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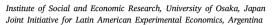
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Using a brief contact to improve trust in the police by the youth

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ABSTRACT

Trust in the police has many positive effects, so it is important to explore solutions to improve police-community relations, especially in areas where such relations are deteriorated. In this paper, I use a lab-in-the-field experiment in two high schools in France to investigate the effect of a brief and controlled discussion - *contact* - between police officers and students on trust. The results indicate a positive effect of contact on trust at the individual level, i.e. toward the specific police officer met. However, the effect does not translate into an increase in trust in the police in general. A Bayesian model of belief formation can shed light on why a single contact may not be sufficient in the case of prior — negative — interactions. This paper can have implications for the most widely used policy to improve perceptions of the police, namely community policing.

1. Introduction

The relationship between the police and parts of the population is tense in many countries, with demonstrations explicitly against the behavior of the police regularly making news headlines, sometimes even escalating to violence. Statistics indicate that trust in the police is lower for some segments of the population, especially the less welloff and minority citizens (Eurostat, 2015). The situation is particularly tense in France, which ranks among the countries with the lowest trust in the police in Europe (Eurostat, 2015), and especially in the suburbs (banlieues) around Paris (Roux, 2017). However, trust in the police has many positive aspects, as higher trust in the police has been associated with higher legitimacy and effectiveness of police actions (Carr et al., 2007; Goldsmith, 2005; Lyons, 2002; Sunshine & Tyler, 2003) and better capacity of the state to provide security services (Desmond et al., 2016; Goldsmith, 2002). In addition, the literature has highlighted the possibility that perceptions of the police can change due to exogenous events. This change can be either positive (Jobard, 2016) or negative (Adam-Troian et al., 2020; Katz, 2014).

The combination of these three facts — that parts of the population have low levels of trust, that trust in the police has many benefits for society, and that trust in the police can be changed — makes it essential to explore strategies to improve the perception of the police by the population. In the literature, one of the main policy tools identified

to increase trust is personal contact (Allport, 1954; Bertrand & Duflo, 2017). The idea behind the *contact hypothesis* is that direct interactions (or contacts) improve the perception of individuals met from an outgroup (here, the police) and, in turn, can increase trust toward the out-group in general. Importantly, contact is also a central component of community policing, the most common policy applied by central and local governments to improve the perception of the police.¹

In this paper, I present the results of a pre-registered artefactual field (lab-in-the-field) experiment² in which I use the methodology of the social psychology literature (Aron et al., 1997) to investigate whether face-to-face contact between police officers and high school students in relatively poor towns near Paris can increase trust. I also examine whether contact differently affects trust at the individual level (the specific police officers met) and at the collective level (the police in general).

In the experiment, subjects are randomly paired with either a police officer or an undergraduate student from the area (representing the ingroup) and are randomly assigned to one of three treatments: a control group, in which subjects are not told any information about the person they are paired with; a photo treatment, in which subjects are presented the photo of their pair; and a contact treatment, in which students talk for 10 min with their pair. The treatment is an adaptation of the "fast-friend" procedure (Aron et al., 1997; Clochard et al., 2024; Page-Gould et al., 2008) for quickly generating closeness: pairs are asked to alternately answer questions that become more and more intimate.

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¹ See for example the New York Police Department's "Neighborhood Policing Initiative", the London Police's "Community Policing", the "Police de Proximité" in France.

https://www.socialscienceregistry.org/trials/7116

I find that the contact protocol has a positive effect on the amount sent in a trust game with the specific police officer met. Results indicate that compared to subjects who were presented with a photo of a police officer, those who received the contact significantly increased the amount of tokens sent in a trust game. However, I find no effect at the collective level: subjects in the contact group do not send more tokens in a trust game played with a randomly selected police officer, nor do they show less bias against the police in a novel Implicit Association Test. These results are consistent with a simple model of Bayesian updating, which is also confirmed by heterogeneity analyses, which show that the treatment effect is driven by people who have had very little interactions with police officers prior to the experiment.

This paper contributes to two strands of literature. First, it contributes to the literature on methods to improve police-population relations. For example, Peyton et al. (2019) find that a brief visit of a police officer to citizens' doors to discuss methods of improvement of policing in their neighborhoods improves the perception of the police. The fact that no effect is found at the collective level could be an indication that discussions about policing are necessary to translate the effect toward the out-group in general, although this result would need to be confirmed by future research. Regarding the recurring political debate about proximity or community policing, results from the present paper imply that the contact can improve relations at the individual level, and might be an argument in favor of having officers patrolling the same neighborhoods regularly. Since interventions in different countries have yielded varying results (Blair et al., 2020; Peyton et al., 2019), future research should explore whether these differences stem from the context or the intervention itself.

Second, I contribute to the literature on the contact hypothesis. I show that even a brief, cheap and easy to replicate contact can have a positive effect on trust at the individual level, which is an advantage relative to previous protocols which were much longer in time, and therefore potentially difficult to scale-up (Lowe, 2021; Mousa, 2020; Scacco & Warren, 2018). The results found in this paper tend to confirm the results from recent meta-studies on the topic (Clochard, 2024; Lowe, 2025; Paluck et al., 2019), with a weaker effect of contact at the collective level, sometimes called generalizability effects, than at the individual level. I also present in the appendix a potential theoretical explanation, based on a theoretical framework of Bayesian updating, for the results, in particular if participants have had several (potentially negative) interactions with out-group members (Clochard, 2024; Page-Gould et al., 2008). The heterogeneity analysis based on previous interactions with the outgroup is a novel finding in the contact literature.

