence in my abilities, for your guidance and support. When I was a bit unsure about my research or teaching tasks, it was you who told me that I was doing a good job. Subsequently, I would like to thank Prof.dr. Antoinette Verhage. Although she was not a supervisor of my doctoral research, she took time for guiding me, especially with regard to the second part of my doctoral research in which I conducted systematic social observations. Antoinette, thank you for your constructive comments and your support. Furthermore, I would also like to thank the members of my guidance committee, Prof.dr. Tom Vander Beken, Prof.dr. Henk Roose and Prof.dr. Stefaan Pleysier. Thank you for the guidance and especially the challenging questions you all posed to me.

Additionally, I would like to thank the people who provided me data or made it possible to collect data myself. In this regard, I would like to thank Prof.dr. Wim Hardyns and his colleagues for providing me the data of the SWING-survey (2012) and all contributors to the ESS-survey, round 5 (2010-11). Furthermore, I would like to thank the heads of the local police forces participating in this doctoral research. Thank you for providing me the approval to conduct the systematic social observations within your local police forces. I would also like to thank the policy advisors, the heads of the department of intervention and duty planners of both local police forces whom I had contact with. Thank you for all the (administrative) help and for some, the many conversations we had relating to my research. Thank you all for making my data gathering possible. A special thanks to all the police officers, chief officers and police commissioners who received me warmly. I am really grateful that you all accepted my presence when doing your job. You all made a lot of effort to involve me in your work. Moreover, I would like to thank the police academy of East-Flanders (PAULO) for giving me the opportunity to follow some courses related to my research topic. I would also like to thank the police academy of West-Flanders (WPS) to give me the opportunity to present my research and to give a training in procedural justice to novice police officers and to the heads of the local police forces of West-Flanders.

List of abbreviations

AIC: Akaike Information Criteria

BIC: Bayesian Information Criteria

CFA: Confirmatory factor analysis

CFI: Comparative Fit Index

CJS (in chapter II): Criminal justice system

COP: Community Oriented Policing

EPJ: Extreme procedurally just police behaviour

ESS: European Social Survey

FEC: Faculty Ethical Commission

J (in chapter II): Judges

LOPS: Legality, opportunity, proportionality and subsidiarity

LPF: Local police force

OR: Odds ratio

OV: Onderzoeksvraag – Research Question

PAULO: Provinciale Academie voor Urgentiediensten en Lokale Overheden – Police academy of East-Flanders

P (in chapter II): Police

Perf: Performance

PJ: Procedurally just police behaviour

POPN: Project on Policing Neighborhoods

PP (in chapter II): Public prosecution

ProcJust or PJ: Procedural justice

PUJ: Procedurally unjust police behaviour

PV: Proces-Verbaal – official report about an intervention

RMSEA: Root Mean Square Error of Approximation

RQ: Research Question

R squared: Determination coefficient

SEM: Structural Equation Modelling

SPSS: Statistical Package for the Social Sciences

SSO: Systematic Social Observation

Std/SD: Standard deviation

SWING-survey: Social Capital and Well-being in Neighbourhoods in Ghent survey

TLI: Tucker-Lewis Index

UK: United Kingdom

US(A): United States of America

WGP: Wet op de geïntegreerde politie – law on the integrated police

WLS: Weighted Least Squares

WPA: Wet op het politieambt – law on the police function

WPS: West-Vlaamse politieschool – Police academy of West-Flanders

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Summary of the study

Aim and research questions

The aim of this doctoral study is to fully examine the role procedural justice plays in the relationship between the police and citizens in Belgium. Previous foreign research has highlighted the importance of procedurally just or fair handling by the police in their interactions with citizens. According to the procedural justice theory (Tyler, 1988), procedurally just treatment by the police enhances citizens' perceptions of police legitimacy which also affect their willingness to obey the police and even cooperate with them in dealing with crime and disorder (e.g. Hough, Jackson, Bradford, Myhill and Quinton, 2010; Tyler, 2013). In addition to testing the key assumption of the theory, this doctoral study attempts to improve measurements used in empirical research to study procedural justice with regard to the police.

In this doctoral study, *the relationship between the police and citizens* refers to both the way citizens perceive the police (their trust in the police), and the relationship that is established when the police and citizens interact with each other. *Procedural justice* refers to four elements relating to the quality of the decision-making process and the quality of personal treatment that have been used to judge how procedurally just the police are. The first element, *participation or voice*, refers to giving a citizen the opportunity to express their viewpoints before making a decision. The second, *neutrality*, refers to treatment and decision-making based on facts and not on personal characteristics or situational factors. The third, *dignity and respect,* refers to the polite treatment of citizens. The forth element, *trustworthy motives,* refers to the police showing care and concern for the citizen's well-being (Tyler and Fagan, 2008).

In this doctoral study it is tried to provide an answer to the following research questions:

> ***RQ 1.*** *What is the role of trust in police procedural justice in the relationship between the police and citizens?*
>> ***RQ 1a.*** *How can trust in police procedural justice be measured?*
>> ***RQ 1b.*** *To what extent is trust in police procedural justice a predictor for perceived police legitimacy, and willingness to cooperate with the police and comply with the law?*
>> ***RQ 1c.*** *To what extent is contact experience a predictor for trust in police procedural justice?*

> ***RQ 2.*** *What is the role of procedurally (un)just police behaviour during police–citizen interactions?*
>> ***RQ 2a.*** *How can procedurally (un)just police behaviour during police–citizen interactions be measured?*

> **RQ 2b.** *To what extent is procedurally (un)just police behaviour a predictor for citizens' (non)cooperation with the police during police–citizen interactions?*
> **RQ 2c.** *To what extent is procedurally (un)just police behaviour a predictor for citizens' (dis)respect toward the police during police–citizen interactions?*

Methodology

In order to answer RQ1 and its sub-questions, *three datasets of survey research* collected in Belgium were used (Student survey 2009-10; European Social Survey 2010-11; Social Capital and Well-being in Neighbourhoods in Ghent survey 2012). In order to answer RQ2 and its sub-questions, data were collected by use of *systematic social observations* during ride-alongs with police officers from two local police forces in Belgium.

Both testing the measurements used in the surveys and systematic social observations, and testing the key assumption of procedural justice theory on both kind of datasets, were done with the help of statistical analyses (e.g. structural equation modelling, factor analyses, blockwise binomial logistic regression).

Results

Trust in police procedural justice

In this doctoral study it is highlighted that it is important to treat trust in the police as a multidimensional concept. That is to say, it is important to make a distinction between trust in police procedural justice on the one hand and trust in the performance or effectiveness of the police on the other hand. Furthermore, it is stressed to add items referring to all four elements of procedural justice in a questionnaire when measuring citizens' perceptions of police procedural justice.

The results of testing the key assumption of procedural justice theory in Belgium show that contact experience is an important predictor for trust in procedural justice (more than for trust in police effectiveness). In contrast to other studies in which a much stronger effect from unsatisfactory contacts was found, the findings in this doctoral study show a stronger positive effect from satisfactory contact than a negative effect from unsatisfactory contact, although the relationship was found to be almost symmetrical. Furthermore, in line with the key assumption, trust in procedural justice indeed enhances citizens' perceptions of police legitimacy in the form of moral alignment (believing that the police and they share the same values and norms), which on their turn can predict citizens' willingness to obey the police, cooperate with the police and comply with the law.

Procedurally (un)just police behaviour during police–citizen interactions

In this doctoral study a measurement instrument is tested to measure all elements of procedurally just police behaviour during police–citizen interactions. In contrast to prior research, this study is the first in which an unjust variant is also measured for each element. The measurement instrument passed the validity test to a large extent. Future SSO research

can rely on this instrument to measure procedurally (un)just police behaviour during police–citizen interactions.

The results of testing the key assumption of procedural justice theory on SSO-data show that procedurally just police behaviour plays a role in the *prediction of citizens' cooperative behaviour*, but not always in line with what is expected. Namely, the findings show that citizens treated in a neutral way are less inclined to cooperate. Furthermore, procedurally just policing concerning participation only seems to play a statistically significant role in predicting cooperation when a high level of this behaviour is observed. The same is found for procedurally just police behaviour concerning trustworthy motives, but the opposite of what is expected. Lastly, the findings do not show a statistically significant effect of (extreme) respectful police behaviour on cooperation.

The results of *the prediction of citizens' non–cooperation* show that procedurally unjust police behaviour concerning participation/voice is the strongest predictor. A marginally statistically significant effect of disrespectful police behaviour is found. Procedurally unjust police behaviour concerning neutrality or trustworthy motives do not seem to be statistically significant predictors.

For the prediction of *citizens' respectful behaviour*, the findings show that even if the police only show respect for a short time, it is more likely that a citizen will also show respect, compared to an interaction in which the police do not show respect. The other elements of procedurally just policing do not show statistically significant effects.

Citizens' disrespectful behaviour can be predicted by procedurally unjust policing concerning participation and neutrality. Police disrespect only seems to have a marginally statistically significant effect. Procedurally unjust police behaviour concerning trustworthy motives does not seem to be a predictor of citizens' disrespectful behaviour.[1]

Based on the results, this doctoral study makes some recommendations for future academic research (measuring trust in police procedural justice, measuring procedurally (un)just police behaviour, methodology recommendations) and recommendations for police policy.

References

Hough, M., Jackson, J., Bradford, B., Myhill, A. and Quinton, P. (2010). Procedural justice, trust, and institutional legitimacy. *Policing: an international journal of police strategies and management, 4*(3), 203–210.

Tyler, T.R. (1988). What is procedural justice? Criteria used by citizens to assess the fairness of legal procedures. *Law and Society Review, 22*(1), 103–135.

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[1] Citizen's background characteristics (gender, social class, ethnic background), citizen's role (suspect of other), and indication of alcohol drug use were used as control variables in these analyses.

Tyler, T.R. (2013). Legitimacy and compliance: the virtues of self-regulation. In A. Crawford and A. Hucklesby (eds.) *Legitimacy and compliance in criminal justice* (pp. 8–28). New York and London: Routledge.

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Samenvatting van de studie

Doel en onderzoeksvragen

Het doel van dit doctoraatsonderzoek is het bestuderen van de rol die procedurele rechtvaardigheid speelt in de relatie tussen de politie en burgers in België. Vroeger buitenlands onderzoek heeft namelijk het belang van procedureel rechtvaardig handelen door de politie in haar interacties met burgers reeds benadrukt. Volgens de procedurele rechtvaardigheidstheorie (Tyler, 1988) zorgt een politionele procedureel rechtvaardige behandeling ervoor dat burgers de politie als een legitieme instantie percipiëren. Deze percepties zouden op hun beurt burgers hun bereidheid om de politie te gehoorzamen en zelfs mee te werken met de politie in de strijd tegen criminaliteit en overlast beïnvloeden (vb. Hough, Jackson, Bradford, Myhill en Quinton, 2010; Tyler, 2013). Naast het testen van de basisassumptie uit de procedurele rechtvaardigheidstheorie, tracht dit doctoraatsonderzoek ook de metingen die gebruikt worden in empirisch onderzoek naar procedurele rechtvaardigheid met betrekking tot politie te verbeteren.

In dit doctoraatsonderzoek betekent *de relatie tussen de politie en burgers* enerzijds de wijze waarop burgers de politie percipiëren (hun vertrouwen in politie), en anderzijds de relatie die tot stand komt wanneer de politie en burgers interageren met elkaar. *Procedurele rechtvaardigheid* refereert naar vier elementen gerelateerd aan de kwaliteit van het beslissingsproces en de kwaliteit van persoonlijke behandeling die gebruikt worden om een oordeel te vellen over hoe procedureel rechtvaardig de politie is. Het eerste element, *participatie of stem*, refereert naar het geven van de opportuniteit aan burgers om hun mening te uiten vooraleer een beslissing wordt genomen. Het tweede element, *neutraliteit*, refereert naar een behandeling en beslissingsproces gebaseerd op feiten en niet op persoonlijke karakteristieken of situationele factoren. Het derde element, *eerbied en respect*, wijst op een beleefde behandeling van burgers. Het vierde element, *betrouwbare motieven*, verwijst naar het uiten van een bezorgdheid voor het welzijn van burgers (Tyler en Fagan, 2008).

In dit doctoraatsonderzoek wordt getracht een antwoord te formuleren op de volgende onderzoeksvragen:

> **OV 1.** *Wat is de rol van het vertrouwen in de procedurele rechtvaardigheid van politie in de relatie tussen de politie en burgers?*
>> **OV 1a.** *Hoe kan het vertrouwen in de procedurele rechtvaardigheid van politie gemeten worden?*
>> **OV 1b.** *In welke mate is het vertrouwen in de procedurele rechtvaardigheid van politie een voorspeller voor gepercipieerde legitimiteit van politie, bereidheid om mee te werken met de politie en gehoorzaamheid aan de wet?*

OV 1c. In welke mate is contactervaring een voorspeller voor het vertrouwen in de procedurele rechtvaardigheid van politie?

OV 2. Wat is de rol van procedureel (on)rechtvaardig politiegedrag tijdens politie–burger interacties?

OV 2a. Hoe kan procedureel (on)rechtvaardig politiegedrag tijdens politie–burger interacties gemeten worden?

OV 2b. In welke mate is procedureel (on)rechtvaardig politiegedrag een voorspeller voor het (niet) meewerken van burgers met de politie tijdens politie–burger interacties?

OV 2c. In welke mate is procedureel (on)rechtvaardig politiegedrag een voorspeller van burgers hun respectvol/respectloos gedrag ten aanzien van de politie tijdens politie–burger interacties?

Methodologie

Om OV1 en deelvragen te beantwoorden, werden drie Belgische *survey datasets* gebruikt (Studentensurvey 2009-2010; European Social Survey 2010-2011; Social Capital and Well-being in Neighbourhoods in Ghent survey 2012). Om OV2 en deelvragen te beantwoorden, werden data verzameld door middel van *systematische sociale observaties* tijdens interventies van politie-inspecteurs uit twee Belgische lokale politiezones.

Zowel het testen van de metingen gebruikt in de surveys en de systematische sociale observaties, als het testen van de basisassumptie van de procedurele rechtvaardigheidstheorie op beide typen van datasets, gebeurden met behulp van statistische analyses (vb. structural equation modelling, factor analyses, bloksgewijze binomiale logistische regressie).

Resultaten

Het vertrouwen in de procedurele rechtvaardigheid van politie

In dit doctoraatsonderzoek wordt het belang benadrukt om het vertrouwen in politie als een multidimensionaal concept te beschouwen. Het is namelijk belangrijk om een onderscheid te maken tussen vertrouwen in de procedurele rechtvaardigheid van politie enerzijds, en het vertrouwen in de performantie of effectiviteit van politie anderzijds. Daarnaast wordt het belang benadrukt om items in een vragenlijst op te nemen die refereren naar alle vier de elementen van procedurele rechtvaardigheid wanneer men burgers hun percepties betreffende de procedurele rechtvaardigheid van politie tracht te meten.

De resultaten van de theorietoets in België tonen aan dat contactervaring een belangrijke voorspeller is van het vertrouwen in de procedurele rechtvaardigheid van politie (meer dan van het vertrouwen in de effectiviteit van politie). In tegenstelling tot andere studies, in dewelke een veel sterker effect van onbevredigend contact werd gevonden, tonen de resultaten in dit doctoraatsonderzoek een sterker positief effect van bevredigend contact aan

dan een negatief effect van onbevredigend contact, hoewel de relatie bijna symmetrisch is bevonden.

Verder blijkt, in lijn met de basisassumptie van de theorie, dat het vertrouwen in de procedurele rechtvaardigheid van politie inderdaad een positief effect heeft op percepties van burgers betreffende de legitimiteit van politie in de vorm van morele verbondenheid (het geloof dat de politie en burgers dezelfde waarden en normen delen). Deze percepties blijken op hun beurt positief van invloed te zijn op de bereidheid van burgers om de politie te gehoorzamen, mee te werken met de politie en zelfs de wet te gehoorzamen.

Procedureel (on)rechtvaardig politiegedrag tijdens politie–burger interacties

In dit doctoraatsonderzoek is een meetinstrument getest om alle elementen betreffende procedureel rechtvaardig politiegedrag tijdens politie–burger interacties te meten. In tegenstelling tot vroeger onderzoek is dit het eerste onderzoek waarin voor elk element een onrechtvaardige variant is opgenomen. Het meetinstrument heeft voor een groot deel de validiteitstest doorstaan. Toekomstig SSO onderzoek kan zich baseren op het meetinstrument dat gebruikt werd in dit doctoraatsonderzoek om procedureel (on)rechtvaardig politiegedrag tijdens politie–burger interacties te meten.

De resultaten van de theorietoets op SSO-data tonen aan dat procedureel rechtvaardig politiegedrag wel degelijk een rol speelt in de predictie van *het meewerkend gedrag van burgers* ten aanzien van de politie, maar niet altijd in lijn met wat verwacht wordt. De bevindingen tonen namelijk aan dat burgers die neutraal behandeld werden door politie minder geneigd zijn om mee te werken met politie. Verder blijkt procedureel rechtvaardig politiegedrag met betrekking tot participatie enkel een statistisch significante rol te spelen wanneer een hoog level van dit gedrag geobserveerd werd. Hetzelfde werd gevonden voor procedureel rechtvaardig politiegedrag met betrekking tot betrouwbare motieven, echter opnieuw omgekeerd van wat verwacht wordt. Tenslotte tonen de resultaten aan dat (extreem) respectvol politiegedrag geen statistisch significante voorspeller blijkt te zijn van burgers hun meewerkend gedrag met politie.

De resultaten voor het voorspellen van *het niet meewerken van burgers met de politie* tonen aan dat procedureel onrechtvaardig politiegedrag betreffende participatie de sterkste voorspeller is. Tevens werd een statistisch randsignificant effect van respectloos politiegedrag gevonden. Procedureel onrechtvaardig gedrag met betrekking tot neutraliteit en betrouwbare motieven blijken geen statistisch significante voorspellers te zijn van het niet meewerken van burgers met de politie.

Voor de voorspelling van burgers *hun respectvol gedrag ten aanzien van de politie*, tonen de resultaten aan dat zelfs wanneer de politie slechts in beperkte mate respectvol gedrag vertoont tijdens een interactie, het meer waarschijnlijk is dat een burger ook respectvol gedrag zal vertonen in vergelijking met een interactie waarbij de politie geen respectvol

gedrag uit ten aanzien van de burger. De andere elementen van procedureel rechtvaardig politiegedrag tonen geen statistisch significante effecten.

Burgers hun *respectloos gedrag ten aanzien van politie* kan volgens de resultaten uit dit doctoraatsonderzoek voorspeld worden door procedureel onrechtvaardig gedrag met betrekking tot participatie en neutraliteit. Het respectloos gedrag van politie blijkt slechts een statistisch randsignificant effect te hebben. Procedureel onrechtvaardig gedrag met betrekking tot betrouwbare motieven blijkt geen statistisch significante voorspeller te zijn van burgers hun respectloos gedrag tijdens politie–burger interacties.[2]

In dit doctoraatsonderzoek worden op basis van de resultaten tevens aanbevelingen gedaan voor toekomstig academisch onderzoek (m.b.t. het meten van het vertrouwen in de procedurele rechtvaardigheid van politie, het meten van procedureel (on)rechtvaardig politiegedrag, de methodologie) en voor het politiebeleid.

Referenties

Hough, M., Jackson, J., Bradford, B., Myhill, A. en Quinton, P. (2010). Procedural justice, trust, and institutional legitimacy. *Policing: an international journal of police strategies and management, 4*(3), 203–210.

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Tyler, T.R. en Fagan, J. (2008). Why do people cooperate with the police? *Ohio Journal of Criminal Law*, 6, 231–275.

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[2] Burgers hun achtergrondkenmerken (geslacht, sociale klasse, etnische achtergrond), hun rol (verdachte of anders), en een indicatie van alcohol- of druggebruik werden gebruikt als controlevariabelen in de analyses.

CHAPTER I: INTRODUCTION

1. The importance and meaning of procedural justice

Previous research has highlighted the importance of procedurally just or fair handling by the police in their interactions with citizens. The basis for this can be found in procedural justice theory (Tyler, 1988), which assumes that when the police are perceived as treating people honestly and fairly, this will enhance their legitimacy. Furthermore, citizens who view the police as a legitimate institution are more likely to obey and even cooperate with the police in dealing with crime and disorder (Hough, Jackson, Bradford, Myhill and Quinton, 2010; Jackson, Bradford, Hough, Myhill, Quinton and Tyler, 2012; Rosenbaum, Schuck, Costello, Hawkins and Ring, 2005; Tyler, 2013). In other words, the theory states that procedurally just policing is assumed to influence citizens' attitudes, and even their behaviour.

In line with this key assumption, this doctoral study attempts to contribute to broadening the knowledge about the role procedural justice plays in the relationship between the police and citizens. 'Relationship' in this doctoral study refers to both the way citizens perceive the police and the relationship that is established when the police and citizens interact with each other. Four elements relating *to the quality of the decision-making process* and *the quality of personal treatment* have been used to judge how procedurally just the police are. The first element, *participation or voice*, refers to giving a citizen the opportunity to express their viewpoints before making a decision. The second, *neutrality*, refers to treatment and decision-making based on facts and not on personal characteristics or situational factors. The third, *dignity and respect,* refers to the polite treatment of citizens. The forth element, *trustworthy motives,* refers to the police showing care and concern for the citizen's well-being (Tyler and Fagan, 2008).

In this section the aim of the doctoral study and the research questions are first presented. Second, the theoretical and policy relevance is described. This is followed by information about the history of procedural justice theory, which, when first used, was not applied in the framework of the police. Because this doctoral study focuses on the Belgian context, we outline the structure, mission, vision and values of the Belgian police together with their link with the concept of procedural justice. The main part of this introduction describes the methodology used to answer the research questions. Every step that was taken is described and explained. Special attention is paid to some pitfalls, difficulties and ethical dilemmas that were encountered on this research path. Lastly, an overview of the structure of the dissertation is provided.

2. Aim and research questions

Since little is known about the role of procedural justice in the relationship between the police and citizens in Belgium, the aim of this dissertation is to fully examine whether or not the theoretical framework of procedural justice can be applied in the Belgian context. Do(es) (perceptions of) procedurally just police behaviour play(s) a role in understanding citizens' attitudes and behaviour? And, if so, is this role substantial in nature? Furthermore this study attempts to improve measurements used in empirical research to study procedural justice.

Previous studies on police procedural justice can be divided into two research lines. In the first, procedural justice is measured from the citizen's perspective using survey data (or, in some studies, interviews). These scholars refer to the concept of 'trust' in police procedural justice or perceptions about the 'fairness' of the police.

Only a few studies have followed the second research line and measured police procedural justice as actually expressed by the police during their interactions with citizens, using *systematic social observations* (SSOs). Using this approach, instead of asking citizens about their perceptions of police behaviour, observers examine whether the police behaviour is procedurally just during their interactions with citizens, according to specific protocols (Dai, 2010; Jonathan-Zamir, Mastrofski and Moyal, 2013; Mastrofski, Snipes and Supina, 1996). Following procedural justice theory, the assumption is that procedurally just handling during an interaction may influence citizens' behaviour during the interaction. In this line of thought, procedurally just police behaviour might be a predictor of citizens' respectful and cooperative behaviour during an interaction, and procedurally unjust police behaviour might be a predictor of citizens' disrespectful and uncooperative behaviour during an interaction.

Following both research lines, this doctoral study tries to answer two main research questions, each with three sub-questions, to fully understand the role of procedural justice in the relationship between the police and citizens:

> *RQ 1. What is the role of trust in police procedural justice in the relationship between the police and citizens?*
> > *RQ 1a. How can trust in police procedural justice be measured?*
> > *RQ 1b. To what extent is trust in police procedural justice a predictor for perceived police legitimacy, and willingness to cooperate with the police and comply with the law?*
> > *RQ 1c. To what extent is contact experience a predictor for trust in police procedural justice?*
>
> *RQ 2. What is the role of procedurally (un)just police behaviour during police–citizen interactions?*
> > *RQ 2a. How can procedurally (un)just police behaviour during police–citizen interactions be measured?*

> ***RQ 2b.*** *To what extent is procedurally (un)just police behaviour a predictor for citizens' (non)cooperation with the police during police–citizen interactions?*
> ***RQ 2c.*** *To what extent is procedurally (un)just police behaviour a predictor for citizens' (dis)respect toward the police during police–citizen interactions?*

The unique contribution of this doctoral study to criminology is that police procedural justice is studied not only from the citizen's perspective (by asking citizens about their attitudes toward the police using surveys), but also as it is expressed during police–citizen interactions (by systematically coding police behaviour as it is observed by the researcher). In addition, it allows the key assumption to be tested in a new environment that is not part of the English-speaking cultural context. Whether or not police procedural justice is important in Belgium is also explored. Furthermore, the aim is to improve the measurements used in procedural justice surveys and SSO research. In the next section the theoretical and policy relevance of this doctoral study are highlighted.

3. Relevance of the study
3.1. Theoretical relevance

The role of trust in police procedural justice

Procedural justice theory has been explored primarily in English-speaking cultures. Although the number of researchers testing the application of this theoretical framework with regard to the police has increased considerably since 2010 in other contexts, a particular gap in the research remains. Namely, the position of the police differs between countries. However, whatever country they are from, the police want to be perceived as legitimate. But the question arises whether or not similar mechanisms play a role in the perception of the police as a legitimate authority and in citizens' willingness to cooperate with the police. Examining this, the present study starts from the empirical analytical tradition in which assumptions are tested. More specifically, the key assumptions of procedural justice theory are tested in the Belgian context. For example, it is examined whether or not trust in procedural justice is a determinant of perceived legitimacy (see chapters III and IV), and whether or not contact experience is a determinant of trust in police procedural justice (see chapter IV). The explanatory power of the procedural justice approach is also compared with other approaches in explaining compliance with the law and citizens' willingness to cooperate with the police, namely an instrumental and an individual normative approach (see chapter III). Furthermore, this study contributes to the discussion about the meaning and conceptualization of the concept of legitimacy, which is a core concept in procedural justice theory (see chapter IV).

The role of procedurally (un)just police behaviour

The fundamental principle of procedural justice theory starts from citizens' perceptions, which are subjective in nature. Namely, a key assumption is that trust in police procedural justice might have an important influence on citizens' willingness to cooperate with the police. Most of the studies in which procedural justice theory is tested have used survey data to ascertain citizens' perceptions about the police (e.g. Hough, Jackson and Bradford, 2013; Murphy and Cherney, 2011; Reisig, Tankebe and Mesko, 2012). However, procedural justice theory can also be tested in specific situations where police and citizens interact with each other, and the police may clearly demonstrate the four key elements of procedural justice (voice, neutrality, respect and dignity, and trustworthy motives) during an intervention; it is then possible to test whether or not the police's conduct influences citizens' behaviour during these interventions. However, the effect of the use of honest, procedurally just procedures during police–citizen interactions is to a large extent unknown, with only a few empirical studies examining (some elements of) its role (e.g. Dai, 2010; Dai, Frank and Sun, 2011; Mastrofski et al., 1996; McCluskey, 2003). The present study contributes to this research by examining which elements of procedurally (un)just policing can predict several forms of citizens' behaviour, more precisely (non)cooperation and (dis)respect, during police–citizen interactions (see chapter VI). In addition, because of the lack of empirical studies, this study is also relevant for its measurements of the elements of procedurally (un)just police behaviour (see chapter V). Future studies can rely on these measurements and improve them.

3.2. Policy relevance

The role of trust in police procedural justice

Testing procedural justice theory in the Belgian context could contribute to the development of policing strategies. If the results show that trust in police procedural justice plays a positive role in the prediction of citizens' willingness to comply with the law and cooperate with the police, then the police could only benefit from acting in a procedurally just manner (see chapter III). This is especially the case when contact experience seems to play a role in the formation of trust in police procedural justice (see chapter IV). However, the police receive no special training on the importance of such an approach.[1] This study offers empirical evidence for why police officers should treat people fairly and make honest decisions, and its findings could be used in police training to make officers aware of the benefits of using a procedurally just approach.

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[1] As a doctoral researcher, I attended several courses at the police academy to examine whether the issue of procedurally (un)just handling was taught during police training. Very few courses (e.g. deontology) covered some elements of procedural justice theory, but only to a limited extent.

The role of procedurally (un)just police behaviour

Examining the role of procedurally (un)just police behaviour during police–citizen interactions is especially relevant for the local police forces that participated in the doctoral study. First, this study offers descriptive statistics of the level of procedurally (un)just police behaviour that was observed during the period of data gathering (see chapter V). Because the elements of procedural justice are closely related to the concept of community-oriented policing (*infra*), these descriptive results can show how well the community-oriented philosophy has been established by the police officers of these forces. Second, the study shows what elements of procedurally (un)just police behaviour can predict certain behaviours by citizens during interventions. Sharing the results of this study with (novice) police officers can make them aware of the importance of endorsing a community-oriented philosophy.[2] It can teach them how (not) to (re)act during interactions with citizens, in order to manage situations to avoid escalations and to enhance the likelihood of citizens' cooperation and respect during these interactions.

4. A brief history of procedural justice theory

Research on procedural fairness was first undertaken in studies of why people defer to decisions made by judges and other judicial authorities (Tyler, 2013). The concept of procedural justice first appeared in the influential work *Procedural justice: a psychological analysis* by John Thibaut and Laurens Walker in 1975. Using the insight from John Rawls' *A Theory of Justice* (1971),[3] they attempted to determine which trial procedure system better served the purpose of justice: the Anglo-American 'adversarial' procedure or the inquisitorial procedure used on the European continent. The difference between these procedures is situated in two phases: a 'process' phase and a 'decision' phase. In the adversarial procedure lawyers control the process phase. They do the questioning, with the judge being passive except to make rulings on specific procedural issues. However, the judge still remains responsible for deciding the outcome. In the inquisitorial procedure considerable power is put in the hands of the judge for both gathering the evidence (the process phase) and deciding the outcome (Vidmar, 1990). The findings of the study showed that the adversarial procedure resulted in greater feelings of procedural fairness and satisfaction with the verdict. In this procedure disputants believed that more control is given to them during the process. Additionally, disputants in the adversarial condition believed that the procedure

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[2] An additional research report with detailed descriptive statistics and explanatory analyses together with some policy recommendations has been written as an expression of gratitude toward the two participating local police forces, hoping that it is a useful supplementary document to their policy.

[3] In *A Theory of Justice*, Rawls identifies two principles of justice. The first, that each person is to have an equal right to the most extensive total system of equal basic liberties compatible with a similar system of liberty for all. The second, that social and economic inequalities should be arranged so that they are of the greatest benefit to the least advantaged, and attached to offices and positions open to all under conditions of fair equality of opportunity.

was fairer than disputants in the inquisitorial hearing condition when the verdict was unfavourable (Thibaut and Walker, 1975; Vidmar, 1990).

A criticism of the work of Thibaut and Walker is that it was based on laboratory simulations. Therefore, Lind and Tyler (1988) wanted to find out whether or not similar results could be found in real-life settings. Based on studies that drew on surveys with defendants in traffic and misdemeanour courts, citizens who encountered the police and military prisoners, they concluded that across all settings and populations, the perception of procedural fairness seemed to be a significant factor for citizens' satisfaction with the process and the outcome they received. From a social psychology perspective, there is a universal necessity to be treated justly.

Following this light of thought, Jackson, Hough, Bradford and their colleagues (2011) brought the story of procedural justice to continental Europe. Based on Tyler's procedural justice model, they developed measures for a *trust module* in round 5 of the European Social Survey (ESS).[4] This module made it possible to test procedural justice theory with regard to the criminal justice system, and more specifically the police, on a cross-national scale (Jackson et al., 2011).

Transferring the framework to police studies, research has shown that perceptions of fairness in decision-making (neutral and non-discriminatory behaviour) and fair interpersonal treatment are the keys to secure cooperation. The first of these studies was carried out in the United States, where the existing policies and practices start mainly from a deterrence perspective: *"By a forceful intrusion into people's lives, the police make it evident that those who break the rules can and will be punished"* (Tyler, 2013, p. 9). This is in contrast to the procedural justice perspective. The public will not perceive this type of policing style as fair because it goes against the four elements of procedural justice. Tyler (2013) therefore argues that in the United States policing styles have to be adopted that can motivate voluntary acceptance and willing cooperation by the public. Thus, these policing styles have to keep in mind the procedural justice perspective. Similar conclusions were reached in the United Kingdom. Hough, who compared different UK policing styles by the use of observations, argues: *"If police act in ways that lack procedural justice, this damages the legitimacy of the institutions of justice, and thus erodes their authority and their ability to command compliance"* (Hough, 2013, p. 191).

Because it is assumed that people in general are sensitive to just procedures, and that the policy of the Belgian police is based on a community-oriented philosophy that is strongly connected to a procedural justice perspective (*infra*), it is highly relevant to test whether or not the procedural justice framework is transferrable to the Belgian context.

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[4] The ESS is an academically driven survey that is repeatedly conducted and that maps the attitudes, values and opinions of the inhabitants of more than 20 European countries.

5. The Belgian police

Testing procedural justice theory regarding the police in the Belgian context requires more information about them. This section describes the Belgian police force's structure, mission, vision and values, and their link with the concept of procedural justice.

Prior to 1998 the Belgian police consisted of three different forces, namely the municipal police, the national enforcement service and the judicial police. But, due to some police scandals that had a serious impact on public opinion (e.g. the Dutroux case), it was clear that there was a lack of coordination between these three forces, that responsibilities were overlapping and that the different police forces distrusted each other. In Belgium, this situation is referred to as *'la guerre des flics',* or the war between police officers (Enhus and Ponsaers, 2005). To end this conflict, on 7 December 1998 the Belgian Parliament adopted the law for an integrated police service structured on two levels, federal and local. The law was implemented on 1 January 2001. In the following sections the mission, vision and values of the integrated police force are described and linked to the concept of procedural justice.

5.1. Mission

Although both the federal and local levels of the police force are autonomous, they work in close cooperation and complement each other. Together they provide an integrated policing service. They ensure compliance with, and contribute to the protection of, individual rights and freedoms, and support the democratic development of society (WPA,[5] art. 1). Both levels are responsible for administrative and judicial tasks. Administrative tasks include the enforcement of public order, monitoring compliance with police laws and regulations, the prevention of crime and the protection of persons and goods (WPA, art. 14). These are mainly preventive police tasks. Judicial tasks include the detection and identification of crimes, and the collection of evidence *à charge* and *a décharge[6]*, which may be brought to a judge in a later phase (WPA, art. 15). These are mainly repressive police tasks.

The local level consists of forces that are active in their own named police zones (WGP,[7] art.3). Each police zone (or local police force) covers the territory of one or more municipalities. Currently, Belgium has 189 police zones. They are responsible for the *basispolitiezorg*, or basic policing. This comprises seven basic functions: neighbourhood policing, intervention, reception[8], victim support, local investigation, maintaining order and traffic safety. The federal police exercise their authority across the whole Belgian territory. They are responsible for supra-local and specialized administrative and judicial police operations. The federal level also supports the local level when needed (WGP, art. 3), for

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[5] WPA, *Wet op het politieambt,* or law on the police function of 5 August 1992.
[6] Evidence to charge or discharge.
[7] WGP, *Wet op de geïntegreerde politie* or law on the integrated police of 7 December 1998.
[8] Reception in this context means that people could go to the police office to make a complaint, report a crime,…

example by providing air support to locate suspects. The local level may also support the federal level when required, for example at border control.

5.2. Vision

The vision of the integrated police force is summarized in one concept: *'excellent police care'*. This concept is based on three different notions: community-oriented policing, intelligence-led policing and optimal management. Community-oriented policing forms the cultural and philosophical framework of the Belgian police, with the basic assumption that the police need to be integrated within the local community. Therefore, the police must take citizens' expectations into consideration. Procedural justice aligns perfectly with this community-oriented philosophy. This will be illustrated in a later section. Intelligence-led policing refers to the never-ending role of strategically, tactically and operationally guiding the organization based on information about insecurity, quality of life, crime and police functioning. Optimal management means that the organization needs to be steered in the most suitable way, with the people and means that are needed, so that the force's purposes can be realized (Bruggeman, Van Branteghem, Van Nuffel, Delarue and Bedoyan, 2007).

5.3. Values

Within the community-oriented philosophy, it is advocated that Belgian police officers should endorse some fundamental values while carrying out their role. These values are included in the deontological code of the police, which came into force on 30 May 2006. These values are (Federal Police, 2008, p. 15):

- Compliance with, and being committed to enforce compliance with, the individual rights and freedoms of the dignity of every person, in particular by a well-considered, and the strict minimum, use of legal coercion.

- Being loyal to the democratic institutions.

- Having integrity and being impartial, respecting the enforced norms and having a sense of responsibility.

- Being inspired and demonstrating a service attitude characterized by:
    * availability;
    * quality of work;
    * searching for solutions;
    * optimally applying sufficient means;
    * the care of the integrated functioning of the police forces.

- promoting internal relations via mutual respect and appreciation, and contributing to respect at work.

Several of these values fit perfectly with the elements of procedural justice. This will be illustrated in the following section.

5.4. The relationship with procedural justice theory

The community-oriented philosophy promoting positive relationships and cooperation between the police and citizens was intended to re-establish public trust in the Belgian police (Gill, Weisburd, Telep, Vitter and Bennet, 2014). To be precise, and without going into detail, the earlier traditional police models were found to be inefficient, ineffective and inequitable, which resulted in a reduction in public trust in the police (Van Altert, Enhus and Stol, 2009; Vande Sompel, Ponsaers, Vande Venne and Van Branteghem, 2003). It is therefore not coincidental that the five pillars on which community-oriented policing in Belgium is based are strongly connected with the four elements of procedural justice (voice, neutrality, respect and dignity, and trustworthy motives). Earlier research showed that public trust in the police is created by perceptions of procedural justice in particular, and to a lesser extent by perceived effectiveness – whether or not the police are able to fight crime and disorder. The procedurally just treatment of citizens by the police is therefore a seamless interpretation of the community-oriented philosophy.

The Belgian version of community-oriented policing is based on five pillars (D'haese and Van Grunderbeeck, 2009): (1) external orientation; (2) a focus on problem solving; (3) partnership; (4) accountability; and (5) empowerment.

External orientation refers to the need for the police to be integrated with and involved in the life of the community (Smeets and Tange, 2009). This means that the police have to take citizens' expectations into account when setting priorities. The police can only integrate into the community when they understand how members of the community live and work, and what kind of safety and crime problems the community is confronted with. Taking this position within the community means that the police and citizens will share the same values and norms, and will feel *morally aligned* with each other. The police will then be seen as a legitimate authority, which is strongly linked to the concept of procedural justice (see chapters III and IV). There is more or less a consensus about what kind of values and norms dominate in a society like ours. With regard to procedural justice, we can refer to the public's expectation that the police treat citizens with respect, in a neutral and trustworthy manner and that the police listen to what citizens have to say (Verwee, 2012). These are similar concepts, though with slight differences in the words used and how they are described, to the following fundamental values of the integrated police force: *impartiality, integrity, respect and a service attitude.*

A focus on problem solving refers to the need to identify and analyse potential causes of criminality in communities in order to act upon them (Smeets and Tange, 2009). To identify the factors at the root of a problem, the police can in the first instance *listen* to all parties

involved. The police can, by active listening, recognize underlying causes and act on them to avoid further escalation. Furthermore, this problem solving also shows that the police are acting according to *trustworthy motives*, as they are demonstrating that they want to make an effort to tackle problems.

The police must remain aware that they are not the only ones responsible for preserving safety and security in the community – they also work in *partnership* with others. The police can demonstrate their awareness of this by involving citizens and other institutions in their tasks. This demonstrates both their *willingness to listen* to others, and their commitment to *making the effort* needed to resolve problematic situations. An example of this would be contacting a social institution on their own initiative when they encounter a family living in substandard accommodation.

Accountability toward citizens makes police actions more transparent. The police can show that their decisions are based on legal grounds and not on subjective reasons or personal characteristics such as gender, age, ethnicity or social class. By giving an account of their actions, they can show that they are *neutral* in their treatment of citizens and *objective* in the decisions they make. The police are also accountable to the relevant authorities, which can impose disciplinary sanctions if inappropriate police behaviour is reported to them.

During their contacts with citizens, the police can *empower citizens* to deal with problems of safety and security. They can do this by *asking citizens about the situation*, by *active listening* and by making it clear that they *will take into account what citizens say*.

6. Methodology

Following the two main research lines regarding the role of procedural justice in the relationship between the police and citizens, survey data are used to answer research question 1 *'What is the role of trust in police procedural justice in the relationship between the police and citizens?'* and its sub-questions. Research question 2 *'What is the role of procedurally (un)just police behaviour during police–citizen interactions?'* with its sub-questions is answered using data collected from systematic social observations (SSOs) during ride-alongs with police officers from two local police forces in Belgium.

6.1. Surveys

Surveys are a convenient way to find out the opinions and attitudes of citizens and make a theory test possible. *"A survey can be seen as a research strategy in which quantitative information is systematically collected from a relatively large sample taken from a population"* (Hox, de Leeuw and Dillman, 2008 p.2). There is a long tradition of using surveys in criminology, with the first large-scale surveys carried out by Hirschi and Selvin (1967), amongst others.

In this doctoral study, a deductive analytical design was set up based on previous empirical research regarding procedural justice theory. The study examines whether contact experience with the police is an antecedent of trust in procedural justice. It then explores whether trust in procedural justice is an antecedent of citizens' perceptions of police legitimacy, their willingness to cooperate with the police and their willingness to comply with the law.

Method of analysis: structural equation modelling

The method of analysis used to answer the sub-questions related to RQ 1 is structural equation modelling (SEM). SEM makes it possible to explore the extent to which a specific theoretical model can explain the relationship between the observed variables. Structural equation models consist of (a) measurement model(s) for each latent variable and a structural model or path analysis. In this doctoral study, for example, the factor analytical constructed variables out of Tyler's theory are the latent variables. In the measurement model the relations between the observed and the latent variables are specified. The variables or items used in a factor analysis need to fulfil certain conditions, otherwise the factor analysis is not meaningful. First, the variables must be measured at least at interval level. Second, the number of respondents has to be satisfactory (rule of thumb: preferably at least ten times as many respondents as variables). Third, the sample must not be homogeneous (or the factor analysis does not provide clear factors), but at the same time, the sample must not consist of several subgroups (or the different factor structures will flow through each other).

Path analysis is based on multiple regression and offers the opportunity to *simultaneously model several related relationships*. This is interesting because a variable can be dependent in one relationship and independent in another. These variables are referred to as mediating variables (Muthén and Muthén, 1998–2012). The most important aim of path analysis is to clarify correlations between independent variables as predictors for the dependent variable. Path analysis only corroborates or falsifies theoretical assumptions provided by the researcher. It does not provide evidence of causality. However, depending on the sub-question, the focus of SEM was different.

In the following sections the survey datasets that were used to answer the first main research question and its sub-questions are described. Three survey datasets were used in the study (generally speaking, one for each sub-question).

6.1.1. Student survey 2009–10

We relied on a student survey in order to answer RQ 1a *'How can trust in police procedural justice be measured?'* During the academic year 2009–10 a questionnaire was administered to 1,079 university students. The data collection was carried out within the framework of a compulsory course in quantitative methods taught by the promoter of this doctoral research

to students in the second year of a bachelor degree in the criminological sciences at Ghent University. Students were asked to recruit other students to fill in the questionnaire. The academic staff provided the students with clear instructions on how the data must be collected. Students were told that the main aim of the study was to test the reliability and correlational validity of the scales used. Every student was especially instructed to conduct seven interviews and it was stressed that every student had to contact a wide variety of students, i.e. those enrolled at different faculties. They were told that homogeneous samples were to be avoided. Students were therefore only allowed to interview one other student enrolled in the criminological sciences. The interviewees could fill in the questionnaire and deliver it to the students after completion. Full confidentiality was guaranteed.

Here, the focus of the method analysis is on the measurement model of structural equation modelling. Namely, a latent variable approach is used to test the reliability and correlational validity of the scales used in the survey. This approach allows the modelling of non-random errors that may arise as a consequence of offering similar questions. The latent variable approach is specifically designed to gain insights into measurement models by studying the factor structure. Confirmatory factor analysis (CFA) was used to verify the factor structure of a set of observed variables. CFA allows a researcher to test the hypothesis that a relationship between observed variables and their underlying latent constructs exists. However, the researcher uses knowledge of the theory, empirical research, or both, postulates the relationship pattern a priori and then tests the hypothesis statistically. Structural equation modelling (*supra*) was used to test the latent structure of the confidence items. All analyses were carried out using LISREL 8.53 (Jöreskog and Sörbom 2003).[9]

6.1.2. European Social Survey 2010–11

In order to answer RQ 1b '*To what extent is trust in police procedural justice a predictor for perceived police legitimacy, and willingness to cooperate with the police and comply with the law?*' data from the European Social Survey (ESS), Round 5, were used. The ESS is an academically driven social survey that is repeatedly conducted and that maps the attitudes, values and opinions of the inhabitants of more than 20 European countries. Furthermore, the ESS strives for high methodological quality standards of surveys both in and outside of Europe. The ESS is known for being one of the highest quality surveys in which substantial effort is made to keep the response rates high and to guarantee the validity and reliability of the measurement instrument. In round 5, special attention was paid to two topics: (1) work, family and well-being: the implications of the economic recession, and (2) trust in the criminal justice system. The ESS contained all the variables needed to answer RQ 1b. It was therefore a unique opportunity to test procedural justice theory on high-quality data. Only the data of the 1,704 Belgian respondents were used. Here, the focus of the method of

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[9] More detailed information about the survey and method of analysis can be found in chapter II.

analysis is on the structural model or path analysis of SEM (*supra*). All analyses were carried out using LISREL 8.53 (Jöreskog and Sörbom 2003).[10]

6.1.3. SWING survey 2012

Data from the Social Capital and Well-being in Neighbourhoods in Ghent (SWING) survey 2012 edition (Wave 2), collected by research colleagues, were used to answer RQ 1c '*To what extent is contact experience a predictor for trust in police procedural justice?*'[11] The survey consisted of face-to-face interviews with 762 residents of 42 neighbourhoods in Ghent.[12] The researchers allowed the doctoral student to add several questions about procedural justice theory to their survey. The survey also provided information on social processes, quality of life indicators and socio-demographic characteristics at both the individual and neighbourhood level. Here, the focus of the method of analysis was on the structural model or path analysis of SEM. However, SPSS[13] 22.0 was used for some exploratory analyses and factor analyses. To answer RQ 1c, path analyses in MPlus (version 7.11) were used (*supra*).[14]

6.2. Systematic social observations

In order to examine whether or not police behaviour is a predictor for the behaviour of citizens during police–citizen interactions, enough data must be gathered to carry out the statistical test. The method used in this doctoral study is therefore quantitative in nature. More specifically, the method of systematic social observation (SSO) has been used to answer the second main research question and its sub-questions. The following section describes the SSO method and how it has been applied in this doctoral study.

6.2.1. Definition

The meaning of *systematic social observation* can be explained by considering the three elements of its name in reverse order. First, it is a method of *observation*, which is the selection, detection, registration and coding of behaviours or events with a scientific purpose. Second, if the set of behaviours or events relates to people, this is called *social*

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[10] More detailed information about the survey and method used can be found in chapter III.

[11] I would like to thank the following researchers for providing these data: W. Hardyns, V. Vyncke, L. Pauwels and S. Willems.

[12] 'Neighbourhood' is a statistical sector that comprises the smallest administrative unit of analysis at which demographic and socio-economic information is systematically gathered in Belgium and can be compared to the US census tract level (on average 1,319 residents/neighbourhood). Ghent is the third largest city in Belgium, 158 km^2 in size, with approximately 250,000 inhabitants (1,506/km^2).

[13] SPSS or *'Statistical Package for the Social Sciences'* is a statistical data processing program for the social sciences.

[14] More detailed information about the survey and the used method can be found in chapter IV.

observation. Third, social observation becomes *systematic* when the observation and registration follow explicit procedures that can be replicated. In this line of thought, researchers who measure respectful behaviour during interactions, for example, will have to define and describe such behaviour in detail so that every other researcher would code the same behaviours as respectful. Furthermore, the observation happens independently of the observed research object, meaning that a researcher will not be guided by the interpretation given by the research object (Mastrofski, Parks, Reiss, Worden, DeJong, Snipes and Terrill, 1998; Mastrofski, Parks and McCluskey, 2010). The added value of the method is that it makes it possible to describe the prevalence and frequency of phenomena and/or behaviours as they occur, and to test theories that offer explanations for these phenomena and/or behaviours.

6.2.2. The application of SSO in the doctoral study

Several steps were undertaken before the actual data gathering. Even the data processing occurred in several steps. The following steps can be identified: (1) a literature review; (2) the selection of 'who, where, when and what' to observe; (3) obtaining approval for carrying out the SSOs and asking for advice; (4) introduction to the field with attention to informed consent; (5) developing a manual and codebooks to process the observations systematically; (6) doing exploratory observations; (7) sampling; (8) data gathering (observing, making field notes, writing a narrative, coding); (9) leaving the field; and (10) analysing the data (Mastrofski et al., 1998; Van Damme, 2017).

6.2.2.1. Literature review

A thorough review of the literature was needed to gain insight into the possibilities of the SSO method in relation to the research topic. In this phase the following questions were addressed: Is SSO relevant to answer the second research question of the doctoral study and its sub-questions? If so, is it feasible to conduct SSOs within the prescribed time? What next steps should be taken? What are the advantages and disadvantages of using this method?[15]

6.2.2.2. Who, where, when and what to observe

After choosing SSO as a suitable research method, who, where, when and what to observe had to be selected (Mastrofski et al., 1998). Based on the theory of procedural justice and earlier empirical studies, the selection was made as follows:

- **Who?** Police officers and citizens with whom they interact.

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[15] Important methodological sources used in this phase of the study are: Mastrofski et al. (1998), Mastrofski et al. (2010), Spano (2007), Sykes (1978), Worden and McLean (2014b), Worden, McLean and Bonner (2015).

- **Where?** Within the department of intervention of a local police force in Belgium.
- **When?** During a work shift (morning, evening, night).
- **What?** The behaviour and background characteristics of citizens and police officers during their interactions with each other.

The answers above are theoretically driven and do not differ essentially from other empirical studies in which police–citizen interactions have been studied (e.g. Dai, 2010; Dai et al., 2011; Mastrofski et al., 1996; Mastrofski, Jonathan-Zamir, Moyal and Willis, 2016; McCluskey, Mastrofski and Parks, 1999; Worden and McLean, 2014a).[16] But the decision to conduct SSOs within the department of intervention of a local police force in Belgium was made for specific reasons. First, police officers in this department come into contact with all kinds of people (e.g. suspects, victims, witnesses, etc.). Second, police officers from this department are confronted with a wide variety of problems (e.g. burglary, a traffic accident, family problems). Third, the department of intervention is usually the first police department a citizen comes into contact with, because police officers in this department work reactively (responding to emergency calls) as well as preventively (patrolling). Studying both police officers' and citizens' behaviour during their first contact is interesting because they are not influenced by any prior contacts about the same case. Forth, the number of police–citizen interactions that are observed has to be high enough to make quantitative analyses possible. Although the number of citizens with whom the police come into contact during a shift is related to the time of year, the day of the week and the type of the shift (morning, evening, night), police officers in this department will inevitably come into contact with citizens.

6.2.2.3. Approval and advice

Before entering the field, several approvals were required to conduct the SSOs. First, the heads of the two local police forces had to agree to the presence of a researcher. Second, the attorney general of the Court of Appeal had to approve. Third, the Ethical Commission of the law faculty of Ghent University was asked for advice on the project. Forth, the research was registered at the Belgian Privacy Commission. However, the latter is a notification and not an approval.

6.2.2.3.1. Police

Selection of, and application to local police forces

Although local police forces follow the same regulations (e.g. the WPA and WGP), they may differ in terms of their policy (setting different priorities, having different core values, etc.). It was therefore decided that SSOs would be conducted in two local police forces instead of

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[16] Although some researchers focused on a specific group of citizens, for example suspects.

one. A metropolis (Everwood > 250,000 residents) and a medium-sized city (Springtown > 45,000 residents) were chosen.[17]

Approval had originally been requested from the heads of three local police forces in Belgium, which included Everwood. Two of these refused participation; one did not give a specific reason for the refusal, even when feedback was requested by telephone; the other said that their local police force appeared overburdened. During the period of observation the head of an additional local police force was asked to participate, but due to the increased threat level after the terrorist attacks in Paris in November 2015 he could not give his permission to participate in the study.

Springtown local police force was chosen based on a more practical reason. This choice was made after the head of the Everwood local police force had given permission to carry out the SSOs. At a seminar about the police where some findings of the first part of the doctoral study were presented, contact was made with a chief of police from Springtown local police force. This provided the opportunity to informally enquire whether or not the head of his local police force would approve participation in the study. Because the response was positive, a formal request was submitted to the head of Springtown local police force to carry out SSOs, which was subsequently granted.

Approval by the Everwood local police force

During a meeting on 13 May 2013 the head of the Everwood local police force indicated that he would only approve participation if the attorney general of the Court of Appeal of Everwood gave permission. He feared, partly due to circular R. 1/2011, that obtaining permission would be no sinecure. Circular R. 1/2011 of 12 January 2011 specifies what is permitted and what is forbidden for a student who wants to do an internship with a police force or an internship at the office of the public prosecutor. The circular was a response to the fact that, juridically speaking, it was possible that the presence of students at investigative actions could provoke disputes. Even though the doctoral study did not relate to an internship, the head of Everwood local police force expected a decision in line with the circular. There was a strong possibility that approval for doing the SSOs would be refused. A formal request to the attorney general of the Court of Appeal was required provide a definite answer.

Approval by the Springtown local police force

The final approval of the attorney general of the Court of Appeal and of his colleague from Everwood was sufficient for the head of Springtown local police to approve their participation in the research.

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[17] Because there is no valid reason to name these local police forces, and to maintain confidentiality, pseudonyms were used.

6.2.2.3.2.   Attorney general of the Court of Appeal

At the request of the head of the Everwood local police force, a formal letter was sent to the attorney general of the Court of Appeal of Everwood (see appendix 1). This letter contained a brief outline of the doctoral research and details about the aim and planned period for carrying out the exploratory observations and the actual data gathering.[18] A special request was made to validate the agreement of the Everwood head of police to SSOs being carried out within his force. The letter was signed by myself and the promoter of the doctoral research. It was sent on 16 May 2013. The approval of the attorney general of the Court of Appeal was received on 27 May 2013 (see appendix 2). However, the need for anonymity[19] was emphasized in the approval.

6.2.2.3.3.   Faculty Ethical Commission

In line with the ethical protocol of the University of Ghent, an application was submitted to the Ethical Commission of the Faculty of Law (FEC). The protocol states that there is no obligation to ask the FEC for advice. Instead, it is a service for those who want advice or who must present a (positive) advice. This research posed some ethical questions, so the FEC was asked for advice on 14 January 2015.[20] On 1 February 2015 the FEC requested additional information. The final approval from the FEC for conducting the exploratory observations and the systematic social observations was granted on 22 February 2015 (see appendix 3).[21]

6.2.2.3.4.   Notification of the Belgian Privacy Commission

During the SSOs, the behaviour of both police officers and citizens would be studied. Both police officers and citizens would, willing or not, be participants in the study. The need to ensure citizens' anonymity was evident from the very start of planning the SSOs. Writing down the citizens' identity would not contribute to the study, thus it was unnecessary. However, writing down the identity of the police officers was necessary, to make it possible to refer back to other observation moments in which the same police officers were observed. It was decided that the names would not be written down on field notes, work documents or narratives, but that codes would be used instead. Prior to the observations, an identification number was assigned to every police officer. Only I had access to the coding file. No other person could establish a link between events and the identity of the police

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[18] The observation period was postponed for personal reasons. The fact that the proposed dates did not correspond with the actual observation period was not a problem.

