Universidade de Aveiro
2022

ALÍCIA ROSA MARQUES

VIÉS EXPLICITO, IMPLICITO E EMPATIA: UM ESTUDO EM FORÇAS DE SEGURANÇA PORTUGUESAS

Universidade de Aveiro
2022

ALÍCIA ROSA MARQUES

EXPLICIT AND IMPLICIT RACIAL BIAS AND EMPATHY: A STUDY IN PORTUGUESE LAW ENFORCEMENT OFFICIALS

Dissertação apresentada à Universidade de Aveiro para cumprimento dos requisitos necessários à obtenção do grau de Mestre em Psicologia da Saúde e Reabilitação Neuropsicológica, realizada sob a orientação científica do Doutor Catarina Rosa, Investigadora Doutorada (Nível 1) do Departamento de Educação e Psicologia da Universidade de Aveiro

o júri

presidente	Professora Doutora Aida Maria de Figueiredo Ferreira professora associada da Universidade de Aveiro
vogais	Doutora Raquel Beleza Pereira da Silva Professora associada da Faculdades de Economia da Universidade de Coimbra
	Doutora Catarina Pires da Rosa Professora associada Universidade de Aveiro

agradecimentos

Desejo agradecer a todas as pessoas que se cruzaram comigo e de alguma forma contribuíram que esta etapa se concretizasse. Desta forma, agradeço:

Em primeiro lugar dirijo um especial obrigada à professora Catarina por me ter acompanhado durante esta etapa, pela disponibilidade e pela forma que permitiu que este processo fosse mais simples. Agradeço ainda a forma como dirigiu as nossas reuniões, de forma simples e correta, motivou o interesse pelo tema, assim como, proporcionou uma agradável experiência de aprendizagem.

Ao professor Pedro agradeço por todo o auxílio e conhecimento que permitiu o desenvolvimento deste projeto.

À equipa que integrou a *Rumination Room* durante este ano, agradeço não só o bom ambiente de equipa, como o constante apoio e assistência que possibilitaram a concretização deste projeto.

À minha mãe, Natália, e ao meu Pai, Adelino, um grande obrigado por todo o apoio, quer emocional quer financeiro. Por sempre acreditarem em mim, por sempre me terem incentivarem a conquistar os meus objetivos e pela confiança que em mim depositam. Sem vocês não teria chegado onde cheguei.

Aos meus avós agradeço o apoio e amor incondicional. A vossa presença faz-me sentir mais jovem e cheia de vida.

À minha restante família por todos os momentos de alegria partilhados que foram essenciais nesta jornada.

Ao Francisco, meu namorado, um grande obrigada pelo companheirismo, preocupação, partilha e apoio incondicional. Agradeço ainda a paciência e encorajamento demonstrados nos momentos mais difíceis, contribuindo para que ultrapassasse os meus obstáculos e chegasse ao fim de mais uma etapa da minha vida.

Agradeço ainda aos meus amigos pelos momentos maravilhosos partilhados durante esta fase. Agradeço pelas palavras de compreensão e incentivo que me dirigiram, permitindo-me sentir amparada. Cada um de vocês tornou esta fase mais especial.

palavras-chave

Viés racial implícito, viés racial explicito, Teste de Associação Implícita, empatia, forças de segurança

resumo

Nas últimas décadas o estudo do viés racial implícito tem vindo a ganhar relevância devido ao seu impacto negativo nas sociedades contemporâneas. Pelo seu importante papel a nível social, será de extrema relevância estudar este tipo de viés em populações que garantem a segurança e igualdade. Assim, o principal objetivo deste estudo foi medir o viés racial explícito e implícito em agentes das Forças de Segurança em Portugal. O segundo objetivo do estudo foi explorar a relação entre o viés racial implícito e diferentes dimensões da empatia, apontadas como contribuindo para o aumento ou redução do mesmo. Uma amostra de 205 agentes das forças de segurança preencheu: a) Borgardus Social Distancing Scale, b) Implicit Association Test e c) Interpersonal Reactivity Index. Os nossos resultados revelaram ausência de viés explícito e presença de viés implícito. Adicionalmente, os sujeitos com níveis mais elevados de Tomada de Perspetiva apresentaram uma diminuição significativa no viés racial implícito. Apesar de não significativa, encontrámos uma tendência para os sujeitos com mais Desconforto Pessoal apresentarem um aumento no viés racial implícito. Este estudo confirma a literatura prévia sobre a discrepância entre a medida implícita e explicita, bem como a interação entre a empatia e o viés racial implícito.