The remainder of the paper is organized as follows. In Section 2, I review the relevant literature on police-population relations and the contact hypothesis. In Section 3, I present the experimental design of the experiment I conducted and the data. I present empirical results, as well as a theoretical framework which can explain some findings in Section 4. Section 5 concludes.

2. Literature review

This paper is linked to two main strands of literature: the first is the literature on trust in the police by the population, and the second is the literature on the contact hypothesis.

2.1. Police-population relations

While the economic literature on police-population relations is relatively scarce,³ a relatively large number of papers have addressed this

issue in the sociology and social psychology literature — see for example Brown and Benedict (2002), Hagan et al. (2005) or Bolger et al. (2021) for reviews. In general, this literature focuses on identifying characteristics, such as socioeconomic status, age, or race that correlate with trust or satisfaction with the police. In particular, the literature has found that trust in the police tends to be lower for individuals who are younger, economically disadvantaged and from minority groups (Roché et al., 2020; Roux, 2017). However, the (experimental) literature on how to *improve* trust in the police is scarce.

Moreover, exogenous events have been used to show that trust in the police is not constant over time. For example, in the French context, Jobard (2016) highlighted that following the Paris terrorist attacks of 2015, trust in the police increased significantly, while Adam-Troian et al. (2020) found that after incidents involving the police during demonstrations of the *Yellow Vests* movement, trust in the police had decreased among protesters. Similar results have been found for negative events involving police officers in other parts of the world.⁴ Moreover, Simpson (2021) shows that simply displaying pictures of smiling police officers improves the perceptions of those officers, relative to neutral faces. The fact that trust in the police is malleable represents an opportunity for policy, as it implies that it may be possible to find policy tools to increase trust in the police. In this paper, I contribute by showing that trust in police officers can be intentionally changed.

In this context, the use of contact is relevant for two reasons. First, contact has been widely viewed in the discrimination and prejudice literature as the main policy tool for reducing prejudice and increasing trust (Bertrand & Duflo, 2017; Paluck et al., 2019). I detail below how this paper contributes to the contact literature.

Second, encounters with the population outside the "standard" interactions with the police - e.g., investigations and arrests - are a central part of a policy which has been implemented in many parts of the world, namely community policing. Community policing involves a range of activities that aim at involving local citizens in the decisions involving security policies. The concept is in place in various forms in many countries and large cities, including New York City, USA; London, UK; Santa Catarina State, Brazil; Medellín, Colombia; Monrovia, Liberia; Sorsogon Province, Philippines; several rural areas in Uganda; and some Punjab Province districts in Pakistan. However, little experimental evidence exists about the effect of community policing policies on citizens' trust in the police, with two main exceptions. The first exception is Peyton et al. (2019) who investigate the effect of an intervention by the New Haven, CT (USA) Police Department, in which patrol officers went door-to-door to gather information from the public about how they felt the image of the police could be improved. They found that this intervention significantly improved the views of the population. The second exception is Blair et al. (2020) who investigate several community policing initiatives in the Global South, and find very limited effects on public perceptions of the police, measured through surveys.

While the present paper does not directly test the effects of community policing on trust in the police (although there have been recent attempts at the local level, such a program has not existed at the national level in France since 2003), this paper contributes to the literature and debate on community policing by examining an essential first step for its effectiveness, namely that brief interactions with police officers can help build trust in the police.

This paper also speaks to the literature on programs involving police officers in schools (Cheurprakobkit & Bartsch, 2005; Jennings et al., 2011; Sellers et al., 1998; Theriot, 2009). This literature, which evaluates programs such as the Gang Resistance Education and Training (*GREAT*) and School Resource Officers (SROs), mainly in the United

³ The economic literature on the police force in general is not scarce, see for example Ang (2021), Ba et al. (2021), Rivera (2025) or Fryer (2019).

⁴ For example, Katz (2014) highlights a deteriorated trust in the police for African Americans following the deaths of Michael Brown and Eric Garner.

States, focuses primarily on the effects of the presence of police or other security forces on school grounds on security and crime, particularly student crime (Pyrooz, 2013; Weiler & Cray, 2011). However, to the best of my knowledge, the effects of these programs on trust in the police and security forces have not been evaluated. This paper does not contribute to the discussion of the deterrent effect that police officers can have on school crime, but it does contribute to the discussion of how to increase trust in the police.

2.2. Contact hypothesis

The second strand of literature the present paper contributes to is the literature on the contact hypothesis. The hypothesis was first coined by Gregory Allport in his seminal 1954 book, stating that [Prejudice] "may be reduced by equal status contact between majority and minority groups in the pursuit of common goals. The effect is greatly enhanced if this contact is sanctioned by institutional supports (i.e., by law, custom, or local atmosphere), and provided it is of a sort that leads to the perception of common interests and common humanity between members of the two groups". (Allport, 1954). The following decades saw a lot of descriptive papers trying to assess the validity of the hypothesis, but until the late 2010s, this literature was mostly observational, lacking experimental evidence and therefore potentially suffering from selection issues (Paluck et al., 2019; Pettigrew & Tropp, 2006).