[19] It was already pointed out in the application that all information would fully be anonymised and that nothing could be linked to specific facts and/or people.

[20] Readers wanting to see the application (in Dutch) can email Anjuli.VanDamme@Ugent.be.

[21] The observations did not take place in the planned period due to my pregnancy and maternity leave. This is why there is a large time gap between the applications to the local police forces, the attorney general of the Court of Appeal of Everwood and the FEC. There is a greater risk when observing police activities during pregnancy, and the police themselves may not carry out interventions when they are pregnant.

officers who were observed. However, this meant that the Act of 8 December 1992 on the protection of privacy in relation to the processing of personal data was applicable to the study. Namely, article 1, paragraph 1 of this Act states that: *"personal data means any information relating to an identified or identifiable natural person, hereinafter the 'data subject'; an identifiable person is one who can be identified, directly or indirectly, in particular by reference to an identification number or to one or more factors specific to his physical, physiological, mental, economic, cultural or social identity."* Article 17, paragraph 1 of the same Act dictates that prior to the data processing, a researcher or a representative must notify the Belgian Privacy Commission. Paragraph 9 of the same article points to the fee that must be paid when the Commission is notified. The Belgian Privacy Commission was notified of the study on 22 January 2015. On 12 February 2015 a letter was received confirming the publication of the notification. At that time, the notification could be consulted in the public register of the commission (www.privacycommission.be) (see appendix 4). This notification is not an approval, but more an announcement to the people involved so they know who might processes information about them.

6.2.2.4. Introduction to the field

When the necessary approvals had been obtained, I had to introduce myself and the study to the participants. First, this was done at the highest level, namely to the heads of the participating local police forces and their policy advisers. In both local police forces, this had been done when approval was sought. Second, a personal introduction was made to the heads of the department of intervention. Third, I introduced myself and the study to the police officers of the department of intervention. How this was done differed between both local police forces.

Introduction at Everwood local police force

At Everwood local police force, the *peloton*[22] of police officers with whom the exploratory observations would take place were informed during a general meeting. This was arranged with one of the policy advisers in consultation with the head of the department of intervention.

At the start of the data gathering, the introduction to the other *pelotons* took place at a general meeting or just before the observation moment took place. This depended on the preference of the chief officers concerned. In consultation with the head of the department of intervention, the chief officers of the teams in which the observations would take place were emailed and asked to pick a date to introduce the study. Some of the chief officers opted for an introduction beforehand where every team member was present. Others were

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[22] The department of intervention at Everwood is divided into several groups of police officers. These groups are called *pelotons*. Every *peloton* is further divided into four teams (of around 10–12 police officers), each led by a chief officer.

happy to meet me on the day of the planned observation so that I could introduce myself and the study just before the start of the shift.

Introduction at Springtown local police force

The introduction was carried out in a slightly different way at Springtown local police force. I was initially invited by the head of the department of intervention to introduce myself and the study. The police commissioner then picked a date for conducting the exploratory observations. He suggested that the introduction should be done at the meeting just before the start of the planned shift. This approach was also suggested for when the data were being gathered.

6.2.2.4.1. Checklist

It was important to keep the introduction as brief as possible, without forgetting anything important. Therefore, a checklist was prepared with all the necessary information, in particular the aim of the study and the method used. When introducing the study, I told the police officers I would join and observe them during their shift and that I would take field notes. I emphasized that participation was totally voluntary and that anonymity was promised. I also promised that all events during an observation or anything the participants told me would remain confidential. I emphasized that I wanted to affect the police officers as little as possible during their work. I also emphasized my awareness of my own safety (e.g. the need for a bulletproof jacket) and told the police officers that they would be able to exclude me from situations that were potentially dangerous. To end the introduction, all participants received an information letter and were asked to sign an informed consent document.

6.2.2.4.2. Informed consent

Although I did not want to influence the work of the police officers, it required some effort by the police officers to make the study possible. It would have been impossible to conduct the SSOs if they did not accept my presence. Therefore, all participating police officers were given an information letter (see appendix 5) and were asked to sign an informed consent document (see appendix 6). The *information letter* contained a short explanation about the aim of the study and how the observations would proceed. The risks and advantages of participating were also described. Confidentiality was again emphasized in the letter, as was the possibility of excluding me from certain dangerous situations. The letter ended with contact details for me and the promoter, and for the Commission for Research Integrity of Ghent University in case participants had complaints about suspected misconduct relating to the scientific integrity of the study. The *informed consent* document contained the following statements: (1) that the information letter had been read and that additional information

could be obtained at any time; (2) that participation was totally voluntary; (3) that participation could be ended at any time; (4) that the participant gave permission for all gathered information to be processed and reported anonymously; (5) that the participant could request a summary of the research findings.

6.2.2.5. The development of a manual and codebooks

When the approvals had been obtained, I started to develop a manual for conducting the SSOs and measurement instruments (or codebooks) so the observations would proceed systematically. Inspiration for this manual and instruments was found in earlier SSO projects studying police–citizen interactions (e.g. Mastrofski, Reisig and McCluskey, 2002; McCluskey, 2003; Reiss, 1971; Jonathan-Zamir et al., 2013; Worden and McLean, 2014a). In the summer of 2015 Prof. Dr. Mastrofski, who is an expert in the field of SSO, was asked to teach a specialist course in conducting SSOs at Ghent University. All this led to the manual for conducting SSOs (which is based particularly on the manual used in the POPN study[23]) and the development of the necessary instruments to register and code all the information that would be gathered during the observations.

The SSO manual

The SSO manual, which explained how to conduct the observations, contained a list with steps that needed to be taken during an observation moment, a list of necessities (such as a notebook, a pen, etc.), a clear definition of the important concepts, and guidelines about hypothetical difficult situations. Although I was the only one who would observe during the actual data gathering, this manual was necessary for several reasons. First, the manual makes it possible to replicate the study. Every other researcher would be able to observe, register and code future SSOs in the same way as I in the present study when replicating it. Second, following procedures is typical of this method. A researcher has to work in a consistent manner, and concepts have to be interpreted in the same way in each situation. Furthermore, an observer should react in the same way in similar situations. Third, an observer can quickly refer to the manual to find out how to react in a difficult situation, for example if a citizen starts talking to them as an observer. However, not every hypothetical difficult situation has a ready-made solution, or could be described in the manual.[24]

Registration and coding

The SSO manual described the steps I needed to take when conducting the SSOs. SSOs always follow specific procedures to gather data. These procedures always begin with taking

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[23] POPN stands for Project on Policing Neighborhoods, which is a study from 1996 to 1998 on the initiative of the United States Department of Justice and led by the following academic experts: Mastrofski, Worden, Parks and Reiss. The manual used in the POPN study was itself an improved version of manuals from earlier SSO projects, and it is still used to this day for new SSO projects.

[24] Readers wanting to see the SSO manual (in Dutch) can email Anjuli.VanDamme@Ugent.be.

field notes during the observation moment, go through writing down a narrative about what was observed and end with coding the observation moment using one or more instrument(s) (or codebooks) that take(s) the form of (a) questionnaire(s), most of the time directed to the observer (Mastrofski et al., 2010).

In the present study the steps of registration and coding were planned as follows:

1. Make field notes during the observation moment.
2. Fill in a worksheet about the observation moment.
3. Write down a narrative about the observation moment.
4. Code the observation moment using codebooks on the level of:
    a. the ride;[25]
    b. the intervention;[26]
    c. the citizen.[27]

To clarify:

During the observation moments, *field notes* are made. These are short notes about what is observed and are related to the research topic (situations, behaviours, facts, etc.). These notes are useful to refresh the observer's memory when a worksheet has to be filled in (see appendix 7) and when a narrative about the moment of observation has to be written. One *worksheet* is related to one observation moment (or ride). This sheet contains the characteristics of the interventions during one ride (facts, locations, etc.), and for each intervention it contains information about the citizens with whom the police interact (their role, age, ethnical background, etc.). In this worksheet every ride, intervention and citizen is given a unique number. These numbers are retained in the written narrative and the coding.

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[25] A ride is every observation moment starting and stopping with the (previously) randomly selected police officers. If there is a change during the observation moment in (the composition of) the originally selected police officers, this is classed as a new ride. Normally, a ride corresponds to an eight-hour work shift. However, when one of the police officers falls ill or asks for a few hours off, the duration of a ride is less than eight hours. When police officers have to work overtime, or in case of overlap, the duration of a ride is more than eight hours. Overlap means that police officers start one hour or more before the original start hour of a work shift. The aim of overlap is to restrict overtime from the teams going off duty.

[26] Or, as described in other studies, the encounter level. There are three kinds of interventions, but it was decided that only full interventions would be coded. A full intervention is an event where (a) citizen(s) and the police communicate with each other about a case or a police case for at least three minutes. Or the communication includes at least five verbal exchanges. When physical force is used, this is considered as a full intervention. It was decided not to code short interventions or informal interventions. Short interventions are those where the police and (a) citizen(s) only communicate(s) for less than three minutes or when the communication includes fewer than five verbal exchanges and where no physical force is used. During an informal intervention, the communication has nothing to do with police work (e.g. talking to a friend, talking about the weather).

[27] This refers to the interaction between the police and a specific citizen. A citizen is an individual who has a problem or causes a problem whereby police attention is required. In line with the definition of a full intervention, a 'full citizen' is a citizen who communicates with the police about a police case for at least three minutes or when the communication includes at least five verbal exchanges or when physical force is used. It was decided that the coding would only be done for a full citizen.

The field notes, worksheets and the observer's recollections form the basis of the written narrative about the observation moment. Only when these steps are taken can coding begin.

In order that the data gathered during the social observations can be systematically processed, three measurement instruments or codebooks were developed based on earlier SSO projects (Dai, 2010; Mastrofski, Parks, Worden and Reiss, 2007; Jonathan-Zamir et al., 2013). However, new elements related to procedural justice theory were added to the instruments, and suggestions for improvement were made by Jannie Noppe and Dr. Maarten Van Craen.[28] As in earlier SSO projects concerning police–citizen interactions, codebooks on three levels were developed: a ride instrument, an intervention instrument and a citizen instrument.

The ride instrument contains questions directed at the observer about the characteristics (e.g. gender, age, ethnical background, rank, etc.) of the police officers being observed during the ride. It is possible for several interventions to occur during one ride, and an *intervention instrument* must be completed for each full intervention. This instrument contains questions about the characteristics of the intervention, such as what kind of problems the intervention is related to, the location, etc. The police may interact with several citizens during one intervention, and a *citizen instrument* must be completed for each full citizen with whom the police interact. This instrument contains questions directed at the observer about the citizen's characteristics, the citizen's and the police officer's behaviour toward each other, etc.[29]

It was decided that up to five interactions with full citizens would be coded during one intervention, because coding more could increase the probability of coding errors. Namely, the opportunity to make field notes during an observation moment is limited, so coding more interactions could increase memory errors. It is a logical assumption that the more interactions with full citizens during one intervention, the greater the chance of memory errors.

6.2.2.6. Exploratory observations

Before the actual data gathering, 128 hours of exploratory observations were conducted in the period from April 2015 to June 2015. Table 1 shows the number of exploratory observations for each local police force (LPF) per shift.

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[28] Jannie Noppe is a close colleague. Her doctoral research is about the professional judgements of Belgian police officers on the use of force. Dr. Maarten Van Craen is a postdoctoral researcher at the Catholic University of Leuven and an expert in the field of procedural justice research.

[29] It was decided to not add the three instruments in the appendix because it would have increased the number of pages of this doctoral study extensively. A reader interested in receiving these instruments (in Dutch) can email Anjuli.VanDamme@Ugent.be.

Table 1: Exploratory observations (April–June 2015) (n= 16)

	Morning	*Evening*	*Night*
LPF Everwood	1	7	6
LPF Springtown	/	1	1

6.2.2.6.1.   Purposes

The exploratory observations had the following purposes: (1) to get to know the participating police officers; (2) to finalize the codebooks; (3) to test the coding of the different shift types; (4) to trial how to collect the data; (5) to set the timing between the observations. The following text clarifies these purposes and describes how they were applied in the study.

Getting to know the officers, *chief officers and police commissioners* provided the opportunity to build a confidential relationship with the participants. This was necessary since it was very important that every police officer would act as they normally did. Furthermore, the police domain is known as a closed world that does not easily allow access to outsiders. The exploratory observations provided an opportunity for police officers to get used to my presence so they would consider me less of an outsider when the data gathering was carried out. Access to this setting was also easier because in the past I had been a police officer trainee. The heads of the department of intervention in both local police forces were convinced that if the participants were told this it would lower the threshold of acceptance. Lofland and colleagues (Lofland, Snow, Anderson and Lofland, 2006) pointed out to the advantage of this *'selective competence'*, namely that participants would feel more comfortable and connected with the researcher.

Although the codebooks are based on empirical research, it was still necessary to *test whether or not they were applicable* in the Flemish setting. The codebooks were examined on their utility after each exploratory observation. In addition, Prof. Dr. Antoinette Verhage[30] joined me for one exploratory observation moment. After this observation moment, Prof. Dr. Verhage and I discussed how the codebooks had been filled in. Based on Prof. Dr. Verhage's comments, some improvements were made. It was especially due to her comments that the citizen instrument was shortened.

In addition to their patrol job and reacting to emergency calls, the police officers in the department of intervention also have other *types of work shifts*. During some shifts, police officers are responsible for the reception desk at the local police building or have palace service.[31] In Everwood, there is also a team that patrols and intervenes in a nightlife area

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[30] Prof.dr. Antoinette Verhage teaches police courses at the University of Ghent.
[31] Palace service refers to the transport of prisoners (e.g. from prison to court), maintaining order in courts and supervision of cells in a court of justice.

(but only at busy periods),[32] a team that is responsible for supervising the cells, and a team called 'vulnerable'.[33] Before the exploratory observations were carried out, it was decided that the police officers who were providing palace service would not be observed, because during these shifts police officers hardly ever communicate with citizens. Furthermore, the exploratory observations made it clear that it would be difficult to include observation moments for a team responsible for the reception desk, especially because in a lot of cases it was not the sampled police officers who followed up the cases that the citizens came to the reception desk about. For example, a lot had been asked by other police officers to attend for an interrogation, or they came to report something (e.g. missing papers, a missing person, etc.) and were directed to a colleague. All this made the coding very difficult. It was possible to code a ride with a party team or a team responsible for the supervision of cells, and so these types of shifts were included in the research. No exploratory observation moment was planned with a 'vulnerable' team. However, the task of this team is to patrol around vulnerable places, which does not differ that much from the 'normal' intervention tasks. It was therefore clear that coding such a ride could be achieved without testing it during an exploratory observation.

One of the purposes of the exploratory observations was to *establish the best way to collect information*. Although a manual was used, it was also necessary to experience first-hand the best method to collect data. Prof. Dr. Mastrofski's specialist course taught that making field notes could influence the participants' behaviour. Making extensive notes would cause them discomfort. Furthermore, it could distract the observer and prevent them from observing what is happening. And above all, it could trigger the citizens' curiosity, which could make it more difficult for the police to do their job. However, these factors were not experienced during the exploratory observations. Compared with the observation moments when no field notes were made, police officers did not behave in a different way when extensive field notes were made. Some of the observed police officers asked what I had written down. I always responded to them, and I showed them the field notes when the notes were related to the officer who had asked about them. I also asked the police officers whether or not they were comfortable with me making extensive notes. No police officer reported having a problem with it. Furthermore, during the exploratory observations, very few citizens commented on me making field notes, so even this was not considered to be a stumbling block. I developed a fast writing style with a lot of abbreviations so I could observe and make notes at the same time.

The exploratory observations made it clear that the *duration between two observation moments* needed to be at least one full day. It usually took more than eight hours to process the data of just one ride. Furthermore, it was found that very intense observation could lead to assimilation with the setting. In the literature this is called the risk of '*going native*' (Mastrofski et al., 2010). This could obstruct objective data gathering.

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[32] I will refer to this team as the 'party team' further in this study.
[33] This team of officers is responsible for patrolling vulnerable places such as schools or mosques.

6.2.2.6.2. Scheduling

In Everwood, the head of the intervention department and I decided that police officers belonging to the same *peloton* should be observed during the exploratory period. It was not necessary for the samples obtained during the exploratory observations to be randomly chosen, so I decided to let the police commissioner choose the *peloton*. This was done because they did not know me and at this stage it was very important to gain trust and maintain good contact with the gatekeepers. Forcing them to observe in other *pelotons* too would not have been a good choice. Some dates were jointly selected, bearing in mind my teaching tasks at the university. The exploratory observations were planned especially during the Easter holidays. In Springtown, the head of the intervention department also selected two dates for the exploratory observations. During these two observation moments the same police officers were on duty.

6.2.2.7. Sampling

The participating police officers had to be randomly selected for the study. If participants had been assigned, it would not have provided a representative sample of police officers. It is possible that superiors would have opted to assign those police officers that they have the most confidence in and that they believe are exemplary in dealing with citizens. The importance of a randomly selected sample had to be communicated to the superiors in a tactful way. How the sampling was done differed between both local police forces.

Sampling at Everwood local police force

A policy adviser and the head of the intervention department agreed that I could determine, by way of random sampling, which police officers I would observe. Therefore, a list of police officers in the department was provided. All the names were manually entered in SPSS and with the help of the program a random sample of 25 police officers was drawn. The permanent team partner of these 25 police officers was automatically added to the sample. I informed the head of intervention which police officers had been included in the sample. With the approval of the police commissioner, I then emailed the chief officers of all police officers in the sample, to inform them who had been included. With the approval of the chief officers, the police officers in the sample were then informed via email that they were part of the sample.

Although several of the sampled police officers were suspicious and most were worried about my safety, only one flatly refused to participate. I accepted this refusal, and asked the reason why. The police officer told me he did not want to be responsible for me if something

happened. Emphasizing the safety precautions[34] that had been made in advance did not convince this police officer to participate.

The time at which police officers would be observed depended on the planning. Every possible shift (morning, evening, night) on every possible day of the week would be observed. At least eight hours of data processing time were calculated between the observation moments. Depending on my other tasks at the university, two, three or four observation moments per week were scheduled. The observation moments were picked out randomly, and then I checked whether any police officers from the sample were on duty at that time. In order to find out whether any police officers from the sample had been selected, I received the duty schedule of all the *pelotons* for the entire observation period. Each month an observation schedule was made. Each schedule was sent to the head of intervention for his approval. When he had approved it, the relevant chief officers and police officers were informed. On a few occasions, rescheduling was necessary because the selected police officers were absent. Very rarely, the schedule had to be rearranged when I was already at the police station; this was due to the absence of the selected police officers, although they had been informed about me joining them on duty. On these occasions I asked whether another police officer from the sample was on duty. If so, this police officer was asked if it would be possible for me to join his/her team during the shift. If not, a team was picked out randomly on the spot. Therefore, I relied on the goodwill of the police officers. I was aware that police officers will not automatically allow an outsider to observe their job without being thoroughly informed of the study. Luckily, I had already become a familiar face in the police station corridors, so there was never a serious problem and all observation moments could take place.

Sampling at Springtown local police force

Sampling within the local police force of Springtown was carried out in a slightly different way. Due to the large number of police officers in the department of intervention in Everwood (> 250), a sample had to be drawn based on the identity of the police officers. This was necessary because I had to observe the same police officers during several observation moments so that they would become familiar with my presence. A purely random selection of observation moments would not be workable with the Everwood local police force. In contrast, at Springtown local police force random selection was a workable option. A much smaller number of police officers work at Springtown's department of intervention (around 45), so the likelihood that the same police officers would be on duty when randomly picking observation moments was quite high.

The duty planner and the head of intervention were always informed about when they could expect me to observe. In their turn, they informed the chief officer on duty. Because they do

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[34] One of the safety precautions was wearing a bulletproof jacket. Furthermore the police officers were told that they could ask me to stay in the car when they thought a situation was not safe. I also stated that I would take myself to a safe place if a dangerous situation occurred.

not work with fixed teams (pairs) in Springtown, it was decided that I would join a team that included at least one police officer who had already been observed. If all the police officers were unknown, the first team on duty was chosen.

6.2.2.8. Data gathering

The actual data gathering took place from mid September 2015 to the end of January 2016.[35] Table 2 gives an overview of the number of SSOs that were conducted per shift for each local police force.[36] In total, 38 shifts (about 318 hours) were observed: nine in the morning, 17 in the evening and 12 at night.[37] Thirty-four were with pairs (21 male pairs, 12 mixed pairs and 1 female pair), three were with trios (all males), and one was with a team of four (three male police officers and one female police officer). In total, 44 different police officers were observed, and 20% of them were female. The officers' ages ranged from 21 to 53. All of them had a Belgian ethnic background. Some were at the start of their career, while others had more than 15 years of experience.

Table 2: Actual SSOs (September 2015–January 2016) (n= 38)

	Morning	*Evening*	*Night*
LPF Everwood	7	12	9
LPF Springtown	2	5	3

The following section describes how the SSOs were conducted. Attention is paid to the terrorist attacks in Paris of November 2015. The attacks happened during the observation period and it felt like they had an influence on the police officers' work. Additionally, attention is paid to some difficulties, pitfalls and ethical dilemmas that arose while conducting the SSOs.

6.2.2.8.1. Approach

I always made sure I was on time before the start of each observation moment. At first, I had to report to the reception desk at the Everwood local police station. A police officer then accompanied me to the premises of the *pelotons*. But, after a while, I became a familiar face and was allowed to go directly to the premises of the *pelotons*. The same thing happened at

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[35] Observations took place during the week and at the weekend.
[36] During the actual data gathering, the shifts and rides ran parallel, that is why they can be considered as synonyms later in the study.
[37] One was an observation of a team guarding the cells, one of a party team and one of a 'vulnerable' team. All the other observation moments were with police officers who had a 'normal' intervention duty.

Springtown local police station – at first, I always had to report to the reception desk, but after a while I obtained permission to go directly to the meeting room.

At Everwood, I had a visitor's badge that I had to wear when I was at the police station. At Springtown this was not necessary. At both local police forces I was able to borrow a bulletproof jacket. At Everwood I obtained the jacket from the head of intervention at the beginning of the observation moment. At Springtown, I borrowed the jacket of any police officer who was not on duty at the moment of observation. Because of the increased threat level, the bulletproof jacket had to be worn all the time when leaving the police station.

The police officers who were observed always tried to provide a passenger car for my comfort. On a few occasions I had to ride along in a police van, which was very uncomfortable.[38] Some of the police officers insisted that I took a police radio with me. This allowed me to follow the radio contact, and in case of emergency I could use the radio to ask for help.

Before each observation moment, agreements were made with the participating police officers about how the observations would progress. In the case of new participants, I informed them about myself and the study. However, after a while it was striking that although I had no previous contact with some of the police officers, they already knew about me. For example, within the Everwood local police force, one of the *pelotons* made me very welcome. This was because some police officers from other *pelotons* had already talked to them about me. This made introductions with new participants a little easier.

The police officers were followed for every moment of the ride. If they were charged with a task, I rode along with them. When an interaction with a citizen occurred, I followed the sequence of registration and coding from the SSO manual: (1) making field notes during the interaction; (2) filling in a worksheet; (3) writing down a narrative; (4) coding with the use of the ride, intervention and citizen codebooks. When something was not clear to me, the police officers were asked for clarification. This could also be related to a particular interaction. For example, I asked on several occasions why police officers took a certain decision. This was asked after the interaction took place. When police officers had to do paperwork, I started to process the field notes in worksheets and narratives on my own laptop. But this was usually interrupted by an urgent call. During most of the observation moments, there was no opportunity to begin processing the observations. In most cases the data processing happened immediately after the shift, or the day afterwards. But the rule was that everything had to be processed within 24 hours of the observation moment. Furthermore, no other observation moment could be started when the data processing of the previous one was unfinished.

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[38] The biggest disadvantage of riding along in a police van is the difficulty in communicating with the police officers. Luckily, most of the time when there was not a passenger car available, the police officers tried to get one after a few hours on duty.

The end of the observation moment occurred when the observed police officers went off duty. When they had to work overtime, so did I. This happened a few times.

6.2.2.8.2.   The influence of the terrorist attacks in Paris, November 2015

The data gathering took place from September 2015 to January 2016. In the evening and night of 13 November 2015, Paris suffered several terrorist attacks.[39] On 14 November an observation moment was planned during a night shift and on 17 November one was planned in the evening. The latter was particularly memorable to me. During the night shift of 14 of November, the prevailing atmosphere among the police officers was one of anger, and not much was known about the identity of the terrorists. During the evening shift of 17 November, the atmosphere was different. At that time there was a huge search on Belgian territory for all those involved in the attacks. This resulted in stricter rules for the police because of the increased threat level. Several police officers and I feared for the continuation of the study. However, the superiors reassured me that I could continue my data gathering, but they also told me that if I had been at the start of the SSOs, I would probably have had to cancel the study.

During the evening shift of 17 November, I inferred from several conversations with some participants that the police officers' families were concerned about their safety. During the meeting at the start of the shift, a lot of time was spend discussing the probable identity of the terrorists, the cars they probably drove, etc. It was clear that the terrorist attacks were top priority. I also had the feeling that the police officers were on high alert. Also, the nature of calls from citizens who were concerned about issues they thought might be related to the events in Paris was striking, especially during this evening shift but also during some later observation moments. For example, during these observation moments, a lot of citizens reported suspicious packages and/or suspicious persons. During the earlier observation moments, this was not the case. To illustrate: *17 November, security personnel of a Court of Justice reported a suspicious male person whom they thought was taking pictures of the Court of Justice. They told the police that they were afraid of a terrorist attack. The police used all available means to locate the suspicious person. The man was stopped and identified. He could not speak Dutch at all and also his English was very bad. Meanwhile, the number of police officers and chief officers at the scene increased. The police did a body search and they asked the man for permission to conduct a house search. Afterwards, the man was taken to the police station. Only at this stage did the police ask the person for the cell phone that had been used to take photos. When they saw the pictures that the man had taken, it was clear that he had only taken 'selfies' with the street where he lives in the background. No photos had been taken of the Court of Justice.*

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[39] During six terrorist attacks in Paris, 130 people died and more than 350 were wounded. Most of those who died were killed in the Bataclan theatre. The attacks were claimed by the terrorist group Islamic State.

It felt as if the actions of the police and the reporting behaviour of citizens were overshadowed by the terrorist attacks in Paris. It is likely that this also influenced the results of the study. After all, the behaviour of both the police and citizens could be influenced by the terrorist attacks during several interactions. To illustrate: *perhaps, if the attacks had not happened, the security personal of the Court of Justice would not have reported the suspicious person. And if they had done so, the police may have acted less firmly toward the person. Of course, this is only a strong impression of myself and it cannot be proven. However, because the attacks were possibly influential, I believe it is important to mention this.*

6.2.2.8.3.   Difficulties and pitfalls

There are some difficulties and pitfalls that go hand in hand with conducting SSOs, which also arose during this study. It is important to mention them as they can have an impact on the results of the study.

First, carrying out SSOs and processing the data are both very *time consuming*. Enough data has to be gathered so that: 1) the prevalence and frequency of certain phenomena and/or behaviours can be estimated; and 2) a theory can be tested. However, the number of citizens that a police officer interacts with during a ride is *unpredictable*.[40] Therefore, enough observation moments had to be scheduled, and at least as much time as the duration of the ride had to be allowed for to process the data (including writing a narrative, filling in a worksheet and coding).[41]

Second, the method of systematic social observation is supposed to measure in a more objective way than surveys, but the *researcher's subjectivity* cannot be fully excluded. It can be difficult to code other people's behaviour, and to understand what is being observed. However, in this study the observer tried to strengthen the validity of the study by using explicit observation protocols, training (following a course and doing exploratory observations) and asking other researchers for advice (at one point, a colleague joined an observation session).

Third, and related to the previous point, is the danger of *'going native'* (Mastrofski et al., 2010; Mastrofski, 2014; Spano, 2005). This means that the observer feels part of the group being observed and becomes less aware of his/her role as a researcher. In other words, he/she becomes too involved (Scheirs and Nuytiens, 2013). This is a danger for the objectivity of the researcher; when the bonds created in the observed setting become close, a researcher cannot maintain enough distance from the participating subjects, which results in him/her losing the ability to judge the subjects' behaviour objectively (Zaitch, Mortelmans

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[40] In the present study, for example, during some shifts only one interaction with a citizen was observed, while in another shift 13 were seen.
[41] One eight-hour ride (or sometimes longer) required more than eight hours of data processing.

and Decorte, 2016). However, it is necessary to build trust – and even friendship – so that participants act normally, making it possible for the observer to do his/her research tasks (Demarée, Verwee and Enhus, 2013). The best position for a researcher is to become a 'trusted outsider' (Zaitch et al., 2016), which reflects a balance between becoming an insider and remaining an 'objective' outsider. Finding that balance is not always easy, especially when a researcher is challenged by the observed participants to do something that is not compatible with a researcher's role (see also the section on ethical dilemmas below). In the present study the following actions were taken to prevent myself going native: 1) self-reflection (being aware that this pitfall exists); 2) talking with colleague researchers about ethical dilemmas regarding going native; 3) asking a colleague to join an observation moment and reflect about my behaviour in the setting; 4) leaving enough time between two observation moments; 5) being physically present on a regular basis at the university. Actions 4 and 5 made it possible for me to oversee the events in the setting in a more detached way (Zaitch et al., 2016).

Fourth, there is the pitfall of *reactivity* (Mastrofski et al., 1998; Mastrofski et al., 2010; Spano, 2007; Worden and McLean, 2014b). This means that the observer has an influence on the observed situation. This could lead to incorrect estimates of the prevalence and frequencies of certain behaviours (Worden and McLean, 2014b). Police officers, for example, could exhibit some behaviours (more) and other behaviours less, or not at all. In this research, they may act in a more friendly way toward citizens, in order to make a good impression on me as the observer. Or maybe the explanation can be found in the Hawthorne effect, in which knowledge that they are participating in a study makes an individual feel special, which increases their productivity and a desire to show how well they are doing their job (Franke and Kaul, 1978). In his research about reactivity and its effect on police behaviour, Spano (2007) found that police officers did sometimes act in a more proactive way due to the presence of the observer, either to show off or because they were worried that the observer would get bored during the ride-along. But he also found that in some situations police officers acted less proactively due to the presence of the observer, because they were distracted, concerned about safety, and/or self-conscious about the presence of the observer. In the latter case, he found that police officers were worried that observers were going to judge them by critiquing their decision-making. However, reactivity during observations is unavoidable, even when participants are asked to act as normally as they can. An observer always has a certain level of influence on the situation due to his/her background and history (Scheirs and Nuytiens, 2013). As England (1994, p. 85) states: *"A researcher is positioned by her/his gender, age, race/ethnicity, sexual identity, and so on, as well as by her/his biography"*. In the present study, it felt as if the participants more easily accepted me partly because I am female. It is assumed that participants perceive female researchers as unthreatening (or less threatening) compared to male researchers (Scheirs and Nuytiens, 2013). But being a young female researcher doing observations in a police setting, which is generally considered a masculine, even macho environment, is not always easy (Claeys, Dumortier and De Kimpe, 2015). In the present study, the participants were

very curious about my personal (love) life. They sometimes teased me by telling jokes about my blond hair, being a tall woman, etc. Overall, I felt that my gender and age were more a benefit than a hindrance to the fieldwork. I was also very open about my short experience with the police. In 2009 I started training as a police officer at the police academy of Ghent, but I interrupted this training to do a doctoral study about the police. Instead of the expected reaction – *"Oh, she thinks she is too smart to become a police officer"* – it felt like this created a 'bond' with the participants. I also felt that my enthusiasm for police work was helpful in being accepted by the participants. During the ride-alongs I asked questions about police work, sometimes regarding banal matters. But it felt as if adopting this attitude of 'learner' resulted in being seen as quite inoffensive (Mastrofski et al., 2010). Gaining trust led to the participants feeling safe with my presence. After all, as Mastrofski et al. (2010, p. 236) state, *"research subjects often habituate to the presence of observers over time."* It felt like most of the participants accepted me very easily, while others were more suspicious at the beginning. But after a while it seemed like I became part of the setting, which decreased the level of reactivity.

The following experience is an illustration of being accepted in the setting:
During the first four hours of a ride, a photographer from a newspaper joined two police officers and me. I felt that the police officers were acting really differently during these four hours than during the earlier ride-alongs. When the photographer left, police officer Tom[42] felt relieved and said: "Aaaah, now we can be ourselves again". Police officer Tom told me that he and his partner had agreed beforehand about what (not) to say during the ride with the photographer. I asked: "Did you also do this when I came along for the first time?" He answered: "Yes, but we trust you now."

Fifth, codebooks used in SSO studies cannot fully cover *the sequence in which behaviour arises* (Dai, 2010; Worden and McLean, 2014b). In most SSO studies, the codebooks contain information about what kind of behaviour the police and citizens exhibited, but not when in the encounter these behaviours where observed. When testing procedural justice theory it is important to take this into account when interpreting the results, because we believe that behaviour is the result of action and reaction. Following the hypotheses distilled from procedural justice theory, we assume that the behaviour of the police might affect the behaviour of citizens, but the reverse can also be true. We believe that the progress of an interaction cannot fully be captured in a citizen instrument even when it includes who initiated the behaviour. Therefore, the narratives could be studied in a qualitative way. However, we believe that the police must always try to act in a procedurally just way, and never in an unjust way, because of their function in society.

Sixth, there is only *a limited generalizability* of the results. Statements can only be made about the department where the observations took place. What is more, this can only be done when the sample of participants is representative. In the present study SSOs were only

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[42] Only fictional names are used.

carried out in two local police forces in Belgium, and the analyses were only based on 284 police–citizen interactions. Although it is thus not representative of the Belgian police, we agree with the statement by Worden and McLean (2014a, p. 488) that *"observational research is not of inferior external validity compared to other forms of research"*.

6.2.2.8.4. Ethical dilemmas

Next to the difficulties and pitfalls that arise when conducting SSOs, a researcher can be confronted with some ethical dilemmas. Some are related to the pitfalls that were described above. However, these dilemmas do not have a ready-made solution. A researcher always has to balance the pros and cons of every possible reaction to the dilemma (Scheirs and Nuytiens, 2013; Claeys et al., 2015). The following sections describe the (most difficult) ethical dilemmas that I faced, and how I dealt with them. I believe it is important to mention them because these ethical dilemmas sometimes overshadowed the research. I was always questioning myself and my study, and I describe them in order to be transparent about the choices I made in some difficult situations.

1) *The principle of informed consent*

I faced an ethical dilemma even before I conducted the SSOs. A researcher who applies the principle of informed consent and thus is fully transparent about the aims of the research increases the risk of encouraging socially desirable behaviour (Wouters, Loyens, Maesschalck and De Schrijver, 2014). Hence, I was concerned about explicitly mentioning in the information letter that I would be observing the police officers' behaviour toward the citizens. I was therefore a little vague and wrote that I planned to join the police officers during their shift to observe their interactions with citizens, and that I wanted to observe the situation, as well as the participants and their behaviours. Luckily, I could ask the FEC for advice about this ethical question. The FEC replied that not explicitly mentioning the aim of the research would mislead the participants. I then clarified my intentions to the FEC in an additional letter. I wrote that it is not my intention to misinform the participating police officers. I clarified that I intended to mention the aim of the research in the information letter, but in a simplified manner. Regarding the non-academic background of most police officers, this seemed to be the most appropriate way. Furthermore, I explained that I would be more open about the research when introducing myself and the study to the participants. This of course meant that police officers knew that their behaviour toward citizens would be studied during the observations. Furthermore, it was made clear that the police officers could ask for more information about the research. I decided to be very open about the research to the participants because I really needed to be trusted by them.

2) *Introduction to the citizens*

The observed police officers are not the only ones participating in the research; the citizens who interact with them are also taking part. However, obtaining informed consent from the participating citizens was considered to be irrelevant for the following reasons:

a. Observing police interventions also means observing possible crises. Introducing oneself as a researcher is not a priority in those situations. This means that subsequently introducing myself to citizens was not possible.

b. If I or the police officers introduce myself to the citizens as 'a researcher who studies the way the police interact with the citizen', this could affect the data gathering. In some cases, citizens may want to share their opinion about it. Above all, it can result in a discussion about the relationship between the police and citizens. This leads to a change of focus from the actual problem of the intervention to my role of researcher.

c. The observations have to be done as discreetly as possible, so that the interaction between the police and citizens may be disrupted as little as possible. Introducing me and the study can be seen as a disturbing element.

Although I was dressed in plain clothes, most of the citizens did not ask questions about my presence. It is likely that some thought I was a police officer because the bulletproof jacket I wore had 'Police' written on it. But during the interactions I did not say a word, and I only wrote things down while the police officers were those talking to the citizens. For that reason, some citizens asked me: *"Are you writing all this down?"* It was decided to always answer this question with: *"Yes, it is for a study at Ghent University".* If citizens asked further questions about it, more information about the research was provided. However, these situations were very rare. In some situations I thought it was better not to say who I was.

The only time I decided to ignore the question of who I was occurred during the exploratory observations, when I was observing a team guarding the cells: *A minor girl had run away from a youth institution. Two police officers and a chief officer brought her in. She was handcuffed and the officers told that she was also cuffed at her legs before because she was kicking all the time. The girl shouted: "I haven't done anything wrong!" She tried to pull herself loose from the police officers. Three police officers were needed to keep the girl under control. She kept shouting and twisting. They decided to put her in the collective cells.[43] She was kicking against the wall and at one moment she was writhing on the ground. When it seemed that she had calmed down a bit she looked around and then she saw me. At that moment she shouted: "Who the fuck are you?!" I did not know how to respond on this. I felt my cheeks were getting red and I really felt uncomfortable about it. At that time I decided that it did not seem the appropriate moment to react to this question. I thought that the girl would not understand the explanation of who I was. Above all, the girl had struggled with the*

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[43] Normally, collective cells are for groups of people who are administratively detained. The chief officer decided to put the girl in this cell as a 'waiting cell', which meant that the girl had to stay there until a decision was made about what to do with her.

police officers before, so it would certainly not calm her knowing that I was studying the interactions between the police and citizens.

3) *When citizens speak directly to me, the researcher*

There were some interventions in which a citizen talked about his/her case to me, the researcher. If a citizen asked a police-related question, I made clear he/she had to ask the police officers because I was only a researcher. In some cases citizens were crying and only wanted to tell their story. In those cases I tried to only nod my head slightly. Because the police officers were always standing right next to me, there was not really a problem as citizens automatically addressed themselves to the police officers when they had a question.

There was one situation during the exploratory observations in which a citizen asked me for a favour: *The police officers were asked to intervene in a domestic dispute. On arrival at the couple's house, a man opened the door. He told the police officers that his wife had taken some pills and that she had threatened to hurt herself. He told the police officers that his wife was upstairs. At that moment, the police officers and I did not hear anything upstairs. The police officers asked if they could go upstairs to look for the man's wife. They wanted to know everything was all right. The man said: "I think my wife could be frightened when you, as policemen, go upstairs. I think it is better that she [pointing at me] goes to my wife". I immediately stated that I was a researcher at the university and that I was not a police officer so I could not do that. But the man made it clear that he would not let a male police officer go upstairs. At that moment I was thinking about the woman: "She did not respond to her husband, she took pills, she said she wanted to hurt herself...". I looked at the police officers, who made clear they wanted me to go upstairs to check the woman. The police officers stated that they were standing right behind me. The husband and I went upstairs. The husband said: "Sweetie, can you please open the door. The police are here. I already called and told them it wasn't necessary anymore to come, but they are here to see if everything is all right." The woman then opened the door and said while crying: "I had a struggle with my husband, but now I want to sleep." The woman then closed the door again. The police officers asked the husband what kind of pills the woman had taken. They were cholesterol medicines. The police then asked if she had taken some pills with her, but this was not the case. The police officers decided to leave the scene because they were reassured that the woman was still alive.*

Two reactions were possible to the ethical dilemma described above: 1) not to go upstairs; 2) to go upstairs. The choice to go upstairs meant suspending my researcher's role and doing police work, which is not permitted in normal circumstances. But if I had not gone upstairs, the man probably would not have let the police officers go upstairs. If the woman had tried to commit suicide, nobody would have known until it was too late. Thus, although I initially protested, I decided to go upstairs because there was probably a life in danger. It felt like I had a civic duty to fulfil.

4) *When the police officers ask me for a favour*

The SSO manual is clear: unless it is related to fulfilling a civic duty (e.g. when a life is in danger), the researcher is not permitted to do anything that is related to police work (e.g. driving a police car). Although the participants were clearly told this, some still asked for small favours, such as looking out for suspects or missing persons when patrolling, watching a detainee for five minutes, holding papers, holding the radio, looking for evidence, etc. The SSO manual states that some of these small favours are an exception to the rule and that in these situations the researcher must weigh the pros and cons of (not) consenting to such requests. Therefore, for each favour that was asked, I thought it was more important to maintain a good relationship with the police officers than to deal with the cost of directly influencing how police work is done. Consistently, refusing the requests of the police officers would have impeded the relationship between me and the participants. Above all, the police officers were putting a lot of effort into making the study possible, but it felt as if I could do nothing in return, which created an imbalance in the researcher–participant relationship. I decided that if doing a favour had a significant impact on the interaction between the police and a citizen, I would have remind the police officers about my role as a researcher and thus I would refuse their request; however, no such situation arose.

5) *The confrontation with excessive use of police force*

Belgian police officers have discretionary power that gives them the ability to react to (similar) incidents and situations with tactics ranging from completely ignoring it to severe use of force (Demarée et al., 2013). Although they learn the LOPS principle during their training – meaning that every coercive action has to fulfil the four criteria of legality, opportunity, proportionality and subsidiarity (art. 37 WPA)[44] – there are still situations in which police officers use an excessive amount of force. It is thus possible that a researcher might witness disproportional coercive behaviour during his/her research.

During the exploratory and actual observations there were three situations in which I was uncomfortable about the amount of force that was used by the observed police officers.

One situation involved a young man who was drunk and causing trouble in a street containing several discotheques. Suddenly everything happened very quickly. One of the police officers handcuffed the man and he and a colleague threw him into a police van. I observed that the man was really drunk, but it did not seem that he was resisting. One of the police officers joined the man in the police van. Suddenly I heard the man shouting: "Aaaaauh, my balls!" It seemed that the police officer kicked him with his knee in the balls. Right after that, I saw the police officer hitting the man two times in the face. When the

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[44] Article 37 of the law on the police function states that police officers can use coercion or force to achieve a legal aim that cannot be accomplished in any other way. Furthermore, every form of coercion or force has to be reasonable in proportion to the intended aim. In addition, every use of force has to be preceded by a warning, unless it would make the use of force ineffective.

police officer came out of the police van, he asked his colleagues whether any members of the public had filmed his actions. Nobody had seen anyone filming. The police officer then told me that he was defending himself against the man, who was kicking with his legs. However, I had not observed the citizen doing this.

For me, the situation described above and the other two in which I felt uncomfortable about the amount of force being used by the police were difficult to understand, especially because in all three cases the police officers felt that they had to justify themselves. Therefore, in all three cases I wondered whether I had missed an action, for instance whether the suspect had whispered something to the police. In one of the situations, for example, the police officer said the suspect was threatening him. He said to me: *"You didn't hear what the man was saying to me. Well, he was threatening to do something to me."* I did not hear these threats. Was it because there were no threats, or was it because I simply did not hear them? But even if there had been threats, had the criteria of the LOPS principle been fulfilled? Because of the doubts regarding these questions, I decided not to report them and to keep my promise being confidential. However, I decided to talk about these situations with some colleague researchers. One colleague told me that she would have reported such situations because it is ethically wrong for a police officer to misuse his function by using an excessive amount of force, so at the very least a disciplinary investigation is needed. However, another researcher who was also carrying out observations in a police setting understood my doubts and also told me that she would not have reported these situations. But until today, these three situations are still in my memory as they were happened yesterday. In the other observed situations where the police used force, it was clear that the police officers had acted in accordance with the LOPS principle.

6) *When participants challenge the insider–outsider balance*

As has been described above, there is the pitfall of going native while conducting observations. Although efforts can be made to prevent this, participants can still challenge the insider–outsider balance. This occurred in several ways during this research.

First, the police officers asked me a lot of personal questions. The participants were very curious about my life outside the university. They asked questions about my love life, my hobbies and so on. Initially, I tried to avoid these questions, but it appeared too difficult to maintain that approach. It was clear that not answering these questions would stand in the way of building a relationship of trust with the participants. A degree of common interest between a researcher and participants is needed so that trust can be built between the two (Machiels, 2013). And a relationship of trust is necessary because it is an instrument to realize the purpose of the study (Wouters et al., 2014).

Second, I was invited to drinks and events. At first I refused these invitations, but it seemed that the participants were not happy with my refusal. I tried to explain why I refused, namely

because of my role as an 'objective' researcher. But even this explanation led to disappointed remarks from some participants. I felt that it was not fair to the participants to use the trusting bond, which in most cases is built on a personal bond, only as an instrument (Wouters et al., 2014). I therefore accepted invitations when participants seemed unhappy with a refusal. However, I was still concerned that this would harm my study, and I was worried about falling into the pitfall of going native. As Scheirs and Nuytiens (2013, p. 145) state: *"Walking the line between humanity (the researcher as a human being) and science (the researcher as a 'neutral and objective scientist') turns out to be a very difficult exercise"*. I can confirm that it is indeed a very difficult exercise. But sometimes going native can be productive. Joining participants for a drink allows a researcher to experience their world in its full complexity, and to find out how the participants act in a more informal way (Claeys et al., 2015). Above all, inviting me to drinks or events proves that the participants considered me as an insider, or at least allowed me to become one. This made it possible to see and hear things that a complete outsider never would know about. For example, while riding along, conversations between the observed police officers were overheard, some of which were about sensitive private matters, others about difficulties with colleagues. During quiet a lot of ride-alongs, the participants even updated me about these matters without me being curious about them. However, they asked me to keep their comments confidential and called them "police van secrets". For me, this was proof that I was trusted by the participants, and the study would benefit from me being seen as "one of them" due to a decrease in the level of reactivity. Although it was clear that most of the participants accepted me as an insider, I still tried to be aware of my outsider role. It is a great challenge to be both immersed in a group and separate enough to view it with a critical eye (Demarée et al., 2013). I tried to maintain my outsider role by staying as objective as possible, and keeping field notes and narratives of everything that was observed during police–citizen interactions without judging it. But, afterwards, I also wrote an additional paragraph in which I critically reflected on several police actions, even by those police officers with whom I felt a close bond.

7) *The participants testing me*

Before being accepted by the participants, it was necessary to prove I was worthy of their trust. Initially, but also later on, I felt I was being tested by several participants. As mentioned above, I came to know about confidential matters during conversations that occurred while I was in the patrol car. Also, it had been promised that whatever happened during the interventions would remain confidential. The following situation is one in which I felt I was being tested by one of the participants:

On one occasion, a police officer (Jan) started a conversation with a close friend of me (Nick, also a police officer) while I was also present. Police officer Jan was talking about a situation in which he had used force while I had been observing. Police officer Jan asked to Nick:

"Didn't Anjuli tell you about that?" Nick responded: *"No, I don't know what you are talking about."* Police officer Jan then reacted: *"Aha, so she is really honest about being confidential."*

Being tested felt uncomfortable, but the fact I always kept my promise about confidentiality only strengthened my bonds of trust with the participants.

8) *The participants' curiosity about the research and my opinion*

The presence of a researcher in a police setting is not an everyday occurrence. It felt like the participants were curious about my study and some of them wanted to know if I thought they were doing a good job. Although it had been stated in the introduction to the participants that they could ask to see the field notes about them at any time, it still felt like they did not trust what I had written down. It was as if they were concerned I would write down that they were not doing a good job. When I then showed them the field notes, they appeared to be reassured. Once, a police officer reacted to the field notes: *"Yes indeed… that is what happened… Oh, it is really good that you have written all this down. So if we forget something we can ask you for help when writing our PV[45]"*.

In some situations the participants asked my opinion about their actions toward citizens. I felt really uncomfortable about this because I wanted to remain an objective researcher. I always explained that I only wrote down what I saw and that I did not have an informed opinion because I was not a police officer. In some situations this was not sufficient for the participants. It felt like they wanted to hear that they were doing a good job. In those, rare, situations I said that I understood why the police officer had reacted to the citizen in that way, without saying whether I believed it was a good or bad reaction.

6.2.2.9. Leaving the field

Because of the confidential relationship that had developed, leaving the field abruptly could have damaged relations. As Lofland and colleagues (2006, p. 78) state: *"Don't burn your bridges"*. Most importantly, I was very grateful to every member of the police staff who had contributed to the study. At my farewell meeting, I thanked the gatekeepers, namely the heads of the local police forces, the heads of the departments of intervention, a policy adviser of Everwood local police force and the duty planner of Springtown local police force, in person, and with a letter accompanied by a box of 'Merci' chocolates. I also wrote a letter of thanks to all the police officers of the department of intervention of both local police forces (including those who had not been part of the sample). I also gave them chocolates. Furthermore, I promised the gatekeepers to keep them informed about the results of the study by means of a research report (Van Damme, 2017). Following the etiquette of

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[45] A PV or *Proces-verbaal* is an official report about an intervention.

departures (Lofland et al., 2006), both gatekeepers and participants were promised invitations to events and seminars regarding the study and to the public defence of the doctoral study.

6.2.2.10. Processing the data

Coding and analysing were done with the help of the statistical program SPSS. One section in the citizen codebook contained closed questions (indicators) about the way the police behave toward the citizen. The majority of the indicators used to measure procedurally (un)just police behaviour during police–citizen interactions were based on earlier studies (e.g. Dai et al., 2011; Jonathan-Zamir et al., 2013; Worden and McLean, 2014a). To answer RQ 2a '*How can procedurally (un)just police behaviour during police–citizen interactions be measured?*', the indicators for each element of procedural justice were summed up to form four sub-indexes of procedural justice, and the same was done to measure procedural injustice during police–citizen interactions. Overall indexes for procedurally just and procedurally unjust behaviour were created by combining the number of police behaviours of all elements of procedural (in)justice observed during an interaction with a citizen. The validity of the measurements was tested by examining the correlational validity (Hardyns and Pauwels, 2010). This means that the correlation was tested between the measurements and a variable that is theoretically supposed to be correlated with them. Furthermore, because the measurements were considered as formative indexes, a strong correlation between the sub-indexes is unwanted but high correlations between every index with the overall procedurally (un)just index are good indicators for testing the validity of the measurements (Jonathan-Zamir et al., 2013). Therefore, the correlations between the sub-indexes, and between the sub-indexes and the overall indexes, were examined (see chapter V).

In order to answer RQ 2b '*To what extent is procedurally (un)just police behaviour a predictor for citizens' (non)cooperation with the police during police–citizen interactions?*' and RQ 2c '*To what extent is procedurally (un)just police behaviour a predictor for citizens' (dis)respect toward the police during police–citizen interactions?*' four dependent dummy variables[46] were created, namely whether the citizen: (1) cooperated with the police; (2) did not cooperate with the police; (3) showed respect toward the police; (4) showed disrespect toward the police. It was examined which elements of procedurally just police behaviour were a predictor for citizens' cooperation with the police and their respect toward the police during police–citizen interactions. Furthermore it was tested which elements of procedurally unjust police behaviour were predictors for citizens' non-cooperation with the police and their disrespect toward the police during police–citizen interactions. Citizens' background

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[46] A dummy variable is an indicator variable with two values, 0 (absent or not applicable) and 1 (present or applicable).

characteristics (gender, ethnicity, social class), their role in the situation (suspect or not) and the indication of alcohol/drug use were used as controlling variables (see chapter VI).

Blockwise binomial logistic regression was used for the analyses. Binomial logistic regression is a kind of multiple regression in which several independent variables are tested that are assumed to affect a dependent variable. The dependent variable can only take two values and is thus categorical in nature (e.g. respect toward the police: yes or no). The method owes its name to the prediction of the natural logarithmic of the '*odds*' on the occurrence of an event (versus non-occurrence) on the basis of a series of independent variables. The net effects are presented by net odds ratios. Odds ratios above 1 reflect an increase in the likelihood of the occurrence of an event (e.g. cooperation) for a comparison group (e.g. female) compared to a reference group (e.g. male). Odds ratios below 1 reflect a decrease in the likelihood of the occurrence of an event for a comparison group compared to a reference group (Pauwels, 2015). The analyses were done blockwise. This procedure involves performing a series of regression analyses in which a new (or series of new) variable(s) is (are) included in each step (or model).

7. Structure of the doctoral study

This doctoral study contains seven chapters, four of which (chapters two to five) are based on articles that have been published or accepted for publication in internationally peer-reviewed journals or books by international publishers. One article (chapter six) is currently still in review. However, the doctoral study conforms with the guidelines on the submission of doctoral theses approved by the Law Faculty of Ghent University, which states that the majority of the articles must at least be accepted for publication.

The body of the doctoral study is divided in two parts. **Part one** concerns the role of trust in police procedural justice in the relationship between the police and citizens (RQ1). **Part two** concerns the role of procedurally (un)just police behaviour during police–citizen interactions (RQ2).

Part one contains three chapters. Each of these chapters tries to answer a sub-question of the first main research question. **Chapter two** focuses on RQ 1a *"How can trust in police procedural justice be measured?"* This chapter is based on an article in which two authors assisted the doctoral student in writing the article. More precisely, Haas delivered the questionnaire and she read over the theoretical paragraphs of the article. The promoter of this doctoral study helped with the LISREL analyses and with responding to the comments of the reviewers.

In order to answer question RQ 1a in chapter two, we start with some criticisms related to research into trust (or confidence) in the criminal justice system in general. First, a major criticism is the use of single-item questions to evaluate the criminal justice system in general,

for example *'On a scale of 0 to 10, how much trust do you have in the criminal justice system?'* Several researchers have pointed out that trust is a latent concept that is not measurable with just one indicator. It is a multidimensional concept (Hough and Roberts, 2004; Haas, 2010). In this chapter we therefore contribute to existing knowledge of measures by assessing two theoretical dimensions of trust in the criminal justice system: (1) procedural justice or fairness; and (2) performance of the criminal justice system. Second, we believe it is important to distinguish between the types of actor when asking for an opinion about the criminal justice system. We believe that opinions about, for example, the police, the public prosecutor and judges can differ. Therefore this chapter also tests to what extent we can measure the dimensions of trust (procedural justice and performance) by type of actor.[47]

Chapter three focuses on RQ 1b *"To what extent is trust in police procedural justice a predictor for perceived police legitimacy, willingness to cooperate with the police and comply with the law?"* In order to answer this question, this doctoral study starts from a key assumption stated by procedural justice theory, namely that trust in procedural justice enhances perceptions of legitimacy; furthermore, that when citizens perceive the police as legitimate they accept the police's legal authority, and the result is that citizens are willing to comply with the law and cooperate with the police. In addition, in this chapter the explanatory power of the procedural justice perspective is compared with those from an instrumental and individual normative approach. Namely, it is examined to what extent perceived sanction risk and personal morality affect citizens' willingness to cooperate with the police and comply with the law.