keywords

implicit racial bias, explicit racial bias, Implicit Association Test, empathy, law enforcement officials

abstract

In recent decades, the study of implicit racial bias has gained relevance due to its negative impact on contemporary societies. Due to its important role at a social level, it will be extremely important to study this type of bias in populations that guarantee security and equality. Thus, the main objective of this study was to measure the explicit and implicit racial bias in law enforcement officials in Portugal. The second objective was to explore the relationship between implicit racial bias and different dimensions of empathy, identified as contributing to its increase or decrease. A sample of 205 law enforcement officials completed the: a) Borgardus Social Distancing Scale, b) Implicit Association Test and c) Interpersonal Reactivity Index. Our results revealed the absence of explicit bias and the presence of implicit bias. Additionally, subjects with higher levels of Perspective Taking showed a significant decrease in implicit racial bias. Although not significant, we found a tendency for subjects with more Personal Distress to show an increase in implicit racial bias. This study confirms the previous literature on the discrepancy between the implicit and explicit measures, as well as the interaction between empathy and implicit racial bias.

Index

List of Figures

List of Tables

Introduction

Cognitive biases have been a focus of the scientific community in recent decades. Traditional theories advocated that people behave as rational beings, optimizing their choices and judgments, however, recent studies indicate the opposite (Blanco, 2017). It is suggested that in situations of uncertainty, people engage in heuristic processing, that is, they use cognitive shortcuts to reach a conclusion, thus ending up on making some errors in judgment or decision-making (Blanco, 2017; Glaser et al., 2014). In this sense, a new branch within social psychology emerged, dedicated to the study of socially implicit cognition. This field addresses the role of automatic and controlled processes regarding attitudes, judgments, social behaviors, prejudice, and stereotypes (Greenwald & Banaji, 1995). The present study intended to measure implicit and explicit racial bias in a sample of law enforcement officials.

Implicit and Explicit Attitudes and Bias

The concept of attitude has been much debated in the last decades, initial definitions suggested that it is a mental state of availability, acquired through experience, that influences the response of individuals to all objects and situations with which it is related. However, some limitations to this definition are indicated, as it is not appropriate when there is no evidence of observable responses. Current models conceptualize attitudes as associations between a given object and an evaluation, positive or negative (Fazio, 2007). These associations can fluctuate in strength and, therefore, in their memory accessibility. Attitudes may vary depending on social context, mood, thoughts and feelings, previous expectations, behaviors, or a combination of these factors (Dasgupta & Greenwald, 2001; Fazio, 2007). Attitudes are considered explicit when the subject is aware of their evaluation, intention, control, and motivation to change them. The discovery that attitudes and beliefs can be activated in memory without the subjects' awareness or intention, that is, automatically, leads to more consistent behaviors, judgments and decisions that are difficult to inhibit (Dasgupta, 2013; Dasgupta & Greenwald, 2001).

Explicit bias are attitudes, beliefs, and preferences, about people and things, of which people are aware and can control their expression. This is a slow, controlled, and deliberated process, that can be identified and shared (Daumeyer et al., 2019).

Implicit biases are understood as an unobservable structure that unconsciously influences an individual's behavior, that is, they are automatic associations about social groups (Payne & Hannay, 2021). Initially, this concept was understood as a characteristic of the person, and early insights into implicit bias indicated temporal and contextual stability that was difficult to change and control (Gawronski & Strack, 2004; Sukhera et al., 2018). However, alternative perspectives defend that these biases are characteristics of social contexts (Payne et al., 2019). This recent way of understanding implicit bias argues that they represent a behavioral phenomenon, being behavior influenced by clues that indicate the social group to which us (vs. others) belong (De Houwer, 2019). In this sense, implicit biases are conceptualized as malleable in response to changes in the environment (Dasgupta, 2013; Dasgupta & Greenwald, 2001).

Very often the study of implicit attitudes focuses on issues such as prejudice and stereotypes regarding certain groups, allowing to demonstrate the existence of racial implicit biases (Greenwald et al., 1998). This is a very important area of study in many contexts – educational (e.g. Joseph et al., 2021), immigration (e.g. Power et al., 2017), health (e.g. Hall et al., 2015), and criminal justice (e.g. Kovera, 2019)- in which racial implicit biases can influence individuals' decision-making. Understanding the nature of implicit prejudice and stereotypes can contribute to the development of future interventions that aim to reduce these biases.