Since then, a growing number of experiments or quasi-experiments have been analyzed and have highlighted the potential of contact interventions to improve cross-group relations in different contexts. In the context of education, Rao (2019) showed that an intervention to increase the share of poor pupils in primary schools in Delhi improved their perception by better-off children; Scacco and Warren (2018) found that having students perform tasks with members of another religious group in Nigeria reduced discrimination and increased generosity toward the out-group; Boisjoly et al. (2006) and Corno et al. (2019) found that having a Black roommate reduces White students' prejudice in an American and South African University, respectively. Another context in which the contact hypothesis has been studied is through army recruits: Carrell et al. (2015) found that White recruits of the US Air Force Academy are more likely to choose a Black roommate for the second year if they had a Black recruit in their squadron; Finseraas et al. (2019) found an increase in trust for a generic minority after having a minority roommate during training; Cáceres-Delpiano et al. (2021) find that Spanish men born in regions with a weak Spanish identity who served their military service in another region have increased identification as Spanish. The last main context in which contact interventions have been applied is sports, with Mousa (2020) finding that after playing in mixed-religious teams, Iraqi Christians are more tolerant toward the Muslim players of their teams, although the effect, as in the present paper, does not translate to the out-group in general. Lowe (2021) found that playing in mixed-caste teams increases cross-caste friendships and trade efficiency, but adversarial contact (playing against other-caste teams) reduces these effects. Meta-analytic work (Paluck et al., 2019) has shown that on average, contact seems to be effective at reducing prejudice and discrimination, at least toward members of the out-group participants specifically met. In the broader discrimination and prejudice literature, contact has therefore started to be seen as one of the best (if not only) tools to increase inter-group cooperation and trust (Bertrand & Duflo, 2017).

In an effort to make treatments more relevant as policy tools, a number of studies have also attempted to test the effects of brief contacts on outgroup trust. For example, Krahé and Altwasser (2006) and Boag and Wilson (2014) examined the effects of brief interactions with people with disabilities and prison inmates, respectively, to investigate the effects on attitudes toward these groups. Several papers have also examined the role of canvassing, i.e., door-to-door campaigns to engage with local residents, on political attitudes (Broockman & Kalla, 2016; Kalla & Broockman, 2020). Finally, some papers have also used

face-to-face interactions in artifactual experiments on attitudes toward immigrants, ethnic groups, or rural-urban relations (Clochard et al., 2024; Freddi et al., 2022; Gu et al., 2019, 2016). The vast majority of these studies found positive effects of contact, at least in the short term.

However, as highlighted in recent reviews (Clochard, 2024; Lowe, 2025; Paluck et al., 2021), the literature on contact suffers from three main limitations. The first limitation of the literature is to focus mostly on survey measures, with no repercussion for dishonest answers, and therefore potentially suffering from experimenter-demand effect (Zizzo, 2010). The main outcome used in this paper is an incentivized trust game (Berg et al., 1995), which is less sensitive to experimenter demand effect.

The second and perhaps most significant limitation of the literature is the difficulty to replicate the setups in which the studies were conducted. For example, the sports leagues created by Mousa (2020) and Lowe (2021) lasted for several weeks, it might be complicated to have entire populations joining the military as in Carrell et al. (2015) or Finseraas et al. (2019). The protocol presented in the present paper, which is an adaptation of Aron et al. (1997), is more replicable as it is much shorter, and does not require elaborate settings. Several papers have implemented various adaptations of the present experimental protocol (Clochard et al., 2024; Page-Gould et al., 2008).

The third and final limitation of the literature on the contact hypothesis is the lack of a theoretical framework of why contact may have an effect. This paper contributes to this in proposing a model of belief formation which can explain why contact can have an effect at the individual level, which, however, might fail to translate to the outgroup in general, a result that has been found in the literature (Clochard et al., 2024; Mousa, 2020), or at the very least, why the generalized effects tend to be much weaker than the individual effects (Clochard, 2024; Lowe, 2025). The fact that previous interactions can be linked to the magnitude of treatment effects is also a novel finding in this literature.

3. Experimental design and data

Context of the french police. The French police system is centralized and divided mainly between two national forces: the Police Nationale, responsible for urban areas, and the Gendarmerie Nationale, which operates in rural areas and small towns. Unlike some countries with strong community policing models, France largely abandoned this approach in 2003, when the government dismantled the local community policing units (police de proximité) introduced in the late 1990s. The police officers who participated in the experiment presented in this paper were all members of the Police Nationale working in the Paris region, but did not work in local police stations, as discussed below.

While the French population in general exhibits relatively high levels of trust in the police, parts of the population, in particular younger people, people with an immigrant backgrounds and poorer people exhibit a significantly lower level of trust in the police (Roché et al., 2020; Roux, 2017). This pattern of trust has been relatively stable over time, although various incidents involving the police (put in a positive or negative light) can cause the figures to fluctuate slightly (IFOP, 2023).

Local context. The experiment took place in March 2021 in two high schools in the Paris region, in the towns of Saint-Denis and Corbeil-Essonnes (see a map in Figure A.1). The high schools were selected because they are located in towns which are relatively impoverished (37% and 26%, respectively, of the population live below the national poverty rate, relative to 15% nationwide), with a large share of immigrants⁵ (39% and 27%, respectively, relative to 9.6% nationwide)

⁵ Under French law, it is illegal to ask individuals about their ethnicity or race. The only distinction allowed in France regards the nationality and place of birth. The figures presented here represent the share of immigrants, which are defined as individuals born outside of France, whose nationality of birth is not French and who currently resides in France.

and have a population which is relatively younger than the rest of the country (about 45% of residents are below 29 years old in both towns, relative to 30% for the whole country). According to the literature, the population of these towns is therefore likely to distrust police more than the country average (Roché et al., 2020; Roux, 2017). Indeed, clashes between parts of the population and police officers have occurred in the past in both towns.⁶

Setup. With approval from high school administrations, students participated in the experiment as part of regular schedules (provided teachers had given their approval). The sample consisted in 366 high school students, which were on average 17 years old and were selected from all curricula (general, technological and vocational).