Chapter four focuses on RQ 1c *"To what extent is contact experience a predictor for trust in police procedural justice?"* In order to answer this question previous research, which has mentioned that personal contact with the police is one of the key predictors of individuals' opinions of the police, is examined. However, findings from earlier research contradict each other. Some researchers found an asymmetric relationship, with a much stronger effect from unsatisfactory contact compared with satisfactory contact, with regard to trust in the police and police legitimacy. Others found a more symmetrical relationship. I believe that these different findings can be due to different measures of trust and legitimacy. Namely, in the literature there is no consensus about the meaning and measurement of these concepts. In chapter four the purpose is therefore to test the (a)symmetrical relationship while taking into account the criticisms about trust and legitimacy.

Part two contains two chapters. The first focuses on one sub-question of the second main research question, and the second concerns the last two sub-questions. In **chapter five** RQ 2a *"How can procedurally (un)just police behaviour during police–citizen interactions be*

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[47] In the first article we talk about 'confidence' instead of 'trust'. This is largely due to the fact that in Dutch we only have one term to translate both confidence and trust, namely *vertrouwen*. Following Haas, who was a co-author in this chapter, we chose to use the term 'confidence'. However, in the rest of the doctoral study 'trust' will be used instead of confidence which is in line with the majority of studies relating to procedural justice.

measured?" is answered. The purpose in this chapter is to validate a developed measurement instrument or codebook, based on prior research, for coding procedurally just and unjust police behaviour during interactions with citizens. In this chapter it is described, illustrated and explained how procedurally (un)just police behaviour was measured by using systematic social observations.

Chapter six answers RQ 2b *"To what extent is procedurally (un)just police behaviour a predictor for citizens' (non)cooperation with the police during police–citizen interactions?"* and RQ 2c *"To what extent is procedurally (un)just police behaviour a predictor for citizens' (dis)respect toward the police during police–citizen interactions?"* In other words, in this chapter the key assumption of procedural justice theory is tested in actual police–citizen interactions. In the light of procedural justice theory it is assumed that procedurally fair police behaviour during an interaction can motivate citizens to cooperate with the police. Procedurally unfair police behaviour during an interaction could demotivate citizens from cooperating with the police. Furthermore, according to the procedural justice model, a citizen's disrespectful behaviour can be an expression of questioning the authority, and thus the legitimacy, of the police (Engel, 2003). When citizens judge that they are treated in an unfair manner, tension could arise between the citizens' expectations and the actions of the police. This could result in the citizen experiencing frustration, which could be expressed by disrespectful behaviour. Following the same line of thought, we assume that when the police treat citizens fairly citizens will believe the police share the same values and norms as they do, and therefore deserve respect.

The last chapter, **chapter seven**, offers a summarized overview of answers to the main research questions and sub-questions posed in this doctoral study. This concluding chapter mentions some limitations of the doctoral study. It also discusses the implications of the findings for future academic research and contains recommendations for police policy-makers.

Table 3 gives an overview of the chapters in this doctoral study, together with its aim and the data used.

Table 3: Overview chapters

Chapter	Aim of the study	Data
I	Introduction	
Part I:	Examining the role of trust in police procedural justice (RQ 1)	
II	Measuring trust in police procedural justice (RQ 1a)	Student survey 2009–10
III	Studying trust in police procedural justice as a predictor for perceived police legitimacy, willingness to cooperate with the police and comply with the law (RQ 1b)	European Social Survey 2010–11
IV	Studying contact experience as a predictor for trust in police procedural justice (RQ 1c)	SWING survey 2012
Part II:	Examining the role of procedurally (un)just police behaviour (RQ 2)	
V	Measuring procedurally (un)just police behaviour during police–citizen interactions (RQ 2a)	SSOs in two local police forces in Belgium 2015–16
VI	Studying procedurally (un)just police behaviour as a predictor for citizens' (non)cooperation and (dis)respectful behaviour during police–citizen interactions (RQ 2b and RQ 2c)	SSOs in two local police forces in Belgium 2015–16
VII	Conclusion and discussion	

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Part I

TRUST IN POLICE PROCEDURAL JUSTICE

Source: Jackson, J., Bradford, B., Stanko, B. and Hohl, K. (2012). *Just authority? Trust in the police in England and Wales*. London and New York: Routledge.

CHAPTER II: Measuring trust

Published as:

Van Damme, A., Pauwels, L. and Haas, N. (2012). Exploring the factor structure of measures of confidence in procedural justice and performance of the criminal justice system by actor. A latent-variables approach. In Cools, M., De Ruyver, B., Easton, M., Pauwels, L., Ponsaers, P., Vande Walle, G., Vander Beken, T., Vander Laenen, F., Verhage, A., Vermeulen, G., Vynckier, G. (eds.) *Governance of Security Research Papers Series* **(pp. 119-140). Antwerpen-Apeldoorn: Maklu.**

Abstract

It is commonly acknowledged that many survey measures of confidence in the criminal justice system suffer from a number of measurement problems. A major criticism is the use of single-item questions to evaluate the criminal justice system in general. In this article we contribute to an existing knowledge of measures by assessing two theoretical dimensions of confidence in the criminal justice system: (1) procedural justice or fairness and (2) performance of the criminal justice system. The innovative part of this study is that it explicitly tests to what extent we can measure these dimensions by type of actor (the police, the public prosecutor, judges and the criminal justice system in general). Items that are highly similar in content, but different by type of actor, were presented to a sample of students enrolled at Ghent University. A latent variable modelling approach was used to test the reliability and correlational validity of our multiple-component instrument. Confirmatory factor analyses were conducted on a battery of items that measure procedural justice and performance of three actors within the criminal justice system and the criminal justice system in general. Special attention is paid to the existence of non-random error between indicators that result from question wording. Our analyses suggest that it is possible to distinguish between procedural justice and performance by actor. We tested and found that items that refer to the same actor have correlated error and we propose a way of dealing with it.

Keywords: reliability, correlational validity, measurement error, attitudes towards the criminal justice system, procedural justice and performance of the criminal justice system, latent-variables approach.

1. Introduction

Large-scale surveys of the general population are very popular in the social sciences. In the field of criminology, a growing interest in survey methodology can be observed since the 1950s. One major reason for an increasing body of research in this tradition is the discovery of bias in official measurement instruments; more specifically biases in police statistics. Official statistics tend to underestimate true rates of victimisation in the population, and are said to be seriously biased with respect to race, gender and social class. Another important reason for the wide-spread interest in surveys lies in their potential to serve as a means to empirically test causal theories of offending, victimisation, fear of crime and confidence in the criminal justice system. The research tradition that focuses on confidence in the criminal justice system has experienced a series of problems that are highly similar to those in research on fear of crime. A first lacuna concerns the weak theoretical and conceptual framework surrounding research within this tradition. Obviously, both the policy driven character of the early – and later – large scale confidence surveys, and the positivistic approach of that era, are largely indebted to this. A second lacuna – which in essence has the same roots as the first – is best described as a conservative and more or less outdated methodology and measurement. Because confidence in the criminal justice system has predominantly been measured in many surveys with one single indicator for reasons of 'comparability' (e.g. 'on a scale of 0 to 10, how much confidence do you have in the criminal justice system?'), all claims concerning the reliability and validity can be considered questionable. In recent years, numerous authors have indeed objected to this conservative tenacity, which has resulted in a tendency towards using multi-item measures. These provide a far better way of measuring complex concepts like 'confidence in the criminal justice system'. Currently, when conducting surveys, it is commonly assumed that attitudes such as 'confidence in the criminal justice system' are not directly observable. Such attitudes are latent concepts, which are made observable through the use of indicators. These indicators are assumed to constitute a valid representation of the underlying concept. A careful selection of indicators is therefore essential (Jackson et al., 2011). In designing measures for confidence in the criminal justice system, choices must be made with regard to the wording of questions, the actors that are referred to in the questions, the response scale, the question context and the technique of data collection. Each of these choices and each combination of choices can lead to different errors.

In recent years, some key studies have been published on the measurement of confidence in the criminal justice system. Research consistently shows that confidence is a multidimensional concept (Hough & Roberts, 2004; Haas, 2010). An important distinction has been made between a sense of justice based on process (confidence in procedural justice or fairness) and one based on the outcome (confidence in the effectiveness of the system). In this contribution we focus on the measurement of these two major dimensions of confidence in the criminal justice system that also play a central role in Tom Tyler's 'procedural justice' theory (Tyler, 2003, 2006, 2007, 2011; Gau et al., 2011). While the measurement instrument is restricted to the measurement of these two aspects of confidence, respondents are asked to answer the

items that measure procedural justice and performance using different formulations: as an alternative, we refer in the questionnaire to the police, the public prosecution, judges and lastly, the criminal justice system in general.

2. Goal of the present study: measuring dimensions of confidence by actor

In criminological inquiries the construction of valid concepts has been called problematic (Pauwels & Pleysier, 2005). Studying the reliability and validity of measurement instruments is necessary to gain insights into the possibilities of a measurement instrument for the purpose of testing theories of confidence. The present study will therefore focus on the reliability and validity of a detailed measurement instrument. The fact that our measurement instrument allows for differentiating between dimensions of confidence namely performance and procedural justice, towards various actors of the criminal justice system yields an interesting question from a methodological point of view: the research question that has to be answered in the present study is: *"To what extent is it possible to measure procedural justice and performance when changing the reference group (i.e. the police, prosecutors, judges and the criminal justice system in general)".* To answer this general research question, we will evaluate the factor structure and correlational validity of the concepts of procedural justice of, and performance of, the criminal justice system in relation to these different actors of the criminal justice system and the criminal justice system in general. This is done through a latent variables approach, which allows to model non-random errors that may arise as a consequence of offering similar questions. The advantages of this approach are discussed, after a brief argumentation of why it is necessary – both in criminological inquiries – to pay attention to methodological issues as in substantive research questions. Particular concern arises when detailed questionnaires employ sequences of questions with a common format and highly identical response options to measure attitudes towards different actors of the criminal justice system. Respondents sometimes may interpret a series of questions and response options in a particular way. In other words, the way a respondent answers the initial item in a survey battery may serve to anchor subsequent answers. This sort of 'response set' implies that the errors of measurement associated with one survey item are not independent of errors associated with others in the same question battery. Statistical procedures that presuppose random measurement error, such as exploratory factor analysis and Likert-scales, may therefore produce misleading results. In that case, the reliability and validity of the measures are at stake. If and only if there are theoretical rationales to suspect non-random errors due to the questionnaire design, the researcher should test such assumptions and model them. Ignoring this structure may offer a misleading account of the structure of attitudes towards the criminal justice system.

3. Why studying theoretical dimensions of confidence in the criminal justice system?

One of the main problems with current measurements of confidence is a lack of theoretical clarity. Up to now it has remained largely unclear what confidence actually entails. Too often, institutional confidence is a combined scale formed by the summation of the confidence scores on different institutions (e.g. Van Damme et al., 2010). An example is the following bi-annual survey of the Flemish government in which a summation of confidence scores is made on: the Belgian criminal justice system, the Flemish parliament, the Flemish government, the Belgian federal parliament and the Belgian federal government. In the European Social Survey (ESS), the following institutions were included: The Belgian Federal parliament, the legal system, the police, the politicians, the European parliament and the United Nations Organisation (Van de Velde & Pauwels, 2010). These studies indeed show that levels of confidence differ by actor, but this is not helpful if one wants to study confidence in the criminal justice system in great detail. With the aim of improving the measurement of confidence, we need to know exactly what we want to measure. In order to make confidence more tangible and comprehensible, it is useful to start by making a distinction between *the procedural justice model* and *the instrumental model*.

According to the *procedural justice model*, confidence depends largely on perceptions of fairness (Benesh & Howell, 2001; Sunshine & Tyler, 2003a; Thibaut & Walker, 1975; Tyler, 2006). *Procedural justice* concerns the integrity and fairness of the justice system (cf. Roberts & Hough 2005; Hough et al., 2010). It constitutes a firm and durable set of attitudes toward the legitimacy of the institution (Caldeira & Gibson, 1995; Reisig et al., 2007). A person may disagree with the way that an institution deals with a particular issue, yet still accept its overall authority. *Procedural justice or fairness* can for instance be measured by using statements such as "The police are honest and trustworthy" (Sunshine & Tyler, 2003b). Benesh (2006) demonstrated that the more respondents found the court and judges to be fair, the more likely they were to express "a great deal" of confidence in them. Similarly, in a recent study on confidence in the police, which presented respondents with items such as "The police treat people fairly", evidence was found for a strong relationship between perceived fairness of the police and public confidence in it (Jackson & Sunshine, 2007).

According to the *instrumental model*, confidence is developed and maintained through the *performance or effectiveness* of the justice system (Sunshine & Tyler, 2003b). This perceived performance can be seen as an evaluation of how well the system acts, which depends on the extent to which one's expectations of the institution's functioning are met (Caldeira & Gibson, 1995). Confidence in the courts, for instance, is expected to depend on the favourability of the outcome. A civil law study carried out in Scotland shows clear evidence of this effect: 70 percent of successful litigants found the outcome fair, compared to the 10 percent who lost their case (Genn & Paterson, 2001). In the case of the police, confidence could be affected by the extent to which they are able to effectively fight crime and disorder. For instance in a study on satisfaction with the police, Weitzer and Tuch (2005) showed that public confidence in

police was strongly predicted by the respondents' perception of effective crime control. Similar evidence was found by Dekker and Van der Meer (2007). Adding performance indicators to their model of confidence in the Dutch criminal justice system tripled explained variance. *Performance* can for instance be measured by asking respondents how often the police provide satisfactory service, and how well the courts solve problems (Tyler, 2001). Another way of gauging performance, applied in the British Market & Opinion Research International (MORI) 2003 poll, is by asking respondents to express how much confidence they have in specific functions of the criminal justice system. The functions which respondents were asked about included "stopping offenders from committing more crime" and "creating a society in which people feel safe" (Roberts & Hough, 2005). Another example is the International Crime Victims Survey (ICVS), which asks respondents how good a job the police do in controlling crime (Van Dijk, Van Kesteren & Smit, 2007).

4. Why measuring procedural justice and performance in the criminal justice system by actor?

Who or what is receiving a particular level of confidence? As mentioned above, the *object* of confidence differs substantively between surveys. In some surveys the objects of interest are the police and the justice system, while in other surveys items refer to the courts, judges, the Supreme Court, or plainly 'justice'. Such object-differentiation can be an important cause for the widely varying confidence levels that emerge from different surveys. As previous studies have clearly demonstrated, a distinction should be made between questioning respondents about the criminal justice system in general, and about specific professionals within that system (Haas, 2010). This distinction is essential because when citizens are asked about the whole system, they may provide an answer with a specific actor in mind (Dekker & Van der Meer, 2007). Specifying confidence for every actor results in differential confidence ratings, which we have demonstrated earlier (Van Damme et al., 2010). Agencies that are responsible for punishment of offenders, such as courts and the prison system, are likely to receive lower levels of confidence. This 'hierarchy of confidence' is found in most western countries in which respondents rate the performance of specific actors (Roberts & Hough, 2005). To explain the difference in rate performances by actors, Hough and Roberts (2004) maintain that public confidence tends to be higher for those actors in the justice system whose function is closest to the view of criminal justice that most members of the public hold, i.e. the crime control model. Nevertheless, it has not been explicitly studied in Belgium from a methodological point of view.

5. Reliability and correlational validity as criteria for the assessment of a measurement instrument

Multi-item assessment instruments, such as scales derived from questionnaires, are frequently used by criminologists. A main reason for this is that they provide converging pieces of information about latent traits or attitudes under investigation. By making use of multiple rather than single indicators of unobservable constructs, one is in a far better position to discover relationships between constructs. With such multiple-measure instruments, the question about their reliability asks for the degree to which the final score on the composite (e.g. the sum of their components) is affected by error. To the extent that an instrument's reliability is high, one can be confident that its total score reflect genuine individual differences in the latent dimension of concern. Conversely, with low reliability of the involved scales, the researcher is at serious risk of drawing incorrect conclusions about relationships between latent variables. In particular, even if one has a correct conceptualisation of the relationships among studied constructs (i.e. correctly specifies a model for them), the use of instruments with insufficient reliability can make it more likely that the researcher will not find support for the model in the data, mostly due to poor measurement. Alternatively, the researcher can end up with incorrect parameter points and interval estimates suggesting misleading substantive interpretations. At least as importantly, high reliability of a measurement is a necessary condition for high validity, the bottom line of measurement. It is therefore of particular importance for inquiries of confidence to be concerned with the instruments *reliability* and *validity*. In the present study, *reliability* is the consistency of a measurement; it is restricted to the study of internal consistency of the measurement instrument. Internal consistency estimates reliability by grouping questions that measure the same concept in a questionnaire. One classic way of computing correlation values among the questions in the instrument is by using Cronbach's alpha. The closer the Cronbach's alpha value is to one, the higher the reliability estimate of the instrument. Nevertheless, Cronbach's alpha is a rather conservative way of estimating the reliability of a measurement instrument and may even generate high values when scales are multi-dimensional. In that case, different theoretical aspects are put together without a solid basis for doing so. As a result, correlations between these variables and their presumed causes may be misleading. *Validity* concerns the truth of measurements. There are three common methods to determine the validity of scores. One method is based on logical evaluation by content experts (content-related or face validity). A second method is based on empirical evidence from statistical analysis (criterion-related validity). A third one is based on a complex series of hypothesis tests and statistical analyses (construct-related validity). The present study uses correlational validity as a means of gaining insights into the construct validity of measures of procedural justice and performance of the criminal justice system.

6. The latent variables approach and the study of non-random error due to common unknown variance

Although Belgium has an ongoing tradition of ten years in measuring confidence in the criminal justice system by means of the "Justitiebarometer" (Parmentier et al., 2004), a latent variable approach to the study of measurement error in inquiries of confidence in the criminal justice system is rather new in the Belgian context.[48] The present study therefore aims to fill that gap by studying the internal consistency (factor structure) and correlational validity of our measurement instrument. We prefer a latent variable approach as opposed to a classic Likert sum-scale approach because the latter does not allow for understanding the relative importance of an item and simply adds all items to create the scale construct. Some items may contribute more to the latent construct than other items and thus deserve a larger weight. Furthermore, Likert-scales are based on a key assumption of classical test-theory (Lord & Novick, 1968) and thus do not assume correlated errors between indicators or even latent variables in higher-order factor analyses. The latent variable approach is specifically designed to gain insights into measurement models by studying the factor structure. Theoretically relevant measures for complex constructs such as dimensions of confidence in the criminal justice system can be evaluated using the latent variable approach by examining the fit of theoretically specified measurement models. A series of global model fit indices exist for that purpose and will be discussed later. A theoretically acceptable measurement model should normally be free of correlated error terms between indicators (survey questions) (Raykov, 2001, 2004). Some scholars argue that correlated error terms between indicators may indicate a conceptual and theoretical misspecification. Conversely, poor fit, defined as the difference between the predicted and observed indicator covariance in a measurement model, can nearly always be remedied by adding a correlated error term. In practice, correlated measurement errors are too often employed in a post hoc manner to obtain an acceptable fit of the model to the data (Bagozzi, 1983; Fornell, 1983). We warn against such practices because the post hoc addition of a correlated measurement error simply means that the observed covariance between a given pair of indicators has not been adequately accounted for by the factors present in the original model (Gerbing & Anderson, 1984). While the use of correlated measurement errors improves a model fit by accounting for this unwanted covariance, it does so at a correspondent loss of meaning and substantive conclusions which can be drawn from the model. Their post hoc use means that indicator covariance is due to at least one unknown common source. As correlated measurement terms are added without theoretical guidance, the correspondence between the posited construct of interest and the

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[48] The 'Justitiebarometer' (English: Justice survey) is an official study that was developed in 2000 and is now conducted in the "Hoge Raad voor Justitie" (In English: High Council for Justice) and whose primary goal is to assess different attitudes such as satisfaction with and confidence towards the criminal justice system and different courts. The results of the Belgian Justice survey are restricted to the presentation of cross-tabulations by item. Methodological inquiries into the reliability and validity of its key constructs have never been the goal of the measurement instrument.

empirically defined factor becomes unclear. A preferred substantive representation of this error covariance would be to model it separately from the construct of interest, but that is not always possible. It is important to notice that in some situations the use of correlated measurement errors is meaningful and should even be specified a priori (e.g. panel studies in which the same questions are used over time).

We argue that the study of non-random measurement error may also be applied to the study of confidence in the criminal justice system, in cases when similar indicators of procedural justice and performance are posed with regard to different actors in the criminal justice system. Our measurement instrument uses highly similar questions that measure procedural justice and performance for different actors of the criminal justice system and this may lead to error covariance in two ways: (1) between indicators with almost identical formulations and (2) between questions that refer to the same actor. If one does not take the existence of such question wording effects into account, a measurement instrument may be rejected on false grounds. In other words, wrong conclusions may be drawn from the measurement model because the question wording error was not taken into account.

To the best of our knowledge, to what extent a measurement instrument that is dealing with dimensions of confidence by actors is sensitive to correlated errors, has not been studied in detail. Such insights are important because measurement error can disturb the 'true' correlations of both dimensions of confidence and their correlates and the 'true factor loadings' of each indicator with regard to the construct it measures. The present study therefore addresses this gap in the 'confidence literature' by raising the methodological issue of the latent structure of dimensions of confidence in the criminal justice system and the correlations between those different measures. The latent variables approach has a number of strong evaluation criteria in order to compare different hierarchical models. More specifically, it becomes possible to evaluate the different latent variables by checking the improvement in model fit (Billiet & McClendon, 2000). In short, the latent variables approach is necessary to reach the goals of the present study, i.e. gaining insights into the reliability and validity of the measurement instrument in two ways. First of all, the latent variables approach allows us to identify the latent structure of our measurement instrument that measures two dimensions of confidence in the criminal justice system (performance and procedural justice) with regard to three actors of the criminal justice system and the criminal justice system in general. Using the latent variable approach will give us insights into the way possible question wording effects have an impact on the factor structure and model fit of the theoretically derived multidimensional model of confidence in the criminal justice system. Secondly, the latent variables approach allows us to gain insights into the correlational validity of the latent variables that are derived from the measurement instrument.

7. Introducing the questionnaire

The measurement instrument used in the present study contains 34 attitude statements. The respondents had to indicate how closely their feelings match the statement on a 5-point Likert scale (totally disagree to totally agree). Table 4 shows the resulting 34 items, which are ordered by the different actors: (criminal) judges, prosecutors, police and the criminal justice system (CJS). The concept column shows the distinction between procedural justice and performance. The items were largely adopted from the questionnaire used by Haas (2010). Haas (2010) made a selection of items that were identified in the literature as indicators of performance and procedural justice to study the effects of confidence on vigilantism during her PhD study.

Table 4: Questionnaire items measuring confidence in the criminal justice system

Items	Concept	Actor
V8_1 Judges treat people fairly	**Procedural Justice**	*Judges*
V8_2 The Public Prosecution is honest and trustworthy	**Procedural Justice**	*Public Prosecution*
V8_3 Citizens can count on it that their case is properly dealt with in the Belgian criminal justice system	**Procedural Justice**	*Criminal Justice System*
V8_4 The police are there when you need them	**Procedural Justice**	*Police*
V8_5 Judges are prejudiced	**Procedural Justice**	*Judges*
V8_6 The Public Prosecution is trustworthy	**Procedural Justice**	*Public Prosecution*
V8_7 The Police are trustworthy	**Procedural Justice**	*Police*
V8_8 The Belgian Criminal Justice System is honest	**Procedural Justice**	*Criminal Justice System*
V8_9 Judges are trustworthy	**Procedural Justice**	*Judges*
V8_10 The Public Prosecution treats people fairly	**Procedural Justice**	*Public Prosecution*
V8_11 The Criminal Justice System is trustworthy	**Procedural Justice**	*Criminal Justice System*
V8_12 Citizens can count on it that their case is properly dealt with in the Belgian Criminal Justice System	**Procedural Justice**	*Criminal Justice System*
V8_13 The Police take citizens seriously	**Procedural Justice**	*Police*
V8_14 The police care about the well-being of the everyday citizen	**Procedural Justice**	*Police*
V8_15 You can count on the judges to take decisions that are best for society	**Procedural Justice**	*Judges*
V8_16 You can count on the Public Prosecution to take decisions that are best for society	**Procedural Justice**	*Public Prosecution*

V8_17 You can count on the Police to take decisions that are best for society	**Procedural Justice**	*Police*
V10_2 If the Police do not arrest someone, they will have a valid reason for that	**Procedural Justice**	*Police*
V10_5 If the Public prosecution recommends a lenient sentence, it will have a valid reason for that	**Procedural Justice**	*Public Prosecution*
V10_6 If a Judge passes a lenient sentence, he will have a valid reason for that	**Procedural Justice**	*Judges*
V9_1 Judges' verdicts are well deliberated	**Performance**	*Judges*
V9_2 The Public Prosecution succeeds in prosecuting the right people	**Performance**	*Public Prosecution*
V9_3 Judges know what's going on in society	**Performance**	*Judges*
V9_4 The Belgian criminal justice system functions properly	**Performance**	*Criminal Justice System*
V9_5 Judges do their job well	**Performance**	*Judges*
V9_6 Sentence recommendations are well-deliberated by the Public Prosecution	**Performance**	*Public Prosecution*
V9_7 Citizens' rights are not protected well by the Public Prosecution	**Performance**	*Public Prosecution*
V9_8 The Belgian justice system is effective in combating crime	**Performance**	*Criminal Justice System*
V9_9 the Public Prosecution does its job well	**Performance**	*Public Prosecution*
V9_10 The Police are effective in combating crime	**Performance**	*Police*
V9_11 The Belgian Criminal Justice system succeeds in bringing criminals to justice	**Performance**	*Criminal Justice System*
V9_12 The Police do a good job	**Performance**	*Police*
V9_13 Citizens' rights are not protected well by judges	**Performance**	*Judges*
V9_14 In the Belgian Criminal Justice System, too much emphasis is put on offenders' rights	**Performance**	*Criminal Justice System*

8. Data

After describing the statistical framework for our analysis of the reliability and validity of the measurement instrument, and the study of random and non-random measurement error, we now return to the survey data that were used for the analyses. During the academic year 2009-2010, a questionnaire was administered to 1,079 university students. This survey assesses perceived procedural justice of the criminal justice system and its correlates, such as anomia, authoritarianism, ethnocentrism, punitiveness and support for vigilantism. The data collection

was carried out within the framework of a compulsory course in quantitative methods taught in the second year of the bachelor degree in the criminological sciences at Ghent University. Students were asked to recruit other students to fill in the questionnaire. The academic staff provided the students with clear instructions on how the data had to be collected (self-administered questionnaires). The students were told that the questionnaire was part of a pre-test of a larger survey (a PhD study in criminology). The main aim of the study was to test the reliability and correlational validity of the scales used. It was especially instructed that every student should conduct seven interviews and it was stressed that every student should contact a wide variety of students, i.e. students that were enrolled at different faculties. It was stressed that homogeneous samples were to be avoided. Students were therefore only allowed to interview one other student enrolled in the criminological sciences. We guaranteed full confidentiality. The interviewees could fill in the questionnaire and deliver it to the students after completion. We are aware that there may be a selection bias at the interviewer level, but we were able to monitor this through the entire course. Afterwards a multilevel analysis was performed to estimate the interviewer variance with regard to the scales that were constructed. The results suggest that the interviewer variance was negligible, based on the study of the intra-class coefficients per interviewer.[49] 22.3% of the respondents were students of criminology at the faculty of law. 13.3% of the respondents were studying at the faculty of psychology and 10.6% of the respondents were enrolled at the faculty of Arts and Humanities (including philosophy, language and literature sciences). The 53.8% other respondents studied law, science, social and political sciences, medical science, bio-engineering, pharmaceutical sciences, engineering, economic sciences or veterinary.[50] 43.6% of the respondents were male, 56.4% of the respondents were female. On average, students were 20.2 years old (std= 1.77).

9. Analysis plan

Confirmatory factor analysis (CFA) is a statistical technique used to verify the factor structure of a set of observed variables. CFA allows the researcher to test the hypothesis that a relationship between observed variables and their underlying latent constructs exists. The researcher uses knowledge of the theory, empirical research, or both, postulates the relationship pattern a priori and then tests the hypothesis statistically. In order to test the latent structure of the confidence-items structural equation modelling was used. All analyses were carried out using LISREL 8.53 (Jöreskog & Sörbom, 2003). All models presented in this contribution show standardised factor solutions, and for the evaluation and fit of the models the Root Mean Square Error of Approximation (RMSEA) is preferred over the CHI² value because large samples inevitably tend to result in large CHI² values, and therefore in a negative

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[49] The intra-class coefficients were below 1% with an average of seven interviews per interviewer and thus standard errors obtained from single-level analyses cannot be biased.
[50] For a more detailed overview, see appendix.

evaluation of the fit of the model. As the RMSEA is least affected by the sample size, it is a good measure of close fit (Mueller, 1996). RMSEA values below .05 point at a good fit of the model (Billiet & McClendon, 2000).

10. Results

In this paragraph we present the results of a series of confirmatory factor analyses. To assess the aforementioned issue of non-random measurement error at the item and actor level, a series of research questions serve as guidelines:

Research question 1a: Do the data support a non-random error eight-factor model that distinguishes between procedural justice of judges, procedural justice of the police, procedural justice of the public prosecution, procedural justice of the criminal justice system in general, performance of judges, performance of the police, performance of the public prosecution and performance of the criminal justice system in general? *Research question 1b*: Do the data support the idea that the actor-specific dimensions of procedural justice and performance actually reflect procedural justice and performance as higher-order latent variables?

Research question 2: Do the data support a random error eight-factor model that distinguishes between procedural justice of judges, procedural justice of the police, procedural justice of the public prosecution, procedural justice of the criminal justice system in general, performance of judges, performance of the police, performance of the public prosecution and performance of the criminal justice system in general when non-random error between latent variables that refer to the same actor are taken into account?

Our two research questions can be visualised as follows:

Figure 1: the random error factor model of confidence in the criminal justice system
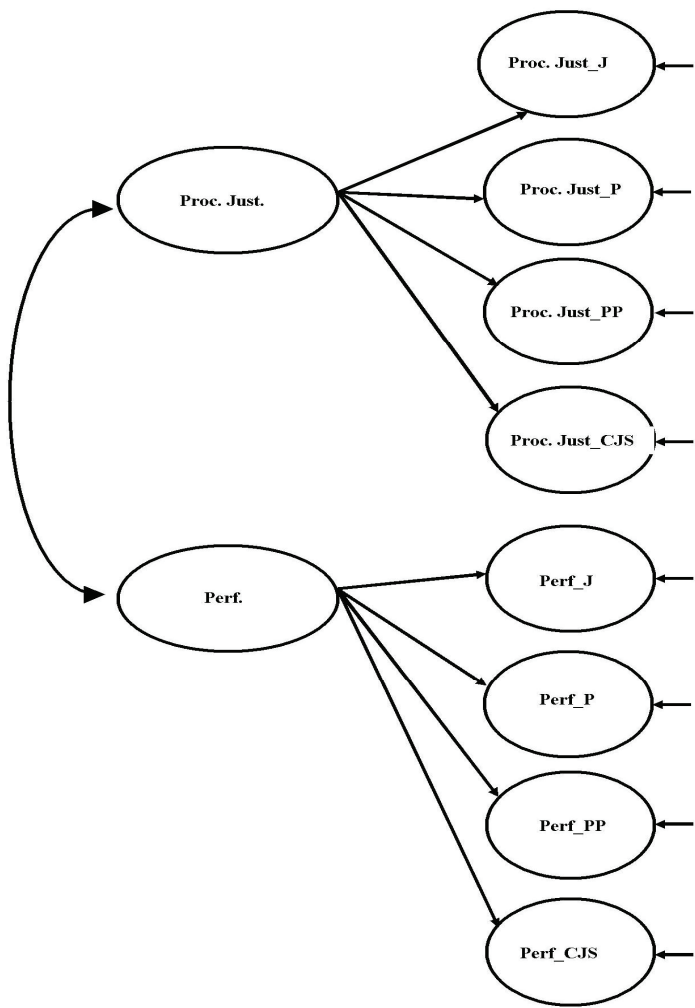
Figure 2: the non-random error factor model of confidence in the criminal justice system
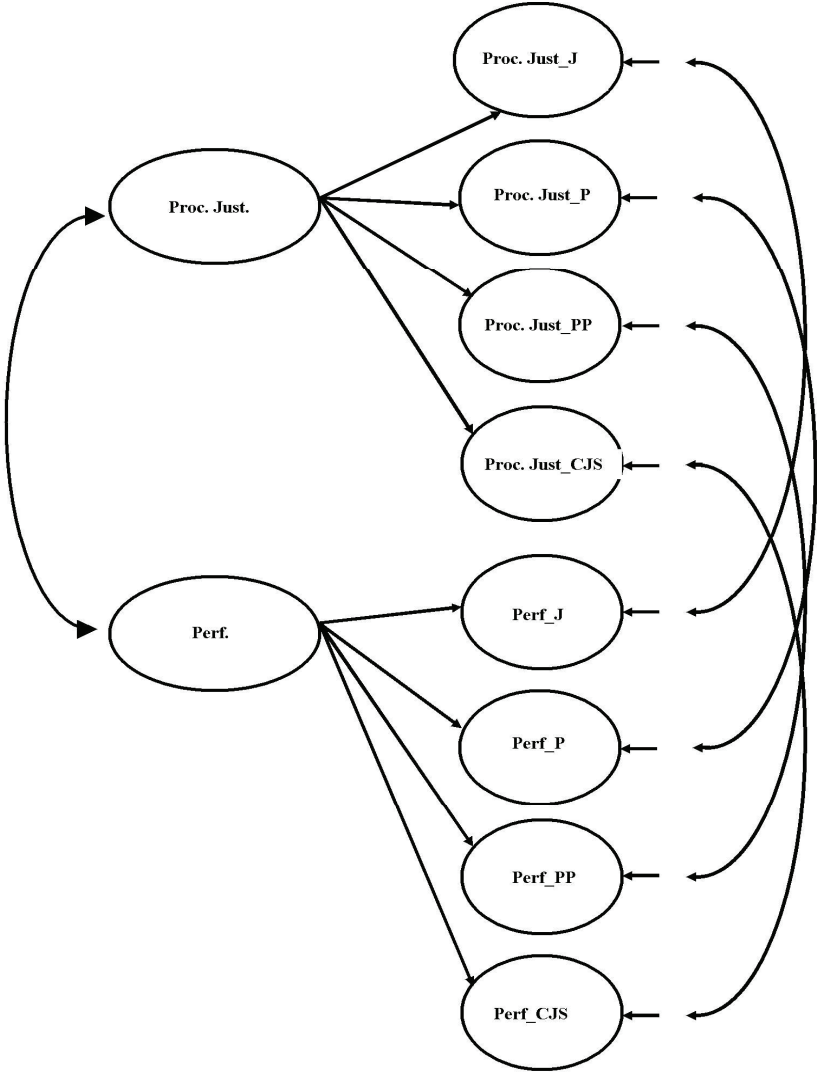
Table 5: Factor structure of 8-factor model of confidence by dimensions and actor (non-random error model)-results at the item level

Items	Proc Just_J	Proc Just_P	Proc Just_PP	Proc Just_CJS	Perf_ J	Perf_P	Perf_PP	Perf_CJS
V8_1	0.75	--	--	--	--	--	--	--
V8_2	--	--	0.56	--	--	--	--	--
V8_3	--	--	--	0.79	--	--	--	--
V8_4	--	0.74	--	--	--	--	--	--
V8_5 (r)	0.57	--	--	--	--	--	--	--
V8_6 (r)	--	--	0.85	--	--	--	--	--
V8_7	--	0.83	--	--	--	--	--	--
V8_8	--	--	--	0.80	--	--	--	--
V8_9	0.82	--	--	--	--	--	--	--
V8_10 (r)	--	--	0.85	--	--	--	--	--
V8_11	--	--	--	0.86	--	--	--	--
V8_12	--	--	--	0.83	--	--	--	--
V8_13	--	0.81	--	--	--	--	--	--
V8_14	--	0.76	--	--	--	--	--	--
V8_15	0.61	--	--	--	--	--	--	--
V8_16 (r)	--	--	0.64	--	--	--	--	--
V8_17	--	0.73	--	--	--	--	--	--
V9_1	--	--	--	--	0.74	--	--	--
V9_2	--	--	--	--	--	--	0.65	--
V9_3	--	--	--	--	0.47	--	--	--
V9_4	--	--	--	--	--	--	--	0.82
V9_5	--	--	--	--	0.83	--	--	--
V9_6	--	--	--	--	--	--	0.64	--
V9_7(r)	--	--	--	--	--	--	0.43	--
V9_8	--	--	--	--	--	--	--	0.77
V9_9	--	--	--	--	--	--	0.83	--
V9_10	--	--	--	--	--	0.83	--	--
V9_11	--	--	--	--	--	--	--	0.78
V9_12	--	--	--	--	--	0.89	--	--
V9_13 (r)	--	--	--	--	0.62	--	--	--
V9_14(r)	--	--	--	--	--	--	--	0.31
V10_2	--	0.37	--	--	--	--	--	--
V10_5 (r)	--	--	0.47	--	--	--	--	--
V10_6	0.55	--	--	--	--	--	--	--

Chi-Square=6387.89, df=518, P-value=0.00000, RMSEA=0.103 AGFI = 0.70

From the values in Table 5 it can be seen that respondents are able to make a distinction between actors and dimensions of confidence. We are able to make a distinction between procedural justice of the criminal justice system in general, performance of the criminal justice system in general, procedural justice of the public prosecutor, performance of the public prosecutor, procedural justice of judges, performance of judges, procedural justice of the police and performance of the police. All factor loadings are statistically significant from zero.

Table 6: Factor structure of the second order factors (non-random error model)

First-order factors	Procedural justice	Performance
ProcJust_J	0.91	
ProcJust_P	0.67	
ProcJust_PP	0.87	
ProcJust_CJS	0.86	
Perf_J		0.90
Perf_P		0.61
Perf_PP		0.92
Perf_CJS		0.77

The higher-order factor analysis suggests that all actor-specific confidence measures have substantial and significant loadings on a general confidence second-order latent variable. It is worthwhile to notice that confidence in the police has the lowest factor loading.

Table 7: Correlation matrix between latent variables (random error model)

	Proc Just_J	Proc Just_P	Proc Just_PP	Proc Just_CJS	Perf_ J	Perf _P	Perf _PP	Perf _CJS
ProcJust_J	1							
ProcJust_P	0.61	1						
ProcJust_PP	0.79	0.59	1					
ProcJust_CJS	0.78	0.58	0.75	1				
Perf_J	0.80	0.59	0.77	0.75	1			
Perf_P	0.55	0.40	0.53	0.52	0.55	1		
Perf_PP	0.82	0.61	0.79	0.78	0.83	0.57	1	
Perf_CJS	0.69	0.51	0.66	0.65	0.69	0.47	0.71	1

All correlations significant at $p < 0.01$ or better

From the correlation matrix between the latent constructs it can be seen that actor-specific procedural justice and actor-specific performance are highly correlated. On the other hand, it is found that respondents that positively evaluate the procedural justice or performance of one actor, are also more likely to do so for the other actors. All correlations are substantive and statistically significant. It is striking that the latent constructs that refer to the criminal justice system, judges and public prosecution are correlated more highly with each other than

with the latent constructs that refer to the police. All correlations are in the expected direction. Interestingly and in line with previous studies, it was found that those that have high levels of confidence in one actor, also seem to have high levels of confidence in another actor. The correlations between the levels of procedural justice and performance of the police and the same constructs with regard to the other actors of the criminal justice system (prosecution, judges, criminal justice system in general) are somewhat lower than the correlations between the dimensions of confidence within all dimensions of the criminal justice system. This is possibly due to the fact that the police is considered different from the other actors of the criminal justice system. Our findings suggest that it is of the utmost importance to take these differences into account when confidence is measured. The two higher order factors are correlated 0.98 in this model which does not take non-random errors into account. This is surprising. It suggests that there is virtually no empirical distinction between procedural justice and performance. It is difficult to explain. There is no reason to assume that a student population is less able to make a distinction between both dimensions than respondents in a general population. In fact, we would have expected that students are more able to distinguish both constructs than respondents in a general population. The general model fit of this higher-order factor model is far from perfect (RMSEA: 0.10 and AGFI: 0.70). The main reason, as suggested by the modification indices is that to obtain an adequate model fit, all too many error covariances need to be freed.[51] From a close inspection of these modification indices, we learn that virtually all items that refer to a same actor should be freed to obtain an acceptable model fit. This approach is not always accepted by scholars, as it is often done without serious theoretical motivation, which leads to freeing error covariances that cannot be justified. In that case any result obtained is merely data-driven. Alternatively, we hypothesised that there may be two distinct sources of error covariance: (1) error covariance at the latent variable level, due to the fact that we measure procedural justice and performance towards four actors and (2) error covariance at the item level resulting from high similarities in question wording. This means that we may expect four error covariances at the latent variable level: performance of the police may share an error covariance with procedural justice of the police, performance of judges may share an error covariance with procedural justice of judges, performance of the criminal justice system may share an error covariance with procedural justice of the criminal justice system and performance of the public prosecutor may share an error covariance with procedural justice of the public prosecutor.[52]

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[51] The modification index is a lower bound estimate of the expected chi square decrease that would result when a particular parameter is left unconstrained (making it a free parameter, or adding it as an extra path). Jöreskog suggested that a modification index should be at least five before the researcher considers modifying the hypothesised model.

[52] In the analyses therefore error covariances were released between the latent variables ProcJust_J and Perf_J, ProcJust_P and Perf_P, ProcJust_PP and Perf_PP, ProcJust_CJS and Perf_CJS and between following indicators: V8_5 and V8_2, V8_7 and V8_6, V8_14 and V8_13, V8_16 and V8_15, V8_17 and V8_16, V9_10 and V9_8, V10_5 and V10_2, V10_6 and V10_2, V10_6 and V10_5 (see Table 4 for the content of these items).

Table 8: Factor structure of the 8-factor model of confidence by dimensions and actor (random error model at the indicator level and first order factor level)

Items	Proc Just_J	Proc Just_P	Proc Just_PP	Proc Just_CJS	Perf _J	Perf _P	Perf _PP	Perf _CJS
V8_1	0.75	--	--	--	--	--	--	--
V8_2	--	--	0.60	--	--	--	--	--
V8_3	--	--	--	0.81	--	--	--	--
V8_4	--	0.74	--	--	--	--	--	--
V8_5 (r)	0.59	--	--	--	--	--	--	--
V8_6 (r)	--	--	0.85	--	--	--	--	--
V8_7	--	0.82	--	--	--	--	--	--
V8_8	--	--	--	0.81	--	--	--	--
V8_9	0.82	--	--	--	--	--	--	--
V8_10 (r)	--	--	0.87	--	--	--	--	--
V8_11	--	--	--	0.87	--	--	--	--
V8_12	--	--	--	0.85	--	--	--	--
V8_13	--	0.77	--	--	--	--	--	--
V8_14	--	0.70	--	--	--	--	--	--
V8_15	0.57	--	--	--	--	--	--	--
V8_16 (r)	--	--	0.62	--	--	--	--	--
V8_17	--	0.70	--	--	--	--	--	--
V9_1	--	--	--	--	0.73	--	--	--
V9_2	--	--	--	--	--	--	0.65	--
V9_3	--	--	--	--	0.47	--	--	--
V9_4	--	--	--	--	--	--	--	0.82
V9_5	--	--	--	--	0.83	--	--	--
V9_6	--	--	--	--	--	--	0.64	--
V9_7(r)	--	--	--	--	--	--	0.43	--
V9_8	--	--	--	--	--	--	--	0.77
V9_9	--	--	--	--	--	--	0.83	--
V9_10	--	--	--	--	--	0.78	--	--
V9_11	--	--	--	--	--	--	--	0.78
V9_12	--	--	--	--	--	0.88	--	--
V9_13(r)	--	--	--	--	0.61	--	--	--
V9_14(r)	--	--	--	--	--	--	--	0.31
V10_2	--	0.37	--	--	--	--	--	--
V10_5(r)	--	--	0.38	--	--	--	--	--
V10_6	0.43	--	--	--	--	--	--	--

Chi-Square=3146.31, df=507, P-value=0.00000, RMSEA=0.06 AGFI: 0.84

All hypothesised non-random error covariances are substantial (standardised solution: 0.2-0.3). The non-random measurement model does not seem to affect the factor loadings of the latent variable model, while the model fit has improved substantively.[53] For that reason, we do not discuss this factorial structure more precisely.

Table 9: Factor structure of the second order factors (non-random error model)

First-order factors	Procedural justice	Performance
ProcJust_J	0.88	
ProcJust_P	0.65	
ProcJust_PP	0.86	
ProcJust_CJS	0.88	
Perf_J		0.87
Perf_P		0.57
Perf_PP		0.57
Perf_CJS		0.94

Interestingly, taking expected error covariances at the latent variable level (actors) into account and item level simultaneously, reveals some substantive changes in the loadings of the latent variables towards the second-order latent variables. Procedural justice of the police remains the latent variable with the lowest loading on procedural justice. With regard to the performance of the criminal justice system, the performance of the police and the public prosecutor have now both the lowest factor loadings.

Table 10: Correlation matrix between latent variables (non-random error model)

	Proc Just_J	Proc Just_P	Proc Just_PP	Proc Just_CJS	Perf _J	Perf _P	Perf _PP	Perf _CJS
ProcJust_J	1							
ProcJust_P	0.58	1						
ProcJust_PP	0.76	0.56	1					
ProcJust_CJS	0.78	0.58	0.76	1				
Perf_J	0.92	0.50	0.67	0.68	1			
Perf_P	0.45	0.90	0.44	0.44	0.49	1		
Perf_PP	0.74	0.55	0.93	0.74	0.82	0.53	1	
Perf_CJS	0.63	0.65	0.62	0.82	0.70	0.45	0.75	1

All correlations significant at p < 0.01 or better

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[53] It is important to notice that the model fit can be improved beyond our methodological exercise. However, in that case we would merely follow the structure of the data and that would be against the philosophy behind SEM modelling.

The correlations of these different dimensions of procedural justice and performance have changed marginally, but in general rather similar to the ones presented in the Table 7. The higher order factors (procedural justice and performance) have a correlation of 0.89, when taking non-random error into account.

11. Discussion and conclusion

The most important question of this exercise remains the following: How do we know which set of estimates to believe? Given the circumstances in which the questions were asked as follows: common question format, common response format (5-point scales), each question in immediate proximity to the others -there are strong theoretical reasons for suspecting non-random error to come into play. The difference in chi-square of chi-square model 1 (6871.89) minus chi-square model 2 (3146.31) and the difference in degrees of freedom (518-507=11) is significant at $p < 0.001$. The non-random error model fits the data better. This statistical test leaves little doubt that the non-random error model provides a superior fit to the data. We now turn to the answers of the research questions posed:

Research question 1a: Do the data support a non-random error eight-factor model that distinguishes between procedural justice of judges, procedural justice of the police, procedural justice of the public prosecution, procedural justice of the criminal justice system in general, performance of judges, performance of the police, performance of the public prosecution and performance of the criminal justice system in general? Research question 1b: Do the data support the idea that the actor-specific dimensions of procedural justice and performance actually reflect procedural justice and performance as higher-order latent variables?

The data do not support the idea that a non-random error model of procedural justice and performance leads to an acceptable model fit, although all factor loadings were statistically significant. This means that procedural justice and performance can be measured with regard to different actors. In the non-random model the correlation between all latent variables were significant, and the correlation between both higher-order factors was very high (0.91).

Research question 2: Do the data support a random error eight-factor model that distinguishes between procedural justice of judges, procedural justice of the police, procedural justice of the public prosecution, procedural justice of the criminal justice system in general, performance of judges, performance of the police, performance of the public prosecution and performance of the criminal justice system in general when account is taken for non-random error at the actor level and at the item level?

The data suggest that the non-random error model fits the data much better than the random error model. We identified error covariances amongst the items due to item similarities (question wording). Due to the fact that we measured two dimensions of confidence

(procedural justice and performance) for each and every actor, error covariances were specified at the latent variable level. Taking non-random error into account that may arise from question wording and from the fact that measuring different dimensions of confidence by actor, improves the model fit. One may argue that the model fit improves by definition because a non-random error model poses less restriction to the data than a random error model. However, the non-random error that has been identified, was specified and we provided a theoretical rational for the non-random error. The good news is that there was almost no difference in the correlation between the latent variables and the factor loadings remained similar. In other words, correlational validity and reliability of the measurement are not affected in a problematic way.

What lessons can we draw from this methodological exercise? A common criticism of methodological exercises is that there is little surplus value to gain when trying to model the complex relations between indicators of confidence in the criminal justice system (Pauwels & Pleysier, 2005). Yet, without studying the factor structure, it is impossible to properly understand why some models have an appropriate model fit and some other models do not have an appropriate model fit. Methodological exercises to gain insights into the factorial structure are important for studies that want to address issues concerning the covariates of confidence from competing theoretical perspectives. Before studying the theoretical correlates of procedural justice and performance, the quality of these latent variables should be tested. This study reaffirms that it is possible to measure different dimensions of confidence by actors in one questionnaire. The amount of error covariance between error covariance is huge when using a detailed questionnaire. Indeed, when providing interviewees with highly similar items for every construct, non-random measurement error is due to be a reality. If one does not model that reality, the true correlations between all latent constructs may be affected by not taking these sources of measurement error into account. However, from the present study it became clear that, while non-random error exists, the correlations between the different latent variables were rather unaffected.

What are the implications of the current findings for future studies of confidence in the criminal justice system? How detailed the focus should be with regard to measurement issues depends on the objective of the study. If the objective of a survey is to evaluate the respondents' attitudes towards specific aspects of the criminal justice system, then the items that measure both dimensions of confidence by actor are recommended. Our study reaffirms that this is possible.

What does our analysis mean with regard to previous studies? We are not saying that any of the vast number of studies that have applied conventional techniques of assessment to commonly worded batteries of survey items have wrongly estimated the quality of their measures. Our aim was rather to alert scholars to the symptoms of non-random error and to suggest that researchers test their substantive claims after a thorough analysis of the latent structure of the measures to be used. To do so, it is necessary to make allowances for non-

random error when constructing survey instruments, so that statistical models of inter-item relationships can incorporate adjustments for non-random error.

12. Appendix

Background characteristics of the respondents

Table 11: % of the respondents by study

%	Studies
22.3	Criminological sciences
13.3	Psychology and educational sciences
10.6	Humanities and arts
9.5	Medical science
9.2	Social and political sciences
8.6	Law
7.9	Economic sciences
6.7	Engineering
3.7	Science
2.7	Bio-engineering
2.1	Pharmaceutical sciences
1.8	other
1.5	Veterinary sciences
100 %	**Total respondents (N=1,101)**

Table 12: Faculty of the respondents

Faculty

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Law faculty	340	30,9	30,9	30,9
	social sciences	364	33,1	33,1	63,9
	science & meds	290	26,3	26,3	90,3
	economics	87	7,9	7,9	98,2
	Univ college	20	1,8	1,8	100,0
	Total	1101	100,0	100,0	

Table 13: Gender of the respondents

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	480	43,6	43,6	43,6
	Female	621	56,4	56,4	100,0
	Total	1101	100,0	100,0	

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CHAPTER III: Predicting legitimacy, cooperation and compliance

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Abstract

Procedural justice theory assumes that trust in procedural justice and in the effectiveness of the police are important issues for building the legitimacy of the aforementioned institution. Additionally, the perception of police legitimacy, as a result of public trust, is necessary for the recognition of police authority. When citizens acknowledge the right of the police to determine authority, they are assumed to feel the obligation to obey the police and ultimately comply with the law and cooperate with the police. This theoretical framework has mainly been tested in Anglo-Saxon countries. Hence, the purpose of this contribution is to test the key assumptions of procedural justice theory in the Belgian context using data from the European Social Survey (ESS). Little evidence was found for the procedural justice theory in the Belgian context.

Keywords: trust in the police, legitimacy, procedural justice, cooperation with the police, compliance with the law.

1. Introduction and problem statement

According to procedural justice theory, which was extensively developed by Tom Tyler (1988) and provided with an empirical basis by Thibaut and Walker (1975), public trust in the police depends on *perceptions of procedural fairness or justice* on the one hand and *perceptions of police performance or effectiveness* on the other (Benesh & Howell, 2001; Hough, Jackson & Bradford, 2012; Jackson, Bradford, Hough, Myhill, Quinton & Tyler, 2012; Sunshine & Tyler, 2003a, 2003b; Thibaut & Walker, 1975; Tyler, 2006a). One key assumption of the theory is that, concerning the police, public trust may be affected by the extent to which they are able to treat people fairly and to effectively fight crime and disorder. In several publications, Tyler (2003, 2006a, 2007, 2011) has shown that perceived procedural justice is more important in shaping public trust than perceived effectiveness. Fair and respectful treatment that 'follows the rules' is thus more important to citizens than obtaining outcomes that they regard as either fair or favourable to themselves (Hough, Jackson, Bradford, Myhill & Quinton, 2010). Public trust not only stems *from* perceptions of police activity, but is *also a prerequisite of* police functioning. In fact, public trust is on the basis of the *legitimacy* of an institution. Legitimacy is described as *the right to rule and the recognition by the ruled of that right* (Beetham, 1991; Jackson et al., 2012; Tyler, 2006b). When citizens perceive the police as legitimate, it means that the police's legal authority is accepted. This results in the willingness of the public to obey the police, comply with the law and cooperate with the police. If an individual is not willing to testify, report a crime, comply with the law or obey the police, not only is the belief that the police are worth public trust at risk, but it also affects public safety. Therefore, it is the responsibility of the government and its legal authorities to gain public trust.

The present study draws on insights gained from Tyler's procedural justice model which has been explored primarily in English-speaking cultures but has not yet been sufficiently tested in the varied cultural settings of continental and Northern Europe. For that reason, a common criticism of the procedural justice model is that it has been most frequently applied in Anglo-Saxon countries with common-law legal systems that are substantially different from the continental legal systems (Hough et al., 2010). A significant question is therefore whether this theoretical framework can be applied in other contexts where legal systems and the position of the police within them are often very different, although in all countries both institutions want to be perceived as legitimate. Moreover, a theory cannot pretend to be the final, certain truth. A theory can be corroborated and may be provisionally retained as the best available theory only until it is falsified (Popper, 1959). The purpose of this contribution therefore is to test the key assumptions of the procedural justice theory in the Belgian context. Attention is paid not only to the role of procedural justice, but also to the role of deterrence and personal morality to explain the willingness to cooperate with the police and comply with the law. This allows us to compare the impact of procedural justice with the impact of other possible determinants.

This study is also of practical as well as theoretical relevance. A test of procedural justice theory in the Belgian context could offer a contribution to the further development of policing strategies because the effectiveness of the police increases when citizens are willing to cooperate with them. If trust in police functioning plays an important role, it means that the police, through their own behaviour (honest, fair and effective handling), can influence the behaviour of citizens. In that context, public support can be relied upon when police policy calls attention to this 'model' behaviour.

Before taking a closer look at the results of the theory test, we sketch the theoretical framework of this study. In the following paragraph different explanatory models to explain why people comply with the law are presented. The explanations deduced can also be applied to explain the willingness to cooperate with the police. In the next paragraph attention is paid to the concept of legitimacy, a key concept within procedural justice theory. Because the empirical test is based on Belgian data, some background information is given about the Belgian police and political situation. The theoretical framework has produced a testable path model which is largely replicated from the study in England and Wales by Jackson and colleagues (2012).[54] The test is based on the most recent edition of the *'European Social Survey'* (ESS, 2010). Different theoretical routes are tested by which perceived trust in the police (perceived procedural justice and perceived effectiveness) through perceived legitimacy (moral alignment with, and feeling the obligation to obey, the police) lead to the willingness to cooperate with the police on the one hand and compliance with the law on the other. Likewise, an instrumental and an individual normative route are tested on their explanation strength. We examine the extent to which perceived sanction risk and personal morality affect citizens' willingness to cooperate with the police and comply with the law. The possible routes are described in detail, followed by a description of the data and the operationalization of the concepts. After a brief description of the method used in the study, the results of the test are shown. We end with a conclusion and discussion.