Implicit processes can be useful in identifying who to avoid or engage, however, the preference is usually for the ingroup. Nevertheless, when facing decision-making for a person's benefit, there is a tendency to think that the fair choice was made, but implicit process can fail in providing the necessary information to choose the right decision (Williams, 2021).

Considering measurement, explicit attitudes are usually assessed by directly asking participants about them. Several self-report instruments have been used to measure explicit bias, such as Symbolic Racism Scale (Sears, 1988), Modern Racism Scale (MRS; McConahay, 1986), and Bogardus Social Distance Scale (BSDS; Bogardus, 1925). The BSDS is one of the conventional measures to assess explicit attitudes. It is often used to assess prejudice towards, for example, religious groups, racial groups, or different kinds of disabled. For instance, Parrillo and Donoghue (2019)

used the BSDS to assess the changes in positioning regarding ethical and religious groups and concluded that the social distance towards these groups decreased since 1977. Randall and Delbridge (2005) used a revised version of the BSDS to assess the social distance towards ethnic groups - Latinos, African-American descents and Caucasians. The validity of self-report measures to measure attitudes is often questioned by the risk that subjects do not answer about their attitudes honestly, especially if these are different from social norms (social desirability) (Dasgupta, 2013; Dasgupta & Greenwald, 2001). On the other hand, implicit attitudes are measured without the subject's awareness or control. One of the most consensual methods is the Implicit Association Test (IAT; Greenwald et al. 1998), in which subjects are asked to classify stimuli (e.g., Black, and White faces) and attributes (e.g., pleasant, and unpleasant words). Implicit measures can be understood as examples of behaviors automatically influenced by characteristic cues of a social group (De Houwer, 2019). The IAT on racial attitudes measures how quickly individuals categorize “white” and “black” faces, and good or bad words, with shorter response times indicating a stronger automatic, or implicit, association (Dasgupta et al., 2000, 2003). This type of measure is less susceptible to falsification of the results than explicit measures (Steffens, 2004).

Research on the correlation between implicit and explicit measures has shown few consensual results (Hofmann et al., 2005; Nosek, 2007). Hofmann and his colleagues (2005) have pointed some reasons for this variation in the correlation between implicit and explicit measures. First, implicit measures are not influenced by motivation, while explicit measures are affected by social desirability. Second, this variation can be affected by the individual's awareness of his/her own implicit biases. This awareness can be achieved through introspection on the target topics, so the more frequent it is the people's insight, the greater the correlation between implicit and explicit measures. Third, according to dual-attitudes model, implicit and explicit measures can be independent constructs that differ in the way information is retrieved from memory. For instance, implicit measures reflect old representations activated when encountering the target object, while explicit measures only reflect old representations when the subject can retrieve more recent representations. In this regard, this correlation can be high when judgments are made spontaneously, however, if this process is deliberate, the correlation between the two measures is low. The Motivation

and Opportunity as Determinants Model (MODE) proposed by Fazio and Olsen (2003) argues that when the subject is motivated and have the opportunity, he/she can engage in a deliberate process of examining the attributes of an object and the correlations between implicit and explicit measures evaluations are low.

Explicit and Implicit Racial Bias in Law Enforcement Officials

The study of racial implicit biases has been conducted in several areas and contexts. Security forces are an important entity for public conduct safety and should be role models for society. The notion that law enforcement officials may not exhibit racial explicit biases, but their behavior could be guided by implicit biases, is worrying. Discrimination by law enforcement officials have a more negative impact on health than discrimination by other groups (Timmer-Murillo, 2021). James and colleagues (2016) conducted an experimental study on police officers using deadly force and decision-making scenarios where the subjects had to decide whether to use lethal force by pressing "shoot" or not, in addition, participants were tested on the IAT (implicit measure). The results showed that despite of a clear implicit bias against African descent suspects, law enforcement officials were shown to take longer to fire at armed African descent suspects than armed white suspects, as well as being less likely to misfire at unarmed African descent suspects. This finding suggests that deliberation can influence the effects of implicit biases. Likewise, people are likely to show implicit biases due to tiredness, lack of sleep (James, 2018), stress, perceived threat, distraction, time pressure, and productivity (Arif & Schlotfeldt, 2021). In our daily lives, we have specific moments when we are exposed to these risk factors to evidence behaviors influenced by implicit biases. However, in the professional context of law enforcement officials, these situations are recurrent, increasing the risk.

In response to this problem, several law enforcement agencies have begun to take action on implicit bias, seeking to make professionals aware of their bias, and implementing training to reduce implicit biases (Schlosser, 2013). Scientific evidence points out that proper training can reduce the discriminatory tendency of police officers towards the African-American community (Price & Payton, 2017). On the other hand, some studies pointed out some limitations to the studied trainings (Schlosser, 2013).