The experiment took place during regular class time. A total of 32 sessions (16 classes divided in two, eight classes per high school) were conducted. Each session consisted of an average of 11.4 students (SD = 3.2). Each session lasted approximately 50 min (to fit with the class schedule of classes of 55 min). The experiment took place over two weeks in each of the high schools. Only one class was participating at once. Instructions were given not to talk about the experiment with other students in the school.

The data was collected on individual tablets using the o-Tree software (Chen et al., 2016). While no partitions were in place in the room, three examiners and the students' regular teacher were present in the room at all times to ensure no communication between participants.

Incentives. Because participants were minors, the administration of high schools forbade the financial incentivization of the experiment. As an alternative, I was allowed to use grades as incentives as follows. Participants were guaranteed a show-up grade of 10 out of 20. Additionally, at the end of the experiment, on of the games played (see below) was selected at random and the corresponding amount of tokens was transformed into additional points added to the grade. For every token earned, the participant earned half a point. The grade was then passed to the teachers, who included the grade in the students' report cards if the grade improved their existing grade in civics class.7 While it is not common to use grades as incentives, I would argue that as long as higher grades increase the utility of the participants, they are analogous to monetary earnings which are standard in economic experiments (Smith, 1976). Grades have also been considered as potential alternatives to monetary incentives, particularly for children and adolescents who cannot be financially incentivized (Afkinich & Blachman-Demner, 2020; Rice & Broome, 2004).

Treatments. At the beginning of a session, students were randomly allocated to one of three treatment arms. The first treatment arm (N=92) is a control, the second (N=145) is the *Photo* treatment, and the third (N=129) is the *Contact* treatment. In the *Photo* and *Contact* treatment arms, subjects were paired either with a police officer or with a first-year university student who grew up in Paris' suburbs. Treatments are summarized in Fig. 1. The treatments resemble the protocol set up in a previous paper (Clochard et al., 2024).

In the *Control* group, participants are not told who they are going to play with — they are only told that they are not playing with someone from the class. The *Control* condition is used to have a measure of average trust in the specific group.

In the *Photo* treatment, participants are shown the photo of their pair, and told whether their pair is a police officer or a student. The *Photo* treatment is assumed not to have any effect on the outcomes

of interest (i.e. one is not to trust more or less the police simply by being shown a photo of a police officer), but to test for pre-existing differences of trust between police officers and students, thus testing whether participants exhibit a form of in-group (or out-group) bias. A (blurred) example of the photo presented in the *Photo* treatment is presented in Figure A.2.

In the *Contact* treatment, participants met their pair face to face, and both alternately answer progressively more personal questions. The meeting occurred in a separate room from the rest of the experiment. The questions are drawn from the methodology used by Aron et al. (1997), which has been proven to create friendships very quickly. The original protocol is adapted so that discussions last 10 min. In details, each pair has to answer one question from each of the three sets of questions from Aron et al. (1997). In the first set ("light closeness"), an example of question drawn is "Would you like to be famous? In what way?", while in the last set ("intense closeness"), the questions are much more intimate, e.g. "Of all the people in your family, whose death would you find most disturbing? Why?". All questions are presented in Appendix A.3, and the questions they had to answer were drawn at random within each set. For each session, a given pair (police officer or student) met one participant.

Local university students formed the ingroup, while police officers form the outgroup. The participating bachelor students were recruited from the first-year cohort of the local university and are from the same neighborhoods as the students (although they were recruited so that they did not attend the exact high schools, to ensure that they did not know students beforehand). None of the police officers were originally from the local area, although I cannot definitively conclude that they do not come from similar backgrounds as the students. They represent the outgroup as they are police officers, when participating students are not, meaning that they probably behave differently, as people have been found in other countries to self-select into the police profession (Dickinson et al., 2015; Friebel et al., 2019; Mantilla et al., 2022).

For the *Contact* and *Photo* treatments, participants were explicitly told when the pair was a police officer, but the participating officers were not wearing uniforms.⁸

There exists a slight imbalance across conditions, in particular with a lower sample size of the *Contact Police* cell, because of the lack of availability of police officers on certain days in which the experiment took place.

Outcomes. As stipulated in the pre-analysis plan, the analysis focuses on three primary outcomes. The first outcome is a standard Trust Game (Berg et al., 1995). In the trust game, participants — playing the role of the truster are endowed with 10 tokens. They choose a number of tokens to be sent to the other player. Each token is then multiplied by 3, and the other player — the trustee — chooses how many tokens to send back to the truster. The measure of trust used is the share of tokens sent by the truster, with an increase associated with a higher degree of trust. Participants played the trust game as the truster, and the corresponding pair (police officer or student) played the role of the trustee. The first outcome - Trust Pair - is the share of tokens sent by the participant. aims to capture the effect of contact on trust toward the individual met. A screenshot of how the game was explained to participants is displayed in Figure A.3.

The second outcome - *Trust Police* - is again measured via a Trust Game, this time played with a police officer selected at random. Specifically, subjects were told that a group of police officers from the Paris region - *Ile-de-France* - have played the trust game with high school students from Paris' suburbs and have declared how many tokens they are willing to send back for each possible amount of tokens sent. One of

 $^{^{\}rm 6}$ See for example this article in Corbeil-Essonnes or this article in Saint-Denis.