2. Why do people comply with the law?

Classical criminology theories focus particularly on the question of *why humans commit crime.*[55] Starting from a neoclassical perspective, crime is explained through the idea that people are rational economic creatures who make a cost-benefit analysis before considering breaking the law. When the benefits – the advantages from committing a crime – are greater than the cost – the risk of (harsh) punishment – people will commit crime (Matsueda, Kreager & Huizinga, 2006; Paternoster, 2010). Tightening sanctions, increasing the chance of

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[54] The study by Jackson et al. (2012) was at the basis of the module *'trust'* that was developed in the 2010 edition of the European Social Survey. Only the best operationalizations were kept within the ESS.
[55] See for example: Sutherland's theory of differential association, Merton's theory of anomia (Newburn, 2007; Lanier & Stuart, 2010).

getting caught and the execution of effective punishment are logical policy answers to crime according to this *instrumental approach.* In contrast, theories starting from the question of *why humans comply with the law* also pay attention to a *normative approach*. These theories recognize not only that institutes of formal control are responsible for providing social control by, for example, harsh punishment, but that informal social control also exists (Hough et al., 2010). Likewise, there are several motives other than deterrence leading to compliance. In the following we therefore pay attention to both approaches.

2.1. Instrumental approach: the role of perceived sanction risk

Starting from an instrumental approach, compliance is a result of the high costs associated with delinquent behaviour (Tyler & Huo, 2002). Hence, legal authorities can influence citizens' behaviour by threatening them with sanctions or imposing them (Tyler, 2006a). This idea is embedded in the deterrence theory, which is rooted in the analysis of human behaviour developed by early classical theorists, Jeremy Bentham in particular. According to Bentham, the severity, certainty and speed of punishment are the three key aspects for understanding the process of deterrence (Pauwels, Weerman, Bruinsma & Bernasco, 2011; Pratt, Cullen, Blevins, Daigle & Madensen, 2006; Stafford & Warr, 1993, 2006). Individuals will be deterred from committing crime when there is a high risk of (1) *severe punishment*, (2) *a certain punishment being executed* and/or (3) *the application of punishment that follows quickly after committing a crime*. However, there is empirical evidence that the association between the severity and certainty of punishment on the one hand, and self-reported offending on the other, is weak. But the association seems stronger for the certainty of punishment than for its severity (e.g., Nagin, 1998; Paternoster, 1987; Paternoster, 2010; Pratt et al., 2006). In other words, the kind of punishment that can be applied when committing a specific crime does not seem to play an important role in the motivation whether or not to perform this behaviour. On the contrary, the feeling of impunity plays a more important role. When there is no certainty of punishment being executed, this could motivate people to commit crime because they will only benefit from it. Otherwise, criminal behaviour is discouraged when individuals are sure they will be punished. The (classical) deterrence theory, however, postulates that perceived sanction risk positively affects compliance, net of individual characteristics (Pauwels et al., 2011). Only a few studies have taken into account individual characteristics. For example, Wright, Caspi, Moffit and Paternoster (2004) found a stronger deterrence effect with individuals with low self-control than with others. Research by Pauwels et al. (2011) did not corroborate these findings. However, Pauwels et al. (2011) did find a (positive) interaction effect between low morality and perceived sanction risk of vandalism and violence.

2.2. Normative approach: the role of personal morality and moral alignment

From social psychology, different psychological models are used to explain public attitudes to the criminal justice system. In such a normative approach, it is intrinsic motivation that prompts people to behave with respect to legal authorities. This *normative approach* assumes that people comply with the law, not because of the fear of being punished, but because they believe it is *the right thing to do* and they *feel morally obligated* to do so (Jackson et al., 2012; Tyler, 2006a; Tyler & Huo, 2002). In his influential publication *Why people obey the law* (2006a), Tyler distinguishes between two important types of moral obligation.

On the one hand, people will feel morally obligated to comply with the law because it is in line with *their personal morality*. Actions are driven by the intrinsic feeling that something is morally 'good' or 'bad'. Citizens obey the law because they believe that behaviour forbidden by law is also morally bad. Even if this behaviour were legal, or people would gain benefits from it, they would not commit this specific action because it goes against their own moral principles. Similarly, people will commit crime when behaviour forbidden by law is considered as morally correct or at least morally neutral (Jackson et al., 2012). The role of personal morality has been discussed in both classical and recent theories regarding delinquent behaviour (Hirschi, 1969). Numerous criminologists have studied the relationship between personal morality and self-reported offending (e.g., Hirschi, 1969; Svensson, 2004; Wikström, 2010). However, little attention has been paid to the relationship between personal morality and the willingness of individuals to cooperate with the police.

On the other hand, Tyler argues that people obey the law for the reason that they *believe the criminal justice system is legitimate*. Attitudes of individuals can be influenced by the belief that something is morally 'good' or 'bad' as well. Under the condition that legal authorities consider fairness of paramount importance, and thus act morally correctly, people will feel obligated to obey these authorities (Tyler & Huo, 2002). Moreover, Smith (2007) argues that perceived legitimacy depends on public perceptions that the police and the policed share broadly similar moral values and norms. The feeling of *moral alignment* with the police prompts citizens to obey them and to cooperate with them. Acknowledging this, it is not inconceivable that some laws may not be in line with an individual's moral principles. It is precisely the perception of legitimacy that causes the recognition by citizens that *(1) social order needs a system of laws that it is necessary to obey, and (2) an authority is needed for enforcing these laws, net of individual preferences and net of the fact that one does not agree with a specific law* (Jackson et al., 2012).

Regarding moral alignment with the police, people will behave correctly because they feel morally obligated in respect of an external, legal authority which is perceived as legitimate. This is in contrast with personal morality, where it is an internalized obligation to follow one's own belief about 'right' or 'wrong' that motivates people to behave correctly. Considering this normative approach, the threat of punishment will not lead to law-abiding

behaviour. To enhance compliance and cooperation, it is of the utmost importance that the police and criminal justice system is perceived as legitimate. In particular, perceived procedural justice is essential in shaping attitudes to legal institutions. When police officers and justice officials act in a procedurally just way, citizens will perceive them as legitimate. It is much easier for the government to respond to moral alignment than to personal morality. The government can outline which norms and values legal authorities have to pursue through regulation. However, government cannot control an individual's feeling about what is morally 'good' or 'bad'. When the police are not perceived as legitimate because of unfair treatment, citizens will impeach the police as legal authorities. The question arises whether the police are in the right position to enforce good behaviour since they act improperly themselves.

Although the models mentioned above are seen as particularly influential in the literature, there could be other reasons why people obey the law (Bottoms, 2001; Jackson et al., 2012). The most obvious answer to the question of why people obey the law is that it has become a *habit*, meaning it is enshrined in everyday life. Even if the opportunity arose, it is unlikely that an individual would break the law, because it is unusual to do so. Furthermore, people can be obstructed in terms of committing crime and it is the obstruction that enables people to obey the law (Hough, 2012). Likewise, individuals cannot commit crime when they are sleeping (natural obstruction) or when they are in prison or in a mental institution (forced obstruction). Even the environment can 'force' someone to obey the law. When there is no opportunity, people cannot commit crime. In this case, situational prevention strategies are relevant to enforce law-abiding behaviour.

3. Legitimacy as a key concept within procedural justice theory

None of the contemporary democratic societies can escape from the interest in the legitimacy of their institutions. Legitimacy is of major concern to guarantee an effective functioning of democratic institutions, such as the police and the criminal justice system (Van Damme & Pauwels, 2011). Research has shown that the legitimacy of authorities plays an important role in gaining public support for imposed rules and decisions made by these authorities (Hinds & Murphy, 2007). Legitimacy can be understood in two ways. When institutions meet various agreed objective criteria, like the absence of corruption, they achieve *legitimacy based on an objective standard*. However, there is also *perceived legitimacy*. In this case it does not matter whether institutions meet objective criteria, as only the public perception of legitimacy matters. Only an institution that commands high levels of perceived legitimacy can count on public support (Hough, 2010).

In line with this second interpretation of the concept, Huyse (1996, p. 7) defines legitimacy as: *'the conviction, in large sections of the population, that political institutions and their members are worth public trust'*. Derived from this definition, trust and legitimacy are two

close-knit concepts. Tyler (2003, 2006a, 2007, 2011) has already shown that trust in the fairness and honesty of the legal system is of far more importance to the perceived legitimacy than trust in its effectiveness. In general, there are two criteria for judging the fairness of procedures that are used by legal authorities: (1) *the quality of decision-making* and (2) *the quality of the personal treatment one receives*. First, citizens want to feel that authorities handle their questions and/or problems honestly, objectively and without bias. They want to be treated and helped in the same way as any other individual in the same situation. *Neutrality* has to be central in the process of decision-making. Second, citizens want to be treated with *dignity and respect*, regardless of their role as a victim, suspect or witness. They want respect for their rights and position within society. Lastly, in terms of both criteria, Tyler and Fagan (2008) argue that it is important for citizens to have the opportunity to explain their visions and behaviour before the police take decisions. They want to participate actively (having a *voice*) in discussions during the decision-making process. Hence, if an individual believes that an authority has attempted to be neutral, has treated him/her with respect and has given him/her voice, feelings of fairness will be enhanced (Murphy, 2003, 2005) and he/she might perceive this authority as having legitimate power.

From a psychological perspective, *legitimate authority* means that citizens recognize (1) *the existence of this authority* and (2) *the right of this authority to command respect and use force* (Tyler, 2006a, 2006b). With regard to the police, this means that legitimate police officers have the right to command and use force when laws are not followed and this right is recognized by the public. Legitimacy can be considered as *a characteristic* of an authority, law or institution that is not purely instrumentally inspired, but is based on the orientation of the social values of the public toward the authorities. Hinds and Murphy (2007, p. 27) argue that *'...people defer to and obey an official directive or command by legitimate institutions because people respect (and accept) the institution's authority to make decisions and not because of the threat of sanction for disobedience'.* Citizens will *voluntarily obey* because of the *respect* they have for the police as legal authorities, more than because of the fear of being sanctioned when they behave improperly. In their study, Jackson et al. (2012) make a distinction between two specific dimensions of legitimacy. According to Jackson et al., perceived legitimacy is not only *the recognition of power* by the public, which is based on the idea that a legitimate authority has the right to be obeyed, but also *the justification of power*, which is based on the perception that the police and public share similar values and norms. Hence, the perception of police legitimacy is instantiated not only due to the willingness to obey the police (public recognition), but also due to the belief that citizens and police share the same values and norms (moral alignment). Several scholars have found an association between perceptions of police legitimacy on the one hand and different forms of public support for the police such as the willingness to cooperate with the police and obey the law on the other (Hough et al., 2010; Jackson et al., 2012; Murphy, 2009; Murphy & Cherney, 2012; Reisig, Bratton & Gertz, 2007; Reisig & Lloyd, 2009; Tyler, 2006a; Tyler & Fagan, 2008; Tyler & Huo, 2002). According to Tyler, police strategies have to centre their

attention on building public trust so that the police will be perceived as legitimate and thus voluntary obedience will be achieved (Hough et al., 2010).

4. Belgian situation

Before presenting the results of the empirical test, it is necessary to briefly outline the Belgian situation. The history of the Belgian police has undergone some major changes due to some police scandals which had a serious impact on public opinion. In particular, a number of shortcomings in the Dutroux investigation[56] caused widespread discontent with the country's criminal justice system. The ensuing scandal was one of the reasons for the reorganization of Belgium's law enforcement agencies. Before 1998 the Belgian police consisted of three different forces, namely the municipal police, the national enforcement service and the judicial police. Coordination between these three forces was lacking, responsibilities were overlapping and the different police forces distrusted each other. In Belgium, this situation is referred to as *'la guerre des flics',* or the war between police officers (Enhus & Ponsaers, 2005). To end this war, the Belgian parliament adopted the law organizing an integrated police service structured on two levels, a federal and local level, on December 7th 1998. On January 1st 2001 the law was implemented. Although both levels are autonomous, they work in close cooperation and complement each other. The vision of the integrated police is summarized in one concept: *'excellent police function'*. This concept is based on three different notions, namely a focus on community, intelligence-led policing and optimal management. Both local and federal police members have to apply the same core values such as integrity, respect, loyalty, flexibility, responsibility, etc. (Federale Politie, 2013). Since the implementation of the law on the integrated police, public confidence in the Belgian police has increased (Van Damme, Pauwels, Pleysier & Van de Velde, 2012). But still, the police are not without scandals. Most of the time, individual policemen come into disrepute. For example, former federal police superintendent Fernand Koekelberg had to step down due to the irregular appointment of his two secretaries and due to financial irregularities. Not only at the top of the federal police, but also within lower ranks of the federal and local police, scandals arise occasionally (Van Damme & Pauwels, 2011). All these mediatized incidents affect the image of the Belgian police (Elchardus & Smits, 2002). Tully (1996) argues that trust in the police depends on the functioning of each individual within an institution and not only of the executive(s). The abuse of power or authority by one individual can thus negatively affect public trust in the police as an organization.

Also the Belgian political situation might affect citizens' perceptions of the legitimacy of the government and the police. Belgium can be considered a *'divided society'*. The country contains of three communities: the Walloon Region, which is a French-speaking community,

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[56] Marc Dutroux was convicted for kidnapping, torturing and sexually abusing six little girls, ranging in age from 8 to 19, during 1995 and 1996. He killed four of them. He was arrested in 1996 and has been in prison ever since. His trial took place in 2004.

Flanders, which is a Flemish-speaking community, and the Brussels-Capital Region, which is a bilingual area. In 2010-2011 Belgium broke the world record for taking the longest time to build a government. The trigger for this political crisis was a dispute over the language rights of francophones who live in Flemish-speaking suburbs on the outskirts of Brussels. The political parties not only had opposite opinions about this topic, but also about other things such as solidarity, and they could not reach a working solution. However, the absence of a government did not change Belgians' day-to-day life. A lot of functions such as education and welfare have already been for a long time in the hands of the communities. For outsiders, Belgium seemed less stable than for Belgians themselves. But, when the legitimacy of government is questioned, it might affect the legitimacy of its authorities such as the police as well.

5. Testable routes to explain the willingness to cooperate with the police and comply with the law

Earlier, Jackson et al. (2012) identified different routes by which citizens are willing to cooperate with the police and comply with the law. In this contribution, we start from the basic assumption that can be found in this study. A model is tested in which we start from four exogenous variables: perceived sanction risk, perceived procedural justice of the police, perceived effectiveness of the police, and personal morality. We assume that moral alignment with the police and obligation to obey the police are intermediate variables that can explain why individuals feel the willingness to cooperate with the police and comply with the law. The theoretical model that was tested in England and Wales by Jackson et al. (2012) is largely replicated in this study.

Figure 3: Theoretical path model: multiple routes lead to cooperation with the police and compliance.
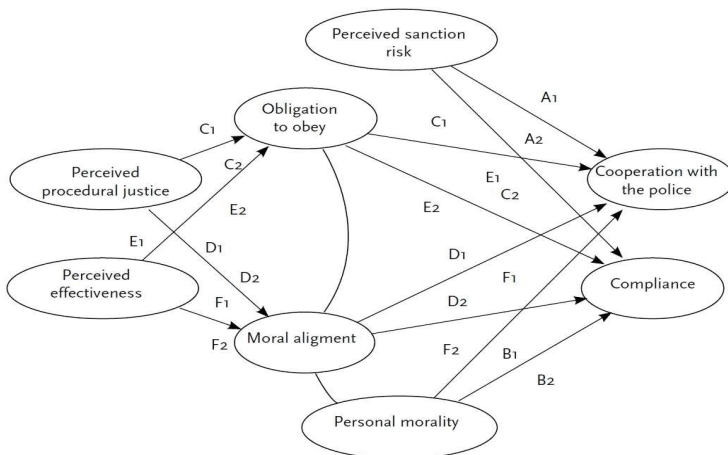
Figure 3 specifies a number of routes leading to *cooperation with the police* and *compliance with the law*. Consider routes A1 and A2, which are a visualization of the instrumental approach. It is assumed that an individual will cooperate with the police or comply with the law because of the *risk of being sanctioned* when he does not do so.

Routes B1 and B2 refer to the individual, normative approach. Likewise, individuals will cooperate with the police or comply with a specific law because of their *own moral principles*. When a person does not believe in the moral correctness of a situation, he will not cooperate with the police or may even commit a crime.

The starting point of routes C1, C2, D1, D2, E1, E2, F1 and F2 is public trust in the police. It is assumed that trust in the police depends on *perceptions of police procedural justice* on the one hand, and *perceptions of police effectiveness* on the other. As we described earlier, public trust in the police is of high importance to perceptions of police legitimacy. Following Jackson et al. (2012), we also distinguish between two dimensions of perceived legitimacy, namely *(feeling) the obligation to obey the police* and *moral alignment with the police*. Routes C1, C2, D1 and D2 go from perceived police procedural justice to (1) obligation to obey and (2) moral alignment. Likewise, routes E1, E2, F1 and F2 go from perceived effectiveness of the police to (1) obligation to obey and (2) moral alignment. The theory argues that there should be a larger effect of perceived procedural justice on perceived legitimacy than of perceived effectiveness. Furthermore, routes C1, C2, E1 and E2 show that when people recognize the authority, and thus the power of the police, this will lead to cooperation with the police and compliance with the law. Considering routes D1, D2, F1 and F2, cooperation with the police and compliance will be encouraged when there is a feeling of moral alignment with the police. It is the moral identification with the police and the group for which the police stand that stimulates people to cooperate and comply with the law.

Jackson et al. (2012) did not find empirical evidence for the association between perceived sanction risk and compliance with the law. On the other hand, personal morality seemed to be an important significant predictor. Furthermore, they did find strong empirical support for the statistical effects of trust in police procedural justice on perceived police legitimacy. By contrast, trust in police effectiveness seemed only a weak predictor in the explanation of moral alignment with the police. What is more, trust in police effectiveness had no significant effect on obligation to obey the police at all. The researchers did not find a direct, but an indirect effect of obligation to obey the police on compliance with the law. Feeling the obligation to obey the police had a strong positive effect on perceived legitimacy of the law. This additional variable seemed to be a predictor of compliance. They also found an effect of moral alignment on compliance. Individuals with a strong feeling of shared values and norms seemed to report committing less crime than others.

6. Data

The European Social Survey is an academically driven social survey that maps the attitudes, values and opinions of the inhabitants of more than 20 European countries and it shows how they evolve. Furthermore, the ESS strives for high-quality methodological standards in its surveys both within and outside Europe. The ESS is known as of the highest quality surveys, in which great effort is made to maintain high response rates and to guarantee the validity and reliability of the measurement instrument. In round 5, special attention was paid to two topics: (1) work, family and well-being, and (2) trust in the criminal justice system. In this contribution we use the Belgian data from this round. Only persons aged 15 years or older who are resident within private households were questioned, net of their nationality, language or ((il)legal) status. From September 2010 to January 2011, data were assembled on 1,704 Belgian respondents by means of a face-to-face survey. This was a response rate of 53.43% (Norwegian Social Science Data Services, 2012). The major reasons for non-response were: refusal, no contact after four efforts were made, mentally or physically unable to participate, and a language barrier.

7. Operationalizations

To make abstract concepts tangible or measurable, they need to be operationalized. This is the translation of the theoretical model into empirical terms and relations (Billiet, 1996). In the ESS, Likert scales were used for the measurement of attitudes to the police, whereby abstract concepts were measured by well-considered sets of items (Pauwels, 2012). These items or indicators were questions or statements that had to be answered in the survey. The validity of every scale was tested by estimating Cronbach's alpha.[57] A frequent criticism of secondary data is that the researcher cannot choose the operationalization of the concepts him/herself. The trust module, developed for the ESS, was carefully prepared, however. A multidisciplinary team of researchers, the Euro-Justis team, was responsible for this.[58] On the basis of a well-considered theoretical framework, questions were developed for the trust module. Pilot surveys in Bulgaria and the United Kingdom tested the quality of the module. Attention was paid to the wording of the questions, the expected relations between the variables, the identification of the best indicators and the time needed to answer the questions (Jackson et al., 2011). Eventually, only the 45 best indicators were selected. Although we are limited in this study by the content of the ESS, nevertheless the operationalizations are of high quality. In the following paragraph we describe the operationalizations of the concepts used in this study.

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[57] Cronbach's alpha is a coefficient of internal consistency. All items have to measure the same concept. A value less than 0.80 indicates little consistency between the items. In practice, values of 0.60 or higher are acceptable (Baarda & De Goede, 1995; Pauwels, 2012).
[58] More information about Euro-Justis can be found on the following website: http://www.eurojustis.eu

Perceived police ***procedural justice*** was measured by a summated Likert scale of three items concerning the quality of citizens' treatment by the police and the quality of the decision-making by the police. These three items were: *'Based on what you have heard or your own experience, how often would you say the police treat people in Belgium with respect?' (D15),* *'About how often would you say that the police make fair, impartial decisions in the cases they deal with?' (D16),* and *'When dealing with people in Belgium, how often would you say the police generally explain their decisions and actions when asked to do so?' (D17).* Each time four answer categories were offered, ranging from '...not at all often' to 'very often'. High scores on the scale reflect a high level of perceived procedural justice (Cronbach's alpha = 0.65).

Perceived police ***effectiveness*** was also measured by a summated Likert scale consisting of two items: *'Based on what you have heard or your own experience, how successful do you think the police are at <u>preventing</u> crimes in Belgium where violence is used or threatened?' (D12),* and *'How successful do you think the police are at <u>catching</u> people who commit house burglaries in Belgium?' (D13).* People had to answer on a 10-point scale ranging from 'extremely unsuccessful' (0) to 'extremely successful' (10). A high score on this scale indicates a high trust in the effectiveness of the police (Cronbach's alpha = 0.77).

For the operationalization of ***perceived police legitimacy*** the two dimensions recognized in the study by Jackson et al. (2012) were taken into account, i.e. a moral dimension (moral alignment with the police) and a behavioural dimension (obligation to obey the police). Although the two summated Likert scales are related, exploratory factor analysis showed that the dimensions are empirically different. ***Moral alignment with the police*** was measured by the following items: *'The police generally have the same sense of right and wrong as I do.' (D21), 'The police stand up for values that are important to people like me.' (D22)* and *'I generally support how the police usually act.' (D23).* Respondents were asked to mark the extent to which they agreed with the statements described above (1 = agree strongly and 5 = disagree strongly). Items on this scale were recoded and a high score refers to a high level of moral alignment with the police (Cronbach's alpha = 0.76). ***Obligation to obey the police*** was measured by the following three items: *'To what extent is it your duty to...: '...back the decisions made by the police even when you disagree with them?' (D18),* *'...do what the police tell you even if you don't understand or agree with the reasons?' (D19),* *'...do what the police tell you to do, even if you don't like how they treat you?' (D20).* People were asked to answer on a 10-point scale ranging from 'not at all my duty' (0) to 'completely my duty' (10). High scores on the scale reflect a strong feeling of obligation to obey the police (Cronbach's alpha = 0.83).

Perceived sanction risk was measured by a summated Likert scale whereby three frequently occurring offences were presented to the respondents. The respondents had to mark how likely it was that they would be arrested and punished when committing these specific offences. People were asked about the risk of arrest and punishment for: *'Making an*

exaggerated or false insurance claim' (D4), 'buying something that might be stolen' (D5) and *'committing a traffic offence like speeding or crossing a red light' (D6)* (A 4-point scale with 1 = not at all likely and 4 = very likely). High scores on the scale refer to a high estimation of sanction risk (Cronbach's alpha = 0.74).

These three specific offences were used for the operationalization of **personal morality** as well. Respondents were asked to give an indication of how wrong it was to: *'...make an exaggerated or false insurance claim' (D1), '...buy something that you think might be stolen' (D2)* and *'...commit a traffic offence like speeding or crossing a red light' (D3).* Possible answers ranged from 'not wrong at all' (1) to 'seriously wrong' (4). High scores on the scale indicate that one strongly premises intrinsic moral principles (Cronbach's alpha = 0.65).

A summated scale was used to measure the willingness of the respondents **to cooperate with the police**. Respondents had to answer several questions about what they would do if they witnessed a crime. More precisely, they were asked: *'Imagine that you were out and saw someone push a man to the ground and steal his wallet. How <u>likely</u> would you be to call the police?' (D 40)* (1 = not at all likely to 4 = very likely), *'How willing would you be to identify the person who had done it?' (D 41)* (1 = not at all willing to 4 = very willing) and *'How willing would you be to give evidence in court against the accused?' (D42)* (1 = not at all willing to 4 = very willing). High scores on this scale refer to a great willingness to cooperate with the police (Cronbach's alpha = 0.79).

Obeying the law, or in other words **compliance**, was measured with one single question: *'How often have you bought something you thought might be stolen in the last five years?' (D44)*. The possible answers were: never, once, twice, 3 or 4 times, 5 times or more. When people reported at least once, this meant that they do not strictly comply with the law.[59]

8. Method and plan of analysis

To answer the research questions, we used *structural equation modelling* (SEM). SEM offers the opportunity to explore the extent to which a specific theoretical model can explain the relations between the observed variables. Structural equation models consist of a measurement model and a structural model. In the measurement model the relations between the observed and latent variables are specified. In the study in hand, the factor

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[59] Originally three self-report items were supplied in the ESS: *'How often have you... '...made an exaggerated or false insurance claim...' (D43), '...bought something you thought might be stolen...' (D44)* and *'...committed a traffic offence like speeding or crossing a red light...' (D45)...in the last five years?'* Hence, the reality has shown that this operationalization is hard to use in empirical research. This is because the vast majority (1678 /1704) answered 'never' to the question concerning the insurance claim. The opposite happened for the question concerning the self-reported traffic offence. Here, only a small minority (720/1704) answered 'never'. Only the question about whether they had bought something they thought might be stolen in the last five years had enough variation to be used in the analyses. We have to keep in mind this shortcoming when interpreting the findings. When working with secondary data, people are forced to use what they have as best as they can.

analytical constructed variables from Tyler's theory are the latent variables. The variables or items used in a factor analysis need to fulfil certain conditions; otherwise the factor analysis is not meaningful. First, the variables need to be measured at least at interval level. Second, the number of respondents has to be satisfactory (rule of thumb: preferably at least ten times as many respondents as variables). Third, the sample may not be homogeneous (in which case the factor analysis does not provide clear factors), but at the same time the sample may not consist of several subgroups (in which case the different factor structures will flow through each other). Because all of the items are measured at the ordinal level and do not meet the condition of a multivariate normal distribution, all the structural equation models were performed based on the asymptotic covariance matrix. By doing so, the standard errors are estimated with the 'Weighted Least Squares' (WLS)-method (Jöreskog, Sörbom, Du Toit & Du Toit, 1999). In order to evaluate the fit of the models, the root mean square of approximation (RMSEA) is preferred over the Chi-square value as a measure of overall fit. Chi-square tends to be very sensitive to the size of the sample, producing accumulated high values of the statistic, i.e., the 'uncritical' rejection of models, in the case of large samples. RMSEA, on the other hand, is a measure of 'close fit', indicating that it takes into account the error of approximation in the population as well as the precision of the measure itself (Jöreskog & Sorböm, 1996). Models with an RMSEA < 0.05 are considered acceptable (Billiet & McClendon, 2000). In their research, Jackson et al. (2012) used the same method with just a subtle difference. This study starts from the asymptotic covariance matrix for ordinal variables whilst Jackson and colleagues started from Likert scores.

9. Results

The theoretical path model of Figure 3 was tested. Figure 4 and Table 14 visualize the results of the statistical model that best fits the data.[60]

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[60] We decided to test both compliance with the law and the willingness to cooperate with the police in one model. When we tested two different models, the same results were found. The model fit was sufficient, namely 0.03 instead of 0.028.

Figure 4: Results path model for the explanation of cooperation with the police and compliance.
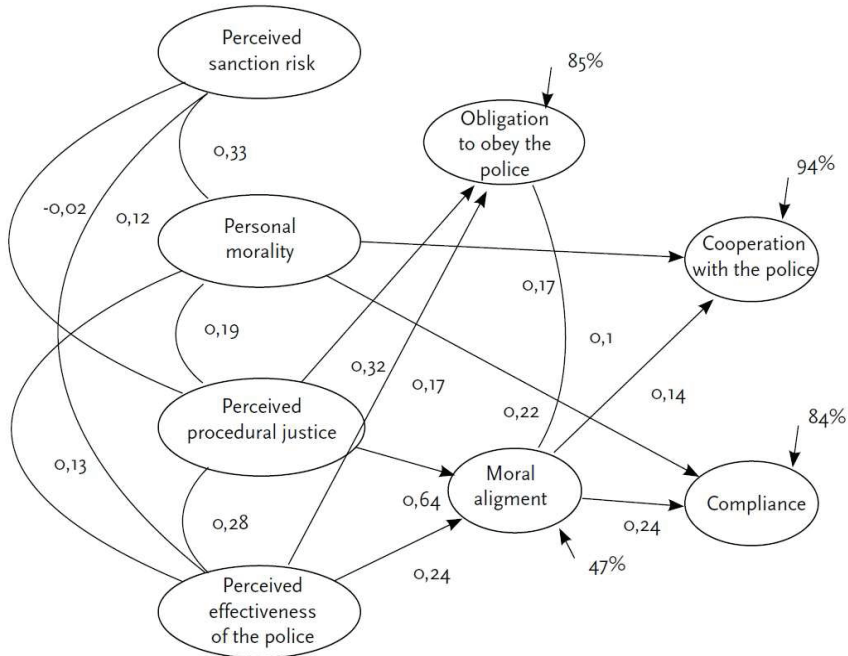
Table 14: Structural equations – direct effects – standardized path coefficients of the structural model

Obl to obey=	0.17*effect. (0.049) 3.47	+0.32*proc.just. (0.041) 7.82	Errorvar.=0.85 (0.063) 13.53	R² = 0.15
Mor.align.=	0.24*effect. (0.053) 4.49	+0.64*proc.just. (0.044) 14.53	Errorvar.=0.47 (0.053) 8.90	R² = 0.53
Cooper.=	0.14*mor.align. (0.037) 3.76	+0.17*pers.moral. (0.039) 4.24	Errorvar.=0.95 (0.070) 13.45	R² = 0.055
Compl.=	0.24*mor.align. (0.050) 4.79	+0.22*pers.moral. (0.053) 4.08	Errorvar.=0.61 (0.054) 11.32	R² = 0.16

Chi-Square= 413.94, df 176, p=0.00000. CFI 0.93; AGFI 0.91; RMSEA 0.028
Error covariance between feeling the obligation to obey the police and moral alignment[8] = 0.1

[8] Because these variables are two dimensions of the same concept ('perceived legitimacy') it is not advisable to draw a 'causal arrow' between these dimensions. When one dimension of a concept explains the other, a tautology is not far off.

Considering the results, there is no empirical evidence that instrumental motivations are the basis of the obligation to cooperate with the police and comply with the law. Thus, the deterrence model, as described in the theoretical background of this study, did not receive any empirical support. This was also one of the findings in the studies of Hough et al. (2010) and Jackson et al. (2012).

As we assumed, trust in the police seems to be an important predictor of perceived legitimacy. Above all, we expected that perceptions of procedural justice are the most important factors in shaping perceptions of police legitimacy. The results endorse our hypothesis. There is a strong positive effect of trust in police procedural justice (0.64) and a less strong effect of trust in police effectiveness (0.24) on moral alignment with the police. When citizens feel that the police are treating them fairly, they will feel that they are all on the same side. Besides, 53% of the variation in moral alignment can be explained by the model. Concerning obligation to obey the police, the effect of trust in procedural justice (0.32) is also greater than the effect of trust in police effectiveness (0.17), but the variation of obligation to obey the police that is explained by the model amounts to only 15%. This means that there are a lot of other possible explanations for why citizens feel obliged to obey the police. In their study, Jackson et al. (2012) found similar results.

We assumed that trust in the procedural justice and in the effectiveness of the police affects the willingness to cooperate with the police and comply with the law through the intermediate variables obligation to obey the police and moral alignment. The route starting from the exogenous variable perceived procedural justice through obligation to obey the police to (1) the willingness to cooperate with the police and (2) compliance with the law leads to a dead end at obligation to obey the police. Likewise, the route starting from perceived police effectiveness to the willingness to cooperate with the police and compliance through obligation to obey the police leads to a dead end at this last named variable. Thus, perceived legitimacy, more specifically feeling the obligation to obey the police, does not seem to be a mediator for the effects of trust in police procedural justice or effectiveness on the endogenous variables compliance and the willingness to cooperate with the police. This is because there is no significant effect of the assumed intermediate variable on these endogenous variables. Compliance with the law and the willingness to cooperate with the police is thus not associated with the feeling that one has to obey the police because they are 'the' police.

However, the routes starting from perceived police procedural justice through moral alignment with the police to cooperation with the police on the one hand, and compliance with the law on the other, receive empirical support. The effect of perceived procedural justice on moral alignment is strongly positive (0.64). There is a weak positive effect of moral alignment on the willingness to cooperate with the police (0.14) and a modest positive effect of moral alignment on compliance with the law (0.24). The perception of whether or not people are treated honestly and with respect by the police is thus very important in feeling

morally aligned with the police. This feeling of moral alignment, namely that police and citizens share the same values and norms, is in turn of significant importance for the willingness to cooperate with the police and comply with the law. The routes starting from perceived police effectiveness on the willingness to cooperate with the police and compliance with the law through moral alignment also receive empirical support. However, the effect of perceived police effectiveness on moral alignment is positive, but modest (0.24). The effect of moral alignment on the willingness to cooperate with the police is also positive, but weak (0.14). Furthermore, there is a positive modest effect of moral alignment on compliance (0.24). Perceived legitimacy, or more precisely moral alignment, seems to be a mediator for the effect of trust in police procedural justice and police effectiveness on compliance and the willingness to cooperate with the police.

Just as in the studies of Wikström (2010) and Jackson et al. (2012), there seems to be an important independent route starting from one's personal morality. There is a weak positive effect of personal morality on the willingness to cooperate with the police (0.17) and a modest effect of personal morality on compliance (0.22). This endorses the assumption that feelings of what is morally wrong and right have an influence on whether or not to commit an offence and the willingness to cooperate with the police. The more people believe that behaviour such as buying something that might be stolen is wrong, the less they report doing this in the last year and the more they are willing to cooperate with the police.

10. Conclusion and discussion

In this contribution we have presented the results of a test of the procedural justice model on Belgian ESS data. Not only was the role of procedural justice taken into account, but also the role of other possible determinants to explain compliance with the law and the willingness to cooperate with the police. In the following we highlight the main findings of this study and we formulate some critical comments.

What is the role of deterrence?

Our results suggest that, since perceived sanction risk did not have a significant effect on compliance with the law and the willingness to cooperate with the police, 'crime control' policy does not need to focus primarily on tightening up sanctions or increasing the chances of being caught. However, the argument that deterrence does not work is probably overstated. *First*, this study is just a snapshot that needs to be placed in the actual spirit of the times, which is characterized by a feeling of impunity. Considering this, deterrence might not work because individuals do not believe in the risk of being sanctioned, net of the objective risk of punishment. *Second*, questions arise about the operationalization of *'perceived sanction risk'*. The question 'How often have you made an exaggerated or false insurance claim?' did not have enough variation to use in the operationalization of compliance with the law. 98.5% of the respondents answered that they had never done it.

This means that it is not an everyday crime. However, on the basis of the results of the survey, the question is to what extent can individuals estimate the objective risk of arrest and punishment for this crime. In addition, the risk of punishment for traffic offences might be overestimated. Belgium has a lot of speed cameras, trajectory speed controls and mobile speed cameras, which means that the chance of getting caught when driving too fast is plausible. Citizens are aware of this and they realize that there is a possibility that they will be flashed. Once flashed, they will be sanctioned. Jackson et al. (2012) argue that traffic offences need to be studied separately. Likewise, it is assumed that the risk of being sanctioned when committing a traffic offence will be an important predictor for compliance with traffic laws, but not for compliance with the law in general. This brings us to a *third* comment. The operationalization of *'compliance'* is also debatable. This variable was measured with just one indicator related to a self-reported crime. Self-reported traffic offences, like speeding, were not used in the operationalization because they are quite different from the other indicators. They are considered less 'morally bad' than other types of crime such as theft or the use of violence (Jackson et al., 2012) and are therefore more reported in surveys than other offences. Only the question 'How often have you bought something you thought might be stolen in the last five years' is used to measure this variable. Only someone giving the answer 'No' was considered to comply with the law. This question refers to *receiving*, which is criminalized by Article 505 of the Belgian Criminal Code. Only this question had enough variance to work with in the analyses. This operationalization is thus very limited. Somebody who did not report receiving, but who was guilty, for example, of theft or violence, was considered to comply with the law. Moreover, the term 'might' in the question can have an impact on the results. Namely, the thing might be stolen or it might not. If somebody buys something that was not stolen, then there is no crime. Furthermore, an average citizen may have trouble imagining a situation in which he would buy something that might be stolen. And even if he could, why would he think this is wrong? In Belgium everybody is considered to know the law, but the question is whether or not everybody knows that receiving is punishable. Most citizens will consider theft to be a crime, but not buying something that might be stolen. After all, they paid for it. Buying something that might be stolen is considered to be less morally bad. Most likely, the main remark here is that the self-report method is not very good when conducting research on adults (Thornberry & Krohn, 2000). A *fourth* point is related to the fact that deterrence does not seem to work for the willingness to cooperate with the police. These results are not surprising. In this study the willingness to cooperate with the police was operationalized by asking the respondents about their willingness to report a crime, identify an offender and give evidence against the accused in court. It is almost undetectable when somebody does not report a crime. This means that the risk of being sanctioned is minimal. This is the same for the willingness to identify a person or to witness in court.

What is the role of personal morality?

Empirical evidence was found for the individual, normative approach. Respondents who considered specific attitudes as morally bad, whether or not these attitudes were punishable by law, reported feeling less guilty about receiving than others. But there is a chance that a stronger effect of personal morality on compliance would be found when compliance was operationalized differently. Personal morality also seemed to be a predictor for the willingness to cooperate with the police. Those who scored high on the scale 'personal morality' reported being more willing to report crimes, identify offenders and witness in court.

What is the role of trust in the police?

Trust in the police as a predictor for, on the one hand, compliance with the law, and on the other hand the willingness to cooperate with the police, is complex. *First*, in this study we made a distinction between two dimensions of trust, namely perceived police procedural justice and perceived police effectiveness. *Second*, we examined the effect of these dimensions of trust on perceived police legitimacy. Like Jackson et al. (2012), we also made a distinction between two dimensions of perceived legitimacy, namely moral alignment with the police and feeling the obligation to obey the police. We assumed that trust in the police, through perceived police legitimacy, would affect compliance with the law and the willingness to cooperate with the police. Only moral alignment with the police seemed to have a significant influence on compliance and the willingness to cooperate with the police. Moral alignment with the police was especially shaped by perceived procedural justice and less by perceived police effectiveness. In the ESS, police procedural effectiveness was questioned in terms of preventing crimes and arresting individuals. This indeed belongs to the responsibilities of the police, but the police function is more than this. Net of the fact that there is a big debate in Belgium ongoing about the core business of the police, Verwee (2013) argues that there is, both nationally and internationally, a widening of the police function. Likewise, there is more and more emphasis on the social aspects of the police and their tasks. As well as fighting crime, the police have to maintain order and offer help in the case of social problems. Thus, the results of the ESS only give a restricted indication of how successful citizens believe the police are when doing their tasks. Furthermore, the extent of trust for each aspect of police functioning might not be at the same level. It is possible that the extent of trust in the effectiveness of the police as 'crime fighters' is at a higher level than the extent of trust in the effectiveness of the police as 'maintainers of public order' or the other way around. In this study, the role of trust in police procedural justice seemed to be important for the explanation of moral alignment with the police. Respondents who perceived the police as an institution that handles issues correctly and honestly also believed that police and citizens share the same values and norms. Furthermore, moral alignment with the police seemed to positively affect compliance with the law and the willingness to cooperate with the police. Jackson et al. (2012, p. 13) even state that: *'if the police can*

behave unfairly, so can I'. Besides, the findings have shown that when an individual does not believe that the police have treated him in a fair way, he will be less willing to obey the police. The police can only benefit from paying attention to the manner in which they treat citizens and how they make decisions; this is not only because it directly affects the willingness to obey the police but also because it affects the willingness to comply with the law and cooperate with the police through moral alignment with the police. This shows the importance of the core values such as integrity, neutrality, respect, honesty and fairness that have to be pursued by every Belgian police officer. Obligation to obey the police, as a dimension of perceived police legitimacy, did not seem to influence compliance and the willingness to cooperate with the police. The different results that are found for the two dimensions of perceived police legitimacy show that future research needs to distinguish between these two dimensions. Tyler, Jackson and Bradford (in press) noted: *'Whether moral alignment is important in other countries, and whether it can be reasonably thought of as legitimacy, remains an open and empirical question'*. In several societies the police are seen as the last resort. In these societies it is of less importance that police and citizens share the same values and norms. It is possible that the public supports the police although there is no feeling of moral alignment.

Is everything explained?

It cannot be assumed that the model tested in this study offers a ready-made reply to the question of why Belgians are willing to cooperate with the police or why they comply with the law. *First*, only 6% of the variance in the willingness to cooperate with the police can be explained by the model and only 17% of the variance in the willingness to comply with the law. This means that a lot of other determinants might play a role. For example, adding police contacts, both positive and negative, can improve the theoretical model. *Second*, the way in which *'compliance with the law'* was operationalized is not optimal. Future research has to pay attention to an operationalization that best fits the concept. A different operationalization may generate other findings. This might be the same for the explanation of *'the willingness to cooperate with the police'*. Tyler and Fagan (2008) identified two different forms of cooperation with the police. The first one can be seen as 'one-way' cooperation (i.e. from the public to the police). Likewise, citizens cooperate with the police when they help in solving specific crimes, e.g. by reporting a crime. The second form of cooperation can be seen as a 'partnership' between police and public. Police and citizens work together to solve problems that occur within society, e.g. neighbourhood watch. In the ESS only the willingness of the first form of cooperation was measured. It is possible that other results will be found when the second form of cooperation is taken into account. This is because citizens will experience direct benefits from this partnership, such as the protection of their own residence. *Third* and lastly, we want to point to the cross-sectional characteristic of the survey. This means that the results cannot be interpreted in terms of causal relationships. What is more, it is not because respondents report that they will

cooperate with the police or comply with the law in the future that they will do this in reality.

Although some critical comments are made, this study has shown the importance of trust in police procedural justice in explaining citizens' attitudes towards the law and the police in Belgium. Most of the results were in line with previous studies, but there were also some differences. This study can therefore be an important contribution to both policy and theory.

11. Appendix

Table 15: Measurement model – factor analysis of the latent variables

Items	Pers. sanction risk	Pers. proc. just.	Pers. effect.	Pers. moral.	Oblig. to obey	Moral align.	Will. to cooper.
D1	--	--	--	0.73	--	--	--
D2	--	--	--	0.78	--	--	--
D3	--	--	--	0.50	--	--	--
D4	0.85	--	--	--	--	--	--
D5	0.78	--	--	--	--	--	--
D6	0.56	--	--	--	--	--	--
D12	--	--	1	--	--	--	--
D13	--	--	1	--	--	--	--
D15	--	0.76	--	--	--	--	--
D16	--	0.71	--	--	--	--	--
D17	--	0.59	--	--	--	--	--
D18	--	--	--	--	0.68	--	--
D19	--	--	--	--	0.90	--	--
D20	--	--	--	--	0.85	--	--
D21(r)	--	--	--	--	--	0.75	--
D22(r)	--	--	--	--	--	0.79	--
D23(r)	--	--	--	--	--	0.71	--
D40	--	--	--	--	--	--	0.68
D41	--	--	--	--	--	--	0.94
D42	--	--	--	--	--	--	0.82

Chi-Square= 772.13, df= 176, P-value= 0.00000, RMSEA= 0.028, AGFI:0.91

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CHAPTER IV: Contact as a predictor of trust

Abstract

Personal contact with the police is mentioned as one of the key predictors of individuals' opinions towards the police. But findings from earlier research contradict each other. Some researchers found an asymmetric relationship with a much stronger effect from unsatisfactory contact, compared with satisfactory contact, with regard to trust in the police and police legitimacy. Others found a more symmetrical relationship. In a way, these different findings can be due to different measures of trust and legitimacy. In the literature there is no consensus about the meaning and measurement of these concepts. The purpose of this study is therefore to test the (a)symmetrical relationship while taking into account criticisms about trust and legitimacy. More precisely we consider trust in police procedural justice and trust in police effectiveness as two components of trust having an influence on police legitimacy in the form of moral alignment. Feeling an obligation to obey the police is considered as an outcome of moral alignment. We used path models in MPlus to do the analyses, which were conducted on data collected from the Social capital and Well-being In Neighbourhoods in Ghent (SWING) survey, Belgium. The results show a more symmetrical relationship between contact and both components of trust. Furthermore, trust in police procedural justice was found to be a stronger predictor for moral alignment than trust in police effectiveness. Moral alignment itself seemed to be a strong predictor for feeling an obligation to obey the police.

Keywords: police contact, trust, procedural justice, legitimacy.

1. Introduction

Public trust is necessary for the police to function optimally (Bradford *et al.* 2009a, Jackson *et al.* 2012a; Roberts and Hough 2005, Van Damme 2013). Namely, public trust enhances the perception of *police legitimacy*. When citizens perceive the police to be legitimate, it means that the legal authority of the police is accepted. This results in the public being willing to obey the police and even cooperate with the police in dealing with crime and disorder (Hough *et al.* 2010; Jackson *et al*. 2012a, Rosenbaum *et al*. 2005, Van Damme 2013, Van Damme *et al.* 2013). Without public support, the police would not be able to achieve their tasks. Namely, the greater part of crimes is reported to the police by citizens. Furthermore, the police need information from victims and witnesses for the identification of perpetrators. Only when the police are trusted and perceived as a legitimate authority can they count on public support.

But then again, public trust itself stems from police functioning. This means that the police can gain public trust by focusing on those elements with an impact on public trust. According to the *procedural justice model*, public trust depends on *perceptions of procedural justice* on the one hand and *perceptions of effectiveness* on the other (Hough *et al.* 2013a, 2013b, Jackson *et al*. 2012a, Sunshine and Tyler 2003a, 2003b, Tyler 2006, Van Damme *et al.* 2013). In other words, there will be a high level of public trust when the police treat citizens honestly, with dignity and respect and when they are able to fight crime and disorder effectively. Several empirical tests in the USA (Tyler 2003, 2006, 2007, 2011), Australia (Hinds and Fleming 2006) and Europe (Hough *et al*. 2010, Van Craen and Skogan 2014, Van Damme 2013, Van Damme *et al.* 2013) have shown that perceived procedural justice is more important in shaping public trust and perceptions of police legitimacy than perceived effectiveness. According to these findings, citizens seem to be less outcome-oriented (Tyler and Huo 2002). Fair and respectful treatment is more important to them than obtaining favourable outcomes (Hough *et al.* 2010). Yet some recent studies claim that in some societies police effectiveness is more important than procedural justice (Bradford *et al*. 2014a, Murphy and Cherney 2011, Sargeant *et al.* 2014; Tankebe 2009).

Nevertheless, findings of recent research in Belgium (Van Damme 2013, Van Craen and Skogan 2014) are in line with most of the empirical tests of the procedural justice model. It seems, that for Belgians, perceptions of procedural justice play a larger part than perceptions of police effectiveness in accounting for citizens' overall trust in the police (Van Craen and Skogan 2014) and perceptions of police legitimacy (Van Damme 2013). In general, there are two criteria for judging procedural justice used by legal authorities. More precisely, *the quality of decision making* and *the quality of personal treatment* (Van Damme *et al.* 2013). Specifically, citizens expect the police to be *neutral* when dealing with their problem and to make decisions *without prejudice*. Furthermore, citizens want to be treated with *dignity* and *respect*. They also want *to tell their story* before the police take a decision (Tyler and Fagan 2008).

While the procedural justice model has been submitted to partial tests in Belgium, there is still a gap to fill. First, there is a lack of information about what shapes Belgians' opinions about

the police. Research from the USA and UK has shown that perceptions of police procedural justice and police effectiveness especially are influenced by personal experiences. Bradford (2010, p. 2) even states: 'Personal contact is a key moment in the formation of opinions about the police. Individual encounters can create moments in which the legitimacy of the police is reinforced or undermined'. However, findings from earlier research on contact contradict each other. The basic assumption is that there is a symmetrical relationship between contact with the police and trust in policing (Bradford *et al.* 2009a). But Skogan (2006) found an asymmetrical relationship. His findings indicated that the impact of having a bad experience is 4-14 times as great as that of having a positive experience. Testing this assumption is not only of theoretical, but also of practical relevance. Namely, it could offer a contribution to the further development of policing strategies. If there is a relationship between contact and perceptions of procedural justice and effectiveness, this means that the police have to be aware that their behaviour when dealing with people affects people's opinions of the police. The strength of the effect and the finding of a symmetrical or asymmetrical relationship give an indication of what is most important for the police to pay attention to. Second, in this study we consider the ongoing debate about the meaning and measurement of the concept of legitimacy, which is a key concept within the procedural justice model (Hough *et al.* 2013b; Jackson *et al.* 2012a, 2012b, Jackson *et al*. 2014, Tankebe 2013, Van Damme *et al.* 2013). This has led to some additional ideas being taken into account in the model that we tested. Earlier tests of the procedural justice model in Belgium did not take these into account.

Hence, drawing on data from the SWING survey (2012), we test the assumption of a(n) (a) symmetrical relationship between contact with the police and trust in police procedural justice and police effectiveness. Additionally, we examine the effects of trust in police procedural justice and police effectiveness on obligation to obey through police legitimacy in the form of moral alignment with the police. We used SPSS for the descriptive statistics and factor analyses. We used path models in MPlus for the explanatory analyses.

2.   The role of contact experience in shaping citizens' opinions about the police

Earlier research has found a strong relationship between personal experiences with the police, trust and legitimacy (f.e. Bradford *et al.* 2009a, 2009b, Jackson *et al.* 2012b, Myhill and Bradford 2012, Skogan 2006). Moreover, former police contact plays a more important role than personal or social factors in shaping opinions about the police (Lammers 2004, Skogan 2005, Viki *et al.* 2006). The reason why contact influences people's opinions about the police is because in contrast to those people without contact experiences, people with contact experiences base their judgments not only on an implicit image, but also on the explicit image of police functioning (Lammers 2004). According to the contact hypothesis (Allport 1954) contact can change people's previous opinions because it can show that their prejudices and existing images were incorrect and unfounded. On the contrary, contact experience can also strengthen the feeling of 'them' and 'us'. Moreover, through the eyes of citizens, police

officers are seen as 'the police' and not as individuals. In other words, if one had a bad experience with a specific police officer, there is a risk that he or she will generalise it, resulting in a negative opinion about the whole police organisation.

Findings from earlier research suggest that trust is lower among those people who had recent contact with the police (e.g. Bradford *et al*. 2009a, Fitzgerald *et al.* 2002, Smith and Gray 1985). But 'having contact' does not say anything about the intensity of contact, the number of contacts, the situation etc. Contact has a specific function. In some situations the police are crime fighters, in other situations they are lifesavers or information givers. Therefore, it is possible that the effect of contact on trust will differ. That is why several researchers made a distinction between police-initiated and citizen-initiated contact. People who call the police for help seem to have better opinions about the police than those stopped by the police (Rosenbaum *et al.* 2005). Although some studies argue that negative experiences will affect citizens' opinions more negatively as a result of citizen-initiated contact. This could be because of the incongruence between what is expected about the police and perceptions of their actual behaviour, regardless of who initiated the contact (Reisig and Chandek 2001, Rosenbaum *et al*. 2005). Namely, people judge their contacts on the basis of what they expect (Shapland 1984). In this regard, people will only be satisfied with police contact if it is in line with or above their expectations. Some citizens expect that police stops are not pleasant, that is why they will not be disappointed if their prophecy is fulfilled. And in the case of citizen-initiated contact in which citizens expect help from the police, citizens will be disappointed if the police do not meet this expectation (Rosenbaum et al. 2005, Van Craen and Skogan 2014).

Moreover, this means that the same police act could be considered positive for someone with low expectations and negative for someone who expects a lot of the police. Although expectations and needs are determined individually, similarities exist (Lammers 2004). In her qualitative study, Verwee (2012) asked Belgian citizens verbatim what they expect from the police. Friendliness seemed to be the most important expectation. Furthermore citizens expected an objective, neutral police officer who treated them with respect and dignity and who informed and communicated adequately. Accordingly, citizens seem to judge police actions primarily on the quality of treatment they receive (Engel 2005, Tyler and Huo 2002). People will be less satisfied when the police act unfairly, brutally, unfriendly and unprofessionally (Bradford *et al*. 2009a; Rosenbaum *et al*. 2005). If the police are unable to provide a satisfactory service, this will affect people's opinions about the police, and in turn police legitimacy (Mawby 2002).

3. A symmetric or asymmetric impact of contact experience?

Following a common-sense position, policy is based on the assumption of a symmetric relationship between police contact and trust. In the same way badly handled encounters can violate public trust, we can assume that well-handled encounters could enhance public trust (Skogan 2006). But after a review of the literature, it seems that the relationship between

police contact and attitudes towards the police is more complex. Most of the findings indicate that positive and negative experiences have a disparate impact. Negative experiences seem to have a stronger impact on citizens' judgments of police functioning than positive ones. Citizens who had negative contact seem to be significantly less satisfied with the police in general. On the contrary, citizens who experienced positive contact do not seem to be much more satisfied (Dean 1980, Jacob 1971, Lammers 2004, Skogan 2006). Jacob (1971) was the first who found this asymmetry in his Milwaukee study. But it was Skogan (2006) who first focused specifically on the relationship between police contact and trust.[61] He found that, in Chicago, for both police-initiated and citizen-initiated encounters, the impact of having a bad experience was 4-14 times as great as that of having a positive experience. Moreover, having a positive experience seemed to have no statistically significant effect. He replicated the analysis among six other samples of residents of urban areas in three different countries (USA, UK, and the Russian Federation) with basically the same results. He concluded: 'you can't win, you can just cut your losses. No matter what you do, it only counts when it goes against you' (Skogan 2006, p. 119).