As previously argued, recent studies indicate that implicit attitudes are malleable, and therefore, can be altered with changes in the environment. Thus,

exposing individuals to information that goes against their biased attitudes is a basic concept (James, 2018; Vuletich & Payne, 2019). Several interventions have been created and studied with the aim of reducing implicit biases, however evidence of their long-term impact is limited (Lai et al., 2016; Sawyer & Gampa, 2018; Spencer et al., 2016). Additionally, some of these interventions have been applied in police departments (Spencer et al., 2016).

One of the strategies explored to reduce racial bias was through non-negative contact between racial groups, called intergroup contact. Allport (1954) argued that promote contact between groups under certain conditions – equality of status between groups; common goals; intergroup cooperation; and support from authorities, laws, and customs – allows for the reduction of prejudice. In their meta-analysis, Pettigrew and Tropp (2006) concluded that the optimal contact conditions suggested by Allport have an influence on the positive effects of intergroup contact, resulting in the reduction of biases. Contact between these groups can also reduce anxiety and the feeling of threat felt in future interactions, which in turn has an impact on reducing prejudice (Pettigrew & Tropp, 2006). Thus, intergroup contact can be an important theory in the creation of interventions that aim to reduce racial biases.

Empathy is a socially important construct, and describes the ability to understand, accurately perceive another person's emotions while maintaining one's own identity. This construct can be applied to social groups rather than just an individual, being called social empathy. As a result, the individual be aware and understands the inequalities or differences that exist between social groups. The increase in empathy at the social level, according to some studies, can lead to a decrease in inequalities between groups (Pashak et al., 2018; Sternadori, 2017), as well as promoting positive actions and feelings (Batson et al., 1997). Todd and colleagues (2012) demonstrated that Perspective Taking, a dimension of empathy, can be an effective strategy in reducing implicit biases towards the African descents.

Whitford and Emerson (2018) argued that empathy interventions are successful in reducing the implicit bias of white pre-teachers. In their study, the authors induced empathy in the experimental group by asking them to take the perspective of an African descent student and write down their thoughts and feelings, while the control group wrote about technology. Both groups performed the IAT prior to and following the

intervention. Other studies (e.g., Batson et al., 1997; Shih et al., 2013; Todd et al., 2011; Vescio et al., 2003) suggested that manipulating or inducing perspective-taking can be effective to improve intergroup attitudes. Individuals who are encouraged to take the perspective of an outgroup member, tend to make more situational and less dispositional causal attributions (Vescio et al., 2003). High perspective-taking is related with the reduction of anxiety towards an outgroup member, which decreases the action of stereotypes and negative intergroup attitudes. This can be achieved by intergroup contact (Aberson & Haag, 2007).

Timmer-Murillo (2021) recruited participants from the Chicago Police Department and applied a series of questionnaires and the Brief Implicit Association Test (BIAT; Sriram & Greenwald, 2009) prior to and following the Virtual Reality tool. Subjects were exposed to a scenario of police-community interaction that promoted Perspective Taking and were given counter-stereotypical information. Results show that the task was effective in reducing implicit bias, however, counter-stereotypical information was more effective in increasing empathy.

Other interventions aimed at reducing implicit biases have emerged in the literature as counter-stereotypic exemplars and stereotype negation training. Lai and colleagues (2014) conducted a study to compare the effectiveness of 17 interventions to reduce implicit bias, such as the use of Perspective Taking, vivid counter-stereotypic scenario or practicing an IAT with counter-sterotypic exemplars. They concluded that of these interventions, the ones using techniques such as counter-stereotypic examples were more effective in reducing bias, than interventions such as the ones using Perspective Taking. Interventions that include several of these methods – multifaceted interventions – are most effective in reducing implicit biases (Spencer et al., 2016).

The present study, carried out in a Portuguese sample of law enforcement officials, sought to achieve the following objectives: a) to measure explicit racial bias towards people of African descent; b) to measure implicit racial bias towards people of African descent; c) to explore the relation between different dimensions of empathy and implicit racial bias.

Method

Participants

A total of 232 law enforcement officials accessed the link of the study between February and June of 2022. This study was approved by the Ethics Committee of ISCTE – University Institute of Lisbon (nº 90/2021). The inclusion criteria defined were the following: (i) being over 18 years old; and (ii) being an active law enforcement official. Data from 27 participants were excluded: four for not having agreed to participate in the study, and 23 for not having completed all the measures. Therefore, the final sample was composed of 205 participants (27 female, 13.17%). The sociodemographic descriptive statistics are shown in Table 1.