⁷ In the French education system, students have to attend 300 h of civics class (*Enseignement moral et civique*) with the aim of teaching respect for others, the acquisition and sharing of the values of the French Republic, and the development of a civic culture (see here, in French). The high school administrations also refused the grade to be mandatory.

⁸ The high school administration opposed it, as per law, police officers in uniform in France have to bear a firearm, which is not permitted on school grounds.

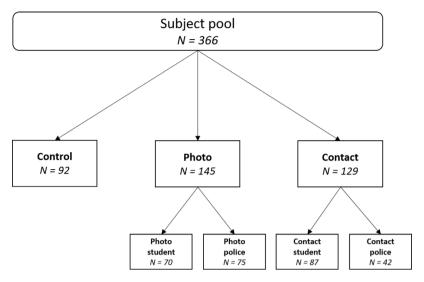


Fig. 1. Treatment arms.

their answers has been randomly selected and will be used to determine the participant's gains. This outcome is used to test the effect of contact on the police as a whole, not specifically on the individual met.

The third outcome is the result of a novel version of the Implicit Association Test (Greenwald et al., 1998) -a measure commonly used in social psychology to measure implicit stereotypes, regarding ethnicity, race, gender, sexual identity or disability (Nosek et al., 2005)- in which the two categories compared were the police and health services. Participants were instructed to associate as fast as possible (but without mistakes) images of the police and health services with either negative or positive words (See screenshot in Figure A.4). First — after some training rounds — participants were instructed to associate the police with negative words, and health services with positive rounds. Second - after some more training rounds - the places for the police and health services were reversed. The outcome used — IAT - is the difference between the two response times, normalized using an independent group of students from one of the high schools (which is not part of the sample). The variable is coded so that a higher IAT variable is associated to a stronger association between police images and positive words.9 This measure is not incentivized, but because participants are asked to associate words as quickly as possible, it emphasizes the ease with which participants associate the police with positive words. In the case of this experiment, the measure is used to test the effect of contact on mental representation of the police (Nosek et al., 2005).10

To summarize, the first outcome - *Trust Pair* - maps the effect of contact at the individual level, while the two other outcomes — *Trust Police* and *IAT* map the effect of contact at the collective level. Each of the games — trust game with the pair, trust game with a random police officer and IAT — was played once.

No feedback was given to participants about the results of any of the games until the very end of the experiment, so as not to contaminate other measures.

Estimation strategy. I estimate a between-subject OLS regressions for each of the three outcomes (Eq. (1)). The independent variables are the two treatments (Contact and Photo) and an interaction of each treatment and a dummy equal to 1 if the participant is paired with a

police officer. Because in the control treatment, participants are not told anything about the participants, the variable *Police* is by default set to 0. This means that the β_2 coefficient in Eq. (1) identifies the interaction between the *Photo* treatment and the *Police* variable. Standard errors are clustered at the class level.¹¹

Controls include age, education (i.e., the number of years of schooling of the student) and whether the participant was victim of a set of crimes and misdemeanors. I also included a question known as an instructional manipulation check, typically used in online experiments (Hauser & Schwarz, 2016), used to measure attention.¹²

$$Y = \alpha + \beta_1 Contact + \beta_2 Police + \beta_3 Contact \times Police$$

+ \beta_4 Photo + \gamma X + \epsilon \tag{1}

The main coefficient of interest is β_3 . A positive β_3 would indicate that participants who met a police officer tend to exhibit more trust in their partner than average. A negative β_2 would indicate that police officers tend to be trusted less than average for participants the *Photo* treatment (i.e. a negative out-group bias). β_1 represents the treatment effect of contact for individuals meeting a student, while β_4 evaluates whether there is a difference between the average level of trust (in the control group) and the level of trust in students (or in-group bias).

Discussion of protocol. There are several points which might need to be clarified regarding the implemented protocol. First, participating police officers are a selected sample and not representative of the police force. The main dimension of non-representativity is that all participating officers are members of an association which aims at improving the dialogue between the police and citizens, meaning that it is relatively safe to assume that they have a more proactive attitude to discussions than the average police officer. This fact can be a threat for the interpretation of the results, in particular with respect to the external validity of the protocol. However, it can also be a strength of the protocol, especially in regards to the theoretical framework presented in Appendix, as we can assume that contacts will be positive.

 $^{^{9}\,}$ i.e., a shorter response time for the participant to associate the police with positive words than negative words.

While the validity of IATs has been extensively discussed, it is generally believed that they can be used as a measure of sensitive attitudes (Schimmack, 2021).

 $^{^{11}}$ Instructions were given orally at the class level, so correlations in answers could exist at the class level. Results with class-fixed effects are presented in the Appendix.

The question was: "In high school, it is very common for students to have a preferred subject. We would like to know what is your favorite subject, but also check that you read questions carefully. To show that you have read this question well, please disregard the following question and select Civics education. What is your favorite subject of study?"

In terms of demographics, all participating police officers were men, they tended to be younger than average members of the French police, and none of them were officers (See the comparison in Table A.1). Finally, while some police officers came from the Paris region (*Ile-de-France*), none of them were coming from, nor working in, the cities where the high schools are located.