In answer to these findings, Bradford *et al.* (2009a) tested Skogan's asymmetric assumption. They tried to improve on Skogan's work by using different measures of satisfaction with police contact and trust. Skogan (2006) asked respondents to rate several elements in their most recent contact with the police (about the help they received, the politeness and fairness with which they were treated, the perceived response time, etc.). Those who rated half or more of the questions as favourable were put in the 'positive encounter' category, the others in the 'negative encounter' category. In contrast, for their explanatory analysis, Bradford *et al.* (2009a) defined their categories on the basis of citizen's overall satisfaction with their latest contact measured on a seven-point scale, from completely satisfied to completely unsatisfied. Furthermore, in his measurement of trust, Skogan (2006) only asked questions about perceptions of police effectiveness and community engagement. More precisely, he asked questions about police responsiveness to community concerns about how well the police were doing their job in preventing crime. All these questions referred to the police in the neighbourhood of the respondent. However, earlier research has stated that trust – or confidence as it is referred to in these studies – is a complex social phenomena. As cited in Bradford *et al.* (2009a), Fitzgerald *et al.* (2002) argue that it is important to distinguish between views about effectiveness on the one hand and views about integrity and impartiality on the other hand in assessing trust in the police. In this regard, people may trust the police to be fair and honest without believing them to be able to fight crime and disorder or vice versa. This argument is in line with what is stated by the procedural justice model, specifically that overall trust depends on perceptions of police procedural justice and police effectiveness. That is why several studies recognise two (Bradford *et al.* 2014a, Jackson *et al.* 2012a, Jackson

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[61] In his study it was called confidence, but after examining the measurement, it can be considered as trust as we use it in our study.

et al. 2012b, Van Damme 2013, Van Damme *et al.* 2013), or even three[62] (Bradford *et al*. 2009a), inter-related but empirically distinct components of public trust. The results in the study of Bradford *et al.* (2009a) are not rosier than these found by Skogan (2006) with respect to police effectiveness. Both positive and negative contacts were associated with more negative perceptions about police effectiveness. For perceptions of police procedural justice, the researchers found a positive impact from positive experiences, but one much smaller than the negative impact of negative experiences. According to these findings, it would be better for the police to have no contact with citizens because every contact affects trust in police effectiveness in a negative way. But in the case of an encounter, the police have to act in such a way to facilitate perceptions of procedural justice.

Several explanations are mentioned in earlier studies for the asymmetrical relationship. Weitzer and Tuch (2004), as mentioned in Skogan (2006), named two: (1) People consider positive encounters as the exception, not the norm; (2) or maybe the opposite is true: people expect good service as the norm and only pay attention when encounters are perceived negatively. In their two-wave panel study, Rosenbaum *et al.* (2005) found that attitudes towards the police are relatively stable and that one or two police-initiated contacts will not change people's opinions fundamentally. Their findings strengthen the assumption that a negative prejudice will lead to a negative interpretation of every contact. Likewise, negative attitudes could provoke a negative police response with a negative perception of the contact as a result. Thus, the explanation of asymmetry can be found in an opposite effect of prior judgments about police functioning on contact. Bradford *et al.* (2009a) attribute their different results for trust in police effectiveness and procedural justice to the difficulty for officers to demonstrate effectiveness in encounters. They believe that even when citizens are satisfied with the contact, those who are stopped or searched may think the scarce police resources could be more effectively used elsewhere. Or, in the case of a call for help, people may expect nearly impossible tasks of the police such as providing immediate answers to problems of crime, disorder or anti-social behaviour. On the contrary, it is easier for officers to demonstrate fairness and respect in their encounters which explains the more symmetrical impact from contact on trust in procedural justice than on trust in police effectiveness. But the most obvious explanation for the asymmetrical relationship is perfectly stated by Hillard, as mentioned in Skogan (2006: p. 99): 'You have ten positive encounters with the police and that is good; but one negative encounter, and all the positives disappear.' When people are confronted with both positive and negative experiences, the negative ones will dominate in accounting for their judgments of police functioning. First, negative experiences are more

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[62] In the study of Bradford, Jackson and Stanko (2009a) a three-factor solution fitted the data better than a two-factor solution. That is why they made a distinction between perceptions of police effectiveness, procedural justice and community engagement as components of trust. Some researchers also add trust in distributive justice as a component. In the current study, this component was not taken into account. We believe that distributive justice is closely related to procedural justice. Handling all kinds of people in the same way can also be considered as fair handling. However, we are aware that procedural and distributive justice can be conceptually and practically distinguished.

striking than positive experiences. Second, they stay longer in people's minds (Lammers 2004). And third, negative experiences are easier to recall (Baumeister *et al.* 2001).

Not every study is in line with those mentioned above. There are studies in which a (almost) symmetrical relationship is found. In Bradford (2010) and Bradford *et al.* (2014a) for example, unsatisfactory contact was associated with lower trust in both police effectiveness and procedural justice, and satisfactory contacts were associated with higher scores on both components of trust. The strength of the effects was practically the same. But the symmetric finding in the study of Bradford (2010) could be due to the fact that it was only based on victims of crime who had contact with the police. Bradford (2010) stated therefore that contacts with victims seem to encounter a stronger symmetry than other types of contact. The explanation for the symmetric finding in the study of Bradford *et al.* (2014a) in South Africa would be because South Africans are supposed to be more open to positive experiences, maybe because they expect less from the police.

Considering this overview, testing the (a)symmetric assumption shows other results in different societies. But it is entirely clear that future research has to consider both perceptions of police effectiveness and police procedural justice as components of trust. A test in Belgium, more precisely in the urban area of Ghent, enables us to learn more about the differences and similarities with other societies (Tankebe 2009). Furthermore it could help policy makers to avoid policing strategies that cannot work or will have an unwanted effect.

4. The complex concept of 'Legitimacy'

When people believe the police are legitimate, they will voluntary obey them and even be willing to cooperate with them. This in itself contributes to the effectiveness of policing (Mawby 2002, Van Damme 2013). But the concept of legitimacy is complicated. Several researchers have different opinions about the meaning and conceptualisation of this 'slippery' concept[63] (Hough *et al.* 2013b, Bradford *et al.* 2014b). Most of them do agree with the distinction between *normative* and *empirical* legitimacy. Normative legitimacy exists when authorities meet various agreed objective criteria, such as the absence of corruption. On the contrary, empirical legitimacy is based on citizens' perceptions. Only an authority that commands high levels of empirical (or perceived) legitimacy can count on public support (Hough 2010).[64] But it is the interpretation of empirical legitimacy that has led to discussion, although most recent research starts from the following definition: 'Legitimacy is the right to govern and the recognition by the governed of that right' (Beetham 1991; Jackson *et al.* 2012b). In contrary to Weber (1984), who said power is legitimate where those involved in it believe it to be so, it is also the justification of power that enables an authority to be perceived

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[63] For an extended version of this ongoing debate we refer to Van Damme *et al.* 2013.
[64] The focus in the current study is on perceptions of legitimacy. Thus, when we use the term legitimacy without an adjective, we refer to empirical or perceived legitimacy.

as legitimate (Tyler and Fagan 2008). This justification is most importantly based on the sense that the police operate according to a shared set of general values and principles (Bradford *et al.* 2014a).

Hough *et al.* (2013b: p. 326) reformulated the previously mentioned definition as 'Legitimacy is the recognition and justification of the right to exercise power and influence'. They conceptualised empirical legitimacy as having three subcomponents, namely *obligation to obey* referring to the recognition of police power, *legality* and *moral alignment* referring to the justification of police power. Obligation to obey can be understood as a positive duty to obey the police. This means that people see it as their duty to obey the police because of the respect they have for them, even when they disagree or dislike how they act (Hinds and Murphy 2007). This respect is built through processes and experiences throughout a lifetime, ranging from childhood socialisation and cultural affiliations to individual encounters with police officers (Jackson *et al.* 2014). Obligation to obey, together with the belief that police act according to the law (legality) and share the same sense of right and wrong, values and norms as they have (moral alignment), encourages citizens to perceive the police as a legitimate authority (Jackson e*t al*. 2014, Van Damme *et al.* 2013). Although, in their recent publication, Jackson *et al.* (2014) argue that moral alignment overlaps so much with beliefs about the lawfulness of the police that it is appropriate to treat them as one psychological state.

Tankebe (2013) and Bottoms and Tankebe (2012) have taken a slightly different approach. They argue that legitimacy has a dialogic character in which power-holders make claims, power-subjects respond, power-holders then perhaps adjust their claims and so on and these dialogues can take different forms in different societies. Hence, their approach implies that the dimensions of legitimacy can vary in different socio-political settings (Tankebe 2013).

According to Tankebe (2013), *effectiveness*, *distributive fairness*, *procedural fairness* and *lawfulness* are likely to be some of the main contents of the dimensions of police legitimacy in a liberal democracy. In this respect, citizens will perceive the police to be legitimate when they believe that the police are able to fight crime and disorder effectively; act fairly, neutrally and respectfully; deal with all kinds of people in the same way (regardless of ethnicity, sexual orientation etc.); and act according to the law. In contrast to other researchers, Tankebe (2013) argues that obligation to obey theoretically differs from legitimacy, which he believes is a much wider concept. He states that obligation to obey can be considered as a dependent variable that can be explained not just by citizens' recognition of police power as normatively valid (perceived legitimacy), but also by other variables such as fear of the costs of non-obedience or a feeling of powerlessness. Feeling the obligation to obey the police is thus considered to be an outcome, not a constituent of perceived legitimacy in Tankebe's framework (Hough *et al.* 2013b). Furthermore, Tankebe (2013) believes that the concept of moral alignment, used by others, is too general and vague. He states that it is possible, depending on the particular society, to identify specific values that are shared between police and citizens. He therefore identifies procedural justice, distributive justice and effectiveness

as examples of shared values in a liberal-democratic society. Hough and his colleagues also used the concepts of procedural justice, distributive justice and effectiveness, not as specific values, but as components of trust. As we already mentioned, public trust in the police can be considered as a determinant of perceived legitimacy, not as a constituent of it.

In this study, following the framework of Hough and his colleagues, we also consider trust in police procedural justice and trust in police effectiveness as a *means*, and perceived legitimacy as an *end*. In other words, when people have trust in the effectiveness and procedural fairness of the police, they will perceive the police as a legitimate authority. But we are also aware of Tankebe's argument that an obligation to obey is theoretically different from perceived legitimacy. We also believe that feeling obliged to obey the police can, among other possible explanations, be the result of a citizen's belief that police power is justified because the police act legally and according to shared values.[65] The way obligation to obey has been measured in most research does not exclude deterrence or powerlessness as reasons for one's feeling of obligation to obey the police.[66] Furthermore, perceived legitimacy can be seen as one of the reasons why somebody feels obliged to obey the police (Van Damme *et al.* 2013). We believe that legitimacy is more the justification of police power than the recognition of it in the form of feeling obliged to obey police power. In this regard, we have to mention that Tyler *et al.* (2013) noted in an earlier study that in some societies the police can be supported by the public although there is no feeling of moral alignment. In these societies the police are often seen as the last resort and it would be of less importance that they share the same values and norms as the public (Van Damme *et al.* 2013). That is why they have questioned whether moral alignment can be seen as a component of legitimacy. We do follow their argument that moral alignment is less important in some societies causing people to obey the police. But, in this case, they do not recognise and accept police power because they perceive them as legitimate, but because of instrumental reasons (the police are their last resort).

5. The existence of prior trust and legitimacy

As mentioned earlier, some researchers suggest that prior judgments of police functioning create a framework for the selection, recall and interpretation of police contact (Brown and Benedict 2002, Rosenbaum *et al.* 2005). Before they have contact with the police, people already have an opinion about police functioning. Several studies argue that those who have had no contact with the police have the most positive attitudes towards police functioning and the highest levels of police legitimacy (Bradford 2010, Lammers 2004, Smith and Gray

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[65] We do consider perceived legality as a dimension of perceived legitimacy, but we could not take this into account because the survey did not contain a question referring to perceived police legality.

[66] In the ESS, for example, obligation to obey was measured by three items beginning with: 'To what extent is it your duty to…' Duty can be interpreted in different ways, which is why interviewers were given an instruction to clarify duty as meaning in the sense of citizens' moral duty to the state, when people asked. In a way, this could counter Tankebe's arguments, but we do not believe that the instruction given to the interviewers was strong enough.

1985). Prior legitimacy exists and is not based on personal experiences. Most people take the plunge to trust and obey the police, and only change their opinions when later contact is not in line with their prior judgments (Bradford 2010). Nonetheless, most survey research on attitudes towards the police is cross-sectional in nature. Therefore only a few panel studies can say something about the change of attitudes after police contact.

In 1989, Skogan, who focused only on victims of crime, did find a difference between attitudes before and after police contact in his two-wave panel study. Compared with wave 1, respondents who became a victim and had contact with the police between wave 1 and 2 perceived the police to be friendlier, more helpful and doing a good job in wave 2. But this study has some limitations. For instance, there is the possibility that victimisation and contact were not linked directly (Skogan 1989). The respondents were asked whether they were victimised between wave 1 and 2, and in a separate question, whether they had had contact with the police or not. So, contact that was not linked to the victimisation may have influenced the respondents' perceptions. Moreover, it is possible that some respondents had contact for reasons other than victimisation as they did not report it. This means that nothing can be said about a change in attitudes because of contact due to victimisation. Furthermore, the results say nothing about non-victims.

On the contrary, findings from Rosenbaum *et al.* (2005) do. These researchers argue on the basis of their two-wave panel study (one wave before the police contact and one after) that prior attitudes are more important than each type of contact with the police in determining present attitudes. They do not believe that attitudes will change easily. Drawing on Brandl *et al.* (1994) they state that people have stereotyped images of the police in which they will interpret their experience. Prior attitudes are mostly influenced by what people read and hear, their living conditions and the dominant belief of their social group. Individuals with the prior belief that the police are not effective and do not treat people appropriately, and who feel less morally aligned with the police, will expect a negative contact. This would mean that the quality of treatment does not matter (Skogan 2005). Even if the police try to be friendly, citizens with prior negative opinions will stay hostile towards the police (Smith and Gray 1985). Furthermore this could lead to a more hostile attitude towards the police during the encounter with again a confirmation of prior judgments. Likewise, when going to an encounter, the police have prior judgments about specific social groups. Their attitude will reflect prior expectations. This is perfectly represented by a quote from a police officer in Smith and Gray (195: p. 269): 'We tend to be cynical, because we mostly deal with the worst sort of people, the people who don't like us'. Meaning that there is a potential for causing animosity from citizens not previously hostile towards the police as a result.

However, the findings of Rosenbaum *et al.* (2005) also support the assumption that direct experiences can change attitudes towards the police, but only in the case of citizen-initiated contacts. More precisely, the researchers found that negative experiences led to a more negative attitude towards the police in wave 2 compared with wave 1. If the contact was initiated by the police, negative experiences did not seem to affect later attitudes.

In their study, Tyler and Fagan (2008) tested the impact of personal experience on evaluations of police legitimacy by means of a longitudinal design in which New York City residents were interviewed both prior to and following their contact with the police. Their findings indicated that perceptions of procedural justice during an encounter shape post-experience legitimacy, controlling for pre-experience legitimacy (Tyler and Fagan 2008, p. 258).

Another study that examined the relationship between experience and post and prior opinions about the police is that of Bradford (2010). He used a cross-sectional design in which victims who had recent contact with the police were questioned about their experiences with and attitudes towards the police. With regard to the contact, respondents were asked how satisfied they were with police actions, the follow-up, the treatment received, the ease of contact and the waiting time. To examine a change in attitude, he literally asked the respondents if their opinion about the police in general had changed after the contact (it became better, worse or it did not change). The results indicate that people do change their opinions after having contact. A positive change of opinion was most strongly associated with how satisfied the respondents were with the treatment during the encounter. Furthermore, dissatisfaction with police actions was strongly associated with changes in opinions for the worse. Remarkably, those with a generally positive view were more likely to change their opinions for the worse, not the better, compared with those with a mixed orientation towards the police, in contrast to those with previous negative opinions, who were more likely to change their opinions for the better. This can probably be explained by the fact that those who had prior negative opinions experienced a more positive contact than what they expected and vice versa. Although Bradford (2010) tried to meet the criticism that a cross-sectional design cannot say anything about a change in attitudes, the method of questioning suggests a change. People will try to recall their experience and will probably search for elements that could cause a change in their opinions. There is a risk that they will enlarge specific elements of the contact at the moment of questioning. This could lead to a 'false' change of opinion. If a longitudinal design was used, it is possible that this would have led to other results.

Bradford *et al.* (2014b) found by means of a two-wave panel survey of Australians that the way citizens judged their treatment during their latest police contact was associated with prior trust in the procedural fairness of the police at wave 1. Although they found that trust in procedural justice and police effectiveness in wave 2 were strongly shaped by the same factors at wave 1, the researchers found a positive association between perceptions of procedural justice during the encounter and outcome satisfaction of the encounter with trust in procedural justice at wave 2. Outcome satisfaction was also associated with trust in police effectiveness in wave 2.

6. Current focus

The current study is cross-sectional in nature. We do believe that prior trust and legitimacy exist, but we have not measured it. In our survey, we asked about attitudes towards the police

at the present time. Some respondents did have police contact at the time, others did not. But because evidence exists that attitudes can change over time, especially after personal contact, we believe that the measured attitudes towards the police were influenced by the contact people had. Of course, when interpreting the results, we have to keep in mind the possible influence of prior trust and legitimacy on the judgment of the contact.

The key assumption in the current study is that police contact is a predictor for trust in procedural justice and police effectiveness. Furthermore, these components of trust have an influence on feeling morally aligned with the police, which itself influences feeling obliged to obey the police. Some researchers found a symmetric impact of police contact, others an asymmetric impact. This key assumption is visualised by the conceptual model in figure 5.

Figure 5: Conceptual model of the key assumption
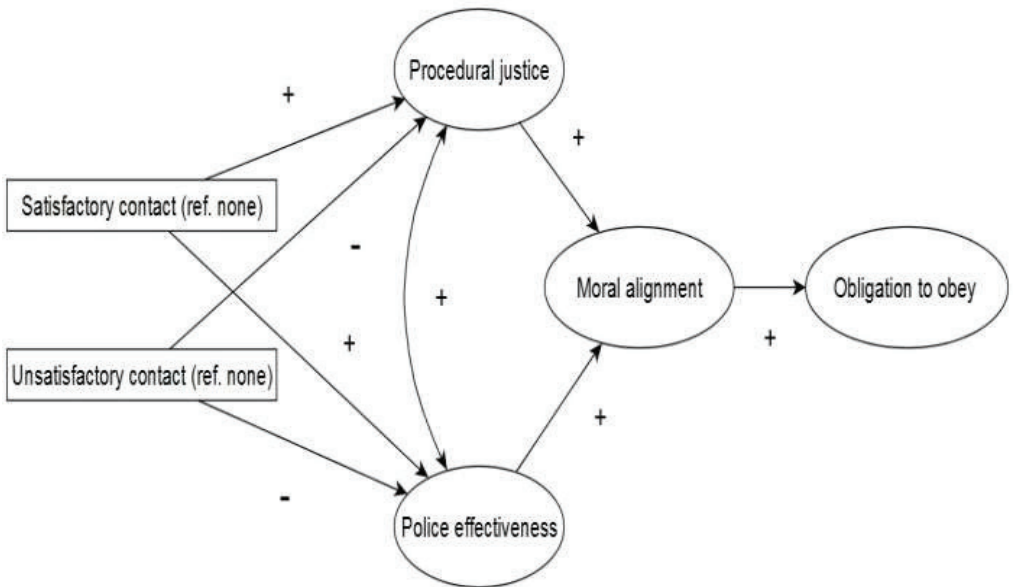
Based on the theoretical considerations addressed earlier, this key assumption has led to the following research questions:

Q1.   Does personal contact influence trust in the police?
       Q1a. How many citizens experienced contact?
       Q1b. How satisfied are citizens with their contact with the police?
       Q1c. Do we find a symmetric or asymmetric impact of contact on trust in police procedural justice and trust in police effectiveness?
Q2.   Can moral alignment with the police be explained by trust in police procedural justice and trust in police effectiveness?
Q2a. If so, which component of trust has the strongest impact?

Q3.   Can feeling obliged to obey the police be explained by feeling morally aligned with the police?

7. Data

This study draws upon data from the Social Capital and Well-being In Neighbourhoods in Ghent SWING survey (2012).[67] This survey consists of face-to-face interviews with 762 residents of 42 neighbourhoods in Ghent.[68] Ghent is the third largest city in Belgium, 158 km^2 in size, with approximately 250,000 inhabitants (1,506/km^2). The survey provides information on social processes, quality of life indicators, perceptions of the police and socio-demographic characteristics at both the individual and neighbourhood level.[69]

First, a stratified sample of 42 neighbourhoods was selected from the 142 neighbourhoods in Ghent with a minimum population size of 200 residents. Neighbourhoods were randomly selected following a stratified selection procedure based on population density and the level of deprivation (deprived versus non-deprived), resulting in a representative set of neighbourhoods. The inclusion of adjacent neighbourhoods was avoided in order to keep the impact of spatial proximity to a minimum.

Second, we used the municipal registry to randomly select inhabitants from each neighbourhood through a stratified sampling design (stratification by age, sex and nationality). In total, 762 residents took part in the survey (response rate of 51%).

Respondents were aged between 18 and 95, with a mean age of 48.65 (SD= 19.02, median= 47). Of the 762 respondents, 49% were male, 92% had Belgian nationality at birth, 64% had a paid job and 19% lived alone. Of the respondents, 48% were higher educated, 35% middle educated and 17% lower educated.

8. Measures

Satisfaction with police contact was measured by asking the respondents whether they had had contact with the police in the last five years (0= No, 1= Yes). If so, respondents were asked to indicate the level of satisfaction with the (most recent) contact on a five-point Likert scale (very unsatisfied to very satisfied).

Furthermore, the survey instrument included measures of trust in police procedural justice and police effectiveness, moral alignment with the police and feeling obliged to obey the

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[67] We would like to thank the following researchers for providing these data: Hardyns, W., Vyncke, V., Pauwels, L. and Willems, S.
[68] With neighbourhood we mean a statistical sector which comprises the smallest administrative unit of analysis at which demographic and socio-economic information is systematically gathered in Belgium and can be compared to the US census tract level (on average 1,319 residents/neighbourhood).
[69] In the current study we only used individual level variables.

police, based on those employed by researchers from the USA and the UK and those used in round five of the European Social Survey (ESS)[70] (Hough *et al*. 2010, Jackson *et al*. 2012a, Sunshine and Tyler 2003a, Tyler and Huo 2002). Every construct was measured by a summated Likert scale. Table 16 shows a detailed summary of the items used, the concept reliabilities[71] and factor loadings per construct.[72] Items capturing trust in procedural justice, moral alignment and obligation to obey were measured on Likert scales ranging from 1 ('strongly disagree') to 5 ('strongly agree'). Items regarding trust in police effectiveness were measured on a Likert scale from 1 ('very little') to 5 ('very hard'). Descriptive statistics and correlations for scales can be found in appendix.[73]

Table 16: Concept reliabilities and factor loadings per construct

	Factor loadings	α
Procedural justice		.862
The police treat citizens with respect	.830	
The police respect citizens' rights	.818	
The police take time to listen to people	.717	
The police make fair and impartial decisions	.742	
The police are willing to motivate their decisions when asked to do so	.637	
Police Effectiveness		.770
How successful do you think the police are at…		
preventing crimes?	.710	
maintaining public order?	.809	
offering help to the public?	.669	
Moral Alignment		.746
The police stand up for values that are important to people like me	.626	
I generally support how the police usually act	.782	
I respect the police	.714	
Obligation to obey		.734
You have to obey police orders, even if you disagree with them	.831	
Non-obedience to the police is inexcusable	.667	
I accept the decisions made by the police, even if I disagree with them	.588	

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[70] The ESS is an academically driven social survey that maps the attitudes, values and opinions of the inhabitants of more than 20 European countries and it shows how they evolve. In round 5 (2010), special attention was paid to trust in the criminal justice system. Because of the high quality standard, most of the measures in this study are based on those from the ESS.

[71] Cronbach's alpha is a coefficient of internal consistency. All items have to measure the same concept. A value of less than 0.80 indicates little consistency between the items. In practice, values of 0.60 or higher are acceptable (Pauwels, 2012).

[72] A factor analysis is used as a critical test for the scale constructs. First, we need to be sure of the one-dimensional characteristic of the scale. Second, items with low factor loadings (<0.40) need to be eliminated because they do not contribute to the factor with measurement errors as a result (Pauwels, 2012).

[73] For these latent variables we implemented the EM imputation method for reducing the non-response as much as possible.

9. Analytical strategy

We used SPSS for some exploratory analyses and factor analyses. To answer the explanatory research questions, we used path analyses in MPlus. Path analysis is based on multiple regression and offers the opportunity to simultaneously model several related relationships. This is interesting because a variable can be dependent in one relationship and independent in another. These variables are referred to as mediating variables (Muthén and Muthén 1998–2012). The most important aim of path analysis is to clarify correlations between independent variables as predictors for the dependent variable. In the current study we try to explain variation in procedural justice, police effectiveness, moral alignment and obligation to obey. Path analysis only corroborates or falsifies theoretical assumptions provided by the researcher. It does not provide evidence of causality.

Only when the path model fits the data adequately, will the interpretation of the parameters be meaningful. In order to evaluate the fit of path models, the root mean square of approximation (RMSEA) is preferred over the Chi-square value. In principle, Chi-square is not allowed to be significant, although it tends to be very sensitive to the size of the sample. On the contrary, RMSEA is a measure of close fit, indicating that it takes into account the error of approximation in the population as well as the precision of the measure itself. Models with a RMSEA < 0.05 are considered acceptable. The Tucker-Lewis Index (TLI) and Comparative Fit Index (CFI) measure the proportionate improvement in model fit by comparing the hypothesised model with the less restricted nested baseline model. Models with values of > 0.90 are considered acceptable, although lately > 0.95 has been advised. Furthermore, comparing the Akaike (AIC) and Bayesian Information Criteria (BIC) between different non-nested models allows us to distinguish the model with the best fit of the hypothesised model, that is the one with the lowest AIC and/or BIC (Byrne 2011). In the results, we only present the path model with the best model fit which is also supported by our theoretical assumptions.

10. Results

Does personal contact influences trust in the police?

In order to formulate an answer to the question above, it would be interesting to explore first how many respondents had experienced contact in the last five years and how satisfied these respondents were with their contact experience.

A total of 63% (481) of the respondents had experienced police contact, in contrast to 37% (280) who had not.[74] From those who experienced police contact, the majority felt satisfied to very satisfied (68%). Only 18% indicated being very unsatisfied or unsatisfied with the police

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[74] When adding contact as a dichotomous variable (Yes/No) into the path analysis, no significant effect was found. As we already stated in the literature review, this was not surprising. This finding does not mean that we can conclude that earlier contact does not influence people's opinions of the police. It only confirms that future research has to take more advanced measures of contact into account.

contact. Figure 6 visualises the proportion of respondents divided by level of satisfaction with the contact.

Figure 6: Proportion of respondents divided by level of satisfaction with police contact (N= 481)
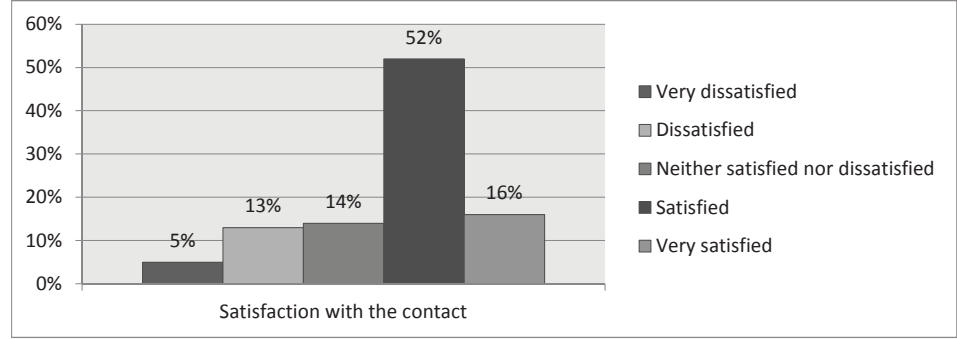
Do we find a symmetric or asymmetric impact of contact on trust in police procedural justice and trust in police effectiveness?

Table 17: Levels of trust in police procedural justice by having contact (Yes/No)[a] and contact satisfaction[b]

Procedural Justice[c]	Contact % (absolute numbers between brackets)			No contact	Total
	Unsatisfied	Neither	Satisfied		
Lowest	29.4 (25)	16.2 (11)	7.3 (24)	10.4 (29)	**11.7 (89)**
Neutral	68.2 (58)	79.4 (54)	68.9 (226)	73.9 (207)	**71.6 (545)**
Highest	2.4 (2)	4.4 (3)	23.8 (78)	15.7 (44)	**16.7 (127)**
Total	**100 (85)**	**100 (68)**	**100 (328)**	**100 (280)**	**100 (761)**

[a] Not significant
[b] Sign. at $p \leq .001$
[c] Lowest: score < -1 sd. Highest: score > +1 sd.
Neutral: score between -1 sd. And + 1 sd. -1 sd.=14.91 and +1 sd.=21.96 (scale range: 5–25)

Tables 17-20 offer an exploration of the relationship between trust in the police and contact.[75]

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[75] Two new variables were created with the 'visual binning' procedure in SPSS, one based on the standard deviation of the procedural justice scale and the other on the standard deviation of the police effectiveness scale. The standard deviation measures the spread of the data by regarding how far data are situated from their mean. Notwithstanding this procedure leads to a loss of information, it offers the opportunity to interpret descriptive results in an understandable way (Pauwels 2012). The new variables give an indication of the number of respondents with the lowest, neutral and highest trust in police procedural justice and police effectiveness.

Table 18: Comparing means of the trust in police procedural justice scale by contact

	N	Mean	SD	Min.	Max.
Contact	481	18.43	3.52	5	25
Unsatisfied	85	15.99	3.76	5	25
Neutral	68	17.07	3.06	7	25
Satisfied	328	19.34	3.15	5	25
No contact	280	18.44	3.55	5	25

Table 17 presents the proportions and absolute numbers of respondents' level of trust in procedural justice divided by having contact (Yes/No) and if so, subdivided by contact satisfaction. In contrast to earlier research, these exploratory results do not confirm the finding that people who have not had contact with the police have the highest levels of trust in police procedural justice. To be precise 23.8% of those who were satisfied with their contact belong to the category with the highest levels of trust in police procedural justice, compared to 2.4% of those who were unsatisfied with their contact and 15.7% of those who had not had contact. The opposite can be found for the lowest trust in procedural justice category with 29.4% unsatisfied with their contact, compared with 7.3% who were satisfied with their contact and 10.4% who had not had contact. When we compare the means of the total trust in the procedural justice scale between the different contact groups, the findings tell practically the same story (see table 18). The mean of the satisfied group is the highest, the mean of the unsatisfied group the lowest. The means of the neutral and no contact group are situated in between.[76] These results suggest that having contact with the police can only have a positive impact on trust in police procedural justice when people are satisfied with their contact. A negative contact seems to affect trust in police procedural justice in a negative way. These exploratory results do not give hard evidence for a(n) (a)symmetric relationship. Although, regarding table 17, it seems that there were more respondents who were unsatisfied with their contact belonging to those with lower trust in procedural justice than respondents who were satisfied with their contact belonging to those with higher trust in procedural justice. A path analysis is needed to confirm these findings.

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[76] We do have to remark that a mean of 15.99 on trust in the procedural justice scale for the unsatisfied group is not that bad for a scale ranging from 5–25. In fact, trust in procedural justice seems to be rather high in our total sample.

Table 19: Levels of trust in police effectiveness by having contact (Yes/No)[a] and contact satisfaction[b]

Police Effectiveness[c]	Contact % (absolute numbers between brackets)			No contact	Total
	Unsatisfied	Neither	Satisfied		
Lowest	29.4 (25)	13.2 (9)	8.8 (29)	10.7 (30)	**12.2 (93)**
Neutral	68.2 (58)	85.3 (58)	77.5 (254)	80 (224)	**78.1 (594)**
Highest	2.4 (2)	1.5 (1)	13.7 (45)	9.3 (26)	**9.7 (74)**
Total	**100 (85)**	**100 (68)**	**100 (328)**	**100 (280)**	**100 (761)**

[a]Not significant
[b]Sign. at p ≤.001
[b]Lowest: score < -1 sd.   Highest: score > +1 sd.
Neutral: score between -1 sd. And + 1 sd.   -1sd.=7.97 and +1sd.=12.59 (scale range: 3–15)

Table 20: Comparing means of the trust in police effectiveness scale by contact

	N	Mean	SD	Min.	Max.
Contact	481	10.25	2.32	3	15
Unsatisfied	85	8.99	2.46	3	14
Neutral	68	9.61	1.97	3	13
Satisfied	328	10.71	2.19	3	15
No contact	280	10.33	2.31	3	15

Table 19 presents the proportions and absolute numbers of respondents' level of trust in police effectiveness divided by having contact (Yes/No) and if so, subdivided by contact satisfaction. Similar results to those of trust in police procedural justice were found: specifically, 13.7% of the respondents who were satisfied with their contact belong to the category with the highest levels of trust in police effectiveness, compared to 2.4% of those who experienced unsatisfactory contact and 9.3% who had not had contact. Of the respondents who were unsatisfied with their contact, 29.4% belong to those with the lowest levels of trust in police effectiveness, compared with 8.8% of those who experienced unsatisfactory contact and 10.7% who had not had contact. Again, the mean of the satisfied group is the highest, the mean of the unsatisfied group the lowest. The means of the neutral and no contact group are situated in between.[77] It also seems that for trust in police effectiveness, having contact with the police can have a positive impact when people are satisfied with the contact and a negative impact when people are unsatisfied with their contact. The proportions in table 19 suggest an asymmetrical relationship because there were

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[77] We do have to remark that a mean of 8.99 on the trust in police effectiveness scale for the unsatisfied group is not that bad for a scale ranging from 3–15.

more respondents who were unsatisfied with their contact belonging to those with lower trust in police effectiveness than respondents who were satisfied with their contact belonging to those with higher trust in police effectiveness. The results of the path analysis can give more insight into these findings (Figure 7).[78]

Figure 7: Results of the path analysis (showing only direct paths and standardised coefficients)
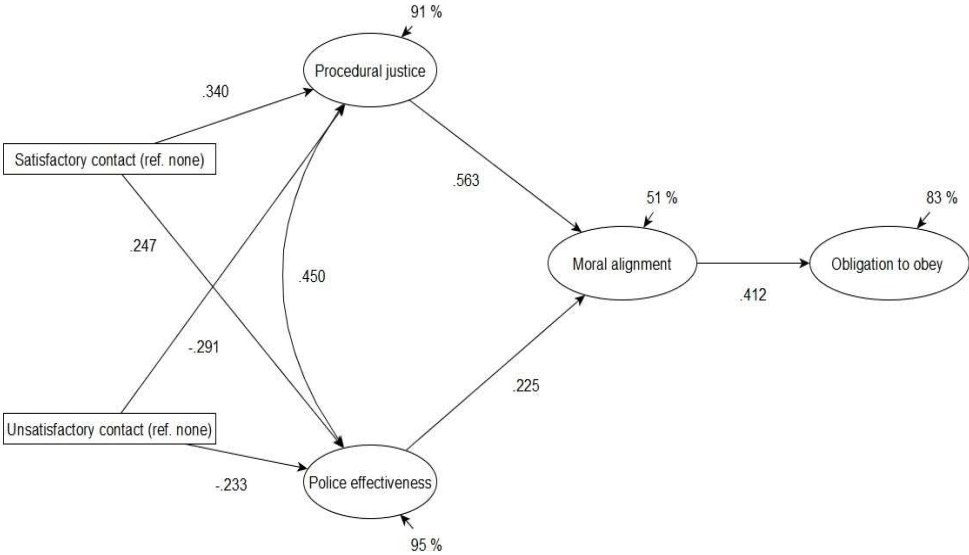
Chi-Square=13.620, df= 6, p= 0.0342. CFI 0.992; TLI 0.981; RMSEA 0.041; AIC=13 473.594; BIC=13 547.748

The results of the path analysis show that unsatisfactory contact was associated with lower trust in both police procedural justice and effectiveness. Satisfactory contacts were associated with higher scores on both these components of trust.[79] Furthermore, the findings indicate a

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[78] Before doing this analysis, we carried out some statistical controls. We controlled for the effect of gender, ethnicity and age in several block wise regression analyses. Only a very small effect from age was found on unsatisfactory contact, trust in police procedural justice, moral alignment and obligation to obey. But in line with Wikström (2007), we do not consider this as problematic. Although, we cannot prove causation by means of the current study, we are interested in the mechanism that produces an outcome. In this regard, Wikström argues that when there is not a connecting process (mechanism) that brings about the effect, the 'cause' at best represents a symptom or 'marker' or is purely accidental. Gender and age, e.g., are such markers of real causative factors among predictors in studies. Wikström therefore states that if we can measure the real causative factors, there is no need to include attributes such as gender and age.

[79] In the path analysis the neutral and unsatisfied groups are combined. There are several reasons why we have done this. First, because it is in line with earlier research. It makes it possible to compare findings. Second, we have done an analysis in which we took three dummy variables into account (neutral, satisfied and unsatisfied). Based on these results, we found that unsatisfactory contact has a little stronger impact on trust than satisfactory contact, but the results aren't that stable because the number of respondents in the neutral and unsatisfied group is too low to offer statistically significant results. Third, post hoc analyses showed no significant differences between these two groups.

very small asymmetrical relationship between contact and both trust in police procedural justice (β= .340 for satisfactory contact and β= -.291 for unsatisfactory contact) and trust in police effectiveness (β= .247 for satisfactory contact and β= -.233 for unsatisfactory contact). In contrast to other studies, the findings show a stronger positive effect from satisfactory contact than a negative effect from unsatisfactory contact, although the relationship is almost symmetrical. Comparing the strength of the effects, it seems that contact is a better predictor of trust in procedural justice than of trust in police effectiveness, although for both variables the effects are moderate. A total of 9% of the variation in trust in procedural justice could be explained by the contact variables, in contrast to 5% of trust in police effectiveness. This means that other factors also play a role in the creation of citizens' trust in police procedural justice and police effectiveness. In the literature some other sources influencing perceptions of police functioning are mentioned, e.g. media (fiction and non-fiction; Dirikx *et al.* 2013, Jackson *et al.* 2012b, Mawby 2002), vicarious experiences (Rosenbaum *et al.* 2005, Viki *et al.* 2006) and (perceived) neighbourhood characteristics (Jackson *et al.* 2012b, Skogan, 2006).

Can moral alignment be explained by trust in police procedural justice and trust in police effectiveness? If so, which component of trust has the strongest impact?

Trust in police procedural justice and trust in police effectiveness were both found to be predictors of moral alignment. Respondents with a higher level of trust in police procedural justice or police effectiveness, seemed to believe, more than the others, that the police stand up for values that are important to people like them and they also indicated a greater level of support for how the police usually act. In line with most procedural justice studies, we found a stronger effect of trust in procedural justice (β= .563) than of trust in police effectiveness (β= .225) which means that the perception of fair and respectful treatment is a far stronger predictor of moral alignment than perceptions about the police being effective in doing their job. A total of 49% of the individual differences in moral alignment can be explained by the contact variables used, trust in procedural justice and trust in police effectiveness.

Can feeling obliged to obey the police be explained by feeling morally aligned with the police?

As outlined in the literature review, obligation to obey is considered to be an outcome of moral alignment in the current study. The assumption is that when people feel that they and the police share the same values and norms, they will feel obliged to obey their orders and accept their decisions – even if they disagree with them – because the authority of the police is justified.[80] Our results confirm this assumption. The findings show a positive, moderate to strong effect of moral alignment on obligation to obey (β= .412). A total of 17% of the individual variance of obligation to obey could be explained by our model. This means that a

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[80] Because of the ongoing debate about the measurement of the concept of legitimacy, we also analysed a path model with moral alignment and obligation to obey as components of perceived legitimacy. The value of the RMSEA showed a worse model fit (RMSEA=0.047; AIC=13 474.723; BIC=13 558.146).

lot of other predictors for feeling obliged to obey the police exist, e.g. perceptions of sanction risk when not obeying or a feeling of powerlessness, as already stated by Tankebe (2013).

11. Conclusion and discussion

In line with previous studies on police contact, we have to confirm that also in Ghent, contact counts! Our findings show an association between unsatisfactory contact and lower trust in both police procedural justice and effectiveness. Satisfactory contacts were associated with higher scores on both these components of trust. We found an almost symmetrical relationship with a negligible stronger effect of positive contacts. A possible explanation for this finding could be that in Ghent, people are surprised in a positive way when they have contact with the police because they expected less from the contact. Another possible explanation could be that we combined those who were unsatisfied with their police contact with those with a neutral opinion about their contact in our analysis, although exploratory analyses showed only a little stronger effect from unsatisfied contact experience. Moreover it seems that experiencing a neutral contact negatively affect trust in police procedural justice and effectiveness.[81]

This means that every police officer has to be aware that every moment of personal contact with citizens can improve or undermine opinions about the police in general. Thus, police officers have to aspire to satisfactory contacts. In order to do so, police officers need to know what citizens expect from the police because contact judgments are based on these expectations. But, there seems to be a mismatch between what the police think citizens expect and citizens' real expectations (Shapland 1984). The police and their superiors believe that less crime (Sindall and Sturgis 2013) and immediately solving citizens' problems will result in more public trust. That is why there is a strong focus on numbers, such as the number of solved cases, the number of arrested suspects etc. In Belgium, police chiefs often put quantity over quality for the evaluation of their police corps. This is not surprising because police performance is easier to quantify compared to, e.g., police behaviour.[82] However, earlier research in Belgium has shown that citizens above all expect the police to be friendly, objective, neutral and respectful (Verwee 2012). In this respect, procedural justice elements will probably be more important for citizens to judge police contact than elements relating to police effectiveness. This assumption is strengthened by our findings in which contact was a stronger predictor for trust in police procedural justice than for trust in police effectiveness. In other words, contact especially leaves an impression on the quality of treatment and decision-making by the police. Furthermore, it is not that surprising that contact has a weaker effect on trust in police effectiveness because it is more difficult for the police to show that

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[81] Exploratory analysis confirm this assumption, although the results are not that stable because of the low number of respondents in both the neutral and unsatisfied group.
[82] In the case of police behaviour, the number of complaints can give an indication. But then again, in most cases citizens do not report police misbehaviour.

they are effective in their personal contacts with citizens (Bradford *et al.* 2009a). On the contrary, procedurally just behaviour is easier to show. Not all the variation in trust in police procedural justice and police effectiveness could be explained by having contact and contact satisfaction. As earlier mentioned, e.g. media, vicarious experience and contextual factors can also play a role.

Furthermore, trust in police procedural justice seemed to be a very strong predictor of police legitimacy in the form of moral alignment, and trust in police effectiveness seemed to be a weaker predictor. This is in line with most research about procedural justice in which perceptions of procedural justice have been found to be the strongest predictor for overall trust and perceptions of police legitimacy. Although, in some societies, such as Ghana (Tankebe 2009) and South Africa (Bradford *et al.* 2014a), police effectiveness seems more important than procedural justice. Tankebe (2009) and Bradford *et al.* (2014a) believe that this may be due to very high crime rates in these countries. In this regard, police effectiveness would reassure people. The police have to protect citizens and if they do not succeed, this would negatively affect public trust and perceptions of police legitimacy. In their recent publication, Sargeant *et al.* (2014) described why some ethnic minority groups may judge process-based factors to be less important. They suggest that individuals who believe that their ethnic group has a higher risk of being a victim of crime and having problematic encounters with the police may place more emphasis on police effectiveness. These people expect the police to be effective in following up a call for service when they are in trouble more then they expect fair treatment.

In addition, the ongoing debate about the definition and measurement of police legitimacy can help to explain different results. In particular, a feeling of obligation to obey the police, which is considered to be a dimension of legitimacy in a large number of procedural justice studies, is not free of dispute (Van Damme *et al.* 2013). Some researchers, such as Tankebe (2013), argue that it is not a constituent of perceived legitimacy, but an outcome of it. We follow this reasoning and believe that perceptions of legitimacy are not behavioural in content. We believe that one of the reasons and probably the most important reason why people feel an obligation to obey the police is because they believe the police act legally and that the police as an institution is a moral exemplar. But we also believe that there are other possible explanations of why a person feels an obligation to obey. In this respect, it could be that an individual does not accept some decisions or acts from the police, even when he feels morally aligned with the police and believes the police act legally, and vice versa. We believe that 'the recognition of police power' has to be measured in another way, not by obligation to obey as measured in most studies. Perhaps by asking respondents questions about the necessity of the police in their country or, considering the measurement of obligation to obey, by emphasising that it is about a *moral* duty to obey. Future research must clarify this. Furthermore, we believe that shared values and norms can differ between societies. That is why in some societies perceptions of procedural justice are found to be important in regarding to moral alignment with the police, while in other societies perceptions of police effectiveness

are more important. Although we could not take perceived legality of the police into account, we do consider it to be a dimension of legitimacy. But only if legality means according to a democratically established law. Following this reasoning, police legitimacy in the form of moral alignment seemed to be a strong predictor for obligation to obey. In total 17% of the variation in obligation to obey the police could be explained by the model tested.

To conclude, the most important pathway to obligation to obey was that of contact through trust in police procedural justice and moral alignment with the police. This means that it is necessary for the police to treat citizens fairly and respectfully during encounters, so that citizens perceive the police as legitimate, or, more precisely, so that citizens believe that they and the police share the same values and norms. This is important because the feeling that the police and citizens are on the same side influences attitudes towards the police in the form of feeling an obligation to obey them. Satisfactory contacts are thus indirectly necessary for an effective police functioning.

Based on the results outlined above, some specific policy recommendations can be made for the police to improve police–citizen encounters. First of all, police officers have to try to treat citizens with respect and dignity at all times, even when they deal with suspects. We are aware that this can sometimes be difficult, especially because police officers are in the first place humans having baggage of things experienced, felt and seen. It is therefore not easy to dismantle prejudices. Second, the police have to try to treat every citizen in the same way. Racial profiling for example does not fit with this idea. Some people would feel targeted by the police with less trust in police procedural justice as a result (Tyler and Fagan 2008). Third, it is important for the police to explain the rationale behind their acts and decisions. Only if citizens understand the reasons of the police and if they think these reasons are plausible, will they perceive the police as fair. Fourth, the police have to take more time to listen to people. However a lot of police officers in Belgium do not believe that this social aspect is a core task for the police. Fifth, it would be helpful to ask citizens during an encounter what they expect from the police. In some situations people expect the impossible. But when the police then explain why they cannot meet these expectations, in most cases people will accept this without any lingering bitterness.

To end, we want to acknowledge some limitations of this study. First, we want to point to the cross-sectional characteristic of the survey. Results cannot be interpreted in terms of causal relationships. In this respect, we are aware that trust and legitimacy prior to contact exist and that it could affect judgments about police contact rather than the reverse, although earlier longitudinal research has shown that even when controlling for prior trust and legitimacy, an effect of contact still exists. More panel studies and research with an experimental design is needed to meet this limitation. Second, we only asked the respondents to judge their latest police contact (of the last five years). It is not inconceivable that earlier contact also affected the respondents' opinions. Third, the results of our study are only representative for the citizens of Ghent. The population in Ghent could differ from populations in other cities of Belgium. Like basic expectations can differ across several societies, they can also differ

between cities. Therefore it would be interesting for every local police force to know what residents in their area expect from them. Survey research can offer help in that respect. Fourth, in our survey only attitudes were measured. An attitude implies a willingness to act, but indicating that you feel obliged to obey the police does not necessarily mean that you will actually obey the police when the situation arises.

Although some critical comments are made, the current study contributes to procedural justice research especially because we have taken contact experience as a predictor for trust in procedural justice and police effectiveness into account. Moreover, we tested the (a)symmetrical relationship between contact and both these components of trust. Furthermore this study contributes to the ongoing debate about perceived police legitimacy.

12. Appendix

Table 21: Descriptive statistics

Variable	N	Mean or %	SD	Min.	Max.
Procedural justice	762	18.44	3.53	5	25
Police effectiveness	762	10.28	2.31	3	15
Moral alignment	762	11.13	2.12	3	15
Obligation to obey	762	11.05	2.51	3	15
Contact[a] dummy (ref: no contact)					
Satisfied	761	.43	.50	0	1
Unsatisfied[b]	761	.20	.40	0	1
Contact[a]					
No contact	761	36.8 %			
Unsatisfied	761	11.2 %			
Neutral[b]	761	8.9 %			
Satisfied	761	43.1 %			

Notes:
[a]The contact variables relate to the last contact in the past 5 years
[b] In the path analysis the neutral and unsatisfied group are combined. Post hoc analyses showed no significant differences between these two groups.

Table 22: Bivariate correlations for scales

	1	2	3	4
1. Procedural justice	1			
2. Police effectiveness	.485	1		
3. Moral alignment	.672	.498	1	
4. Obligation to obey	.317	.226	.411	1

Note: All correlations significant at p ≤.01.

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Part II

PROCEDURALLY (UN)JUST POLICE BEHAVIOUR DURING POLICE–CITIZEN INTERACTIONS
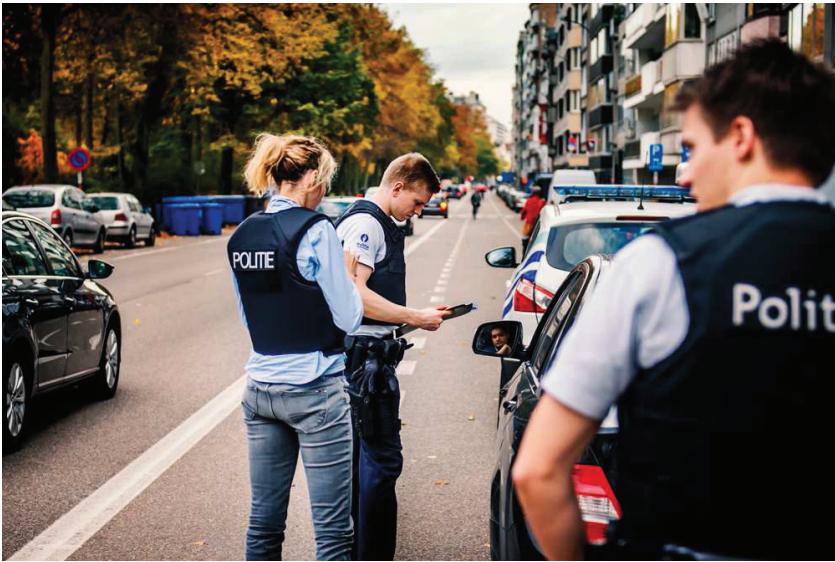
Fotograaf: Geert Van de Velde

CHAPTER V: Measuring procedurally (un)just police behaviour

Abstract
Objectives: *The purpose of this study is to validate an instrument, based on previous research, for measuring procedurally just and unjust police behavior during interactions with citizens.*
Methods: *Data were gathered from September 2015 to January 2016 using systematic social observations in two local police forces in Belgium. A total of 284 full police–citizen interactions were observed. We describe and explain how we measured procedurally (un)just police behavior and discuss existing research on the subject. We also test the validity of the instrument and stress the importance of making a distinction between procedurally just and unjust behavior, which has often been overlooked in previous research.*
Results: *Our measurement instrument passed the validity test, except for the procedurally just neutrality sub-index. The findings also confirm that both procedurally just and procedurally unjust police behavior can occur in the same interaction. Moreover, except for the trustworthy sub-indexes, we found a stronger negative correlation of procedurally unjust behavior with the citizen's behavior compared to the strength of the positive correlations of the procedural justice indexes.*
Conclusions: *The findings confirm a usable measurement instrument for research about procedural justice using systematic social observations. Important improvements were made to instruments that have been utilized in previous research. One of the most important recommendations for future research is to make a distinction between procedurally just and unjust police behavior.*

Keywords: police–citizen interactions, procedural (in)justice, systematic social observations, police performance.

1. Introduction

Procedural justice exerted by the police has become a hot topic in social science research in the latest decade. According to the procedural justice model, citizens' perceptions of the fairness of police decision-making and treatment may have an impact on their attitudes toward the police. In other words, if the police are perceived as procedurally just they are also more likely to be perceived as a legitimate institution. Faced with procedurally just behavior, people respond with compliance, respect, and cooperation (Jonathan-Zamir et al., 2013; Murphy, 2005). Four elements have been used to judge how procedurally just the police are. The first element, *participation* or *voice*, refers to the opportunity the police give citizens to express their viewpoints before making a decision. The second, *neutrality*, refers to the police basing treatment and decision-making on facts and not on citizens' personal characteristics or situational factors. The third, *dignity and respect,* refers to the police's polite treatment of citizens. The forth element, *trustworthy motives,* refers to the police showing care and concern for a citizen's wellbeing (Tyler and Fagan, 2008).

Previous research has mainly used surveys to test the assumptions of the procedural justice model (Hough et al., 2013; Murphy and Cherney, 2011; Reisig et al., 2012; Tsushima and Hamai, 2015). However, one criticism of survey research is that it only measures people's perceptions, which are subjective in nature—for instance, an individual may have received the same kind of police treatment as another person, but perceived it more positively or negatively than the other person. Furthermore, people who drop out of survey research may be quite significant – although they may not be willing to fill in a questionnaire due to laxity or indifference, they also have specific attitudes toward the police.

Exploring police procedural justice from the citizen's perspective remains an important approach. However, a growing body of research also focuses on procedurally just police behavior as observed in the natural setting of police work. Researchers use systematic social observations to examine whether the police act in a procedurally just or unjust way when they interact with citizens, according to specific measurement standards. They can also code the behavior of citizens, which enables them to test the assumption of the procedural justice model that "Procedurally just police behavior can predict citizens' compliance with police requests, cooperation with the police and respectful behavior during a police–citizen interaction". Of course, before attempting to address this assumption, researchers first have to identify a reliable way to measure procedurally just police behavior.

The purpose of the present study is, therefore, to validate a measurement instrument, based on previous research, for procedurally just and unjust police behavior during interactions with citizens. However, only a few researchers have paid specific attention to (the measurement of) procedural justice using systematic social observations (Dai et al., 2011; Jonathan-Zamir et

al., 2013; Worden and McLean, 2014[83]). Jonathan-Zamir et al. (2013) had a similar aim to ours, with the researchers trying to develop an instrument for measuring procedural justice during police–citizen interactions. Worden and McLean (2014) tried to improve this instrument and also focused on a procedurally unjust variant, though not for every element. We built especially on these studies when developing our measurement instrument. However, we believe that they left room for improvement, and we therefore present an improved measurement instrument. In what follows we describe and explain how we measured procedurally just police behavior, as well as an unjust variant for each element. We also discuss measures from the aforementioned studies. We validate our measurement instrument and stress the importance of the distinction between procedurally just and unjust police behavior. We conclude by summarizing the findings and discuss their implications for further research.

2. Data and methods

Data were gathered from September 2015 to January 2016 using systematic social observations with patrol officers in the department of 'intervention'[84] of two local police forces in Belgium (> 250,000 residents in one area and > 45,000 in the other).[85] Following specific protocols, one female Ph.D. student of criminology in her late 20s with some policing experience conducted ride-along observations.[86] She was trained by Mastrofski during a three-day course on systematic social observations. Official approval was needed before conducting the observations. First, the head of the two police forces had to agree to the presence of the researcher.[87] Second, the procurator-general of the Court of Appeal had to

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[83] Other studies have measured one or more of the procedural justice elements during police–citizen encounters, but they have rarely measured all four elements. For an overview see Jonathan-Zamir et al. (2013, p. 8) and Dai (2010, pp. 48–51).

[84] We chose to work with police officers from this department because they work both reactively (in response to emergency calls) and preventively (patrolling). They are usually the first police officers to have face-to-face contact with citizens. Studying the behavior of police officers and citizens at their first meeting on a particular case means that their actions are not influenced by previous contacts regarding the case.

[85] Systematic social observation is the selection, detection, registration, and coding of behaviors or events with a scientific purpose. If the behaviors or events relate to people it is called social observation. Social observation becomes systematic when the observation and recording follow specific procedures that can be replicated. This means, for example, that researchers studying respectful behavior during an interaction will define and describe this behavior so that other researchers can identify the same kind of behavior as respectful. Furthermore, the observation happens independent of the research object, meaning that a researcher will not be influenced by the interpretation given by the research object (Mastrofski et al., 1998; Mastrofski et al., 2010).