Table 1

Sociodemographic Descriptive Statistics of Sample

	Total Sample (N=205)	
	N	(%)
Sex		
Male	178	86.83
Female	27	13.17
Age		
18-25	6	2.93
26-35	52	25.37
36-45	87	42.44
46-55	58	28.29
56-65	2	0.97
Professional region		
North	48	23.41
Oporto metropolitan area	7	3.41
Center	56	27.32
Lisbon metropolitan area	50	24.39
Alentejo	30	14.63
Algarve	7	3.41
Madeira autonomous region	3	1.46
Açores autonomous region	4	1.95
Education		
GCSEs	24	11.17
High School	121	59.02
Bachelor	32	15.61
Master	28	13.66
Years of service		
<10	27	13.17
10-30	167	81.46
>30	11	5.37
Professional role		
Operational	143	69.76

Administrative		62	30.24

Materials

Sociodemographic Questionnaire

Participants completed a brief sociodemographic questionnaire (Appendix A) that included the following information: sex, age group, educational degree, geographic region of work, years of service, and functions/role performed.

Bogardus Social Distance Scale (BSDS; Bogardus, 1925, adapted by Cardoso & Galhardo, 2021)

The BSDS is an instrument that measures the subject's explicit perception of the social distance that exists between him/herself and certain social groups. Social distance in this context is defined by the degree of sympathetic understanding existing between two people or a person and a group. The subjects are presented with seven statements, with a gradual level of proximity, and they must choose the option they most identify with. The original version developed by Bogardus consists of a cumulative scale, in which is assumed that by accepting a higher level of intimacy, the subject also accepts every lower level (Bogardus, 1993). According to Mather et. al (2017) this format can become reductive, as it forces the subject to take a position, not considering that subjects may have ambiguous opinions. The authors also point out that the researcher and participant's views of a gradual proximity order may be different, representing a bias factor in the traditional method. As a result, a five-point Likert scale, ranging from 1 (*"Strongly agree"*) to 5 (*"Strongly disagree"*), was added to the original BSDS allowing to calculate an iScore. The option for using this improved BSDS relies on the more accurate and sensitive results obtained. The Cronbach's α for the Portuguese adaptation was 0.86 (Cardoso & Galhardo, 2021)

Interpersonal Reactivity Index (IRI; Davis, 1980, 1983; adapted from Limpo et al., 2010)

The IRI is an instrument used to measure empathy according to a multidimensional conception of the construct, that is, including affective, cognitive, and behavioral dimensions of one's reaction to another's experience. This inventory consists of 24 items about feelings and thoughts experienced in different situations, and the

participant must indicate to what extent each item describes him/herself in a Likert scale ranging from 0 (*"Does not describe me well"*) and 4 ("*Describes me very well").* The scale is composed of four subscales, with six items each: Perspective Taking (*M*= 2.69; *SD*= 0.57); Empathic Concern (*M*= 2.81; *SD*= 0.64); Personal Distress (*M*= 1.83; *SD*= 0.69); and Fantasy (*M*= 2.37; *SD*= 0.84). The Portuguese validation revealed adequate psychometric properties, with a Cronbach's α of .73, .76,.80, and .84 in the Perspective Taking, Empathic Concern, Personal Distress, and Fantasy subscales, respectively (Limpo et al., 2010). In the present study, adequate psychometric properties were found for the two subscales considered for analysis, with a Cronbach's α of .70 for Perspective Taking, and .80 for Personal Distress. Additionally, ordinal alfa that rely on polychoric matrix achieved the value of .77 and .86.

Implicit Association Test (IAT; adapted from Greenwald et al., 1998)

The IAT has been the most used instrument to measure implicit social cognition and analyzes how strongly a person mentally associates two separate concepts. It allows assessing the association between a target concept (e.g., race), and an attribute (words).