The second point worth highlighting regards the race of police officers and students. The relationship between the race/ethnicity of the population and/or police officers and the perceptions of the police has been a focus of a large share of the police-population relations literature — see for example Antonopoulos (2003), Brunson and Weitzer (2009), Hasisi and Weitzer (2007). The context of France is very specific compared to many other countries, particularly the US, because ethnic/racial statistics are forbidden: I therefore do not have any individual information about ethnicity or race. ¹³ As mentioned above, it is possible to say though, that both high schools are located in towns with a relatively large share of immigrants.

The third and most significant issue with the present protocol is the fact that all outcomes are measured right after the end of the intervention, and I do not have no measure of outcomes months — or even weeks — after the intervention. The lack of evidence of lasting effects of contact has been identified as a weakness of the contact interventions (Clochard, 2024; Paluck et al., 2021). I originally intended to collect information one month after the intervention for one high school. However, due to sanitary restrictions to tackle the spread of COVID-19, high schools in France were closed for the entire month of April 2021, 14 and data collection had to be canceled.

The fourth point worth mentioning about the paper is the effect of contact on trust of *police officers* toward students. As with students, it is likely that trust by the police is also affected by the protocol. However, I am not able to evaluate this effect for multiple reasons. First, only a limited number of police officers (seven, to be precise) participated in the experiment. I therefore would not have enough power to detect an effect. Second, each police officer met several students (one per session but they participated in multiple sessions), therefore identifying the effect of each contact would be tricky. Third, even if the effect of contact on trust of police officers was measurable, participating police officers, as mentioned above, are selected, and the result of the experiment could not easily be generalized to the police as a whole.

4. Results

The data for this project have been archived at the Harvard Dataverse, accessible here.

Descriptive statistics are displayed in Table B.1. On average, participants were 17 years old, with a relative majority of girls (60%). About one third of participants (35%) declared at least one negative past encounter with the police, and 21 percent declare that they have been discriminated against.

The treatments are well balanced (Table C.1) across nearly all characteristics. The only exception relates to the attention variable, with participants in the *Contact* treatment paying relatively less attention than others. The *p*-value distributions between all treatment groups do not statistically differ from a normal distribution, using a Shapiro–Wilk Test.

Table 1
Treatment effect on primary outcomes.

	Trust Pair (1)	Trust Police (2)	IAT (3)
Contact	0.029	-0.007	-0.280
	(0.042)	(0.036)	(0.145)
Police	-0.056	-0.020	0.048
	(0.033)	(0.041)	(0.165)
$Contact \times Police$	0.091*	0.024	0.035
	(0.038)	(0.062)	(0.389)
Photo	0.023	-0.010	-0.133
	(0.034)	(0.044)	(0.167)
Constant	0.502	0.247	0.480
	(0.313)	(0.273)	(1.002)
Controls	Yes	Yes	Yes
R^2	0.083	0.036	0.074
No. obs	359	359	359
Mean Control	0.338	0.385	-0.665
Std dev. Control	0.223	0.236	0.627

Note: Corrected p-values for three tests: * p < 0.10, ** p < 0.05, *** p < 0.01. In column 1, the outcome variable is the amount sent in the trust game with the individual met, in column 2, the outcome is the amount sent in a trust game with a random police officer. In column 3, the outcome is the result of the Implicit Association Test. Controls include gender, level of education, age, indicators of whether the participant was victim of certain crimes and misdemeanors and the level of attention. Standard errors are clustered at the class level.

4.1. Primary results

Histograms of all primary outcomes are presented in Fig. 2. It seems that the only significant difference in the variable *Trust Pair* (Fig. 2(a)) is the difference between Photo-Police (Mean = 0.41, SD = 0.23) and Contact-Police (Mean = 0.31, SD = 0.22). This intuition is confirmed by a Mann–Whitney U test (p = 0.01). No significant differences appear for the outcomes *Trust Police* (MWU-test p = 0.49) or *IAT* (MWU test p = 0.97).

In Table 1, I display the results of the estimations for the three outcomes (results with and without controls are displayed in Table D.1). Because three main tests are performed, p-values are corrected for three tests, corresponding to a modification of 1/3 of standard p-value thresholds. Normalized treatment effects for all three outcomes are also displayed in Fig. 3.

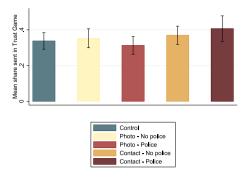
From column 1 and the left-hand panel of Fig. 3, it appears that the contact has a marginally significant effect on the amount sent in the trust game played with the person met only if participants met a police officer. The effect is significant at the 10 percent level (Corrected-p=0.072), and the magnitude is large — corresponding to an increase of 0.41 standard deviations. Being presented a photo of a police officer has a relatively negative effect on trust, although the difference is not significant (p=0.11). The results therefore indicate that contact with a police officer has a positive effect on trust at the individual level - i.e. toward the specific police officer met. The difference between the $Photo \times Police$ and $Contact \times Police$ coefficients is highly significant (p=0.02). Having a contact with a student appears not to have an effect on trust, indicating that there is a differentiated effect of contact depending on the person met.

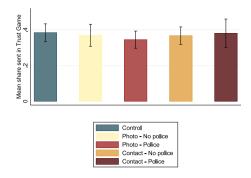
However, the positive individual-level results are not carried over to a change in trust toward the police in general, as captured by the results presented in columns 2 and 3 of Table 1. Column 2 and the middle panel of Fig. 3 present treatment effects for the trust game played with a "random" police officer, while column 3 and the right-hand panel of Fig. 3 present the treatment effects on the Implicit Association Test.