[85] It was not possible to use more than one researcher to carry out the systematic social observations, first due to the lack of resources and second because the participating police forces wouldn't agree to the presence of a second observer.

[86] There was no possibility to rely on other researchers for conducting the SSOs. First, due to the lack of resources. Second, because the participating local police forces did not want to approve with a second observer.

[87] The heads of four metropolitan police forces in Belgium were asked to participate in the study; this figure represents a large proportion of all police forces in the country. Because of the high threat level, obtaining approval to conduct systematic social observations was not easy. The local police force in the smaller area was

approve. In addition, the researcher asked the Ethical Commission of the Law Faculty of Ghent University for their advice on the project and registered the research at the Belgian Privacy Commission.

The observation manual and protocols were based on earlier research (Mastrofski et al., 2007; Jonathan-Zamir et al., 2013). Field notes were made during the observations about the background characteristics of the police officers, the characteristics of the interventions that occurred during the observation period or 'ride' (the facts, locations, etc.), the background characteristics of the citizens with whom the police interacted (role, age, ethnical background, etc.) and the way the police and citizens behaved. These field notes were helpful when the observer came to write a detailed narrative after concluding the observation sessions. Following the observations, three measurement instruments with closed questions were completed: one about the ride, one about each intervention, and one about each police–citizen interaction.[88] So, one ride could contain several interventions and one intervention could contain several police–citizen interactions. These interactions are the unit of analysis in this study.

Before the data-gathering, the researcher conducted 128 hours (16 rides) of exploratory observations from April 2015 to June 2015: (1) to get to know the participating police officers; (2) to finalize the measurement instruments; (3) to try out how to gather the data (e.g. when to note things down); and (4) to fix the timing between the observations (leaving enough time between two observations to manage the information that has been gathered and to provide a mental break for the observer, preventing her from "going native").

A total of 38 rides (about 318 hours) were observed during the data-gathering: 9 in the morning, 17 in the evening, and 12 at night. Thirty-four of the rides were with two police officers (21 male pairs, 12 mixed pairs and 1 female pair), three were with three officers (all males), and one was with four officers (3 males and 1 female). In total, 44 different police officers were observed,[89] 20% of them were female. The officers' ages ranged from 21 to 53. All the officers had a Belgian immigration background. Some were at the very start of their career, while others had more than 15 years' experience. The participants were sampled randomly.[90] Informed consent was obtained by informing participants about the purpose of

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selected for practical reasons—while attending a seminar the researcher came into contact with a police commissioner of this local police force and she asked him if they would be interested in participating in the study.
[88] In short this instrument is called citizen instrument.
[89] It was important to gain the officers' trust. This was only possible when police officers were observed more than once.
[90] The officers were sampled as follows. For the police force with the highest number of officers in the department of intervention, a list of names of all these officers was provided. The names were manually entered into SPSS, a statistical data processing program, and a random sample of 25 names was drawn. The permanent team partner of these police officers was automatically added to the sample. Two, three or four observation sessions per week were scheduled, depending on the availability of the researcher. The observation sessions were randomly selected, and the names of the police officers from the sample who were on duty at that time were identified using the duty schedule of all the police officers for the entire observation period. For the other police force, the approach to sampling was slightly different. Because this force had fewer police officers, there

the study and making it clear that each police officer was free to refuse participation; only one officer did not want the researcher to join them on patrol. In addition, the researcher asked the participants for permission to handle and report the data anonymously, and told them they could ask to see the results of the study.

The researcher recorded 215 full interventions in which police officers interacted with 284 citizens.[91] In total, 64 % of the citizens were male, 63 % had a non-Belgian immigration background, 7.4 % were younger than 18, around 63 % were aged 18 to 44, and around 29% were older than 45.[92]

3. Measuring procedurally (un)just police behavior

One section of our citizen instrument contains closed questions (indicators) about the way the police behave. Below we describe and explain how we measured all four elements of procedurally just police behavior during police–citizen interactions (participation/voice, neutrality, dignity and respect, and trustworthy motives). For all these elements, we also describe and explain the measurement of an injustice variant. We also developed an overall index for both procedurally just and unjust police behavior.

3.1. Participation/voice

Procedurally just behavior

Citizens want the opportunity to tell their story about what happened, before the police make a decision. In other words, citizens want to actively participate in the decision-making process. Procedurally just behavior in relation to participation/voice is demonstrated when the police allow citizens to express their opinion, when they listen actively to the story, and when they make it clear that they are taking citizens' information into account.

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was a higher likelihood that the same officers would be on duty when observation periods were randomly selected (as has been mentioned, to gain trust it was important to observe the same police officers more than once). The observation periods were randomly selected, and the researcher then informed the duty planner when to expect the researcher at the police station. This meant that the researcher only knew which officer was on duty at the meeting just before start of the patrol. Because this police force does not work with fixed teams, the observer selected the first team scheduled to go on patrol that contained at least one officer whom they had already accompanied. If all the officers going out on patrol were new to the researcher then the researcher chose the team that was scheduled to go on patrol first. When the officers split during an intervention, the one who stayed with the citizen was observed. In case of more than one citizen, the officer who drove the car was chosen to observe.

[91] In a full intervention, a police officer communicates with a citizen about a specific case or police case for at least three minutes, or the communication contains at least five verbal exchanges. A violent act by the police and/or the citizen is coded as a full intervention. A 'citizen' is an individual who has a problem or causes a problem that requires police intervention. It was decided to code up to five interactions with full citizens during one intervention because coding more could increase the probability of coding errors.

[92] Broad age categories were used because, in most of the cases, the observer had to estimate the citizen's age.

The following indicators, based on research by Jonathan-Zamir et al. (2013) and Worden and McLean (2014) formed our index of procedurally just police behavior concerning participation:

1. *Did the police ask for information or the citizen's point of view? (0 = no; 1 = yes)*
2. *How did the police receive the citizen's information? (0 = as a dismissive, inattentive, passive listener or not applicable; 1 = as an active listener)*
3. *Did the police make it clear to the citizen that they would take the information into consideration? (0 = no; 1 = yes)*

The indicators were summed to form an index from 0 to 3. A score of 0 means that no procedurally just behavior concerning participation was observed. A score of 3 means that the police exhibited procedurally just behavior for all three aspects.

Jonathan-Zamir et al. (2013) used the same kind of indicators for their procedurally just participation index. However, they also took into account whether or not the citizen gave information, or expressed his/her point of view (0 = no; 1 = yes). This indicator was multiplied with the way the police showed their interest in it (0 = dismissive listener; 1 = inattentive listener; 2 = passive listener; 3 = active listener). However, a citizen sharing his/her opinion with the police is not necessarily linked to procedurally just police behavior because it does not necessarily imply an act from the police, and therefore we did not take this indicator into account. Furthermore, we are of the opinion that 'active listening' is the only explicit expression of procedurally just behavior with regard to participation. Also, Jonathan-Zamir et al. (2013) did not take into account whether the police made it clear if they would take the citizen's information into consideration.

To measure procedurally just police behavior concerning participation, Dai et al. (2011) observed whether police officers took a citizen's requests into consideration (the request was granted, or the officer explained why it could not be granted). Jonathan-Zamir et al. (2013) consider this action reflected 'trustworthiness', rather than giving the citizen the opportunity to tell his/her story—it reflects a degree of sympathy for the citizen and indicates that the police can be trusted. This is in contrast to the explicit refusal of requests without explanation. It is also not possible, in Dai et al.'s (2011) measurement, to identify whether the police had given the citizen a 'voice' during the interaction. In this study, we follow the reasoning of Jonathan-Zamir et al. (2013) in this regard.

Worden and McLean (2014) complete the procedural justice participation index. They are of the opinion that when police officers requested something of a citizen (e.g. stop acting illegally) in a suggestive, persuasive or negotiating manner, this could also be seen as an expression of procedurally just police behavior concerning participation. However, we believe that it is difficult to give a code to the manner in which the police communicate their requests (only requesting or suggesting; trying to persuade or negotiate; commanding the citizen; threatening the citizen). Furthermore, in our opinion it is not possible to code all possible requests from the police to citizens in one instrument. Every citizen instrument used within the framework of systematic social observations can list a number of requests, like the citizen

instrument in the current study, but this number is not infinite. We also believe that suggesting requests, or trying to persuade or negotiate with the citizen, are not expressions of procedurally just police behavior with regard to participation, but are ways to communicate—which are intrinsically associated with gauging the citizen's opinion about the request. This is already incorporated in another indicator in this study.

Procedurally unjust behavior

The police exhibit procedurally unjust behavior when they do not pay attention to what the citizen has to say, when they interrupt the citizen, and when they do not take into account the citizen's information or point of view.

The following indicators, based on Worden and McLean (2014), formed our index of procedurally unjust police behavior concerning participation:

1. *Did the police ignore or avoid the citizen? (0 = no; 1 = yes)*
2. *Did the police interrupt the citizen without excusing themselves? (0 = no; 1 = yes)*
3. *Did the police give an indication that they would explicitly disregard the citizen's information or point of view when dealing with this case/taking a decision? (0 = no or not applicable; 1 = yes)*

The indicators were summed to form an index from 0 to 3. A score of 0 means that no procedurally unjust behavior concerning participation was observed during the interaction with the citizen. A score of 3 means that the police exhibited procedurally unjust behavior for all three aspects.

Jonathan-Zamir et al. (2013) did not take into account procedurally unjust behavior regarding participation. Dai et al. (2011) did, but only took into account citizens' requests that were ignored or refused without justification. However, that does not fully cover procedurally unjust behavior with regard to participation. After all, not every interaction will include a citizen's request. This is why we have chosen a measurement in line with Worden and McLean (2014).

3.2. Neutrality

Procedurally just behavior

Procedurally just behavior in relation to neutrality is demonstrated when the police make unbiased decisions based on objective criteria. To demonstrate that their actions are based on facts and not influenced by prejudices, the police can explain their actions and decisions (Worden and McLean, 2014). For example, when a police officer explains that he/she breathalyzed someone because this person was noticeably swaying from right to left on the road, this person will be less inclined to think the police have stopped him/her due to gender, ethnicity, or other characteristics.

The following indicators, based on Jonathan-Zamir et al. (2013) and Worden and McLean (2014), formed our index of procedurally just police behavior concerning neutrality:

1. *Did the police indicate they would not make a decision about what to do until they had gathered all the necessary information? (0 = no; 1 = yes)*
2. *Did the police explain to the citizen why they became involved in the situation? (0 = no; 1 = yes)*
3. *Did the police explain why they chose to resolve/handle the situation as they did? (0 = no; 1 = yes)[93]*

The indicators were summed to form an index from 0 to 3. A score of 0 means that no procedurally just behavior concerning neutrality was observed during the interaction with the citizen. A score of 3 means that the police exhibited procedurally just behavior for all three aspects.

It is clear that in some situations it is difficult, or even irrelevant, for the police to explain why they became involved in a situation. In a crisis situation where citizens are fighting, for example, the police have to react quickly to stop the fight. Normally, the police reaction makes it clear to the citizens why they became involved; however, this is classed as a 'no' response on indicator 2 of our measurement. Also, when a citizen initiates the contact, for example by stopping the police in the street, it is irrelevant for the police to explain why they became involved. Namely, the citizen specifically asked the police to become involved. Therefore, our index only provides an indication of the level of procedurally just actions that were observed with regard to neutrality. This is independent of those situations in which the police might have had procedurally just intentions, but the conditions made it irrelevant or impossible to express them.

Procedurally unjust behavior

The police exhibit procedurally unjust behavior when they give an indication that their decisions and/or treatment are based on subjective information. Additionally, when they treat a citizen worse than other citizens in the same or a related intervention, without any objective reason, this indicates a preference for one citizen over another. The police also act in a procedurally unjust way with regard to neutrality when they indicate that they have doubts about the citizen's story without justifying their meaning on an unambiguously legitimate basis (e.g. with evidence). We believe that citizens might also be aware of these (sometimes) subtle non-neutral behaviors.

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[93] For indicators 2 and 3, only explanations that are unambiguously legitimate (e.g. rules, standard procedures, descriptions of evidence) are included in the 'yes' responses. This was also written down in the margin of the citizen instrument. Thus, if police officers justified their actions, for example by telling citizens that they were stopped because of their gender or skin color, it was coded as a 'no' response. This was also coded as a 'yes' response to the first indicator of our measurement of procedurally unjust police behavior.

The following indicators, which are to a limited extent based on indicators from earlier research,[94] formed our index of procedurally unjust police behavior concerning neutrality:

1. *Did the police give an indication that their decisions/handling were influenced by the citizen's personal characteristics?[95] (0 = no; 1 = yes)*
2. *Did the police give an indication that they had doubts about the citizen's story without justifying their meaning on an unambiguously legitimate basis? (0 = no; 1 = yes)*
3. *Did the police treat the citizen in a worse way than other citizens in this or a related intervention? (0 = no or not applicable[96]; 1 = yes)*

The indicators were summed to form an index from 0 to 3. A score of 0 means no procedurally unjust behavior concerning neutrality was observed during the interaction with the citizen. A score of 3 means that the police exhibited procedurally unjust behavior for all three aspects.

Jonathan-Zamir et al. (2013) questioned Dai et al.'s (2011) measurement of procedurally unjust behavior concerning neutrality, because they felt that police behavior, use of force and granting requests to a citizen could be due to the circumstances of a particular interaction, rather than demonstrating non-neutral behavior toward that individual by the police. Although we based one indicator on Dai et al. (2011), we took account of the comment by Jonathan-Zamir et al. (2013) that "neutrality does not demand slavish equality of treatment, but rather treatment that is equitable for the circumstances of each individual" (p. 10). Therefore, we opted for an indicator measuring whether the police treated the citizen worse than other citizens, in the current or a related intervention.[97] "Worse treatment" means noticeably more negative treatment than the other citizens with regard to police use of force and police demeanor. However, in contrast to Dai et al. (2011), we took into account the fact that police use of force can differ between citizens for reasons other than neutrality. For example, the police may well use force against suspects when the suspects resort to violence. In this particular case, the police would have a legal reason to use violence.[98] This does not automatically mean that the other citizens in the intervention were treated better. Worse treatment of a suspect can only be assumed when the police's use of coercion or force is not proportionate to the citizen's actions and the police demonstrate a noticeable preference for (an)other citizen(s). Furthermore, based on Dai et al. (2011), indicator 3 was coded as 'yes'

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[94] Indicator 1 is based on the research of Jonathan-Zamir et al. (2013) and indicator 3 on the research of Dai et al. (2011).

[95] If coded 1, the observer also coded which characteristics were thought to be influencing the police's behavior, namely ethnicity, age, gender, probable sexual orientation, appearance, different characteristic. This could be identified by officers' remarks—for example: "yes... it's a brown one again".

[96] Not applicable when there was only one citizen involved in the intervention and when there wasn't a related intervention with another citizen.

[97] A "related intervention" is one that is linked to another intervention (and thus is about the same case) that was observed just before or after the intervention in question.

[98] Article 37 of the Law on the Police Function in Belgium states that police officers can use coercion or force to achieve a legal aim that cannot be achieved in any other way. In addition, all forms of coercion or force must be reasonable and proportionate to the intended aim, and a warning must precede each use of force unless such warning would make the use of force ineffective.

when the police showed disrespect to one citizen and not to another and/or when they considered one citizen's voice but ignored another's.[99] Such an indicator was missing in Jonathan-Zamir et al. (2013) as well as in Worden and McLean (2014). Moreover, a procedurally unjust neutrality index was only used in the latter. This measurement was based on one indicator—namely, how well the police explain their decisions and actions. This was coded on a scale from 0 (very bad) to 5 (very good), and 0 and 1 were coded as procedurally unjust. We disagree with this line of thought, since 0 and 1 indicate that a low level of procedurally just behavior was observed. This cannot be seen as synonymous with procedurally *un*just behavior. Furthermore, the present study is the first to use an indicator relating to the police expressing doubts about a citizen's story for measuring procedurally (un)just behavior concerning neutrality. During the exploratory observations, it was notable that in many of the police–citizen interactions police officers indicated that they did not believe the citizen's story without giving a legitimate reason for their doubts. We believe that this indicates a non-neutral attitude toward the citizen.

3.3. Dignity and respect

Procedurally just behavior

Qualitative interviews in Belgium showed that friendliness, respect, and dignity are the most important expectations of citizens with regard to police behavior (Verwee, 2012). Expressions of dignity and respect can be observed in gestures as well as in the language the police use. Addressing someone as "sir" or "madam", or even by their name, if known, shaking hands, and polite language such as "here you are" and "thank you" are all expressions of respectful behavior.

We used one indicator, based on Jonathan-Zamir et al. (2013), to measure the level of respectful behavior:

The duration or frequency of respectful behavior during the interaction (0 = none; 1 = short; 2 = variable; 3 = dominant).

Procedurally unjust behavior

Police officers are procedurally unjust when they express disrespectful behavior toward citizens. This can be observed in gestures as well as in the language the police use. Disrespectful language includes pouring scorn on the citizen, belittling them or their family, making disparaging remarks, slander (racial, sexual, or regarding their lifestyle) and laughing at them. Disrespectful gestures include raising the middle finger or fist, making obscene gestures, and spitting in the presence of the citizen. Ignoring the citizen's questions and using

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[99] The indicator was coded 0 when there was no clear inconsistency in police behavior toward different citizens, or if the observer had any doubts about whether the police behavior was procedurally unjust in relation to neutrality.

a cell phone for something other than a police matter in front of the citizen are other examples of disrespectful behavior. Pointing out the citizen's mistakes does not necessarily mean that the police were disrespectful, if it is done in a respectful way. It is disrespectful when police officers shout (except in cases of emergency), are sarcastic, or show annoyance (for example, sighing aloud or staring with disbelief).

Once again, we used one indicator to measure procedurally unjust behavior in relation to dignity and respect:

The duration or frequency of disrespectful behavior during the interaction (0 = none; 1 = short; 2 = variable; 3 = dominant)

Worden and McLean (2014) coded the same behavior as respectful or disrespectful in a similar way to the present study. However, they combined various respectful/disrespectful behaviors. In the citizen instrument we also coded these behaviors, but we have not combined them into an index. This is because some behaviors can occur more than once, for example the police may address someone as "sir" or "madam" several times. We therefore believe that measuring the duration of respectful/disrespectful behavior is a better indicator.

Dai et al. (2011) considered similar behaviors as disrespectful, but did not take into account respectful police behavior. Disrespectful police behavior was measured as a dichotomous variable with code 1 if the police were the first to show disrespectful behavior. This means that if the police showed disrespectful behavior, but only after the citizen initiated, it was coded as 0.

3.4. Trustworthy motives

Procedurally just behavior

If the police show care and concern, they are seen as having the citizen's best interests at heart. Behaviors such as offering physical assistance to the citizen, providing advice or information on their own initiative, asking the citizen to contact them again, asking about the citizen's wellbeing or reassuring the citizen can be considered explicit expressions of showing care and concern. The motives of the police are then seen as trustworthy and community-oriented, in contrast to the police just doing their job to fulfill certain quotas (Jonathan-Zamir et al., 2013).

The following indicators, based on Jonathan-Zamir et al. (2013), Worden and McLean (2014) and Dai et al. (2011), formed our index of procedurally just police behavior regarding trustworthy motives:

1. *Did the police offer physical assistance to the citizen on their own initiative? (0 = no; 1 = yes)*

2. *Did the police give advice or information to the citizen on their own initiative? (0 = no; 1 = yes)*

3. *Did the police ask the citizen to contact them again if the problem arose again, or for a follow-up? (0 = no; 1 = yes)*

4. *Did the police ask the citizen about his/her wellbeing or ask others in a way that was observed by the citizen? (0 = no; 1 = yes)*

5. *Did the police show understanding toward the citizen or did they reassure the citizen? (0 = no; 1 = yes)*

The indicators were summed to form an index from 0 to 5. A score of 0 means that no explicit procedurally just behavior concerning trustworthy motives was observed during the interaction with the citizen. However, we do not state that the police's motives were procedurally unjust when there was a score of 0. A score of 5 means that the police exhibited procedurally just behavior for all five aspects.

In contrast to Jonathan-Zamir et al. (2013) and Worden and McLean (2014), we do not consider the action of granting a request, or the promising to grant one, to be an indicator of trustworthy motives. We believe that in some situations it is difficult for an observer to judge whether or not a citizen's request is reasonable. In addition, citizens sometimes make requests that are impossible for the police to agree to – for example, if a citizen asked the police to arrest someone who has not committed an offence, the police would be unable to grant this request. Therefore, "granting a request" was not used as an indicator for measuring trustworthy motives in the present study. It could perhaps be suggested that whether or not a citizen deserves to have their request granted is irrelevant when measuring the amount of care and concern the police show. However, if a citizen's request is objectively perceived as irrelevant but the police grant it, the police would fail in being trustworthy. Therefore, we believe that in situations wherein the police refuse a citizen's request, the fact that they explain why they chose to refuse it is more relevant than the refusal to act.

Procedurally unjust behavior

Ignoring a request or refusing to act without justification can be considered expressions of procedurally unjust behavior with regard to trustworthy motives. Such behavior means that citizens would not understand why the police do not agree to their request. Similarly, when the police tell the citizen not to contact them again about a similar situation, they trivialize the needs of the citizen. If the police's behavior indicates that they are not willing to make the effort needed to handle the situation, then their motives are not trustworthy.

The following indicators, based on Worden and McLean (2014), formed our index of procedurally unjust police behavior regarding trustworthy motives:

1. *Did the police ignore or refuse at least one request by the citizen, without justification?[100]*
    (0 = no or not applicable; 1 = yes)
2. *Did the police request the citizen not to contact the police anymore if the problem occurred again? (0 = no; 1 = yes)*
3. *Did the police make it clear that they were not willing to make the effort needed to handle the problem/situation? (0 = no; 1 = yes)*

The indicators were summed to form an index from 0 to 3. A score of 0 means that no procedurally unjust behavior regarding trustworthy motives was observed during the interaction with the citizen. A score of 3 means that the police exhibited procedurally unjust behavior for all three aspects.

3.5. The level of procedurally (un)just police behavior

Table 23 shows the level of procedurally (un)just police behavior that was observed during the police–citizen interactions.[101] For reasons of interpretation, we re-coded all the sub-indexes from 0 (low) to 1 (moderate) to 2 (high).[102] The level of procedurally just police behavior regarding the four elements was concentrated at the "moderate" level (from 48.9% of the interactions for participation to 66.2% for trustworthy motives). The proportion of interactions where there was no procedurally just police behavior regarding participation and neutrality was quite low (14.1% for both). However, no procedurally just police behavior with regard to trustworthy motives was observed in 26.4% of the interactions with citizens, and the police did not show respectful behavior toward the citizen in 36.4% of the interactions with citizens. A high level of procedurally just police behavior regarding participation was identified in 37% of the interactions, but in contrast a high level of procedurally just police behavior regarding trustworthy motives was found in only 7.4% of the interactions.

A low level of procedurally unjust police behavior characterized the majority of the interactions for each element of procedural injustice (from 61.1% for neutrality to 85.1% for trustworthy motives). A moderate to high level of procedurally unjust police behavior regarding participation was observed in one-quarter of the interactions. A moderate level of procedurally unjust police behavior regarding trustworthy motives was observed in 14.9% of

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[100] Requests used in the citizen instrument, for example, were: a request for physical assistance for the citizen him/herself or someone else, a request for information about how to deal with a certain situation, a request to make an official report, a request that the police arrest someone, a request that the police exert control or influence over another person, and so on. Although we are aware that the list of possible requests is potentially infinite, the ignoring or refusal without explanation of one or more of these types of request was considered a procedurally unjust police behavior.

[101] N can differ from the total number of observed police–citizen interactions that were observed (284) for all sub-indexes because some interactions were coded as ambiguous at one or some indicators. These can be considered as missing.

[102] To this end, the score of 0 from the 0–3 indexes was kept, 1 and 2 were combined and re-coded as 1, and 3 was re-coded as 2. For the "trustworthy" sub-index, which originally ranged from 0 to 5, the score 0 was kept, 1–3 were combined and re-coded as 1, and 4 and 5 were re-coded as 2.

the interactions. No interaction was observed with a high level of procedurally unjust behavior regarding trustworthy motives. The highest proportion of procedurally unjust police behavior related to neutrality, and dignity and respect. A moderate level of non-neutral police behavior was observed in 35% of the interactions, and a high level in 3.9%. For all the observed interactions, 27.8% were characterized by a moderate level of disrespectful police behavior, and 8.1% by a high level.

Table 23: Police behavior observed during police–citizen interactions

	N	Low %	Moderate %	High %
Procedurally just				
Participation/voice	284	14.1	48.9	37.0
Neutrality	263	14.1	64.6	21.3
Dignity and respect	283	36.4	50.5	13.1
Trustworthy motives	284	26.4	66.2	7.4
Procedurally unjust				
Participation/voice	284	73.2	23.9	2.8
Neutrality	283	61.1	35.0	3.9
Dignity and respect	282	64.1	27.8	8.1
Trustworthy motives	282	85.1	14.9	0.0

3.6. Overall indexes

Similar to Jonathan-Zamir et al. (2013) and Worden and McLean (2014), we consider procedural justice during police–citizen interactions to be a formative index. We measure the level of procedurally just police behavior concerning participation, neutrality, respect and dignity, and trustworthy motives observed during police–citizen interactions – we do not try to estimate a latent variable, as in survey research. Measures of procedural justice during interactions with citizens are not expected to underlie a specific latent variable. As Jonathan-Zamir et al. (2013) argue, they can be related to different aspects of procedurally just behavior, they are not expected to inter-correlate with each other, and they are not interchangeable. Indicators of this type are named 'formative' because the overall construct is 'formed', rather than reflected, by a combination of its elements.

Procedurally just behavior

The more the police act in a procedurally just way, the more procedural justice citizens receive. We estimate the level of procedural justice in an *overall procedurally just index* by

combining the number of police behaviors for all elements of procedural justice—participation, neutrality, respect and dignity, and trustworthy motives—during an interaction with a citizen. We therefore combined all the original indexes (Table 24).[103]

Procedurally unjust behavior

We followed the same reasoning to create an *overall procedurally unjust-index.* The more the police act in a procedurally unjust way, the more citizens are confronted with procedurally unjust police behavior. We combined all the original procedurally unjust indexes.[104] In table 24, descriptive statistics of the overall procedurally unjust-index can be found.

Table 24: Descriptive statistics for the overall procedurally (un)just index

	N	Min	Max	Mean	Std.
Procedurally just index	262	0.00	11.00	5.50	2.70
Procedurally unjust index	281	0.00	10.00	1.79	2.48

4. Validity

The validity of measurement has to deal with the absence of systematic bias (Pauwels, 2013). Has the tool used actually measured what it was intended to measure? In social sciences one can control the construct validity of measurement by testing the correlation between the measurement and the variables that are theoretically supposed to be correlated with it. This is also called correlational validity (Hardyns and Pauwels, 2010). Furthermore, in contrast to reflective scales, we do not expect indicators[105] of a formative scale to correlate strongly. A strong correlation is not expected in the current study, as that would mean each of the elements from procedural (un)justice would not have a unique value in explanatory analyses (Jonathan-Zamir et al., 2013). However, low correlations between our four procedurally (un)just indexes and high correlations between every index with the overall procedurally (un)just index are good indicators for testing the validity of our measurements.

Table 25 shows that our four sub-indexes strongly correlate with the overall procedurally just-index (statistically significant correlations between .650 and .744, respectively, for the trustworthy index and respect index). Table 26 shows that this is also the case for the four procedurally unjust sub-indexes and the overall procedurally unjust index (statistically significant correlations between .643 and .922, respectively, for the procedurally unjust trustworthy index and the procedurally unjust respect index). The findings indicate that every

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[103] The original 0–3 indexes for participation, neutrality, and dignity and respect were combined with a 0–3 index for trustworthy motives to give the same weight to all elements of procedural justice in the overall index. To this end, the original 0–5 index was recoded: score 0 was kept, scores 1 and 2 were recoded to 1, scores 3 and 4 were recoded to 2 and a score of 5 was recoded to 3.
[104] The overall index used the 0–3 indexes for participation, neutrality, respect and dignity, and trustworthy motives.
[105] For the overall scales these are the indexes from the footnotes above.

sub-index is very well represented by the overall indexes. Similar results for procedurally just behavior were found in Jonathan-Zamir et al. (2013). However, we found a much higher correlation in our study for the respect index with the overall procedurally just index.[106] We also discovered low correlations between the four procedurally just indexes (none above .395). However, in Jonathan-Zamir et al. (2013) these correlations were smaller and ranged from 0.10–.30. For the procedurally unjust indexes, two correlations were above .600—the first was between the respect index and the participation index, and the second was between the respect index and the neutrality index.

According to the procedural justice model, people will have a positive attitude toward the police when they believe that the police are going to treat them in a procedurally just way. Following this line of thought, we can expect that procedurally unjust treatment by the police will be related to a negative attitude. Although we did not directly question citizens about their attitudes during the systematic social observations, we identified their attitudes by observing their words, actions, and behavior. This measurement is based on Jonathan-Zamir et al.'s (2013) citizen instrument. Based on some clear signs, the observer had to code the citizen's attitude at the end of the interaction (0–4 index, from very negative to very positive). An expression of a very negative attitude was, for example, threatening the police with a complaint or violent toward them. Ignoring the officers' questions or expressing dissatisfaction about the interaction are examples of a relatively negative attitude. When the citizen did not express negative or positive behaviors, their attitude was coded as neutral. Just thanking the officers was considered to be an expression of a relatively positive attitude. The explicit expression of being satisfied with the intervention was seen as a very positive attitude. Table 27 shows how this *attitude index* is divided.

To confirm the validity of measurements, we expect statistically significant and positive correlations between the procedural justice indexes and the attitude index. The correlation between the overall procedural justice index and the attitude index is indeed positive and statistically significant. The correlation is average to strong (r: .330). Similar to Jonathan-Zamir et al. (2013), we do not find a statistically significant correlation between the attitude index and the neutrality index. However, correlations between the attitude index and other sub-indexes are statistically significant and positive. The strongest correlation is between the attitude index and the respect index (r: .309). This is in line with Jonathan-Zamir et al. (2013) which also found the strongest correlation with the respect index (r: .43).

We expect statistically significant and negative correlations between the procedurally unjust indexes and the attitude index. We found a negative, average to strong correlation in the case of the overall procedurally unjust index (r: -.378). All four sub-indexes showed a negative statistically significant correlation with the attitude index. The procedurally unjust respect-index seemed to correlate the strongest with the attitude index (r: -.390) and the weakest with the procedurally unjust trustworthy index (r: -.169).

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[106] In Jonathan-Zamir et al. (2013) this correlation was 0.59.

Table 25: Correlation matrix for the procedurally just indexes and attitude index

	(1)	(2)	(3)	(4)	(5)	(6)
Overall procedurally just index (1)	1					
Sub-indexes:						
Participation/voice (2)	.737**	1				
Neutrality (3)	.662**	.292**	1			
Dignity and respect (4)	.744**	.312**	.335**	1		
Trustworthy motives (5)	.650**	.393**	.201**	.395**	1	
Attitude (6)	.330**	.296**	.020	.309**	.307**	1

** Correlation is statistically significant at p ≤ 0.01

N = 261

Table 26: Correlation matrix for the procedurally unjust indexes and attitude index

	(1)	(2)	(3)	(4)	(5)	(6)
Overall procedurally unjust index (1)	1					
Sub-indexes:						
Participation/voice (2)	.836**	1				
Neutrality (3)	.787**	.457**	1			
Dignity and respect (4)	.922**	.727**	.640**	1		
Trustworthy motives (5)	.643**	.513**	.314**	.499**	1	
Attitude (6)	-.378**	-.325**	-.283**	-.390**	-.169**	1

** Correlation is statistically significant at p ≤ 0.01

* Correlation is statistically significant at p ≤ 0.05

N = 280

Table 27: Citizen's attitude at the end of the intervention (n = 283) [107]

	Very negative	Relatively negative	Neutral	Relatively positive	Very positive	Total
Freq.	10	29	137	102	5	283
%	3.5	10.2	48.4	36.0	1.8	100

5. The distinction between procedurally just and unjust behavior

The study by Worden and McLean (2014) was the only one to emphasize the importance of making a distinction between the procedurally just and unjust actions of the police. First, procedurally just behavior does not exclude procedurally unjust behavior in the same interaction, and vice versa. Second, according to the line of thought of survey research (Dean, 1980; Jacob, 1971; Lammers, 2004; Skogan, 2006), we expect the negative effect of procedurally unjust behavior on citizens to be stronger than the positive effect of procedurally just behavior. Third, the indicators that several researchers used to measure procedurally just behavior were actually measuring procedurally unjust behavior as well. As has already been mentioned, many researchers see the granting of citizens' requests as an indicator of

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[107] One interaction was coded as ambiguous; it was unclear whether the citizen had a negative or positive attitude toward the police. We treated this as missing.

trustworthy motives. However, it is not always possible for police officers to grant requests, and it is difficult to observe whether a request is relevant or not. We suggest that it is better to record whether the police explained why they ignored/refused the citizen's request, as an expression of procedurally unjust behavior regarding trustworthy motives. In Worden and McLean (2014), a score of 0–1 on a neutrality indicator (how well the police explain their decisions and actions) was considered to demonstrate procedurally unjust behavior. We believe that a score of 0–1 only demonstrates an *absence of procedurally just behavior*.

The first argument—the need to make a distinction between procedurally just and unjust behaviors because they can occur both in the same interaction—can be proven statistically by examining the bivariate correlation between the overall procedurally just and unjust indexes. This correlation shows a statistically significant moderate negative relationship (r= -.497). Procedurally just and unjust police behavior are not mutually exclusive—a high level of procedurally unjust police behavior occurs with a low level of procedurally just police behavior, and vice versa. However, the correlation is still weak enough to keep a distinction between both indexes; the stronger the correlation, the weaker the case for creating separate indexes. They are, then, analytically difficult to distinguish from one another.[108]

To assess the second argument—whether the negative effect of procedurally unjust behavior on citizens is stronger than the positive effect of procedurally just behavior—we compare the strength of the correlations between the indexes with the attitude index (see Tables 25 and 26), respectively.[109] As expected, we found a stronger correlation for the overall procedurally unjust index than for the overall procedurally just index, when comparing the strength of the correlations of these indexes with the attitude index (respectively: r: -.378 and r: .330). For three out of four sub-indexes we found a stronger negative correlation of procedurally unjust behavior with the attitude index compared to the strength of the positive correlations of the procedurally just indexes. However, for the trustworthy indexes it is the other way around— we found a stronger positive correlation (r: .307) between the attitude index and the procedurally just trustworthy index compared to the negative correlation between the attitude index and the procedurally unjust trustworthy index (r: -.169).

The third argument—that the indicators being used to measure procedurally just behavior were actually measuring procedurally unjust behavior as well—concerns the content, although finding a stronger correlation between the measurements in the current study compared to the correlations from the studies mentioned earlier would strengthen this argument. We can refer to Jonathan-Zamir et al. (2013) because that is the only study to have calculated correlations between procedural justice indexes and the same expected variable to correlate, namely, attitude.[110] Our argument relates mainly to the measurement of

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[108] The correlations between the just and unjust sub-indexes were: -.424 for the participation indexes; -.200 for the neutrality indexes; -.338 for the respect indexes; -.177 for the trustworthy indexes. All were statistically significant at p ≤ 0.01.
[109] Although this says nothing about the effects, the correlations give an indication of their impact.
[110] This was called "satisfaction" in their study.

trustworthy motives. When comparing the correlations between the sub-index trustworthy motives and the attitude index in Jonathan-Zamir et al. (r: .32) with the analogous indexes from the present study (r: .31), we have to conclude that the strength of the correlation is similar. So we cannot prove that our measurement instrument is more valid. Adding variables that are expected to correlate with procedural (in)justice in the analyses, such as (dis)respectful behavior or (non-)compliance by the citizen, would provide more information. Additionally, multivariate explanatory analyses could be performed, in which several dependent variables are used, and which are controlled for personal characteristics.

6. Conclusion and discussion

The purpose of this study was to validate a measurement instrument of procedurally (un)just police behavior during police–citizen interactions that has been developed based on previous research—especially Jonathan-Zamir et al. (2013), Worden and McLean (2014) and Dai et al. (2011). We described and explained our measures and discussed the shortcomings of previous research in detail. The results demonstrate that our improved measurement instrument seemed to pass the validation test, to a large extent.

We found low correlations between the four sub-indexes of procedurally just police behavior (none > .395) and high correlations between these sub-indexes and the overall procedural justice index (all > .650). This means that every sub-index is very well represented by the overall index. For procedurally unjust police behavior, we also found high correlations between the four sub-indexes and the overall index (all > .643). Correlations between the unjust variants of the respect index and participation index, and the respect index and neutrality index were relatively high (.727 and .640). The other correlations between the procedurally unjust sub-indexes were low (< .513).

Although we are aware that a high collinearity could raise doubts about the assignment of the indicators to a sub-index (Jonathan-Zamir et al., 2013), we do not think that correlations of .727 and .640 are problematic. First, indicators were chosen on the basis of the meaning of the element of procedurally unjust police behavior. Second, it is to be expected that sub-indexes of procedurally unjust police behavior will be highly correlated—if the police act in a procedurally unjust manner with regard to one element, it is possible that they do so for other elements too.

Testing the correlational validity showed that the sub-indexes, except for one, and the two overall indexes had a statistically significant correlation with the attitude index. That no statistically significant correlation was found between the procedurally just neutrality index and the attitude index could possibly be explained by some of the indicators that are used to measure neutrality. In some situations, for instance when a citizen initiates an interaction, it is already clear to the citizen why the police became involved in the situation—because the citizen asked them to. This is then scored as 0 for one indicator on the neutrality index.

Additionally, in most cases, if the police had to explain their involvement it was because the citizen had done something wrong (which gives a score of 1 for one indicator on the neutrality-index). It is not unthinkable that a citizen who has done something wrong would express a more negative attitude than someone who had not. Of course, only further analyses could verify our assumption.

This is the first study to measure all four elements of procedurally just police behavior as well as their four procedurally unjust variants. Worden and McLean (2014) highlighted the importance of the distinction between procedurally just and unjust police behavior, and the results of the present study strengthen the need for a procedurally unjust variant when studying procedural justice during police–citizen interactions. First, the findings showed that procedurally just police behavior does not exclude procedurally unjust police behavior in the same intervention. Second, three out of four sub-indexes showed a stronger negative correlation of procedurally unjust behavior with the attitude index compared to the strength of the positive correlations of the procedurally just indexes. This effect was reversed in the trustworthy indexes. Third, previous research had used indicators to measure procedurally unjust police behavior that are normally used to measure procedurally just police behaviors, and vice versa. The point here is that the absence of procedurally just police behavior cannot be considered as a synonym of procedurally unjust police behavior, and vice versa.

There are some limitations to the present study. First, the method used (systematic social observation) is supposed to measure in a more objective way than surveys, but the researcher's subjectivity cannot be totally excluded. It can be difficult to code other people's behavior, and to understand what is being observed. Furthermore, although an observer may be knowledgeable about the rules of the police and standard procedures, it still is a difficult task to make a reliable judgment about whether or not a police action is unambiguously legitimate. However, the observer has tried to be as objective as possible by using explicit observation protocols, training (following a course and doing exploratory observations), asking other researchers for advice (at one point, a colleague joined an observation session), and trying to resist "going native" by keeping an insider–outsider balance. In the latter case, it was important to bond with participants and to gain their trust so that they would act normally. This is related to a second limitation, namely reactivity. This means that the observer has an influence on the observed situation. Following the advice of Mastrofski et al. (2010) the observer adopted the attitude of a learner. She was also very open about her brief experience with the police, which helped to break the ice. She also asked the participants to act as normally as they could, and asked whether they had handled things differently due to her presence. Mastrofski et al. (2010) state that, in time, research subjects become used to the presence of the observer. Although this observer tried to keep the influence of her presence as insignificant as possible, there will always be some kind of reactivity. A third limitation of this study is that the measurement instrument cannot fully cover the context in which behavior arises. Most of the time, interventions began very normally, but one trigger (from either the police or the citizen) can change the atmosphere. It would be possible to

identify such triggers by studying the narratives in a qualitative way. Furthermore, behavior is the result of action and reaction, and the progress of an interaction cannot be fully captured in a citizen instrument. However, we believe that the police always have to try to act procedurally fair, and never unfair, because of their function in society. A fourth limitation is that, although we always count different procedurally just and unjust behaviors to form a sub-index, behaviors can sometimes occur more than once. We took this into account in the respect index by coding the *duration* of respectful behavior. However, for the trustworthy index, for example, the police may have asked the citizen about his/her wellbeing several times, yet this would only be counted as one procedurally just action in the index. A fifth limitation is the small size of the study—the measurement instrument was tested in two local police forces in Belgium by one observer and the analyses were based on 284 police–citizen interactions. Carrying out systematic social observations is very time-intensive, and there were no means to employ another observer. Also, the police did not want a second researcher involved. More observations in other cities or countries with extra observers are needed to test the cross-validity and the reliability of the instrument.

We have some suggestions for future research, based on our findings. First, researchers must make a clear distinction between procedurally just and unjust police behavior when studying procedural justice during police–citizen interactions. Second, it would be interesting to consider or create new indicators for the procedurally just neutrality index. For instance, it would be helpful if researchers could establish a reliable identification method for situations where the police rationale requires no verbalization on their part. Third, it would be interesting to compare what citizens thought about the treatment they received from the police with the codes the observer recorded.

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CHAPTER VI: Predicting citizens' (non)cooperation and (dis)respect

Abstract

Objectives: *The purpose of this study is to predict citizens' (non)cooperation with, and (dis)respectful behavior toward, the police during police–citizen interactions in the light of the procedural justice model.*

Methods: *Data were gathered from September 2015 to January 2016 via systematic social observations in two local area police forces in Belgium. A total of 284 full police–citizen interactions were observed. The method of analysis used is binomial logistic regression.*

Results: *Several elements of procedurally just police behavior can predict citizens' cooperation and respectful behavior, but not always in line with what is expected. Furthermore, several elements of procedurally unjust police behavior are strong predictors for citizens' noncooperation and disrespectful behavior. Citizens' background characteristics, their role in the situation and the indication of alcohol/drug use were used as controlling variables. Implications for further research and police practice are discussed.*

Keywords: police–citizen interactions, procedural (in)justice, systematic social observations, citizens' (non)cooperation, citizens' (dis)respect.

1. Introduction

According to the procedural justice model, perceptions about the fairness of police decision-making and treatment of citizens may have an impact on citizens' attitudes toward the police. Namely, perceiving the police as procedurally just makes citizens more likely to recognize them as a legitimate institution and to respond with compliance, respect and cooperation (Jonathan-Zamir et al., 2013). Procedural justice thus has to do with how authority is practiced and how it is experienced by the public. There is a generally agreed consensus about what kind of police behavior is procedurally just, and four key elements have been identified. The first element, *participation or voice*, refers to the opportunity police give citizens to express their viewpoints before the police make a decision. The second, *neutrality*, refers to basing treatment and decision-making on facts and not on personal characteristics or situational factors. The third, *dignity and respect*, refers to the polite treatment of citizens. The forth, *trustworthy motives*, refers to the police showing care and concern for a citizen's wellbeing (Tyler and Fagan, 2008).

Because citizens' perceptions are subjective in nature, most of the studies in which the procedural justice model was tested have used survey data (e.g. Hough et al., 2013; Murphy and Cherney, 2011; Reisig et al., 2012; Van Damme, 2013). However, the chief limitation of this method is that it only measures people's perceptions. If a respondent states that he/she is willing to cooperate with the police in the future, it does not necessarily mean that he/she will do so in a real-life situation. Also, although there is some consensus about how to determine whether police behavior is procedurally just, the subjective experience could differ between citizens. Even though contact experience is one of the main sources people rely on in their judgments about police procedural justice (Bradford, 2010), Worden and McLean (2014) found that subjective judgments about actual contact experiences regarding police procedural justice differed from actual procedurally just police behavior observed on in-car camera recordings of these contact experiences. Furthermore, not everyone is willing to fill in a questionnaire about the police, and citizens who have mainly negative attitudes toward the police may drop out of police-related survey research. However, little is known about the reasons for dropping out of this type of research. A growing body of research has therefore used *systematic social observations* (SSOs)[111], which rely on more objective measures. Instead of asking citizens about their perceptions of police behavior, observers examine whether the police act in a procedurally just and/or unjust way during their interactions with citizens, according to specific protocols (Dai, 2010; Jonathan-Zamir et al., 2013; Mastrofski et al., 1996).

SSOs make it possible to test the procedural justice model in actual police–citizen interactions. Following the main hypotheses of the procedural justice model, we assume that procedurally

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[111] Systematic social observation is the selection, detection, registration, and coding of behaviors or events with a scientific purpose. If the behaviors or events relate to people it is called social observation. Social observation becomes systematic when the observation and recording follow specific procedures that can be replicated. Furthermore, the observation happens independent of the research object, meaning that a researcher will not be influenced by the interpretation given by the research object (Mastrofski et al., 2010).

fair police behavior during an interaction motivates citizens to cooperate with the police. Building upon this assumption, we also believe that procedurally unfair police behavior during an interaction can demotivate citizens from cooperating with the police. Furthermore, according to procedural justice model, a citizen's disrespectful behavior can be an expression of questioning the authority, and thus the legitimacy, of the police (Engel, 2003). When citizens judge that they are treated in an unfair manner, an area of tension could arise between the citizens' expectations and the actions of the police. This could result in the citizen experiencing frustrations, which could be expressed by disrespectful behavior. Following the same line of thought, we assume that when the police treat citizens fairly, citizens will believe the police share the same values and norms as they do, and therefore deserve respect.

The purpose of the present study is therefore to test these main assumptions of the procedural justice model during police–citizen interactions. We examine which elements of procedurally (un)just policing can predict several forms of citizens' behavior, namely cooperation/noncooperation and respect/disrespect, during a police–citizen interaction. We control for some background characteristics (gender, ethnic background, and social class), citizens' capacity for rational behavior, and the citizen's role in the situation. Data were collected in Belgium from 284 police–citizen interactions by the use of SSOs. Blockwise binomial logistic regression was used to analyze the data.

2. Prior research

A majority of SSO studies on police–citizen interactions are based on the assumption that citizens' behavior can predict the behavior of police officers (e.g. Dai and Nation, 2009; Engel et al., 2000; Mastrofski et al., 2002; Mastrofski et al., 2016). This is due to ethnographic studies suggesting that when suspects refused to cooperate with the police, the police were more inclined to sanction the suspect. SSO studies confirmed this assumption and found that suspects were more likely to be sanctioned through arrest, citations or the use of force when they acted disrespectfully or were uncooperative (Engel, 2003). A minority of SSO studies examined police behavior as a predictor for citizens' behavior (Dai, 2010; Dai et al., 2011; Mastrofski et al., 1996; McCluskey et al., 1999; McCluskey, 2003; Piquero and Bouffard, 2003; Reisig et al., 2004). Moreover, only a few examined (some of) the elements of procedural justice and/or their unjust variant. This could be due to the fact that the data in these studies were collected for a purpose other than testing the procedural justice model in police–citizen interactions.[112] In the following analysis we only report findings from prior SSO studies when police behavior was treated as a predictor for citizens' behavior and when it was related to procedural justice.

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[112] For example, four of the studies mentioned above were based on POPN (Project on Policing Neighborhoods) data in which the purpose was to document and compare the workload and routines of COP police officers and traditional beat officers in the city.

Mastrofski et al. (1996) were the first researchers to try to predict citizens' compliance with requests for self-control. They reported quite strong effects for three 'legitimating' indicators.[113] When the police showed disrespectful behavior toward citizens, citizens were less inclined to comply with police requests. Citizens were more inclined to comply when encounters took place in public or in police-controlled locations, or when officers had strong evidence against the citizen. McCluskey et al. (1999) tried to retest the model drawn from Mastrofski et al. (1996). They found that legitimating indicators were the most important predictors for compliance in the model, compared to the officers' and citizens' background characteristics, audience characteristics and indicators regarding coercive balance of power (e.g. the citizen has a weapon). Police officers who were more respectful to citizens were more successful in achieving compliance than those who were disrespectful. Victims and other non-suspects were less inclined to comply. Compliance was also less likely when the police mentioned illegality. McCluskey et al. (1999) give a possible explanation for the latter. They believe that when the police define citizens' behavior as illegal, they leave no room for negotiation. They thus allow the citizen no voice, and reduce the likelihood of compliance. Piquero and Bouffard (2003) evaluated the effect of citizens' characteristics, situational characteristics and police actions on citizens' negative or hostile reactions (such as using weapons, fighting with and swearing at the police, not answering police questions or not cooperating with the police). They found that all three of the measured police action variables had a significant impact on citizens' defiant behavior. Nonthreatening verbal police actions, such as asking questions, reduced citizens' defiance. The use of verbal threats and physical force by the police raised the likelihood of citizens exhibiting defiant reactions. McCluskey (2003) tried to predict citizens' compliance with requests for self-control and for identification. He reported that certain procedural justice factors[114] were correlated with citizens' compliance with self-control, namely whether the police showed respect or disrespect, whether they sought out information, whether or not they stopped the citizen from speaking, and whether they mentioned the legal basis of their decisions. Procedural justice factors did not play a role in the prediction of compliance with requests for identification. Reisig et al. (2004) reported that disrespectful police behavior (e.g. belittling, slurs, cursing) was no predictor for citizens' disrespectful behavior. But higher levels of police violence (grips, threatening, pat downs, handcuffs) increased the likelihood of suspects' disrespect. The researchers tried to explain their findings in terms of social interactionist theory. A person who is disrespectfully treated is more inclined to respond in the same way if the one who is initiating the behavior is a social 'equal'. But the police have the ability to sanction, so there is an inbuilt imbalance of power. If citizens respond disrespectfully to police officers' disrespect,

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[113] In this study legitimating indicators were: officer's respect and disrespect, evidence strength, citizen's role, citizen-initiated encounter, citizen in conflict with intimate present, public/police-controlled location and officer mentions illegality.

[114] Including police respect and disrespect, information seeking, police entry tactics, citizen's views expressed, an indication of bias, and physical force.

the costs (of being sanctioned) could be high. If the police use verbal and physical force, people could think they have nothing more to lose and thus act disrespectfully toward them.

Dai (2010) was the first researcher to try to include as many procedural justice elements as possible in his analyses of citizens' compliance with police requests and citizens' disrespect.[115] He found that, without controlling for other variables, procedural justice indicators could explain 23 percent of the variance in citizens' disrespect toward the police and 11 percent of the variance in citizens' noncompliance. When the levels of police disrespect, verbal force and accuracy increased, so did the likelihood of citizens' disrespectful behavior. Taking into account a citizen's viewpoint reduced the likelihood of disrespect and of noncompliance. The odds of noncompliance increased when the police used physical force. All other procedural justice indicators did not have a statistically significant effect. Dai et al. (2011) retested the model drawn from Dai (2010). They reported that police disrespect increased the likelihood of citizens' disrespect and that the use of force by the police reduced the likelihood of disrespect. Accuracy seemed the strongest predictor for disrespectful behavior—when the police observed evidence against the citizen, observed illegal behavior or heard others complaining about the citizen, the likelihood of disrespectful behavior increased. For predicting noncompliance, considering the citizen's view seemed to be the only factor influencing the outcome—citizens were less inclined to be noncompliant when the police took their opinions into consideration.

To put it briefly, several studies found different results about procedural justice indicators predicting citizens' behavior. This may be due to different measures of both independent and dependent variables or because of the use of different theoretical based models with different controlling variables. Almost all of the existing research has used limited indicators to measure the elements of procedural justice during police–citizen interactions. Moreover, very few studies have examined the influence of procedurally unjust policing as a predictor for citizens' behavior. In fact, the present study is the first in which SSOs were used especially to test the procedural justice model during police–citizen interactions with special attention to the measurements of both procedurally just and unjust police behavior.[116] We believe that it is important to make a distinction between procedurally just and unjust police behaviour during police-citizen interactions because (1) procedurally just behavior does not exclude procedurally unjust behavior in the same interaction, and vice versa; (2) according to the line of thought of survey research (f.e. Skogan, 2006), we expect the negative effect of procedurally unjust behavior on citizens to be stronger than the positive effect of procedurally just behavior; (3) the indicators that several researchers used to measure procedurally just

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[115] He included police care, police disrespect, physical and verbal force, accuracy (the police observed evidence against the citizen, the police observed illegal behavior, others complained about the citizen), consideration of the citizen's views, rejection of the citizen's views, consistency and inconsistency (equally treatment or not) as procedural justice indicators.

[116] In an earlier contribution, the purpose was to validate the measurement instrument used in this SSO-project. In Van Damme (accepted for publication), we describe and justify the indicators used to measure the elements of procedurally (un)just police behavior during police–citizen interactions and we stress why it is important to make a distinction between procedurally just and unjust police behavior.

behavior were actually measuring procedurally unjust behavior, and vice versa. However the absence of procedurally just behavior is not a synonym for the presence of procedurally unjust behavior, or vice versa. This is, therefore, the first study in which all four elements of procedurally just and unjust police behavior are examined as predictors for citizens' (non)cooperation and (dis)respectful behavior.

3. Data and research method

Data were gathered from September 2015 to January 2016 using systematic social observations with patrol officers in the department of 'intervention'[117] of two local police forces in Belgium (> 250,000 residents in one area and > 45,000 in the other). Following specific protocols, one female Ph.D. student in criminology in her late 20s with some policing experience conducted ride-along observations.[118] She was trained by Mastrofski during a three-day course on SSOs. The observation manual and the observation protocols were based on earlier research (Mastrofski et al., 2007; Jonathan-Zamir et al., 2013). During the observations, field notes were made about the background characteristics of the police officers, the characteristics of the interventions that occurred during the rides (facts, locations, etc.), the background characteristics of the citizens with whom the police interacted (role, age, ethnic background, etc.) and the way the police and citizens behaved. These field notes were helpful when the observer had to write a detailed narrative after concluding the observation sessions. Afterwards, three measurement instruments with closed questions were completed—one about the ride, one about each intervention observed during the ride, and one about each police–citizen interaction.[119] These interactions are the units of analysis in the present study.

Before the data-gathering, the researcher conducted 128 hours (16 rides) of exploratory observations from April 2015 to June 2015: (1) to get to know the participating police officers; (2) to finalize the measurement instruments; (3) to try out how to gather the data (e.g. when to note things down); and (4) to fix the timing between the observations (leaving enough time between two observations to manage the information that has been gathered and to provide a mental break for the observer, preventing her from "going native").

During the data-gathering, 38 rides (about 318 hours) were observed: 9 were morning, 17 evening, and 12 night. In total, 44 different police officers were observed, 20 percent of whom were female. The officers' age ranged between 21 and 53. All had a Belgian immigration

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[117] We chose to work with police officers from this department because they work both reactively (in response to emergency calls) and preventively (patrolling). They are usually the first police officers to have face-to-face contact with citizens. Studying the behavior of police officers and citizens at their first meeting on a particular case means that their actions are not influenced by previous contacts regarding the case.

[118] It was not possible to use more than one researcher to carry out the systematic social observations, first due to the lack of resources and second because the participating police forces would not agree to the presence of a second observer.