This version of the IAT test was made in PsychoPy to run online and the classic black/white vs. positive/negative version of the IAT was used (Greenwald et al., 1998). This PsychoPy version was originally developed by Robin Scaife on the Leverhulme Trust "Bias and Blame" project 2014. Additional coding was developed by Tom Stafford with thanks to Lily Fitzgibbon for advice. The recent version (Open IAT) was updated by Jon Peirce to support online studies in 2019. In this task, participants were instructed to respond as quickly and accurately as possible to a task of categorization of words and pictures. The stimuli used were divided into four categories: Black – composed of black faces; White - composed of white Faces; Good – composed of good words, and Bad – composed of bad Words. The stimuli consisted in 10 pictures (135 x 140 mm black and white pictures of five black faces and five white faces) and 10 words (five positive: alegria/joy, amor/love, feliz/happy, prazer/pleasure, and maravilhoso/marvelous, five negatives: agonia/agony, ferido/hurt, mal/bad, malvado/evil, and terrível/terrible) (stimuli retrieved and adapted from Xu et al., 2020). The implicit bias is measured through the response time in Black or Good vs. White or Good trials. For example, if you take less time to categorize in White or Good trials, this means that this association is stronger for you.

The task consists of seven blocks, with a total of 200 trials. The procedure begins with the introduction of the target concept (blocks 1 and 5), in which subjects must categorize pictures of Black or White faces. Next, the attribute dimension is introduced (block 2), in which the subjects must discriminate words into the Good and Bad categories. In subsequent trials (blocks 3, 4, 6, and 7) the target and the attribute are presented simultaneously, meaning that participants must categorize both pictures and words according to the instructions. To avoid ordering effects, the categories were counterbalanced between subjects according to the participant code (even or odd). The sequence of the blocks was as follows: block 1 – 20 training trials with the Black/White (even participants) and White/Black (odd participants) categories; block 2- 20 training trials with the categories Good/Bad (even) and Good/Bad (odd); block 3- 20 training with the categories Black or Good/White or Bad (even) and White or Good/Black or Bad (odd); block 4- 40 critical trials with the categories Black or Good/White or Bad (even) and White or Good/Black or Bad (odd); block 5- 40 training trials with the White/Black (even) and Black/White (odd) categories; block 6- 20 training trials with the categories White or Good/Black or Bad (even) and Black or Good/White or Bad (odd); block 7- 40 critical trials with the categories White or Good/Black or Bad (even) and Black or Good/White or Bad (odd).

Procedure

Data collection

Recruitment was carried out by the law enforcement official's institution through institutional emails. Data collection was performed on two online platforms: Qualtrics and Pavlovia. First, participants accessed a link created in Qualtrics, where they read and gave informed consent for their participation (Appendix B). In the same link, they completed the sociodemographic questionnaire, the BSD measure, and a self-report questionnaire assessing empathy (IRI). The last request on this link consisted in defining the participants' code: first letter of the mother's name, first letter of the father's name, the participant's birthday day, and the last digit of the year of birth. This code made it possible to associate this data with the data collected on the Pavlovia platform. The participants then accessed a second link to Pavlovia platform, with which the University of Aveiro has established a protocol that guarantees compliance with the GDPR regarding the data collected. On this platform, participants performed the

implicit racial measure (IAT). In each trial, a stimulus from one of four categories appeared in the center of the screen, and the label of categories is displayed at the top of the screen (one or two categories on the left vs. one or two categories on the right). The subject had to press one of two keys, “A” if the stimulus belonged to one of the two categories presented in the upper left corner, and “L” if the stimulus belonged to one of the two categories presented in the upper right corner. If the participants made a mistake, a red “X” appeared on the screen and the trial would only continue when the correct key was pressed.

Data Processing and Analysis

The full version of the IRI was applied to comply with the validated procedure. However, only the two conceptually relevant scales for the study objectives were analyzed – Perspective Taking and Personal Distress.

The analysis of IAT performance required a process of data cleasing**.** The 1st step of this process consisted in accuracy checking: 3% of the trials (1333) were deleted due to wrong answers, remaining 39667 trials. The 2nd step was the RT cleasing**:** trials with RT higher than 3000ms and lower than 300ms were considered invalid and deleted. In this step, 1.54% (611) of the 39667 trials was excluded.

To assess the existence of significant differences in RT between conditions, Linear Mixed Model (LMM), adjusted by REML was performed. The *t*-test calculations used Satterthwaite's method. All IAT task trials enter in this model and data was clustered by individual. This model allowed the intercepts and slopes to vary among individuals. Thus, the model was expressed using the following equation:

$$Y_{ci} = \beta_0 + \beta_1(CONDITION) + b_{0s} + b_{1c}(CONDITION_{ci}) + \varepsilon_{ci}$$

Where Y_{ci} is the dependent variable in condition c for participant i, β_0 is the average of the intercept, β_1 is the effect of condition, b_{0y} and b_{1y} are random effects and allow intercepts and slopes to vary between participants and ε_{ys} is the condition-specific residual.

Data analyses were performed using R software (R Core Team, 2014), with lme4 package (Bates et al., 2015).