¹³ The only question legally allowed to be asked relates to the nationality of parents. However, administrations of the high schools did not allow the collection of these sensitive data, as most students were minor and they feared the questions could make some students nervous.

https://www.education.gouv.fr/covid-19-les-mesures-en-vigueur-dans-les-ecoles-colleges-et-lycees-partir-du-5-avril-2021-322868

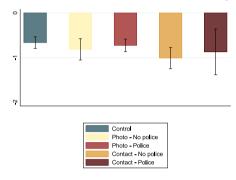
 $^{^{15}}$ Given the sample and p-value thresholds, a power analysis reveals that the minimum detectable effect is 0.33 standard deviations (Raudenbush et al., 2011). The point estimates are close to this threshold, indicating a potential lack of power.





(a) Average amount sent in the trust game played with the pair (*Trust Pair*)

(b) Average amount sent in the trust game played with a random policeman (*Trust Police*)



(c) Average difference in response time of the Implicit Association Test (IAT)

Fig. 2. Histograms of the three primary outcomes.

Note: A negative value for the Implicit Association Test means that participants took more time associating pictures of the police with positive words than pictures of health services with the same positive words.

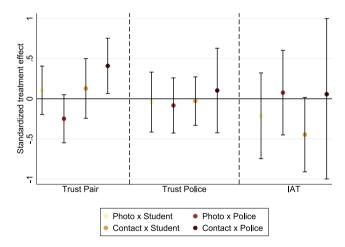


Fig. 3. Normalized treatment effects for the three outcomes.

The point estimates of the effect of a contact with a police officer are in both cases positive, but the effect is clearly insignificant (p=0.70 and p=0.93 for trust in the police and the implicit association test, respectively). Results are robust to the restriction of the sample to participants who passed the attention check (Table D.3) or the use of Tobit regressions (Table D.4).

The primary results therefore indicate that while contact with a police officer has a positive effect on trust toward the specific police officer met, the effect fails to translate to an increase in trust toward the police in general. A potential explanation for these findings could be that contacts can be viewed as signals of the trustworthiness of the other person. A simple version of such a theoretical framework

is presented in Appendix E, where a contact is modeled as a signal, received by a Bayesian decision maker, of trustworthiness of the individual, that also shifts the belief about trustworthiness about the entire group. The number of previous interactions therefore moderate the effect of contacts. I also present in the Appendix the potential empirical relevance of this model based on previous interactions with the police, measured by the number of identity controls the participant has been subject to in recent years. The model appears relevant, as the effects appear to be entirely driven by participants who have had low interactions with the police in the past (see heterogeneity analysis in the next section).

4.2. Exploratory results

In this Section, I present results from estimations which were not included in the pre-analysis plan, but which could be an avenue for future research.

Other measures of trust in the police. In Table 2, I analyze the effect of contact with a police officer on stated measures of trust in the police. In the first three columns, participants were asked to state whether they agree with several statements. In column 1, participants were asked whether, should they be victim of a crime, they would be certain of reporting it to the police. In column 2, they were asked whether they believe the career of police officer to be honorable. In column 3, they were asked whether they are considering becoming a police officer in the future. In column 4, they were asked whether they believe the police to be violent — the outcome in Table 2 is reversed so as to move in the same direction as the other outcomes.

As can be seen in Table 2, results indicate that the treatment has no effect on these measures of beliefs about police quality. This result is another indication that contact does not appear to have an effect on the police in general. Results are robust to specification, with a Tobit model showing no different results (Table D.5).

Table 2
Treatment effect on views of the police

	Likelihood to report (1)	Police honorable (2)	Police career (3)	Police non violent (4)
Contact	0.003	0.179	0.101	-0.060
	(0.142)	(0.114)	(0.092)	(0.096)
Police	0.121	0.102	0.032	0.087
	(0.169)	(0.171)	(0.086)	(0.139)
Contact \times Police	-0.279	0.084	0.197	0.147
	(0.171)	(0.197)	(0.212)	(0.153)
Photo	-0.058	-0.033	0.017	-0.140
	(0.146)	(0.128)	(0.071)	(0.103)
Constant	2.521**	4.470***	1.009	3.461***
	(1.096)	(0.838)	(0.711)	(1.009)
R^2	0.109	0.080	0.108	0.101
No. obs	359	359	359	359
Mean Control	3.022	2.750	1.141	2.522
Std dev. Control	0.877	0.721	0.434	0.718

Note: * p < 0.10, *** p < 0.05, **** p < 0.01. For columns 1 through 3, the outcome is a variable from 1 to 4 on whether participants agree with the statement. In column 1, the statement is: Imagine in the future you are victim of theft. You are certain to report it to the police. In column 2, the statement is: I believe that police officer is an honorable career. In column 3, the statement is: I am considering a career as a police officer for my future. In the last column, the statement was: I believe police officers are violent. The outcome presented here is the opposite of the answer of participants (i.e. their disagreement with the statement). Standard errors are clustered at the class level.

Heterogeneity analysis. Results from an heterogeneity analysis, with respect to prior police interactions and gender, are presented in Table 3. In the Table, the variables of interest are the triple interactions of Contact, Police and the heterogeneous variable.

In column 1 the heterogeneity variable is gender. Results on the main treatment effect become insignificant, and the treatment effect seem not to vary much on gender.