[119] Which is also called citizen instrument.

background. Some were at the start of their career; others had more than 15 years of experience. The participants were sampled randomly.[120] Informed consent was obtained by informing participants about the purpose of the study and making it clear that each police officer was free to refuse participation; only one officer did not want the researcher to join them on patrol. In addition, the researcher asked the participants for permission to handle and report the data anonymously, and told them they could ask to see the results of the study.

The researcher recorded 215 full interventions in which police officers interacted with 284 citizens.[121] In total, 64 % of the citizens were male, 63 % had a non-Belgian immigration background, 7.4 % were younger than 18, around 63 % were aged 18 to 44, and around 29% were older than 45.[122]

4. Operationalization
4.1. Independent variables
4.1.1. Background characteristics

Most people have an opinion about the police, whether or not they have had any contact with them. Their opinion could be negative, positive or fairly neutral (Rosenbaum et al., 2005). However, individuals' opinions about the police can influence the decisions citizens make during their actual contact with them (Dai et al., 2011). Thus a citizen could decide not to comply during a police intervention because of his/her prior perception of the police. A preexisting attitude could be explained by an individual's social group, in terms of gender, age, ethnic background, and social class (Dai et al., 2011). Males, adolescents, ethnic minorities, and poor people are supposed to have more negative attitudes due to prior negative contact

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[120] The officers were sampled as follows. For the police force with the highest number of officers in the department of intervention, a list of names of all these officers was provided. The names were manually entered into SPSS, a statistical data processing program, and a random sample of 25 names was drawn. The permanent team partner of these police officers was automatically added to the sample. Two, three or four observation sessions per week were scheduled, depending on the availability of the researcher. The observation sessions were randomly selected, and the names of the police officers from the sample who were on duty at that time were identified using the duty schedule of all the police officers for the entire observation period. For the other police force, the approach to sampling was slightly different. Because this force had fewer police officers, there was a higher likelihood that the same officers would be on duty when observation periods were randomly selected (as has been mentioned, to gain trust it was important to observe the same police officers more than once). The observation periods were randomly selected, and the researcher then informed the duty planner when to expect the researcher at the police station. This meant that the researcher only knew which officer was on duty at the meeting just before start of the patrol. Because this police force does not work with fixed teams, the observer selected the first team scheduled to go on patrol that contained at least one officer whom they had already accompanied. If all the officers going out on patrol were new to the researcher then the researcher chose the team that was scheduled to go on patrol first.

[121] In a full intervention, a police officer communicates with a citizen about a specific case or police case for at least three minutes, or the communication contains at least five verbal exchanges. A violent act by the police and/or the citizen is coded as a full intervention. A 'citizen' is an individual who has a problem or causes a problem that requires police intervention. It was decided to code up to five interactions with full citizens during one intervention because coding more could increase the probability of coding errors.

[122] Broad age categories were used because, in most of the cases, the observer had to estimate the citizen's age.

with the police or the belief that other people like them are treated badly (Mastrofski et al., 1996; Engel, 2003).

The citizen's gender, ethnic background, and social class are included in the analyses as dummy variables.[123] Table 28 shows the interpretation[124] and descriptive statistics of these background characteristics.[125]

4.1.2. Citizens' capacity for rational behavior

A citizen's behavior during an interaction with the police can also be influenced by his/her physical and psychological condition. Their condition can influence their capability to judge a situation rationally (McCluskey et al., 1999). In our citizen instrument, we therefore included indicators concerning a person's physical and psychological condition, for example whether or not an individual was (severely) injured, the person's mental condition, the presence of heightened emotions, and indications of the use of alcohol and/or drugs, whether or not characterized by behavior indications.

In the regression analyses we only included indications of the use of alcohol and/or drugs, because the number of citizens with the other indicators was very low.[126] Table 28 shows the interpretation and the percentage of interactions in which there was an indication of the use of alcohol and/or drugs.

4.1.3. Citizen's role

The citizen's role is potentially a strong predictor of his/her behavior during the interaction with the police. It is likely that it also affects the behavior of the police officers. In this respect we can assume that an interaction with a citizen who is a victim of crime will be more pleasant than an interaction with someone suspected of a criminal offence or who has done something wrong.[127]

Citizen's role is a dummy variable with value 1 for a suspect, someone who does something wrong, or a prisoner[128] and value 0 for the residual category including victims, vulnerable

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[123] A dummy variable is an indicator variable with two values, 0 (absent or not applicable) and 1 (present or applicable).
[124] The percentage has to be interpreted according to the value. Example given: 35.9 percent of the 284 observed citizens were female.
[125] We did not add age to our analyses because bivariate exploratory analyses between age and each of the dependent variables did not show statistically significant associations.
[126] The proportion (severely) wounded was only 5 percent. The proportion with a mental restriction was also only 5 percent. The proportion with average to strong heightened emotions at the start and end of the interaction was only about 2 percent.
[127] Previous research distinguished between police- or citizen-initiated contact. Exploratory bivariate analyses did not show statistical significant associations with the dependent variables, therefore we did not include this in the regression analyses.
[128] To save place, we summarized this category as 'suspect'.

persons, witnesses, etc. It should be noted that citizens whose role was uncertain were also counted in the residual category. In these cases it was not clear whether the citizen was a suspect, a victim, or even both.[129] Table 28 gives the proportion of suspects observed during the SSOs.

Table 28: Descriptive statistics: citizens' background characteristics, indication alcohol/drug, citizen's role

	Value	N	%
Gender	Female	284	35.9
Ethnic background	White[130]	284	65.8
Social class	Middle/high[131]	283	64.0
Indication of alcohol/drug use	Yes	282	16.3
Citizen's role	Suspect	284	46.8

4.1.4. Procedurally just and unjust police behavior

Procedurally just behavior

All four elements of procedurally just police behavior were measured as dummy variables, with value 1 when the police expressed at least one procedurally just behavior regarding the element during their interaction with the citizen. Table 29 gives an overview of the indicators. We also created an extreme procedurally just variant because we assume that the more the police act in a procedurally just manner, the higher is the likelihood that citizens will cooperate. For all procedurally justice elements, except respect, extreme procedurally just police behavior was measured as a dummy with value 1 when the police expressed all, or in the case of trustworthy motives three or more, behaviors regarding the element. In the case of respectful behavior, value 1 of the dummy refers to dominant respect and value 0 to none, a short or variable duration of respectful police behavior.[132]

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[129] We only chose to include the citizen's role at the start of the interaction. This is because the role the police assigned them at the start of the encounter could influence the way the police handled them.

[130] White is used to indicate a Belgian ethnic background or another white ethnic background. The reference categories are non-white, namely citizens with a Turkish, Eastern Bloc or North African ethnic background, or Black citizens. Also, citizens with a clear mixed ethnic background, or another ethnic background that does not fit in the other categories, were counted in this category.

[131] People belonging to the middle class are those with a job paid above the minimum or who are able to support themselves and their family. This category can hold a large amount of jobs f.e. teachers, fabric workers, managers,… People belonging to the high social class are those who render luxury (clothes, car, house, jewelry's,…). The reference group is those who were clearly poor (somebody who is not able to provide food, clothes or shelter-people have no motorized vehicle) or belonged to a lower social class (somebody who is able to provide food, clothes and shelter but only on a basic level-people can have a motorized vehicle but only an old, end-of-life vehicle).

[132] Expressions of dignity and respect were, for example, addressing someone as "sir" or "madam" or even with their name, if known. Polite language such as "here you are" and "thank you" are also expressions of respectful behavior.

Table 29: Measuring procedurally just police behavior

1. *Participation/voice*
   Did the police ask for information or the citizen's point of view?
   How did the police receive the citizen's information? *(0= as a dismissive, inattentive, passive listener or not applicable; 1= as an active listener)*
   Did the police make it clear to the citizen that they would take the information into consideration?

2. *Neutrality*
   Did the police indicate they would not make a decision about what to do until they had gathered all the necessary information?
   Did the police explain to the citizen why they became involved in the situation?
   Did the police explain why they chose to resolve/handle the situation as they did?[a]

3. *Dignity and respect*
   Duration or frequency of respectful behavior during the interaction *(0 = none, 1 = short, 2 = variable or 3 = dominant)*

4. *Trustworthy motives*
   Did the police offer physical assistance to the citizen on their own initiative?
   Did the police give advice or information to the citizen on their own initiative?
   Did the police ask the citizen to contact them again if the problem arose again, or for a follow-up?
   Did the police ask the citizen about his/her wellbeing or ask others in a way that was observed by the citizen?
   Did the police show understanding toward the citizen or did they reassure the citizen?

* coding: 0= no, 1= yes, unless something else was mentioned
[a] For indicators 2 and 3 of the neutrality index, only explanations that are unambiguously legitimate (e.g. rules, standard procedures, descriptions of evidence) are included in the 'yes' responses.

Procedurally unjust behavior

The procedurally unjust police behavior variants were also measured as dummy variables, with value 1 when the police expressed at least one of the behaviors regarding the element during their interaction with the citizen.[133] Table 30 shows the indicators used in the present study to measure all four elements of procedurally unjust police behavior. Table 31 gives an overview of the way the dummy variables should be interpreted, together with the descriptive statistics.[134]

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[133] Because the number of interactions with (at least) three procedurally unjust behaviors for all elements of procedural justice was very low, or even lacking (as with trustworthy motives), we did not construct an extreme variant for unjust police behavior.
[134] We used dummy variables because of the number of police-citizen interactions that were observed (N= 284). Certain categories would have had too little units in certain cells when conducting multivariate analyses. It was thus a technical and pragmatic choice after a thorough screening. For a description and explanation of why we used these indicators, we refer to Van Damme (accepted for publication).

Table 30: Measuring procedurally unjust police behavior

1. *Participation/voice*

   Did the police ignore or avoid the citizen?

   Did the police interrupt the citizen without excusing themselves?

   Did the police give an indication that they would explicitly disregard the citizen's information or point of view when dealing with this case/taking a decision? *(0= no or not applicable; 1= yes)*

2. *Neutrality*

   Did the police give an indication that their decisions/handling were influenced by the citizen's personal characteristics?

   Did the police give an indication that they had doubts about the citizen's story without justifying their meaning on an unambiguously legitimate basis?

   Did the police treat the citizen in a worse way than other citizens in this or a related intervention? *(0= no or not applicable; 1= yes)*

3. *Dignity and respect*

   Duration or frequency of disrespectful behavior during the interaction *(0 = none, 1 = short, 2 = variable or 3 = dominant)*

4. *Trustworthy motives*

   Did the police ignore or refuse at least one request of the citizen, without justification? *(0= no or not applicable; 1= yes)*

   Did the police request the citizen not to contact the police anymore if the problem occurred again?

   Did the police make it clear that they were not willing to make the effort needed to handle the problem/situation?

* coding: 0= no, 1= yes, unless something else was mentioned

Table 31: Descriptive statistics: (extreme) procedurally (un)just police behavior

	Value	*N*	%
Procedurally just police behavior			
Did the police express at least one procedurally just police action during			
their interaction with the citizen with regard to:			
Participation/voice	Yes	284	85.9
Neutrality	Yes	263	85.9
Dignity and respect	Yes	283	63.6
Trustworthy motives	Yes	284	73.6
Extreme procedurally just police behavior			
Did the police express a high level of procedurally just behavior during			
their interaction with the citizen with regard to:			
Participation/voice	Yes	284	37.0
Neutrality	Yes	263	21.3
Dignity and respect	Yes	283	13.1
Trustworthy motives	Yes	284	21.1
Procedurally unjust police behavior			
Did the police express at least one procedurally unjust police action			
during their interaction with the citizen with regard to:			
Participation/voice	Yes	284	26.8
Neutrality	Yes	283	38.9
Dignity and respect	Yes	284	35.9
Trustworthy motives	Yes	282	14.9

4.2. Dependent variables

4.2.1. (Non)cooperation with the police

SSO studies predicting citizens' (non)cooperation with the police measured it by observing whether or not the citizen complied with police requests (Dai, 2010; Dai et al., 2011; Mastrofski et al., 1996; McCluskey et al., 1999; McCluskey, 2003). Although we included this measurement in our citizen instrument, we decided to operationalize '*(non)cooperation or (non)compliance*' in another way. We took this approach for four reasons. First, complying with police requests in prior research was related to requests for self-control (leave another person alone, leave the premises, stop illegal behavior, calm down, cease disorderly behavior), and thus was primarily oriented to suspects or persons who had done something wrong. During the exploratory observations it was clear that citizens in other roles also sometimes refused to give information. Second, it could be that an observer coded a citizen's behavior as compliant, but strictly speaking the citizen did not comply with the officers' request. For example, a citizen left the scene when asked to do so, but came back when the police had left (Mastrofski et al., 1996). Third, not every police–citizen interaction contained a police request, including police–suspect interactions. In these situations the police could point out that the citizen's behavior was wrong, without expecting an explicit reaction from the citizen (for example, because he/she will be arrested no matter what). Fourth, it could be that the citizen

complied with the request in the end, but refused to comply at the start. In most of the studies only the ultimate response is taken into account, which gives a biased view (Mastrofski et al., 1996).

In the present study (non)cooperation with the police was measured using three indicators.[135] The observer had to code what kind of behavior the citizen expressed at the start *(1)*, during *(2)*, and at the end *(3)* of the interaction with the police:

1. Cooperation/compliance;
2. Active resistance (expressing dissatisfaction about the intervention, not agreeing with the situation/decisions of the police);
3. Passive aggression (verbal threats, noncompliance with the first police requests, e.g. identifying oneself, responding to questions, etc.);
4. Active aggression (light aggression) (noncompliance with police requests characterized by light physical or mechanical resistance such as fleeing or violence with possible light injuries as a result);
5. Active aggression (heavy aggression) (noncompliance with police requests characterized by heavy physical or mechanical resistance such as violence with or without the use of a weapon with possible serious injuries as result);
6. Or deadly aggression (threatening with/showing intention to use/actual use of a firearm).

To predict *cooperation* with the police, we created a dummy variable. A citizen who complied and cooperated at the start, during, and at the end of the interaction was coded as 1. A citizen who actively resisted, or showed passive, active, or deadly aggression for part of the interaction (at the start and/or during and/or at the end of the interaction) was coded as 0. To predict *noncooperation* with the police, we recoded this variable. The value 0 became the value 1 and means noncooperation for at least part of the interaction. The value 1 became the value 0 and means overall cooperation with the police. Table 32 shows the descriptive statistics of (non)cooperation with the police.

4.2.2. Respectful/disrespectful behavior toward the police

Expressions of dignity and respect can be visible in gestures as well as in the language used by a citizen. Addressing officers as "sir" or "madam" is an example of expressing respect. Polite language such as "here you are" and "thank you" are also expressions of respectful behavior. Disrespectful behavior is, for example, belittling the police, pouring scorn on them, making disparaging remarks, slander, laughing at the police, raising the middle finger or fist, making obscene gestures, spitting in the presence of the police. Table 32 shows the descriptive statistics of respectful/disrespectful behavior of citizens toward the police.

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[135] (Non)cooperation also refers to (non)compliance.

Table 32: Descriptive statistics: (non)cooperation and (dis)respectful behavior toward the police

	Value	*N*	%
Overall cooperation	Yes	284	59.9
Noncooperation for at least part of the interaction	Yes	284	40.1
Did the citizen show respect toward the police during the interaction?	Yes	284	41.5
Did the citizen show disrespect toward the police during the interaction?	Yes	284	41.9

5. Method of analysis

Blockwise binomial logistic regression was used for the analyses. This method is a kind of multiple regression in which several independent variables are tested that are assumed to affect a dependent variable. The dependent variable can only take two values and is thus categorical in nature. Binomial logistic regression owes its name to the prediction of the natural logarithmic of the '*odds*' on the occurrence of an event (versus nonoccurrence) on the basis of a series of independent variables. The independent variables can be categorical or metrical (Pauwels, 2015). In the present study, they are all categorical in nature. To use this method of analysis multicollinearity between the independent variables must be excluded. In the present study, multicollinearity was not a problem (see appendix).

Net effects are presented by net odds ratios. Odds ratios above 1 reflect an increase in the likelihood of the occurrence of an event (e.g. cooperation) for a comparison group compared to a reference group.[136] Odds ratios below 1 reflect a decrease in the likelihood of the occurrence of an event for a comparison group compared to a reference group (Pauwels, 2015).

The analyses were done blockwise. This procedure involves performing a series of regression analyses in which in each step (or model) a new (or series of new) variable(s) is included. In each of the analyses we included the citizen's background characteristics as independent variables in a first model. In a second model we added the condition and role of the citizen, and in a third model we added police behavior.

Each model can be evaluated by its model fit indices. The −2 log likelihood indicates how well the model can predict the classification of cases in the dependent variables. A decrease in the next model indicates that the next model gives a better fit. Furthermore, the Cox and Snell pseudo R squared is a pseudo determination coefficient giving an indication of how well the model fits with the data.[137] In addition, we show the classification table for each model. This table indicates how correct the observations are classified on the dependent variable on the

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[136] The comparison group was always coded as 1, the reference group as 0.
[137] It is an artificial try to interpret the findings of logistic regression analyses in terms of the popular determination coefficient out of a standard linear regression analysis. The latter gives the proportion of individually explained variance of the dependent variable on the basis of the independent variables included in the model.

basis of the regression equation.[138] In the present study we only discuss the odds ratios and the proportion of explained variance based on the Cox and Snell pseudo R squared.

6. Results

6.1. Cooperation with the police

The Cox and Snell pseudo R squared from **model 1** in table 33 shows that the background characteristics of gender, social class, and ethnic background can explain 9.8 percent of the individual variances in cooperation with the police. In this model we only find statistically significant net effects of ethnic background and social class. The odds of cooperating with the police, controlling for the other variables in the model, are 2.21 times higher for whites than for non-whites. The likelihood of cooperating with the police during an intervention is thus higher for whites than non-whites. Furthermore, the odds of cooperating with the police, controlling for gender and ethnic background, are 2.74 times higher for citizens categorized in the middle/high social class than for citizens categorized in the lower social class. Cooperation is thus more likely for middle/high social class citizens than for lower social class citizens.

In **model 2** the indication of alcohol/drug use and the citizen's role were added. The odds ratios of both variables seem statistically significant. The odds of cooperating with the police are 4.46 times lower (1/0.224) for citizens with an indication of alcohol and/or drug use, compared to sober citizens, controlling for the citizen's background characteristics and role. For suspects, the odds are 4.17 times lower (1/0.240) than for non-suspects, controlling for the other variables in model 2. A total of 21.9 percent of the individual variances in cooperating with the police can be explained by a citizen's background characteristics (gender, ethnic background, and social class), an indication of alcohol and/or drug use, and the citizen's role.

In **model 3 PJ** procedurally just police behavior was added as a possible predictor for cooperation with the police. Each time we tested whether expressing at least one procedurally just action with regard to the four elements of procedurally just behavior (participation/voice, neutrality, dignity and respect, trustworthy motives) was a statistically significant influence on cooperation with the police. Only the odds ratio of procedurally just policing regarding neutrality seems statistically significant. Contrary to our expectations, it seems that citizens being treated by the police in a neutral way are 3.77 times less likely to cooperate with the police than those who are not confronted with explicitly neutral police behavior. This may be due to the operationalization of police's neutral behavior. The police have to justify their involvement and decisions taken in a situation mainly when citizens do something wrong or when they are suspects. The findings have already shown that suspects are less likely to cooperate than non-suspects, notwithstanding the fact that we controlled for the citizen's role

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[138] Each observation is placed in the category in which it has the biggest chance of belonging to according to the regression equation.

in this model.[139] Furthermore, neutrality was also measured with an indicator about gathering all the necessary information before taking a certain decision. This also implies a search for evidence against a citizen. Searching for evidence possibly has a negative connotation—it implies the involvement of the citizen. Objectively, searching for evidence before taking a decision means neutral treatment. Subjectively, it could be the reverse; for example, asking a citizen to breathe into a breathalyzer could be negatively interpreted by the citizen. Controlling for police behavior and the other variables in the model, there are still statistically significant odds ratios of ethnic background, social class, an indication of alcohol/drugs, and the citizen's role. A total of 24.5 percent of the individual variances in cooperation with the police can be explained by the independent variables included in model 3 PJ.

In **model 3 EPJ** we replaced procedurally just police behavior with extreme procedurally just police behavior. Can expressing a high level of procedurally just police behavior with regard to the four elements of procedural justice predict cooperation? As in model 3 PJ, a statistically significant effect of explicit neutral treatment was found. Additionally, the influence of extreme procedurally just police behavior regarding participation seems statistically significant. The odds of cooperating with the police are 3.626 times higher for citizens who were asked for information about the situation, where the police actively listened to and made clear they would take the citizen's information into account, than for citizens for whom this was not, or only partially, the case. It is remarkable that a statistically significant influence was found of extreme procedurally just behavior regarding trustworthy motives—this is the reverse of what we expected. Those who were treated with extreme procedurally just behavior were less likely to cooperate than citizens who were treated not, or partially, procedurally justly concerning trustworthy motives. The results might be due to the nature of the interaction. Police behavior can be a reaction to a citizen's behavior. It is possible that a citizen did not cooperate—or only partially cooperated—during the interaction with the police and that the police reacted to this by reassuring the citizen in an attempt to calm his/her feelings. In such situations the police sometimes expressed understanding in order to persuade citizens who are being uncooperative to start cooperating. Nevertheless, the way an interaction progresses is very difficult to capture in a statistical analysis.[140] There is a risk involved if we are not critical in interpreting the results. The findings would lead us to a recommendation not to act in a procedurally just way concerning neutrality and trustworthy motives. We want to avoid such a conclusion. A total of 28 percent of the variances in

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[139] We did an additional analysis for both groups (suspects and the reference group) and found for both groups that the more neutral police officers were during an interaction, the less the citizen involved was inclined to cooperate with the police. However, only the effect for the suspect group was statistically significant and much stronger.

[140] We tested these models regarding cooperation with the police at the start of the interaction as the dependent variable. Extreme procedurally just behavior concerning trustworthy motives seemed to have a strong statistically significant influence. However, this cannot be an influence at the start of an interaction because the police have not yet expressed this behavior. Our possible explanation that police behavior is more a reaction to the citizen's behavior is thus more likely.

cooperation with the police can be explained by the independent variables included in model 3 EPJ.

Table 33: Binomial logistic regression predicting cooperation with the police by (extreme) procedurally just police behavior (N = 260)

(0= noncooperation for at least part of the interaction: 41.5% and 1= cooperation during the entire interaction: 58.5%)

Dependent variable: cooperation Independent variables:	Model 1 Odds ratios	Model 2 Odds ratios	Model 3 Odds ratios PJ	Model 3 Odds ratios EPJ
Female	1.193	0.662	0.534$^{(*)}$	0.630
White	**2.211****	**2.220****	**2.675****	**2.177***
Middle/high social class	**2.736*****	**1.951***	**2.324****	**2.099***
Indication of alcohol/drugs		**0.224*****	**0.178*****	**0.159*****
Suspect		**0.240*****	**0.234*****	**0.230*****
(E)PJ Participation/voice			1.532	**3.626*****
(E)PJ Neutrality			**0.265****	**0.326****
(Extreme) respectful behavior[141]			1.023	1.270
(E)PJ Trustworthy motives			0.992	**0.242****
Model fit indices				
−2 loglikelihood	326.112	288.705	279.850	267.632
Cox & Snell pseudo R squared	0.098	0.219	0.245	0.280
Classification table info:				
% correct noncooperation (for at least part of the interaction)	39.8	63.0	62.0	67.6
% correct (overall) cooperation	82.9	77.0	77.6	83.6
Overall % correct predictions	65.0	71.2	71.2	76.9

*** $p \leq 0.001$ ** $p \leq 0.01$ * $p \leq 0.05$ (*) $^{(*)}$ p 0.05 – 0.10 (marginally significant)

6.2. Noncooperation with the police

The findings in models 1 and 2 of table 34 are the same as in models 1 and 2 of table 33 because the dependent variable is basically the same except it is the other category, namely noncooperation with the police for at least part of the interaction. Because of the difference in the number of units (260 in table 33 and 278 in table 34), recalculating the reversed odds (1/odds ratio) could give a slightly different result.

In **model 3** procedurally unjust police behavior was added as a possible predictor for noncooperation with the police. We tested whether expressing at least one procedurally unjust police behavior regarding the four elements of procedural justice has a statistically significant influence on noncooperation with the police. Controlling for a citizen's background

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[141] Similar results were found when this variable was replaced by respectful behavior initiated by the police.

characteristics, an indication of alcohol/drug use, and the citizen's role, the odds ratio of procedurally unjust police behavior regarding participation seems statistically significant (OR: 3.360). The odds ratio of disrespectful police behavior seems to be marginally significant (OR: 2.017). Thus, when the police interrupt citizens without giving a reason and/or ignore them and/or make it clear that they would not take the citizen's information into account without a reason, citizens are more likely not to cooperate with the police compared to an interaction in which the police do not express these behaviors. Furthermore, we can cautiously assume that when the police act disrespectfully it is more likely that citizens would not cooperate, compared to an interaction without the police showing disrespect. Remarkably, there is a strong decrease in the value of the odds ratios of the variables 'indication of alcohol/drug use' and 'citizen's role'. This indicates the existence of an indirect influence of this variable through procedurally unjust police behavior to noncooperation with the police. There is thus a possible influence of the citizen's role and an indication of alcohol/drug use on procedurally unjust police behavior. A total of 29.5 percent of the individual variances in noncooperation with the police can be explained by the independent variables included in model 3.

Table 34: Binomial logistic regression predicting noncooperation by procedurally unjust police behavior (N = 278)

(0= cooperation during the entire interaction: 60.0% and 1= noncooperation for at least part of the interaction: 40.0%)

| Dependent variable: noncooperation | Model 1 | Model 2 | Model 3 |
Independent variables:	Odds ratios	Odds ratios	Odds ratios
Female	0.761	1.261	1.236
White	**0.422**[***]	**0.441**[**]	**0.516**[*]
Middle/high social class	**0.378**[***]	**0.550**[*]	0.560[(*)]
Indication of alcohol/drugs		**3.823**[***]	**2.759**[**]
Suspect		**3.959**[***]	**2.547**[**]
PUJ Participation/voice			**3.360**[***]
PUJ Neutrality			1.416
Disrespectful behavior[142]			2.017[(*)]
PUJ Trustworthy motives			0.542
Model fit indices			
−2 loglikelihood	344.988	307.050	276.921
Cox & Snell pseudo R squared	0.099	0.214	0.295
Classification table info:			
% correct (overall) cooperation	91.6	77.2	85.6
% correct noncooperation (for at least part of the interaction)	27.0	64.9	64.0
Overall % correct predictions	65.8	72.3	77.0

*** p ≤ 0.001   ** p ≤ 0.01   * p ≤ 0.05 (*)   p 0.05 – 0.10 (marginally significant)

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[142] When we replaced this variable by disrespect initiated by the police we found slightly different results. The odds ratio of PUJ Neutrality was then statistically significant. The odds ratio of disrespectful behavior initiated by the police was below 1 and statistically significant.

6.3. Respectful behavior toward the police

Table 35 shows the results for predicting citizens' respectful behavior. The independent variables in **model 1** can only explain 3.6 percent of the individual variances. In this model we only find a statistically significant odds ratio for social class. It seems that the odds of expressing respect toward the police, controlling for the other variables in model 1, are 2.32 times higher for citizens from a middle/high social class compared to citizens from a lower social class. It is thus more likely that the police will encounter respect when they interact with citizens belonging to a middle/high social class than when they interact with citizens belonging to a lower social class.

In **model 2** an indication of alcohol and/or drug use and the citizen's role were added. Both variables show a statistically significant net effect. The likelihood of expressing respect toward the police is 2.76 times lower (1/0.362) for citizens who appear to be using alcohol/drugs compared to those who do not appear to be using them, controlled for the citizen's background characteristics and role. For suspects, this likelihood is 2.28 times lower (1/0.438) compared to non-suspects, controlling for the other variables in model 2. In total, 9.1 percent of the individual variances in respectful behavior toward the police can be explained by the citizen's background characteristics, an indication of alcohol/drug use, and the citizen's role.

In **model 3 PJ** procedurally just police behavior was added as a possible predictor of a citizen's respect. We tested whether expressing at least one procedurally just action has a statistically significant effect, for every procedural justice element. Only explicit respectful police behavior seems to be a statistically significant predictor for the respectful behavior of the citizen. The likelihood of showing respect to the police is 13.71 times higher for citizens who are treated in a respectful way compared to citizens who are not explicitly treated with respect, controlling for the other variables in model 3 PJ. A total of 30.6 percent of the individual variances in respectful behavior toward the police can be explained by the independent variables in this model.

Model 3 EPJ shows that citizens who are predominantly treated with respect by the police are more likely to express respect toward the police compared to citizens who are not, or partially, treated with respect (OR: 7.390). In total, 16.5 percent of the individual variances of respectful behavior toward the police can be explained by the independent variables in model 3 EPJ. Compared to model 3 EPJ, model 3 PJ has a stronger explanatory power.

Table 35: Binomial logistic regression predicting citizens' respect by (extreme) procedurally just police behavior (N = 260)

(0 = no respect: 58.1% and 1 = respect: 41.9%)

Dependent variable: respectful behavior	Model 1 Odds ratios	Model 2 Odds ratios	Model 3 Odds ratios PJ	Model 3 Odds ratios EPJ
Independent variables:				
Female	1.151	0.831	0.577	0.674
White	0.875	0.812	0.888	0.848
Middle/high social class	**2.318****	**1.831***	**2.037***	1.564
Indication alcohol/drugs		**0.362***	0.436$^{(*)}$	**0.420***
Suspect		**0.438****	**0.493***	0.531$^{(*)}$
(E)PJ Participation/voice			1.857	0.677
(E)PJ Neutrality			0.908	0.792
(Extreme) respectful behavior[143]			**13.710***	**7.390***
(E)PJ Trustworthy motives			1.582	1.679
Model fit indices				
−2 loglikelihood	344.097	328.757	258.582	306.725
Cox & Snell pseudo R squared	0.036	0.091	0.306	0.165
Classification table info:				
% correct no respectful behavior	82.8	77.5	73.5	91.4
% correct respectful behavior	29.4	55.0	76.1	44.0
Overall % correct predictions	60.4	68.1	74.6	71.5

*** p ≤ 0.001   ** p ≤ 0.01   * p ≤ 0.05   (*)   p 0.05 – 0.10 (marginally significant)

6.4. Disrespectful behavior toward the police

In table 36 we tried to predict citizens' disrespectful behavior toward the police. The findings in **model 1** show that 10.4 percent of the individual variances in disrespectful behavior could be explained by a citizen's gender, social class, and ethnic background. The strongest statistically significant predictor in this model is social class. Controlled for gender and ethnic background, citizens from the middle/high social class are less likely to express disrespect toward the police compared to citizens from a lower social class (OR: 0.275). We found a marginally significant net effect for ethnic background, showing that whites are less likely to express disrespect toward the police compared to non-whites, controlled for gender and social class.

In **model 2** we added indication of alcohol/drug use and the citizen's role. Both odds ratios seemed statistically significant. Citizens who appear to have used alcohol/drugs are 5.37 times more likely to show disrespect toward the police compared to citizens who do not, controlling for the citizen's background characteristics and role. Furthermore, suspects are 3.14 more likely to show disrespect compared to non-suspects, controlling for the other variables in

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[143] Similar results were found when this variable was replaced by respectful behavior initiated by the police.

model 2. A total of 21.6 percent of the individual variances in disrespectful behavior toward the police can be explained by gender, ethnic background, social class, an indication of alcohol/drug use, and the citizen's role.

In **model 3** procedurally unjust police behavior was added as a possible predictor. We tested whether expressing at least one procedurally unjust behavior regarding each procedural justice element is statistically significant in terms of its influence on the citizen's disrespect. Controlling for the other variables in model 3, the odds ratios of procedurally unjust police behavior regarding participation and neutrality are statistically significant. Police disrespect toward citizens has only a marginally significant net effect. It is 2.45 times more likely that citizens show disrespect toward the police when the police interrupt them and/or ignore them and/or make it clear that they would not take the citizen's information into account but do not give a reason why. Furthermore, it is 2.34 times more likely that citizens show disrespect toward the police when the police give an indication that their treatment/decisions are based on the citizen's personal characteristics and/or when they indicate the citizen is treated more badly than others in the same or a related intervention and/or when they indicate that they have doubts about the citizen's story without providing a reason, compared to citizens who were not confronted with this non-neutral behavior. We can cautiously state that when the police show disrespect it is more likely that the citizen will also show disrespect, in contrast to a situation in which the police do not show disrespect. Like the analyses for the prediction of noncooperation with the police, we see a substantial decrease in the values of the odds ratios for the variables indication alcohol/drug use and the citizen's role compared to model 2. This indicates a possible indirect path going from these variables through procedurally unjust police behavior to citizens' disrespect. In total, 30.2 percent of the individual variances in citizens' disrespectful behavior can be explained by the independent variables in model 3.

Table 36: Binomial logistic regression predicting citizens' disrespect by procedurally unjust police behavior (N = 278)

(0 = no disrespect: 58.6% and 1 = disrespect: 41.4%)

Dependent variable: disrespectful behavior	Model 1	Model 2	Model 3
Independent variables:	Odds ratios	Odds ratios	Odds ratios
Female	0.989	1.654	1.833[(*)]
White	0.619[(*)]	0.637	0.850
Middle/high social class	**0.275[***]**	**0.361[***]**	**0.384[**]**
Indication of alcohol/drugs		**5.366[***]**	**3.952[**]**
Suspect		**3.138[***]**	**1.974[*]**
PUJ Participation/voice			**2.447[*]**
PUJ Neutrality			**2.335[*]**
Disrespectful behavior[144]			2.088[(*)]
PUJ Trustworthy motives			0.446
Model fit indices			
−2 loglikelihood	346.446	309.420	277.299
Cox & Snell psuedo R squared	0.104	0.216	0.302
Classification table info:			
% correct no disrespectful behavior	76.7	82.2	81.6
% correct disrespectful behavior	53.9	58.3	67.8
Overall % correct predictions	67.3	72.3	75.9

*** p ≤ 0.001   ** p ≤ 0.01   * p ≤ 0.05 (*)   p 0.05 – 0.10 (marginally significant)

7. Conclusion and discussion

The purpose of the present study was to predict citizens' (non)cooperation with, and (dis)respectful behavior toward, the police during police–citizen interactions in the light of the procedural justice model. To predict citizens' cooperation and respect, we used the four elements of procedurally just police behavior (participation/voice, neutrality, dignity and respect, and trustworthy motives) as possible predictors. To predict noncooperation and disrespectful behavior we used the unjust variants of the four elements of procedurally just police behavior. We controlled in all analyses for citizens' background characteristics (gender, ethnic background, and social class), indication of alcohol/drug use and citizens' role (suspect or non-suspect).

The findings show that the strongest ***predictors for cooperation*** are an indication of alcohol/drug use and the role of the citizen, controlling for citizens' background characteristics and the police's procedurally just behavior. The likelihood of achieving cooperation is reduced when there is an indication of alcohol/drug use. These results are in line with prior research

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[144] When we replaced this variable by the police initiated disrespectful behavior we found similar results except for the odds ratio of disrespectful behavior initiated by the police. Again, we found an odds ratio below 1, which was statistically significant.

that found that higher levels of irrationality were associated with lower levels of compliance (Mastrofski et al., 1996; McCluskey et al., 1999; Engel, 2003; Reisig et al., 2004; Dai, 2010; Dai et al., 2011). Contrary to McCluskey et al. (1999), we found that suspects were less inclined to cooperate with the police than were non-suspects. Almost all other prior research was only based on suspects. Furthermore, the findings show that it is more likely that the police will achieve cooperation when the interactions are with white citizens and those belonging to the middle/high social class, compared to interactions with non-white citizens and those from a lower social class.

Regarding procedurally just police behavior as predictor, the findings show that it plays a role, but not always in line with what was expected. In this regard, the results show that citizens treated in a neutral way are less inclined to cooperate. We believe that these results can be explained by the negative connotation that is given when police gather information before making a decision, which was used as an indicator to measure neutrality. Namely, it implies a citizen's involvement. Furthermore, the two other indicators used (explaining why they became involved and explaining why they chose to handle a situation as they did) are mostly positively responded to when the citizen who is involved has done something wrong. Additionally, procedurally just policing concerning participation only plays a statistically significant role in predicting cooperation when a high level of this behavior is observed. Asking the citizen for information, active listening, and making clear that the information will be taken into consideration increase the likelihood of cooperation. The findings also show a statistically significant effect of extreme procedurally just police behavior concerning trustworthy motives, but the opposite of what was expected. We believe that trustworthy behavior by the police is, in a lot of situations, more of a reaction to citizens' noncooperation. Showing care and concern and reassuring citizens can be a method the police use to persuade citizens who are uncooperative to start cooperating. However, our measurement for cooperation was based on overall cooperation (at the start, during, and at the end of the interaction), thus it could be that a citizen was cooperative at the end, but uncooperative at the start or during the interaction and such situations were considered to be uncooperative.

For the **prediction of noncooperation**, the strongest predictor was procedurally unjust police behavior concerning participation or voice. Citizens are less inclined to cooperate with the police when the police interrupt them and/or ignore them and/or make it clear they would not take the citizen's information into account without a reason. A marginally statistically significant effect of disrespectful police behavior was found.

We found different results for **the prediction of respectful behavior** compared to cooperation. The strongest predictor here was (extreme) respectful police behavior, controlling for the citizen's background characteristics, an indication of alcohol/drug use, the citizen's role, and the elements of procedurally just police behavior. Even if the police only show respect for a short time, it is more likely that the citizen will also show respect, compared to an interaction in which the police do not show respect. The other elements of procedurally just policing do not show statistically significant effects. Furthermore, respectful behavior toward the police

is more likely when citizens belong to the middle/high social class. It is less likely when there is an indication of alcohol/drug use and if the citizen is a suspect.

The strongest ***predictors for citizens' disrespectful behavior*** are social class and an indication of alcohol/drug use, controlling for the citizen's background characteristics, the citizen's role, and police behavior. Citizens from a lower social class and citizens with an indication of alcohol/drug use are more likely to show disrespect toward the police than, respectively, citizens from the middle/high social class and sober citizens. Furthermore, procedurally unjust policing concerning participation and neutrality are also strongly statistically significant predictors for citizens' disrespect. Police disrespect has only a marginal statistically significant effect.

The findings show that other elements play a role in predicting (non)cooperation and (dis)respectful behavior by citizens toward the police. They confirm that these are different reactions that take shape through different decision processes. Police officers have to understand these processes. Namely, understanding citizens' behavior, more precisely knowing which elements can predict (non)cooperation and (dis)respectful behavior, is important because it could help the police to maintain social order in police–citizen interactions. Of course, they cannot change citizens' characteristics, but they can anticipate citizens' behavior in certain situations, and they are in control of their own behavior. If they know how their behavior influences citizens' behavior, it is easier for them to achieve cooperation and respect and to avoid citizens' resistance. This would make the police's job easier. We found that the use of fair procedures, especially concerning participation and respect, may increase the likelihood of citizens being cooperative/showing respectful behavior, although the effects were limited. In addition, procedurally unjust police behavior should be avoided because several of its elements were found to be very strong predictors for noncooperation and disrespectful behavior by citizens. Training could help the police to understand which procedures are fair and unfair, and what the effects are of the use of these procedures. Of course, as Worden and McLean (2014) stated, training is important, but it has to be relevant to the police's day-to-day reality and supported by supervisors in order to be effective.

There are some limitations to the present study. First, the method used, systematic social observation, is supposed to measure in a more objective way than surveys; however, the researcher's subjectivity cannot be fully excluded. Coding other people's behavior is not always easy, and the choice is not always clear—for example, it is easier to detect disrespectful behavior than respectful behavior. And although an observer may be knowledgeable about the rules of the police and standard procedures, it still is a difficult task to make a reliable judgment about whether or not a police action is unambiguously legitimate. Furthermore, observers cannot rewind situations, so they always have to be alert. However, this observer has tried to be as objective as she could be by using explicit observation protocols, training, asking other researchers for advice, trying to resist going native by maintaining an insider–outsider balance, etc. A second limitation is that the measurement instrument cannot fully

cover the sequence in which behavior arises. This could set the results in a different light. In this regard the findings showed that procedurally just police behavior concerning trustworthy motives did have an impact on cooperation, but the reverse of what was expected. We therefore presume that trustworthy police behavior is, in a lot of interactions, more a reaction to the uncooperative behavior of the citizen than vice versa. In fact, we believe that behavior is the result of action and reaction, but the progress of an interaction cannot be fully captured in a citizen instrument. A third limitation is that the number of possible predictors included in the analyses is limited to elements related to procedurally (un)just police behavior and citizens' characteristics due to the limited number of observed police–citizen interactions. Carrying out SSOs is very time-consuming and unpredictable. To illustrate: during some rides only one interaction with a citizen was observed, while during other rides 13 were seen. Furthermore, one eight-hour ride (or sometimes longer) required more than eight hours of data processing. However it was not possible to do more observations with more observers because there were no means to employ a second observer and the police forces did not want to approve with a second observer because of the high threat level in Belgium. A fourth limitation is that prior judgments of police procedural (in)justice may also have an impact on citizens' behavior during an interaction but citizens were not questioned about their (prior) opinions about the police. A fifth limitation is that the results are not generalizable. SSOs were only carried out in two local police forces in Belgium. Retests of the model on data gathered in other cities in Belgium and in other countries are needed.

Suggestions for further research are as follows. First, future research has to take elements of both procedurally just and unjust behavior into account in predicting citizens' behavior, because the present study was the first to have shown that fair behavior counts, but unfair behavior counts even more in a negative way. Second, future research could add more variables to the model in predicting citizens' behavior based on other theoretical frameworks (e.g. audience characteristics, police officer's characteristics, situational factors). Third, future research should take the sequence of behaviors into account, although this is not easy to capture in a citizen instrument, especially when data was gathered during ride-along observations. Mastrofski et al. (2016) believe that new video technologies can meet this shortcoming in the future by allowing police–citizen interactions captured on tape to be studied over and over again. Another benefit from the use of video recordings is that several observers can code the same things so the validity of the measurement can be tested. However, there are also several disadvantages, such as the limited field of vision, possible problems with audio, etc. Fourth, it would be interesting to question citizens about their prior judgments about police procedural (in)justice (before the contact) and their impressions about the observed police–citizen interactions. Researchers could then take into account prior judgments in the prediction of citizens' behavior and examine whether these judgments are more important than actual police behavior expressed during the interactions. Furthermore,

researchers could compare citizens' subjective judgments about their contact with the more objective measures of the observer.[145]

8. Appendix

Table 37: Correlation matrix independent variables procedurally just police behavior

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Gender (1)	1								
Ethnic background (2)	.161**	1							
Social class (3)	-.044	.180**	1						
Indication of alcohol/drugs (4)	-.109	.077	-.070	1					
Citizen's role (5)	-.276**	-.245**	-.261**	.083	1				
PJ Participation/voice (6)	.065	.081	.029	.000	-.138*	1			
PJ Neutrality (7)	-.148*	.182**	.198**	-.126*	-.061	.143*	1		
PJ Dignity and respect (8)	.101	-.033	.071	-.172**	-.133*	.180**	.190**	1	
PJ Trustworthy motives (9)	.112	.138*	.055	-.098	-.277**	.195**	.129*	.316**	1

* Correlation statistically significant at p ≤ 0.05
** Correlation statistically significant at p ≤ 0.01
N= 260

Table 38: Correlation matrix independent variables extreme procedurally just police behavior

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Gender (1)	1								
Ethnic background (2)	.161**	1							
Social class (3)	-.044	.180**	1						
Indication alcohol/drugs (4)	-.109	.077	-.070	1					
Citizen's role (5)	-.276**	-.245**	-.261**	.083	1				
EPJ Participation/voice (6)	.148*	.166**	.144*	.019	-.410**	1			
EPJ Neutrality (7)	.030	-.023	.063	-.073	-.036	.200**	1		
EPJ Dignity and respect (8)	.192**	.033	.203**	-.140*	-.255**	.305**	.150*	1	
EPJ Trustworthy motives (9)	.163**	.121	.089	-.013	-.383**	.316**	-.061	.243**	1

* Correlation statistically significant at p ≤ 0.05
** Correlation statistically significant at p ≤ 0.01
N= 260

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[145] Worden and McLean (2014) have already attempted this, although they used armchair observations (based on in-car camera tapes), concluding that the subjective experiences of citizens differ from how procedural justice was expressed by the police.

Table 39: Correlation matrix independent variables procedurally unjust police behavior

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Gender (1)	1								
Ethnic background (2)	.124*	1							
Social class (3)	-.053	.155**	1						
Indication of alcohol/drugs (4)	-.102	.070	-.098	1					
Citizen's role (5)	-.245**	-.252**	-.274**	.136*	1				
PUJ Participation/voice (6)	-.046	.160**	-.135*	.129*	.324**	1			
PUJ Neutrality (7)	-.099	-.268**	.222**	-.073	.385**	.396**	1		
PUJ Dignity and respect (8)	-.072	-.171**	.281**	-.140*	.394**	.659**	.576**	1	
PUJ Trustworthy motives (9)	.093	-.085	.065	.118*	-.383**	.387**	.199**	.344**	1

*Correlation statistically significant at $p \leq 0.05$
**Correlation statistically significant at $p \leq 0.01$
N= 278

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CHAPTER VII: Conclusion and discussion

1. Introduction

The aim of this doctoral study was to fully examine whether or not the theoretical framework of procedural justice can be applied in the Belgian context. In particular, it explored the role procedural justice plays in the relationship between the police and citizens, based on data gathered in Belgium. In part one of the study the focus was on citizens' perceptions of how procedurally just or fair the police are, and the antecedents and outcomes of this. The data used in part one were from surveys collected in Belgium. In part two of the study the focus was on the role of procedurally (un)just police behaviour actually expressed during police–citizen interactions, and its outcomes. The data used were from systematic social observations conducted in two local police forces in Belgium. Both parts of this doctoral study were based on the key assumption of procedural justice theory, namely that when citizens perceive the police as procedurally just or fair, they believe the police are legitimate and deserve respect and compliance. In general, there are four elements relating to the quality of the decision-making process and the quality of personal treatment that have been used by researchers to judge how procedurally just the police are: participation or voice, neutrality, dignity and respect, and trustworthy motives (Tyler and Fagan, 2008).

In this concluding chapter we summarize the answers to the two main research questions and their sub-questions that were posed in the introduction. These sub-questions are all answered in detail in chapters II to VI of this doctoral study. With the exception of sub-questions RQ 2b and RQ 2c, which were addressed in chapter VI, the sub-questions were answered in one chapter each. However, RQ 1a was also partly answered in chapters III and IV, and RQ 1b was also partly answered in chapter IV. Sometimes there was an overlap (e.g. in explaining procedural justice theory) between the chapters, because this doctoral study is based on five individual articles that were written and published, accepted for publication in, or submitted to, international journals or books by international publishers. In this chapter we make recommendations for future research in the light of the limitations of this doctoral study, and conclude with some specific policy recommendations.

2. Responding to the research questions

RQ 1. What is the role of trust in police procedural justice in the relationship between the police and citizens?
Part one of the doctoral study answered RQ 1 and its sub-questions. The key assumption distilled from the procedural justice model is that when citizens perceive the police as procedurally just or fair in their treatment of citizens and in their decision-making process, they believe the police are legitimate and deserve respect and obedience. It is therefore

assumed that positive perceptions of police procedural justice enhance citizens' willingness to cooperate with the police and even to obey the law. The latter is expected because the police are perceived as an authority enforcing the laws. Furthermore, it is assumed that citizens' opinions about how procedurally just the police are rely to a large extent on their previous contacts with the police, if they had any. We relied on three datasets of survey research collected in Belgium to learn more about citizens' attitudes toward the police and to test this key assumption.

RQ 1a. How can trust in police procedural justice be measured?

In order to answer this question, in chapter II we pointed to two measurement problems that affect many survey measures of trust (or confidence) in the criminal justice system, which are interrelated. First, there is a lack of a good theoretical and conceptual framework. Second, the methodology and measurement used are outdated. Many survey researchers use single-item questions to evaluate citizens' attitudes toward the criminal justice system in general, for reasons of 'comparability'. For example: *'On a scale of 0 to 10, how much confidence (or trust) do you have in the criminal justice system?'* However, some researchers have pointed out that 'confidence (or trust)' is a latent concept that is not measurable with only one indicator. Research has shown that it is a multidimensional concept (Hough and Roberts, 2004; Haas, 2010). Relying on the procedural justice model as the theoretical framework (Tyler, 2003, 2006, 2007, 2011), an important distinction can be made between a sense of trust based on how procedurally just or fair an institution or system is regarding to its treatment of citizens and its decision-making process, and a sense of trust based on how effective an institution is in its performance. Furthermore, we have assumed that it is important to make a distinction between the types of actor in the criminal justice system, because when people are questioned about their trust in the criminal justice system in general, they may respond with a specific actor in mind (Dekker and Van der Meer, 2007). Foreign research has also shown that the level of trust can differ between the different actors in the criminal justice system (Roberts and Hough, 2005).

During the academic year 2009–10, a questionnaire was administered to 1,079 university students. Respondents were asked about their trust in the procedural justice and performance of the police, judges, the public prosecutor and the criminal justice system in general. They were told that the main aim of the survey was to test the reliability and correlational validity of the scales used. The items used in the survey regarding trust in the procedural justice and performance of the different criminal justice actors were largely adopted from the questionnaire used by Haas (2010). In her doctoral research, Haas selected items that were identified in the literature as indicators of performance and procedural justice. Because RQ 1a of this doctoral study focuses on trust in police procedural justice, we only recapitulate the items that were used in the second chapter of this doctoral study to measure trust in police procedural justice. Respondents were asked to indicate, on a five-point Likert scale ranging from totally disagree to totally agree, how closely their feelings matched the following statements: *'The police are there when you need them'*; *'The police*

are trustworthy'; *'The police take citizens seriously'; 'The police care about the well-being of the average citizen'; 'You can count on the police to take decisions that are best for society'*; and *'If the police do not arrest someone, they will have a valid reason for that'.*

Contrary to expectations, the study found no empirical distinction between trust in procedural justice and performance as higher order latent variables. This finding is difficult to explain, but it may be due to the population (students). However, all factor loadings from the items per latent concept were statistically significant, which means that trust in procedural justice and performance can be measured by different actors. Furthermore, there seemed to be an error covariance at the item level, resulting from close similarities in question wordings, with questions regarding (1) the same dimension of trust, or (2) the same actor strongly resembling each other. If one does not model that reality, the true correlations between all latent constructs may be affected by not taking these sources of measurement error into account.

Although RQ 1a was answered primarily in chapter II of this doctoral study, we also want to point to the items used in chapters III and IV for measuring citizens' trust in police procedural justice. In chapter III we relied on measures of the module *'trust'* that were developed in the 2010 edition of the European Social Survey. A multidisciplinary team of researchers, the Euro-Justis team, was responsible for the development of this trust module. The items in the module were developed around the theoretical framework of the procedural justice model. In chapter III of this study, therefore, trust in police procedural justice was measured by a summated Likert scale of three items concerning the quality of citizens' treatment by the police and the quality of the decision-making by the police: *'Based on what you have heard or your own experience, how often would you say the police treat people in Belgium with respect?'; 'About how often would you say that the police make fair, impartial decisions in the cases they deal with?'*; and *'When dealing with people in Belgium, how often would you say the police generally explain their decisions and actions when asked to do so?'* Each time, four answer categories were offered, ranging from 'not at all often' to 'very often'. The Cronbach's alpha of the scale was 0.65, indicating that all items measured the same concept.

Chapter IV described how questions about citizens' attitudes toward the police were added to the survey Social Capital and Well-being in Neighbourhoods in Ghent (SWING). Our measures were based on those employed by researchers from the USA and the UK, and those used in round 5 of the ESS (Jackson, Bradford, Hough, Myhill, Quinton and Tyler, 2012; Sunshine and Tyler, 2003; Tyler and Huo, 2002). The items capturing trust in police procedural justice were measured on Likert scales ranging from 1 ('strongly disagree') to 5 ('strongly agree') and were the following: *'The police treat citizens with respect'; 'The police respect citizens' rights'; 'The police take time to listen to people'; 'The police make fair and*

impartial decisions'; *'The police are willing to explain their decisions when asked to do so'.* Cronbach's alpha of the scale was 0.862.

When examining the three different measures of trust in police procedural justice, the best measurement was demonstrated in chapter IV. This was the only chapter that captured all four elements of procedural justice in the items to measure trust in police procedural justice (voice, respect and dignity, neutrality, and trustworthy motives). In chapter III the element of 'voice' was missing, and in chapter II the items referred particularly to the trustworthiness of the police.

RQ 1b. *To what extent is trust in police procedural justice a predictor for perceived police legitimacy, willingness to cooperate with the police and comply with the law?*
Chapter III of this doctoral study tested the key assumption of procedural justice theory, that trust in police procedural justice enhances perceptions of legitimacy which in their turn result in a greater willingness to comply with the law and cooperate with the police. We also tested whether or not perceived procedural justice is more important than perceived effectiveness in shaping perceptions of legitimacy. Previous empirical studies (e.g. Tyler, 2003; Hough, Jackson, Bradford, Myhill and Quinton, 2010) found that perceptions of procedural justice seemed to be more important than perceptions of police effectiveness in shaping public trust and perceptions of legitimacy. Furthermore, in line with Jackson et al. (2012), we also made a distinction between two dimensions of perceived legitimacy, namely moral alignment with the police, and feeling an obligation to obey the police. Moral alignment refers to citizens' perceptions that the police share similar values and norms to themselves, and therefore the authority the police possess is justified. Obligation to obey refers to the public recognizing the authority of the police, which is based on the idea that a legitimate authority has the right to be obeyed. In addition, we compared the explanatory power of the procedural justice perspective with those from an instrumental and individual normative approach. Namely, we also examined to what extent perceived sanction risk and personal morality affect citizens' willingness to cooperate with the police and comply with the law.

The data used to test these assumptions were from round 5 of the European Social Survey. We thus relied on secondary data. From September 2010 to January 2011 data were assembled on 1,704 Belgian respondents. Figure 8 shows the results of the test. In what follows, we will only summarize the results in the light of RQ 1b, and thus will focus on the role of trust in police procedural justice (or perceived procedural justice, as it is called in chapter III).