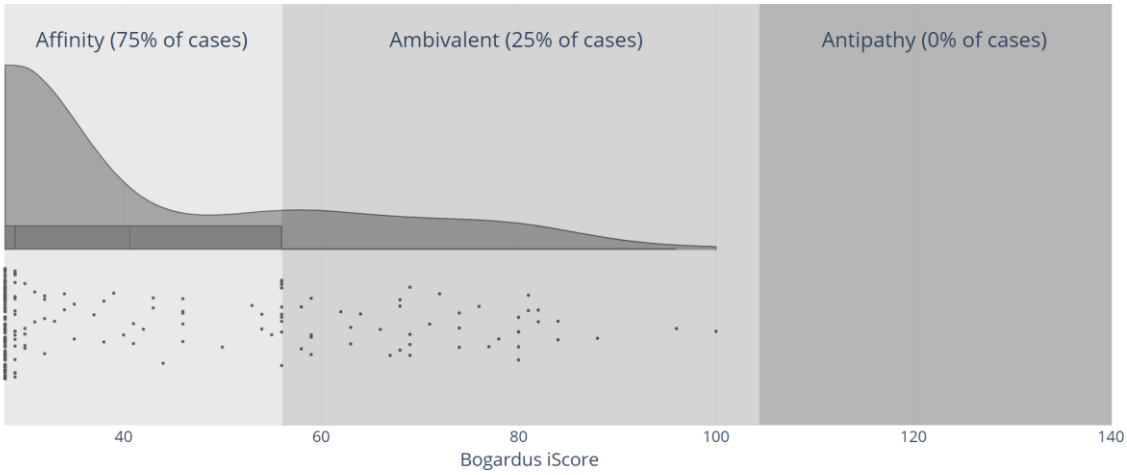
Results

Explicit measure

The explicit measure - Bogardus Scale results ranged between 28 and 100 (*M*= 40.62; *Md*= 29.00). Considering the distribution by categories of social distance, 75% of the sample (153 participants) revealed very low social distance - affinity, and 25% (52 participants) ambivalence. Almost half of the sample (48%) has obtained the scale minimal value and no participant revealed very high social distance antipathy (very high social distance). The difference between mean and median is justified by the right skewed distribution shown in Figure 1.

Figure 1

Bogardus ISores Distribution

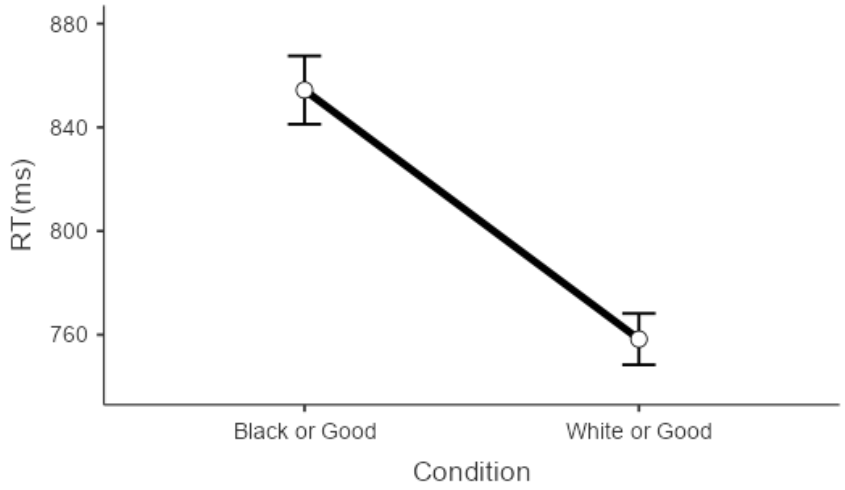


Implicit measure

The results of LMM analysis showed a main effect of Condition $F(1,203.96)=106.17$, $p<.001$. In fact, as can be seen in Figure 2, participants tend to take significant less time (96ms) in White or Good condition trials (*M*=758.33, *SE*=9.89, 95%CI [738.83, 777.82]) than in Black or Good condition trials (*M*=854.37, *SE*=13.18, 95%CI [828.39, 880.35]).