Results with police controls, presented in column 2, are more interesting. The variable of heterogeneity is a dummy variable on whether participants have had any identity controls over the past three years. Although insignificant, the results indicate that the treatment effect is reduced for participants subject to identity controls, with the coefficients $Contact \times Police$ and $Contact \times Police \times Controls$ almost canceling each other entirely. This result highlights the relevance of previous interactions with the police, as highlighted in the theoretical framework presented in Appendix E. Results are robust to Tobit specifications (Table D.6).

Lastly, Fig. 4 plots the coefficients of the quantile regressions for the variable *Contact*×*Police*. The dependent variable is the proportion of tokens sent in the trust game played with the pair. The estimates indicate that there is no significant difference between the deciles. This result, if confirmed by future research, could be significant because it would indicate that there is no form of backlash from contact interventions: for no point in the distribution do I find a significantly negative effect of contact on trust. The distributional effects of contact interventions are often missing from papers (Clochard, 2024; Lowe, 2025) when it is a very important issue in policy design (European Commission, 2021).

5. Conclusion

In this paper, I test the effect of a brief contact, borrowing from the highly replicable "fast-friend" procedure (Aron et al., 1997), between police officers and high school students in two French high schools. I show that the level of trust toward the specific police officer met (what I call in the paper the effect of contact at the *individual level*) is significantly positive, relative to being showed a picture of the same police officer.

However, the positive effect of contact at the individual level fails to translate at the collective level, either using a measure of trust

Table 3
Heterogeneous treatment effect.

	Gender	Police interactions
	(1)	(2)
Contact	0.036	0.006
	(0.062)	(0.047)
Police	-0.071	-0.058
	(0.063)	(0.042)
Controls		-0.041
		(0.042)
Police × Controls		0.014
		(0.060)
$Contact \times Police \times Controls$		-0.102
		(0.111)
Contact \times Police	0.101	0.124*
	(0.088)	(0.063)
Female	-0.082	
	(0.051)	
Police × Female	0.027	
	(0.072)	
Contact \times Police \times Female	-0.018	
	(0.127)	
Photo	0.024	0.025
	(0.036)	(0.033)
Constant	0.496	0.441
	(0.316)	(0.305)
R^2	0.083	0.088
No. obs	359	359
Mean Control	0.338	0.338
Std dev. Control	0.223	0.223

Note: * p < 0.10, ** p < 0.05, *** p < 0.01. The outcome variable is the trust in the pair. Female is coded as 1 for girls, 0 for boys. Standard errors are clustered at the class level. "Controls" is a dummy variable indicating whether the participant has declared any identity controls in the three years prior to the experiment.

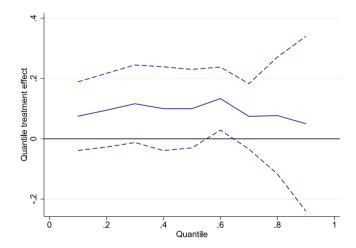


Fig. 4. Coefficients of *Contact×Police* in quantile regressions. The dotted lines represent 95% confidence intervals.

in a *random* police officer, or with a novel measure of an Implicit Association Test. The theoretical framework presented in the appendix can help understand this fact, with weaker effects of contact due to prior interactions with police officers.

The results presented above — contact having a positive effect at the individual level but no effect at the collective level — suggest an avenue for future research on the contact hypothesis. In particular, there is a lack of consistency in the results regarding the effect of contact at the collective level: in several contexts, contact has been found to have a positive effect toward the out-group in general (Carrell et al., 2015; Corno et al., 2019; Lowe, 2021) while in other contexts the positive effects of contact have been found only for the out-group members specifically met (Clochard et al. (2024), Mousa (2020); the present paper). Recent meta-studies on the topic (Clochard, 2024;

Lowe, 2025) have found that the effect of contact is generally stronger at the individual level than at the collective level. The results of this paper confirm this general finding, although the magnitude is really low at the collective level.

Further efforts should be made to understand which factors (context, type and/or duration of contact, representativeness of the outgroup members met, etc.) can translate the positive effects of contact to out-group members in general, a phenomenon sometimes referred to as "generalization" of contact effects (Lowe, 2025). The theoretical framework presented here, which shows that a crucial factor seems to be pre-existing interactions with the out-group, could be a first step in this direction. The question of whether meeting an individual can change one's perception of the entire out-group has been the focus of some work in social psychology, such as the work on the person-positivity bias (Miller & Felicio, 1990), but the literature does not yet provide a robust answer.

Another important avenue for future research for the literature on the contact hypothesis is to further investigate *how* contact can change perceptions. As presented in Appendix F, it does not appear that the change in behavior can be attributed to a change in the beliefs about the quality of the police. In Table F.2, I present preliminary results from estimations of a change in beliefs and altruism due to the treatment. Although the results presented here are insignificant, they could be a first step toward understanding channels through which contact is effective.

Taken at face value, the results presented in this paper also highlight a potential benefit of community policing policies. Community policing policies typically involve certain police officers routinely patrolling the same neighborhoods and interacting with citizens on issues outside the scope of standard law enforcement. If the results of the present paper are replicated in these situations, community policing policies have the potential to increase trust in the specific police officers patrolling given neighborhoods, which in turn could be a potential benefit to local communities, as trust in police officers has been shown to increase the likelihood of contacting the police when a crime has been committed (Carr et al., 2007). However, community policing involves many more dimensions than interactions. The relative effects of such dimensions on trust in and effectiveness of the police is another avenue for future research.

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Appendix A. Supplementary data

Supplementary material related to this article can be found online at https://doi.org/10.1016/j.socec.2025.102376.

Data availability

Data will be made available on request.

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