Figure 8: Factors affecting citizens' willingness to cooperate with the police and comply with the law
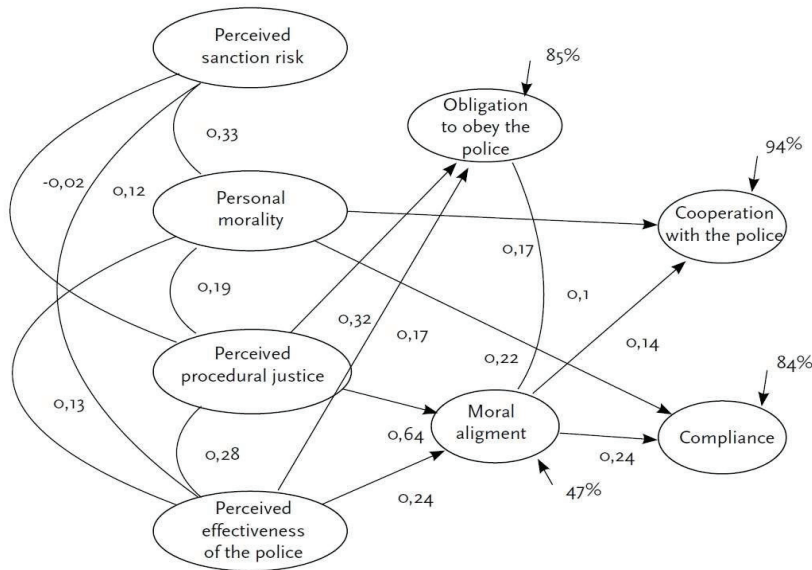
Chi-Square= 413.94, df 176, p=0.00000. CFI 0.93; AGFI 0.91; RMSEA 0.028

In line with earlier research, the findings showed that perceptions of police procedural justice are a stronger statistically significant predictor of both dimensions of perceived police legitimacy, namely moral alignment with the police and obligation to obey the police, than perceptions of police effectiveness. Thus, respondents who perceived the police as an institution that handles issues correctly and honestly also believed that the police and citizens share the same values and norms. Fair treatment and decision-making also enhance citizens' willingness to obey the police. In total, 85% of the individual variance in obligation to obey the police was explained by both dimensions of trust in the police and 47% of the individual variance in moral alignment. Furthermore, only moral alignment as a dimension of perceived legitimacy seemed to have a significant influence on citizens' willingness to cooperate with the police and comply with the law. Obligation to obey the police did not seem to influence compliance and willingness to cooperate with the police. Trust in police procedural justice is thus found to be an important predictor for perceived legitimacy. It also seemed an indirect predictor for citizens' willingness to cooperate with the police and comply with the law through moral alignment as a dimension of perceived legitimacy. The results are thus in line with the key assumption of procedural justice theory, except for the influence of obligation to obey on cooperation and compliance that was not found in this chapter of the doctoral study.

Furthermore, we did not find that perceived sanction risk had a significant effect on compliance with the law and willingness to cooperate with the police. However, we did find

empirical evidence for the individual, normative approach. Respondents who considered specific attitudes to be morally bad, whether or not these attitudes were punishable by law, were more likely to have a cooperative attitude toward the police and to comply with the law. The individual normative approach and the procedural justice approach (indirectly only through moral alignment) can be considered as having both the strongest explanatory power in our model for both compliance and willingness to cooperate with the police.

However, only 6% of the variance in willingness to cooperate with the police and only 17% of the variance in willingness to comply with the law were explained by the model. Thus, many other predictors might exist. Nevertheless, in chapter III we remarked that these results should be seen in the light of the items they were used to measure, for example perceived sanction risk, compliance and willingness to cooperate with the police. Furthermore, in chapter III our measurement of perceived legitimacy was based on the approach of Jackson et al. (2012) and Hough et al. (2010), which is not without dispute.

Hence, because of the ongoing debate about the meaning and conceptualization of the concept of perceived legitimacy, we partly tested the key assumption of procedural justice theory again in chapter IV of this doctoral study while taking into account this debate. Namely, some scholars believe that lawfulness together with perceptions of procedural fairness, effectiveness and distributive fairness are likely to be key dimensions of perceived police legitimacy in a liberal democracy (Tankebe, 2013). Others believe that perceptions of police procedural justice and effectiveness are predictors for perceived police legitimacy consisting of the dimensions of moral alignment, lawfulness and an obligation to obey the police (Hough et al., 2010). However, Tankebe (2013) argues that obligation to obey theoretically differs from legitimacy and can be considered an outcome of perceived legitimacy. Based on the arguments of these scholars, we followed Hough and colleagues (2010) in considering trust in police procedural justice and effectiveness as a means, and perceived legitimacy as an end. But we also took into account Tankebe's argument that an obligation to obey is theoretically different from perceived legitimacy. We believe that perceived legitimacy can be seen as one of the reasons, among many others (e.g. deterrence), why an individual feels obliged to obey the police (Van Damme, Pauwels and Svensson, 2013).

Figure 9 shows that we tested the assumption that trust in police procedural justice and effectiveness influence citizens' feeling of obligation to obey the police through moral alignment as a dimension of perceived legitimacy. The data used were from 762 respondents in the second edition of the SWING survey. As in chapter III, we found that trust in police procedural justice is more important than trust in police effectiveness in shaping perceptions of legitimacy (more specifically, moral alignment). Furthermore, the results showed that the more people feel that they and the police share the same values and norms, the more likely

it is that they will feel obliged to obey the orders of the police and accept their decisions – even if they disagree with them – because the authority of the police is justified.

RQ 1c. *To what extent is contact experience a predictor for trust in police procedural justice?* In chapter IV of this doctoral study we tested whether or not personal contact with the police is a predictor for trust in police procedural justice, which is mentioned as one of its key predictors (Bradford, 2010). We also tested whether it is a predictor for trust in police effectiveness. However, findings from earlier research contradict each other. Some researchers found an asymmetrical relationship with a much stronger effect from unsatisfactory contact, compared with satisfactory contact, with regard to trust in the police and police legitimacy (e.g. Skogan, 2006). Others found a more symmetrical relationship (e.g. Bradford, Huq, Jackson and Roberts, 2014a).

Hence, drawing on data from the second edition of the SWING survey (2012), the assumption of a(n) (a)symmetrical relationship between contact with the police and trust in police procedural justice and police effectiveness was tested. Data were assembled on 762 residents of 42 neighbourhoods in Ghent. Figure 9 shows the results of the test.

Figure 9: A test of a(n) (a)symmetrical relationship between contact and trust
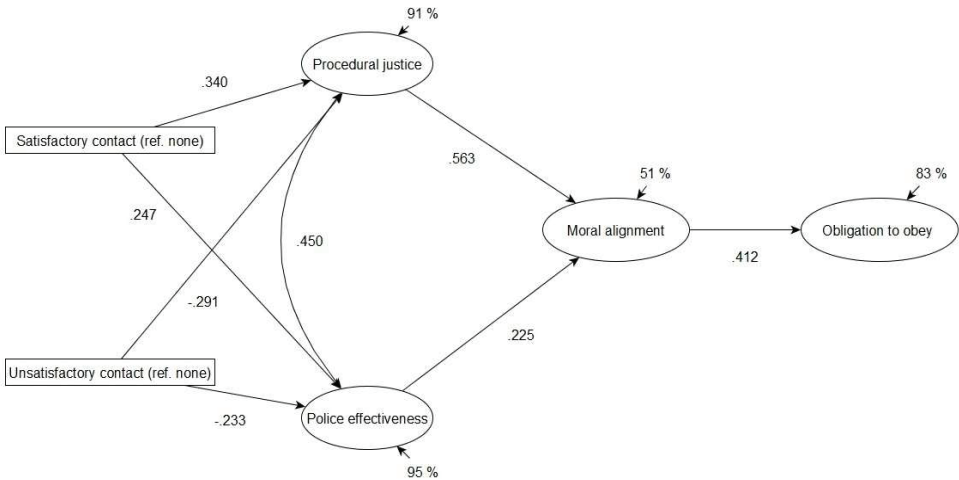
Chi-Square=13.620, df= 6, p= 0.0342. CFI 0.992; TLI 0.981; RMSEA 0.041; AIC=13 473.594; BIC=13 547.748

The results of the path analysis showed that unsatisfactory contact was associated with lower trust in both police procedural justice and effectiveness. Satisfactory contact was associated with higher scores on both these components of trust. In contrast to other studies, the findings showed a stronger positive effect from satisfactory contact than a negative effect from unsatisfactory contact, although the relationship was found to be almost symmetrical. In addition, contact seemed to be a better predictor of trust in police procedural justice than of trust in police effectiveness. However, only 9% of the variation in

trust in procedural justice could be explained by the contact variables. This means that other factors also play a role in the creation of citizens' perceptions of police procedural justice, for example the media, vicarious experiences, (perceived) neighbourhood characteristics.

RQ 2. *What is the role of procedurally (un)just police behaviour during police–citizen interactions?*

RQ 2 with its sub-questions was answered in the second part of the doctoral study. Following the key assumption from the procedural justice model, it is assumed that during police–citizen interactions citizens might have an opinion about how procedurally just or unjust the police act at the moment of the interaction. It is also assumed by the model that these perceptions may influence citizens' behavioural attitudes toward the police. Because there is more or less a consensus about what can be considered procedurally just and unjust, we were able to test the assumption that actual police procedurally just and unjust behaviour influences citizens' behaviour during an interaction. Following the key assumption of the procedural justice model, procedurally just police behaviour might be a predictor of citizens' respectful and cooperative behaviour during an interaction. Procedurally unjust police behaviour might be a predictor of citizens' disrespectful and uncooperative behaviour during an interaction. We used data gathered via systematic social observations in two local police forces in Belgium to test these assumptions.

RQ 2a. *How can procedurally (un)just police behaviour during police–citizen interactions be measured?*

In chapter V, an instrument for measuring procedurally just and unjust police behaviour during interactions with citizens was tested. This measurement instrument was based on the few studies that have paid specific attention to (the measurement of) procedural justice using systematic social observations (Dai, Frank and Sun, 2011; Jonathan-Zamir, Mastrofski and Moyal, 2013; Worden and McLean, 2014). However, we stated that these studies left room for improvement, explaining why for each element of procedurally (un)just behaviour.

The data used to test our measurement instrument were gathered from September 2015 to January 2016 using systematic social observations in two local police forces in Belgium. A total of 284 full police–citizen interactions were observed.

Tables 40 and 41 provide an overview of the indicators in our instrument to measure all elements of procedurally (un)just police behaviour during police–citizen interactions. For each element, the indicators were summed to form an index from 0 to 3, or 0 to 5 for procedurally just behaviour concerning trustworthy motives. Two overall indexes, a procedurally just and unjust one, in which the original 0–3 indexes were combined,[146] were also created.

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[146] The 0–5 index of trustworthy motives was re-coded to a 0–3 index so that all elements would have the same weight in the overall index.

Table 40: Measuring procedurally just police behaviour

1. *Participation/voice*

    Did the police ask for information or the citizen's point of view?

    How did the police receive the citizen's information? *(0= as a dismissive, inattentive, passive listener or not applicable; 1= as an active listener)*

    Did the police make it clear to the citizen that they would take the information into consideration?

2. *Neutrality*

    Did the police indicate they would not make a decision about what to do until they had gathered all the necessary information?

    Did the police explain to the citizen why they became involved in the situation?

    Did the police explain why they chose to resolve/handle the situation as they did?[a]

3. *Dignity and respect*

    Duration or frequency of respectful behaviour during the interaction *(0 = none; 1 = short; 2 = variable; 3 = dominant)*

4. *Trustworthy motives*

    Did the police offer physical assistance to the citizen on their own initiative?

    Did the police give advice or information to the citizen on their own initiative?

    Did the police ask the citizen to contact them again if the problem arose again, or for a follow-up?

    Did the police ask the citizen about his/her well-being or ask others in a way that was observed by the citizen?

    Did the police show understanding toward the citizen or did they reassure the citizen?

* coding: 0= no, 1= yes, unless something else was mentioned

[a] For indicators 2 and 3 of the neutrality index, only explanations that are unambiguously legitimate (e.g. rules, standard procedures, descriptions of evidence) are included in the 'yes' responses.

Table 41 Measuring procedurally unjust police behaviour

1. *Participation/voice*

   Did the police ignore or avoid the citizen?

   Did the police interrupt the citizen without excusing themselves?

   Did the police give an indication that they would explicitly disregard the citizen's information or point of view when dealing with this case/taking a decision? *(0= no or not applicable; 1= yes)*

2. *Neutrality*

   Did the police give an indication that their decisions/handling were influenced by the citizen's personal characteristics?

   Did the police give an indication that they had doubts about the citizen's story without justifying their meaning on an unambiguously legitimate basis?

   Did the police treat the citizen in a worse way than other citizens in this or a related intervention? *(0= no or not applicable; 1= yes)*

3. *Dignity and respect*

   Duration or frequency of disrespectful behaviour during the interaction *(0 = none; 1 = short; 2 = variable; 3 = dominant)*

4. *Trustworthy motives*

   Did the police ignore or refuse at least one request of the citizen, without justification? *(0= no or not applicable; 1= yes)*

   Did the police request the citizen not to contact the police anymore if the problem occurred again?

   Did the police make it clear that they were not willing to make the effort needed to handle the problem/situation?

* coding: 0= no, 1= yes, unless something else was mentioned

To test the validity of our measurement instrument we examined, for both procedurally just and unjust police behaviour, the correlations between all sub-indexes, between all sub-indexes with the overall indexes, and between these indexes and an attitude index – which is theoretically assumed to correlate with them. The findings showed that every sub-index was very well represented by the overall index for both procedurally just and unjust police behaviour. However, correlations between the unjust variants of the respect index and participation index, and the respect index and neutrality index, were relatively high. We stated that this is not problematic because it is to be expected that sub-indexes of procedurally (un)just police behaviour will be highly correlated – if the police act in a procedurally (un)just manner with regard to one element, it is possible that they will do so for other elements too. Furthermore, we found statistically significant correlations between the sub-indexes, except for one, and the two overall indexes with the attitude index. As in

the study by Jonathan-Zamir et al. (2013), we did not find a statistically significant correlation between the procedurally just neutrality index and the attitude index. We believe this could possibly be explained by some of the indicators that are used to measure neutrality. Our measurement instrument thus passed the validity test, except for the procedurally just neutrality sub-index.

In this doctoral study, in addition to measuring procedurally just police behaviour, for each element of procedural justice also an unjust variant was measured. This doctoral study is the first time this has been done; prior to this study, Worden and McLean (2014) are the only researchers to have touched on this issue, when they highlighted the importance of the distinction between procedurally just and unjust police behaviour. Our findings strengthen the requirement for a procedurally unjust variant when studying procedural justice during police–citizen interactions. First, we found that procedurally just police behaviour does not exclude procedurally unjust police behaviour in the same intervention. Second, three out of four sub-indexes showed a stronger negative correlation of procedurally unjust behaviour with the attitude index compared to the strength of the positive correlations of the procedurally just indexes. This effect was reversed in the trustworthy indexes. Third, previous research had used indicators to measure procedurally unjust police behaviour that are normally used to measure procedurally just police behaviour, and vice versa. The point here is that the absence of procedurally just police behaviour cannot be considered to indicate the existence of procedurally unjust police behaviour, and vice versa.

RQ 2b. *To what extent is procedurally (un)just police behaviour a predictor for citizens'* *(non)cooperation with the police during police–citizen interactions?*
In chapter VI we tested the assumption that actual police procedurally just and unjust behaviour will influence the behaviour of citizens during an interaction. Following the main hypotheses of the procedural justice model, we assumed that procedurally fair police behaviour during an interaction motivates citizens to cooperate with the police. Building on this assumption, we also assumed that procedurally unfair police behaviour during an interaction can demotivate citizens from cooperating with the police.

We therefore examined which elements of procedurally (un)just policing (with regard to participation/voice, neutrality, dignity and respect, and trustworthy motives – see also RQ 2a) could predict citizens' (non)cooperative behaviour during police–citizen interactions. We controlled for some citizens' background characteristics (gender, ethnic background and social class), the indication of alcohol/drug use, and citizens' role in the situation. The data used were those collected during SSOs in two local police forces in Belgium and contained 284 police–citizen interactions. Blockwise binomial logistic regression was used to analyse the data.

The findings showed that *procedurally just police behaviour* plays a role in the prediction of *citizens' cooperative behaviour*, but not always in line with what was expected. The results

showed that citizens treated in a neutral way are less inclined to cooperate. However, we believe that these results can be explained by the negative impression that is given when police gather information before making a decision (which was used as an indicator to measure neutrality), as the citizen might perceive this as the police implying that a citizen is involved in some way. Furthermore, the two other indicators used (explaining why they became involved and explaining why they chose to handle a situation as they did) are mostly positively responded to when the citizen who is involved has done something wrong. Additionally, procedurally just policing concerning participation only seemed to play a statistically significant role in predicting cooperation when a high level of this behaviour is observed. Asking the citizen for information, active listening and making clear that the information will be taken into consideration increased the likelihood of cooperation. The findings also showed a statistically significant effect of extreme procedurally just police behaviour concerning trustworthy motives, but the opposite of what was expected. We believe that trustworthy behaviour by the police is, in a lot of situations, more of a reaction to citizens' non-cooperation. Showing care and concern and reassuring citizens can be a method the police use to persuade citizens who are uncooperative to start cooperating. However, our measurement for cooperation was based on overall cooperation (at the start, during and at the end of the interaction), thus it could be that a citizen was cooperative at the end, but uncooperative at the start or during the interaction, and such situations were therefore classed as uncooperative. There was no statistically significant effect found of (extreme) respectful police behaviour on cooperation.

However, the strongest predictors for cooperation were, in line with earlier research (e.g. Mastrofski et al., 1996; Dai et al., 2011), an indication of alcohol/drug use and the role of the citizen, controlling for citizens' background characteristics and the police's procedurally just behaviour. Specifically, the likelihood of achieving cooperation seemed reduced when there was an indication of alcohol/drug use. Contrary to McCluskey et al. (1999), we found that suspects were less inclined to cooperate with the police than were non-suspects. Furthermore, the findings showed that it is more likely that the police will achieve cooperation when the interactions are with white citizens and those belonging to the middle/high social class, compared to interactions with non-white citizens and those from a lower social class. Gender did not seem to have a statistically significant effect.

For the *prediction of non-cooperation*, the strongest predictor was *procedurally unjust police behaviour* concerning participation/voice, followed by an indication of alcohol/drug use, being a suspect and being non-white. With regard to procedurally unjust police behaviour, we found that citizens seem to be less inclined to cooperate with the police when the police interrupt them and/or ignore them and/or make it clear they would not take the citizen's information into account without giving a reason. A marginally statistically significant effect of disrespectful police behaviour was found. No statistically significant effect was found of procedurally unjust police behaviour concerning neutrality or trustworthy motives.

RQ 2c. To what extent is procedurally (un)just police behaviour a predictor for citizens' (dis)respect toward the police during police–citizen interactions?

In chapter VI we also tested whether or not actual police procedurally just and unjust behaviour can predict citizens' (dis)respectful behaviour. According to the procedural justice model, a citizen's disrespectful behaviour can be an expression of questioning the authority, and thus the legitimacy, of the police (Engel, 2003). When citizens judge that they are treated in an unfair manner, an area of tension could arise between the citizens' expectations and the actions of the police. This could result in a citizen experiencing frustrations, which could be expressed by disrespectful behaviour. Following the same line of thought, we assume that when the police treat citizens fairly, citizens will believe the police share the same values and norms as they do, and therefore deserve respect.

To test this, we examined which elements of procedurally (un)just policing (with regard to participation/voice, neutrality, respect and dignity, and trustworthy motives) could predict citizens' respectful and disrespectful behaviour during police–citizen interactions. We controlled for some citizens' background characteristics (gender, ethnic background and social class), the indication of alcohol/drug use, and citizens' role in the situation. The data used were those collected via SSOs in two local police forces in Belgium and contained 284 police–citizen interactions. Blockwise binomial logistic regression was used to analyse the data.

For the prediction of *citizens' respectful behaviour* by *procedurally just police behaviour*, we found different results compared to the prediction of cooperative behaviour during police–citizen interactions (see RQ 2b). The strongest predictor here was (extreme) respectful police behaviour, controlling for the citizen's background characteristics, an indication of alcohol/drug use, the citizen's role, and the other elements of procedurally just police behaviour. We found that, even if the police only show respect for a short time, it is more likely that a citizen will also show respect, compared to an interaction in which the police do not show respect. The other elements of procedurally just policing did not show statistically significant effects. Furthermore, respectful behaviour toward the police was found to be more likely when citizens belong to the middle/high social classes. It was found to be less likely when there is an indication of alcohol/drug use and if the citizen is a suspect. Gender and ethnic background did not seem to be a statistically significant predictor for citizens' respectful behaviour during police–citizen interactions.

For the prediction of *citizens' disrespectful behaviour*, *procedurally unjust policing* concerning participation and neutrality were found to be strongly statistically significant predictors. Police disrespect only seemed to have a marginally statistically significant effect. No statistically significant effect was found of procedurally unjust police behaviour concerning trustworthy motives. However, the strongest predictors for citizens' disrespectful behaviour were social class and an indication of alcohol/drug use, controlling for the citizen's

background characteristics, the citizen's role and procedurally unjust police behaviour. Citizens from a lower social class and citizens with an indication of alcohol/drug use seemed to be more likely to show disrespect toward the police than, respectively, citizens from the middle/high social class and sober citizens. Furthermore, suspects seemed to be more likely to show disrespect toward the police than non-suspects. No statistically significant effect was found for ethnic background and only a marginally statistically significant effect was found for gender.

3. Recommendations for future research

In the light of the results and also the limitations of this doctoral study, some recommendations for future research are made in the following section. First, we offer some recommendations regarding the measurement of concepts related to procedural justice theory in survey research. Second, some recommendations are made regarding the measurement of procedurally (un)just police behaviour using systematic social observations. Third, some recommendations are offered regarding the methodology for studying procedural justice in the relationship between the police and citizens.

3.1. Measuring trust in police procedural justice

First, it is important for future survey research to avoid questions such as *'On a scale of 0 to 10, how much trust do you have in the criminal justice system in general?'* because trust is a multidimensional concept, and the level of trust can vary between types of actor. In addition, earlier research has shown that people have a specific actor in mind when answering general questions such as these. This doctoral study demonstrated that it is possible to measure different dimensions of trust (a procedural justice dimension and an effectiveness dimension) by actor (the police, judges, the public prosecutor, or the criminal justice system in general) in a single questionnaire. Furthermore, the explanatory analyses in chapter III and IV showed that trust in police procedural justice is more important in shaping perceptions of police legitimacy than trust in police effectiveness, which underlines the importance of keeping a distinction between trust in police procedural justice and police effectiveness as dimensions of trust in the police in future research.

Second, when considering the measurement of trust in police procedural justice – or perceptions of police procedural justice – in survey research, we recommend measurements that capture all four elements of procedural justice (participation/voice, neutrality, dignity and respect, trustworthy motives). We believe that our measurement of trust in police procedural justice used in the fourth chapter is the only one to have taken all these elements into consideration. Even the measurement used in round 5 of the ESS (see chapter III) did not take into account the participation element in its measurement. Although the Euro-Justis

team did some pioneering work with regard to the quality of the measurement of trust in police procedural justice, and the items they developed can be used as a basis for future research, we believe that a new item concerning participation has to be added.

Third, we have already referred to the ongoing debate about the meaning and conceptualization of perceived police legitimacy, which is a central concept in procedural justice theory. Our review of this concept leads us to make some recommendations for future research. We followed Hough, Jackson and Bradford (2013) in their definition of perceived legitimacy, namely that legitimacy is the recognition and justification of the right to exercise power and influence. However, we believe that the way 'obligation to obey' is measured in, for example, the ESS does not capture 'the recognition of police power' as a dimension of police legitimacy. We do believe that one of the reasons, probably the most important, why people feel an obligation to obey the police is because they believe that the police act legally and that the police as an institution is a moral exemplar, which both refer to the justification of police power. But we also believe that there are other possible explanations of why a person feels an obligation to obey, for example because this person is afraid of being sanctioned. This is why we considered obligation to obey as a dependent variable of perceived police legitimacy in chapter IV instead of a dimension of perceived police legitimacy. We thus believe that 'the recognition of police power' has to be measured in another way, not by 'obligation to obey' as measured in most studies. This could be done by asking respondents questions about the necessity of the police in their country or, considering the measurement of obligation to obey, by emphasising that it is about a moral duty to obey. Future research must clarify this. And again, we believe that all dimensions of perceived police legitimacy should be measured. Although we believe that perceptions of police legality are a dimension of perceived police legitimacy, the surveys that were used did not contain questions referring to this dimension.

Fourth, when comparing survey studies in which assumptions regarding police procedural justice were tested, the varying results that are found can be due to different measurements of the concepts used in these studies. For example, this could be because of different measurements of perceptions of police procedural justice or police legitimacy, as stated above, or, as mentioned in chapter III, because of limited measurements of the ultimate outcome variables 'compliance with the law' and 'willingness to cooperate with the police'. We believe that our measurement of compliance was limited because it was measured with just one indicator related to a self-reported crime. The question '*How often have you bought something you thought might be stolen in the last five years?*' was the only one used to measure this variable because it was the only one with enough variance to work with in the analyses. Only someone answering '*Never*' was considered to comply with the law. However, somebody who did not report this crime, but who was guilty, for example, of theft or violence, would be recorded as complying with the law. Moreover, the term 'might' in the question can have an impact on the results. Namely, the thing might be stolen or it might

not. If somebody buys something that has not been stolen, then there is no crime. Furthermore, an average citizen may have trouble imagining a situation in which he would buy something that might be stolen. And even if he could, why would he think this is wrong? We believe that future research should identify an operationalization that best fits 'a willingness to comply with the law' and is thus not related to a self-reported crime. Future research can, for example, question respondents about their willingness to comply with specific laws and rules. For our measurement of citizens' willingness to cooperate with the police, we only measured a 'one-way' cooperation (the public cooperating with the police) by asking respondents about their willingness to report a crime, identify a suspect and give evidence in court against the accused. However, Tyler and Fagan (2008) also identified a second form of cooperation that can be seen as a 'partnership' between the police and the public. Police and citizens work together to solve problems that occur within society, for example in 'neighbourhood watch' schemes. It is possible that other results will be found when this second form of cooperation is also taken into account. This is assumed because citizens will experience direct benefits from this partnership, such as the protection of their own residence. We recommend that future research should take measurements of both forms of cooperation into account when testing the key assumption of procedural justice theory.

Fifth, when testing whether or not contact can predict perceptions of procedural justice, we recommend that future researchers specify how the contact was experienced. Namely, some researchers found an asymmetrical relationship with a stronger negative effect from unsatisfactory contact on perceptions of procedural justice, compared to the positive effect from satisfactory contact. Others found a more symmetrical relationship, and so did we. An alternative could be that researchers make a distinction between police-initiated and citizen-initiated contact. However, just taking contact into account in explaining citizens' perceptions of procedural justice could lead to uncertain results, because contact can be experienced differently by different citizens.

3.2. Measuring procedurally (un)just policing

In chapter V we discussed in detail what kinds of indicators we used to measure all elements of procedurally just and unjust police behaviour during police–citizen interactions by the use of SSOs. We believe that future research should take note of our arguments about the measurements used in previous research. However, there are many ways one might construct measures. It will be for future researchers to consider the implications of these different ways and to establish which is best for a given research purpose. Furthermore, in chapters V and VI we emphasized the importance of making a clear distinction between procedurally just and unjust police behaviour when studying procedural justice during police–citizen interactions. The present study was the first to have shown that fair behaviour counts, but unfair behaviour counts even more in a negative way. We therefore suggest that

future researchers try out our measurement instrument, which passed the validity test to a large extent in this doctoral study.

However, we also recognized some limitations in our instrument regarding the measurement of procedurally (un)just police behaviour during police–citizen interactions. First, the indicators we used to measure procedurally just behaviour concerning neutrality did not seem to form a valid sub-index. We therefore suggest that future research should consider or create new indicators for the procedurally just neutrality index. For instance, it would be helpful if researchers could establish a reliable identification method for situations where the police rationale requires no verbalization on their part.

Second, although we always counted different procedurally just and unjust behaviours to form a sub-index, behaviours can sometimes occur more than once. We took this into account in the respect index by coding the duration of respectful behaviour. However, for the trustworthy index, for example, the police may have asked the citizen about his/her well-being several times, yet this would only be counted as one procedurally just action in the index. Future research could try to take the duration of procedurally (un)just police behaviour concerning the four elements into account.

Third, it is generally acknowledged that a measurement instrument used in SSO research cannot fully cover the context in which behaviour arises. Future research should thus take the sequence of behaviours into account, although this is not easy to capture in a citizen instrument. For example, researchers could try to measure who (the police or the citizen) initiated certain behaviours (e.g. respectful and disrespectful behaviour). However, this cannot be used for all elements of procedural justice, for example because a citizen is not expected to show trustworthy motives. It thus remains challenging for researchers to try to capture the sequence of behaviours in a citizen instrument.

Fourth, and probably the most difficult limitation to overcome in future research, is that although systematic social observation is supposed to measure in a more objective way than surveys, the researcher's subjectivity cannot be fully excluded. The experience showed that coding other people's behaviour is not always easy, and the choice is not always clear – for example, it is easier to detect disrespectful behaviour than respectful behaviour. And although an observer may be knowledgeable about the rules of the police and standard procedures, it is still a difficult task to make a reliable judgement about whether or not a police action is unambiguously legitimate. It is therefore suggested that future researchers who use the SSO method should always use a detailed manual with clear protocols and instructions for the observers. Furthermore, they should recognize and report this limitation in their studies.

In this regard, we have to mention an important fifth limitation of this study – its limited scope. One observer carried out all the SSOs and observed 284 police–citizen interactions in

two local police forces in Belgium. The generalizability of the results is thus limited to the observed areas. Furthermore, the limited number of observed police–citizen interactions had an impact on our choice of statistical analysis to predict citizens' behaviour in chapter VI, namely binomial logistic regression analysis with all dichotomized variables (present or not present). Specifically, some categories would have had too few units in certain cells to conduct multivariate analyses. It was thus a technical and pragmatic choice after a thorough screening. Future SSO research in which more police–citizen interactions are observed could treat the elements of procedurally (un)just police behaviour as linear variables measuring the level of presence of each element in an interaction. The fact that there was only one observer is due to a lack of means to employ a second observer and because the heads of the participating local police forces did not agree to the presence of a second observer. More observations in other cities and countries are thus needed, with extra observers to test the cross-validity and the reliability of the instrument.

3.3. Methodology recommendations
3.3.1. Trust in procedural justice

A great deal of research has used survey data to test the procedural justice model because surveys offer the opportunity to learn about citizens' attitudes toward the police. In the first part of this doctoral study we therefore relied on three survey datasets to learn about the role of citizens' trust in police procedural justice in the relationship between the police and citizens. However, the cross-sectional characteristic of the surveys should be noted. Results cannot be interpreted in terms of causal relationships. In this respect, we are aware that effects can be reciprocal. In chapter IV, for example, the existence of trust and legitimacy prior to contact is recognized, which could affect judgments about police contact rather than the reverse.

More panel studies, such as Bradford, Murphy and Jackson (2014b), could meet this limitation by, for example, measuring people's attitudes toward the police in a first wave. In a second wave people could be questioned about their attitudes again, whether or not they have had contact with the police since the first wave, and if so how they experienced the contact. It would then be possible to test whether or not the contact changed the citizen's attitude toward the police.

3.3.2. Procedurally (un)just police behaviour during police–citizen interactions

In the introduction to this doctoral study some difficulties, pitfalls and ethical dilemmas that were faced when conducting SSOs were referred to. To overcome (some of) them, the following recommendations for future SSO studies, especially those concerning police–citizen interactions, can be made.

First, the importance of a detailed manual with clear instructions and protocols to strengthen the validity of the study is already stressed. Additional recommendations include the thorough training of observers (preferably more than one observer), asking other researchers for advice (e.g. regarding ethical dilemmas), and being aware of the pitfalls of conducting SSOs and reporting them in order to strengthen the validity of a SSO study.

Second, researchers should balance the pros and cons of the ethical dilemmas that arise when conducting SSOs. I believe that there is no ready-made solution. However, it is necessary to report them and to clearly explain why certain solutions were chosen.

Third, I highlight the danger of 'going native' while conducting SSOs in a police context. The suggestion to take a position of 'trusted outsider', which reflects a balance between becoming an insider and remaining an 'objective' outsider, is in line with Zaitch, Mortelmans and Decorte (2016). However, finding that balance is not always easy. It is therefore suggested that future researchers/observers take the following actions to avoid 'going native': self-reflection; ask another colleague to join an observation moment and reflect about the observer's behaviour in the setting; reflect about ethical dilemmas with colleague researchers; read about the pitfalls and ethical dilemmas in the literature; leave enough time between two observation moments; try to be physically present at the place of employment (e.g. a university) on a regular basis.

Fourth, to avoid reactivity it is suggested that researchers make clear to the participants that it is important to act normally. In this study it is found that adopting an attitude of 'learner' also helped avoid reactivity, because the participants perceive this attitude as quite inoffensive. It is also suggested that researchers keep the promises that are made in the informed consent document (e.g. confidentiality), especially because participants will often 'test' a researcher to check this, as experienced in this study.

Fifth, as already stated, a measurement instrument used in SSO research cannot fully cover the sequence in which behaviour arises, especially during ride-along observations. Mastrofski, Jonathan-Zamir, Moyal and Willis (2016) believe that new video technologies will overcome this shortcoming in the future by allowing police–citizen interactions to be recorded and studied over and over again. Another benefit from the use of video recordings is that several observers can code the same things, so the validity of the measurement can be tested. Currently, the Belgian police do not use cameras to record their interactions, although this is about to change and police officers will soon be allowed to wear cameras (bodycams) on their uniforms; this will open up new opportunities for academic researchers on this topic.[147] There are, of course, several disadvantages from the use of video recordings, including a limited field of vision, possible problems with audio, etc.

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[147] http://www.knack.be/nieuws/belgie/nieuwe-camerawet-geeft-meer-ruimte-aan-bodycams-en-privebewaking/article-normal-731393.html

Sixth, and related to the previous point, it is experienced that most of the interventions began very normally, but one trigger (from either the police or the citizen) could change the atmosphere. It would be possible to identify such triggers by studying the narratives in a qualitative way.

3.3.3. A combination

In this doctoral study the survey data and SSO data are not related to each other. However, it would be interesting to utilize both methods in one research project. Following this line of thought, it would be interesting to compare the perceptions about the treatment citizens received from the police with the codes the observer recorded. The SSOs would be conducted, and then the citizens with whom the police came into contact could be questioned afterwards via a telephone survey. The citizens could also be asked whether or not the contact changed their perception of police procedural (in)justice. It is believed that questioning citizens immediately after the contact is not a useful method because it would take a lot of the police officers' time, and in certain circumstances it would not be possible to question the citizen (e.g. when he/she is wounded, drunk, etc.).

4. Recommendations for police policy

The findings confirm that the police can only benefit from paying attention to the manner in which they treat citizens and how they make decisions. This is not only because it directly affects citizens' behaviour during police–citizen interactions (see chapter VI), but also because contact experience leaves an impression of how procedurally just the police are in general, which also affects citizens' willingness to obey the police, cooperate with them and comply with the law (see chapters III and IV).

The following recommendations for police practice can be made.

First, it is recommended that police officers attempt to treat citizens with respect and dignity all times, even when dealing with suspects, and that they address citizens as "sir" or "madam", shake hands (if the situation permits) and use polite language such as "here you are" and "thank you". We are aware that this can sometimes be difficult, especially because police officers may have had experiences in their line of duty that could influence their behaviour in certain circumstances.

Second, it is recommended that police officers attempt to treat every citizen in the same way and avoid making prejudicial judgements based on the citizen's personal characteristics. For example, racial profiling does not fit with this approach because it can make people feel targeted by the police and they are likely to have less trust in police procedural justice as a result, or they may behave in a disrespectful way during the interaction itself.

Third, it is important for the police to explain the rationale behind their acts and decisions. Citizens will only perceive the police to be fair if they understand the police's reasons for decisions or actions, and if the citizens think these reasons are plausible.

Fourth, the findings in this study indicate that the police should take more time to listen to people. In informal talks with police officers, it was clear that there are many police officers in Belgium who do not believe that this social aspect is a core task for the police. However, the results showed that, in practice, police work could immediately benefit from it. For example, during an interaction it enhances the likelihood of the citizen behaving in a cooperative way.

Fifth, police officers may find it useful to ask citizens about their expectations of the police in the context of that encounter. In some situations people expect the impossible. But when the police then explain why they cannot meet these expectations, in most cases people will accept this without any lingering bitterness.

Sixth, although the results did not show an effect of procedurally just behaviour concerning trustworthy motives on citizens' cooperative and respectful behaviour during police–citizen interactions, it is suggested that police officers should express trustworthy motives in their actions because it would leave a positive impression of procedural justness by the police toward citizens.

Seventh, and the most important recommendation of all, police officers should avoid procedurally unjust behaviour during their contacts with citizens. Several of its elements were found to be very strong predictors for non-cooperation and disrespectful behaviour by citizens during police–citizen interactions.

Furthermore, it is believed that, especially in times of a high threat level, it is very important to not forget to take a procedural justice approach into account. During the observations, it felt like the approach of police officers changed after the terroristic attacks in Paris. It was like they forgot some steps to take, like for instance asking a suspect about his behaviour (no voice was given to the suspect who was taking photographs with his cell phone – see introduction). However, these experiences cannot be proven. Before the terroristic attacks there were also observations in which no voice was given to the citizen, although these situations felt different. And of course, it still is important for a police officer to be alert and to be aware of the possible dangers that they can be confronted with, although they try to be procedurally just.

However, it is recommended that police officers receive careful training in how to behave in a procedurally just way when interacting with citizens. First, they should consider the underlying benefits resulting from their behaviour. Understanding citizens' behaviour, and

knowing which elements predict (non)cooperation and (dis)respectful behaviour during actual contact, is important because it can help the police to maintain social order in police–citizen interactions. Police officers can be trained to anticipate citizens' behaviour in certain situations, and how to manage their own behaviour. If they know how their behaviour influences citizens' behaviour, they will find it easier to obtain cooperation and respect and avoid resistance, which would make the police's job easier. Furthermore, police officers should be mindful that every moment of personal contact with citizens could improve or undermine attitudes toward the police in general. Police officers should aim to achieve satisfactory contacts that leave a positive impression of police procedural justice in general and enhance citizens' perceptions of police legitimacy, and their willingness to cooperate with the police and comply with the law. Second, role-playing and existing videos can be used to teach police officers the best practices and illustrate the worst. Third, training could give officers the opportunity to discuss challenging issues, such as racial profiling, 'the gap' between the police and citizens, the expectations citizens have of the police and so on. Furthermore, it is suggested that every police officer uses self-reflection: 'How did I act? Was it in line with the recommendations for procedurally just behaviour?' If this second question is answered 'no', it could partly explain why the citizen with whom the police interacted showed resistance.[148]

Training on procedurally just behaviour could be self-contained or incorporated into lessons about community-oriented policing (we have already mentioned the close link between the procedural justice elements and the five pillars of community-oriented policing). It could also be linked to deontology and the core values a police officer is expected to subscribe to, such as integrity, neutrality, respect, honesty, etc. However, no such training being offered to trainee police officers was observed during lessons followed at the police academy during this study. Even in advanced training, no such training is offered.

5. Concluding remarks

Procedural justice in the relationship between the police and citizens plays an important role in Belgian policing. The way that Belgian police officers treat people and make decisions leaves citizens with perceptions of how procedurally just the police are. These influence citizens' perceptions of police legitimacy and can explain their willingness to obey and cooperate with the police, and even comply with the law. Procedurally (un)just police behaviour can even predict citizens' (non)cooperative and (dis)respectful behaviour in police–citizen interactions. However, it must be recognized that the procedural justice model could not explain all of the individual variance in citizens' attitudes nor their behaviours during police-citizen interactions. Thus, there are also other mechanisms that

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[148] These suggestions are largely based on training given by myself to trainee police officers in a Belgian police academy, and partly on Skogan, Van Craen and Hennessy (2015).

play a role. For example, the influence of the media on citizens' attitudes toward the police, or police-officers' background characteristics or the influence of audience on citizens' behaviour during police-citizen interactions. It is suggested that future research should integrate different angles, from other theories to the procedural justice perspective, which would enable us to learn more about why citizens express certain behaviours and attitudes toward the police when interacting with them.

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Appendices

Appendix 1: Letter to the attorney general of the Court of Appeal (anonymized)

FACULTEIT RECHTSGELEERDHEID

UNIVERSITEIT GENT

Vakgroep Strafrecht en Criminologie
Onderzoeksgroep Sociale VeiligheidsAnalyse

SVA
Institute for Urban Security
& Policing Studies

Aan de Procureur-Generaal,

Gent, 16 mei 2013

Geachte

    Ik richt dit schrijven tot u, als Procureur-Generaal van het Hof van Beroep met een bijzonder verzoek. Als *assistente/onderzoekster* aan de vakgroep Strafrecht en Criminologie - verbonden aan de Universiteit Gent - bereid ik een *doctoraat* voor dat handelt over de effecten van het *gedrag van politie-inspecteurs* op het *gedrag van burgers*. In *een eerste deel* van dit doctoraatsonderzoek wordt gekeken naar de invloed van het *publiek vertrouwen* in het politiefunctioneren ter verklaring van het gedrag van burgers. Hiervoor werd een aantal *surveys* afgenomen. De resultaten bevestigen de hypothese: het publiek vertrouwen in politie blijkt zeer belangrijk te zijn voor de effectiviteit van politie aangezien meer vertrouwen resulteert in een grotere bereidheid bij de burger om wetsgetrouw te handelen en medewerking te verlenen aan politie. In dit eerste deel van het doctoraat ligt de focus op percepties van de burger; niet op het objectieve functioneren van politie. Echter, wat objectief rechtvaardig is, wordt niet door elk individu als rechtvaardig beschouwd.

    Een tweede deel van het doctoraatsonderzoek betreft daarom een *empirisch onderzoek* naar het gedrag van burgers tijdens politietussenkomsten. Door middel van *systematische sociale observaties* zullen data worden verzameld om na te gaan of er een verband bestaat tussen het *handelen door inspecteurs van politie* (o.m. neutraliteit, respectvol gedrag, inspraak in de procedure, geweldgebruik) en *het gedrag van de betrokken burgers tijdens politietussenkomsten* (verbale/non-verbale agressie, gehoorzaamheid aan politie, bereidheid tot medewerking). Alle verworven informatie wordt volledig *geanonimiseerd* en niets zal kunnen teruggekoppeld worden aan specifieke feiten en/of personen. Naast een academische bijdrage, kan dit onderzoek ook een belangrijke bijdrage leveren aan het politiebeleid.

    Voor het welslagen van dit doctoraatsonderzoek, heb ik dan ook een *bijzonder verzoek* ten aanzien van u als procureur-generaal. Op maandag 13 mei 2013 had ik een gesprek met korpschef van de lokale politiezone die het belang van mijn doctoraatsonderzoek

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onmiddellijk bevestigde. Graag wil ik u vragen of u de instemming van de korpschef om systematische sociale observaties te houden binnen de dienst 'Directie operaties' van de lokale politiezone   wilt valideren door formeel toestemming te verlenen.

In de periode tussen september 2013 en februari 2014 zouden sporadisch verkennende observaties plaatsvinden met als doel:

- Kennis te maken met de dienst en haar personeelsleden;
- Inzicht te krijgen in de wijze waarop interacties tussen burger en politie tot stand komen;
- Het codeboek, dat zal worden gebruikt bij de observaties, bij te werken op basis van reële tussenkomsten;
- Teams te selecteren waarbij de observaties zullen gebeuren.

In de periode tussen september 2014 en februari 2015 zou het empirisch materiaal verder verzameld worden.

Indien u *vragen of opmerkingen* heeft, aarzel niet mij te contacteren. Ik ben eveneens beschikbaar om mijn onderzoek kort mondeling te komen toelichten indien u dit wenselijk acht.

Hopend op een positief gevolg groet ik u met de meeste hoogachting,

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2

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Appendix 2: Approval of the attorney general of the Court of Appeal (anonymized)

openbaar
ministerie

Parket bij het hof van beroep

DE PROCUREUR-GENERAAL

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verz. : Parket-generaal–

Aan mevrouw Anjuli Van Damme
Vakgroep Strafrecht en Criminologie
Universiteitstraat 4
9000 GENT.

DATUM
27 mei 2013

UW REFERTE	UW REFERTE	BIJLAGE	KOPIE AAN
D.100/5.7.2-DBR-TV	-	-	Korpschef PZ

BETREFT : -

Geachte Mevrouw,

Uw brief van 16 mei 2013 betreffende uw doctoraatsonderzoek over de effecten van het gedrag van politie-inspecteurs op het gedrag van burgers werd in goede orde ontvangen.

Mijn ambt gaat akkoord met de voorgenomen sociale observaties binnen de dienst "Directie operaties" van de lokale politie   in het licht van uw onderzoek.

Wel wens ik de noodzaak tot anonimisering nogmaals te onderlijnen.

Ten slotte nam ik graag kennis van het resultaat van uw onderzoek betreffende dit onderwerp.

Hoogachtend,
De Procureur-generaal,

OPENINGSUREN: 8.30 – 12.30 u.; 13.30 – 16 u.

Appendix 3: Approval Faculty Ethical Commision

FACULTEIT RECHTSGELEERDHEID

ETHISCHE COMMISSIE

Advies van de commissie   22 februari 2015

Inzake het protocol van Prof. Dr. Lieven Pauwels (promotor) en Anjuli Van Damme (onderzoekster) voor het onderzoek getiteld 'The role of procedural justice between the police and the citizen' van 14/01/2015 met de aanvullende antwoorden op bijkomende vragen en documenten van 28/01/2015 en 09/02/2015.

De commissie keurt het ingediende onderzoeksvoorstel unaniem goed.

De commissie wenst de onderzoekster en promotor veel succes,

Prof. Dr. Jan Verplaetse

Voorzitter Ethische Commissie Rechtsgeleerdheid (Gent)

Appendix 4: Confirmation letter of notification Privacy Commission

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DEEL 1. Verantwoordelijke voor de verwerking

Nummer door de Commissie toegekend aan de verantwoordelijke

HM 003024236

Naam (of benaming rechtspersoon, feitelijke vereniging of openbaar bestuur)
  Van Damme Anjuli
Ondernemingsnummer/BTW-nummer
  BTW BE 0248.015.142
Adres:
  Universiteitstraat 6
  9000 Gent
  België
Juridisch statuut van de verantwoordelijke voor de verwerking
  - *Natuurlijk persoon*
  - *Privé-persoon*

DEEL 2. De verwerking

Nummer door de Commissie toegekend aan de verwerking

VT 005057758

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1. Benaming van de verwerking
  Doctoraatsonderzoek naar de rol van procedurele rechtvaardigheid in de relatie tussen politie en burgers. In dit onderzoek zullen sociale observaties worden uitgevoerd bij de dienst interventie van politie. Identiteitsgegevens van inspecteurs zijn enkel nodig voor het nadien kunnen terugkoppelen van observaties aan teams van inspecteurs. Enkel de onderzoeker zal dus een terugkoppeling kunnen maken naar de identiteit van de inspecteurs. De politie-inspecteurs hun identiteit zal gecodeerd worden, enkel initialen zullen worden gebruikt.

2. Doel of geheel van samenhangende doeleinden waarvoor gegevens worden verwerkt
  - *Wetenschappelijk onderzoek*

3. Categorieën van gegevens die verwerkt worden
  - *Identificatiegegevens (naam, adres, tel, ...)*

4. Wettelijke of reglementaire basis(sen)

5. Categorieën ontvangers en categorieën gegevens die kunnen worden verstrekt
  De geregistreerde persoon zelf
    - *Identificatiegegevens (naam, adres, tel, ...)*
  Professionele raadgevers van de geregistreerde personen
    - *Identificatiegegevens (naam, adres, tel, ...)*

6. Welke maatregelen zijn er genomen om de mededeling van gegevens aan derden te beveiligen ?
  - *Technische maatregelen (vb.crypteren, paswoorden)*

7. Hoe worden de betrokken personen in kennis gesteld van de registratie van hun gegevens?
  Persoonsgegevens bij de betrokkene zelf verkregen (art. 9, §1 WVP)
  - *Bij gelegenheid van de gegevensverzameling*

8. Tot wie kunnen de geregistreerde personen zich richten om hun rechten uit te oefenen ?
  Het recht op toegang van de betrokkene tot zijn gegevens en het recht om de verbetering en de verwijdering ervan te verkrijgen, worden in de art. 10-12 WVP voorzien.
  Naam en voornaam (en/of naam van de dienst)
    Van Damme Anjuli
  Adres:
    Universiteitstraat 6
    9000 Gent

9. Bijzondere maatregelen voor de uitoefening van de rechten

Aan de geobserveerde politie-inspecteurs wordt een informatiebrief bezorgd over het doctoraatsonderzoek. Tevens wordt aan hen gevraagd een Informed Consent document in te vullen waarop hun rechten staan vermeld.
Op de informatiebrief staan ook contactgegevens van de promotor van het onderzoek, evenals contactgegevens van de dienst wetenschappelijke integriteit van de universiteit Gent. Bij vragen/problemen kunnen ze deze contacteren.

10. Voorziene bewaartermijn

Identificatiegegevens (naam, adres, tel, ...)   5 Jaren

Indien verschillende bewaartermijnen werden geselecteerd, gelieve deze te omschrijven.

De gecodeerde databestanden worden onbeperkt bewaard.
De initialen van de politie-inspecteurs worden een periode bewaard. Dit omdat controle-organen in de mogelijkheid moeten zijn een controle uit te voeren op het correct verzamelen van de gegevens.

11. Algemene beschrijving van de veiligheidsmaatregelen

Algemene maatregelen genomen tot waarborg van de vertrouwelijkheid en de veiligheid van de verwerking (art.16 WVP)

Veiligheidsbeleid

Analyse en inschatting van de risico's

Organisatie van de beveiliging

Beveiliging van netwerken (indringing, vijandige codes,...)

Logische beveiliging van de toegang

12. Gegevens die naar het buitenland worden verzonden

DEEL 3. Contactpersoon en ondertekenaar

Contactpersoon voor dit aangifteformulier
Contactpersoon
  Anjuli Van Damme
Telefoon   *+32 264 8475*
E-mail   *anjuli.vandamme@ugent.be*

Ondertekenaar van dit aangifteformulier
Naam van de persoon die dit formulier ondertekent
  Anjuli Van Damme
Functie van de persoon die dit formulier ondertekent
  Assistente Vakgroep criminologie, strafrecht en sociaal recht, UGent

Appendix 5: Information letter to the police officers

Informatiebrief doctoraatsonderzoek

Onderzoek

Aan de universiteit van Gent loopt momenteel een doctoraatsonderzoek waarin getracht wordt meer te weten te komen over de beslissingen die politie-inspecteurs maken in hun interacties met de burger. Jullie korpschef heeft de universiteit de toestemming gegeven om dit onderzoek uit te voeren.

De doctoranda, Anjuli van Damme, zou u graag vergezellen tijdens het uitoefenen van uw job om meer te leren over de wijze waarop politiewerk gebeurt. Als u akkoord gaat met deze participatie, zal zij u tijdens een aantal shifts vergezellen en uw interacties met de burger observeren. Zij zal de situatie observeren, alsook de participanten en hun gedragingen. Het is mogelijk dat zij op een gepast moment een aantal vragen stelt over uw beslissingen en meningen over de gebeurtenis, zij zal tevens korte nota's nemen. Deze kunt u, wanneer ze betrekking hebben op uw shift, ook inkijken. De resultaten van dit project zullen samengevat worden en gerapporteerd aan uw departement. De onderzoeksresultaten zullen ook gerapporteerd worden in professionele tijdschriften en boeken en ze zullen tevens gepresenteerd worden op professionele conferenties. Geen enkele politieman/-vrouw zal met naam en toenaam worden vermeld in deze studie.

Risico's

Er zijn geen voorziene risico's gekoppeld aan de participatie van dit onderzoek.

Voordelen

Er zijn geen directe voordelen verbonden aan dit onderzoek voor u als participant. Uw participatie aan dit onderzoek zorgt wel voor een uitbreiding van de kennis naar de kwaliteit van het politiewerk. Dit kan leiden tot beleidsaanbevelingen ter verbetering van de praktijk. Op werkvlak kunt u uit de deelname aan dit onderzoek mogelijks dus voordeel halen.

Vertrouwelijkheid

De gegevens die worden verzameld in deze studie zijn vertrouwelijk. Deze gegevens worden enkel op computers gezet die beveiligd zijn met een paswoord. Uw naam zal niet opgenomen worden in de dataset. Enkel de doctoranda zal in staat zijn om aan de hand van een identificatiesleutel observatiemomenten te linken met uw identiteit. Uw naam, noch informatie die kan leiden tot de onthulling van uw identiteit, zullen gebruikt worden in geschreven of mondelinge rapporten of publicaties.

Directors

Prof. Dr. Brice De Ruyver
Prof. Dr. Gert Vermeulen
Prof. Dr. Tom Vander Beken
Prof. Dr. Freya Vander Laenen
Prof. Dr. Lieven Pauwels

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Ghent University

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Participatie

Uw medewerking is vrijwillig en u kunt zich terugtrekken van deze studie op elk moment en voor welke reden dan ook. De doctoranda wil zoveel als mogelijk observeren, maar het zou kunnen dat u de doctoranda uitsluit van bepaalde gebeurtenissen uit voorzichtigheid. Daarnaast mag u ook weigeren om bepaalde vragen die de doctoranda stelt, te beantwoorden. Er is geen sanctie of verlies van voordelen gekoppeld aan niet deelname aan of terugtrekking uit deze studie.

Contact

Dit onderzoek wordt uitgevoerd door dra. Anjuli Van Damme van het departement Criminologie, Strafrecht en Sociaal recht aan de universiteit van Gent. De promotor van dit doctoraatsonderzoek is Prof.dr. Lieven Pauwels. De leden van het begeleidingscomité zijn Prof.dr. Tom Vander Beken, Prof.dr. Henk Roose en Prof.dr. Stefaan Pleysier (KUL).

Bij vragen of problemen kunt u de doctoranda en/of promotor van dit onderzoek contacteren:

Dra. Anjuli Van Damme	Prof. Dr. Lieven Pauwels
Vakgroep Criminologie, Strafrecht en Sociaal recht	Vakgroep Criminologie, Strafrecht en Sociaal recht
Onderzoeksgroep IRCP	Onderzoeksgroep IRCP
Universiteitstraat 4	Universiteitstraat 4
9000 Gent	9000 Gent
Tel: 09/ 264 84 75	Tel: 09/ 264 68 37
Gsm: 0474/ 91 01 02	E-mail: Lieven.Pauwels@ugent.be
E-mail: Anjuli.VanDamme@ugent.be	

Indien u een vermoeden heeft van inbreuk op de wetenschappelijke integriteit van dit onderzoek, dan kunt u dit melden bij de Commissie Wetenschappelijke Integriteit van de Universiteit Gent (cwi@ugent.be, Commissie Wetenschappelijke Integriteit, Directie Onderzoeksaangelegenheden, Sint-Pietersnieuwstraat 25, 9000 Gent).

Appendix 6: Informed consent

Informed Consent

Ik ondergetekende, ..., verklaar hierbij dat ik, als participant aan een onderzoek van de onderzoeksgroep International Research on Criminal Policy, Vakgroep Criminologie, Strafrecht en Sociaal recht (Universiteit Gent):

(1) de informatiebrief heb gelezen waarin het doel en de aard van het onderzoek, de risico's die aan mijn participatie gekoppeld zijn, de vertrouwelijkheid en de mogelijkheid tot weigering en stopzetting van participatie aan het onderzoek, staan omschreven. Op elk ogenblik wordt me de mogelijkheid geboden om bijkomende informatie te verkrijgen.

(2) totaal vrijwillig deelneem aan het onderzoek.

(3) de toestemming geef aan de onderzoekers om de gegevens die verzameld worden gedurende mijn shifts op anonieme wijze te verwerken en te rapporteren.

(4) op de hoogte ben van de mogelijkheid om mijn deelname aan het onderzoek op ieder moment stop te zetten.

(5) ervan op de hoogte ben dat ik een samenvatting van de onderzoeksbevindingen kan krijgen.

Gelezen en goedgekeurd te ....(plaats) op .... (datum)

Handtekening van participant: ……………………………………

Appendix 7: Worksheet

Observatie worksheet

Ritnummer: _____ Datum: _____ P1: _____ P2: _____ PZ: _____

Ordening tussenkomstnummers, bijhorende burgernummers, start en eindtijd, plaats + buurtbepaling, feitencode, commentaren

Pagina ___ van ___