Figure 2

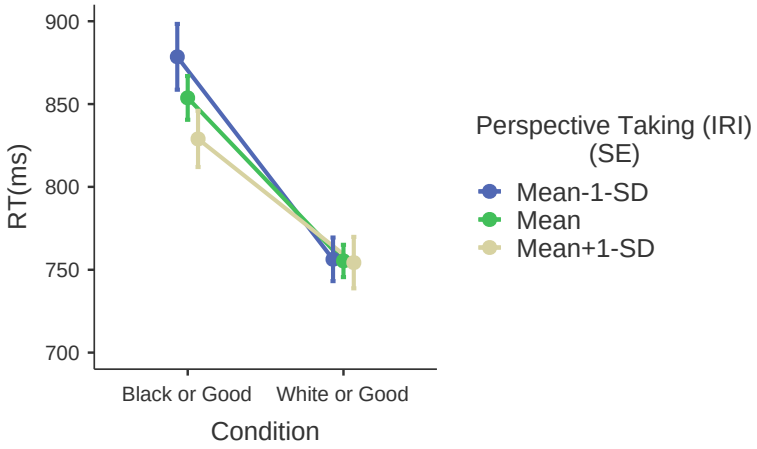
IAT Responses Times of the critical Black or Good and White or Good Blocks



Considering the importance of empathy measures in implicit bias, each subscale of IRI was introduced as covariate in previous LMM. Regarding Perspective Taking, the main effect of Condition found in the previous model was maintained $F(1,186.97)= 110.92$, $p< .001$, however an interaction between Condition and Perspective Taking was found $F(1,108.05)= 6.26$, $p< .0014$. Descriptively, these interaction means that in participants with higher Perspective Taking (M+1SD) the difference between White or Good and Black or Good condition trials is attenuated (M=74.61ms). Conversely, in low Perspective Taking participants (M-1SD) this difference increased (M= 122.23ms) (Figure 3). No main effect of Perspective Taking was found $F(1,48.95)= 1.42$, $p= .239$.

Figure 3

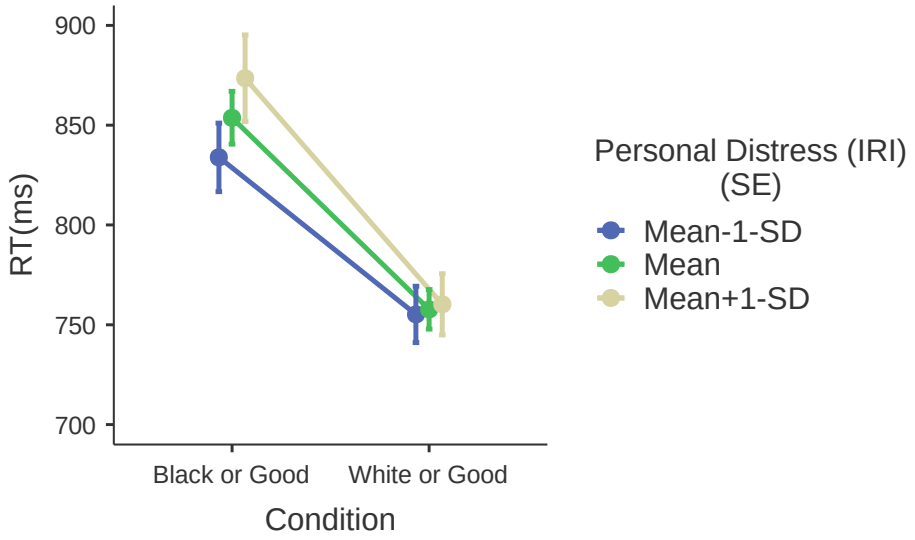
Interaction Between IAT Critical Response Times and Perspective Taking Subscale



Regarding Personal Distress, the main effect of Condition was also maintained $F(1,197.78) = 106.84$, $p < .001$, and the interaction between Condition and Personal Distress was almost significant $F(1, 154.36) = 3.39$, $p = .068$. Descriptively, this interaction followed an inverse pattern regarding the one obtained for Perspective Taking. Despite non-significant interaction was obtained, participants with higher Personal Distress (M+1SD) the difference between White or Good and Black or Good condition trials increases (M=113.27ms) (Figure 4). Conversely, in low Personal Distress participants (M-1SD) this difference decreases (M= 78.69ms).

Figure 4

Interaction Between IAT Critical Response Times and Personal Distress Subscale



No main effect of Personal Distress was obtained $F(1,56.12)= 0.89$, $p= .351$.

Discussion

In recent decades, the study of implicit biases has attracted the attention of the scientific community. The aim of the present study was to investigate the presence of explicit and implicit racial bias in law enforcement officials in Portugal. It is a population of extreme importance in society to guarantee order and security. In the exercise of their functions, agents are daily faced with situations of uncertainty and unforeseen events that can activate both a controlled (explicit) and/or automatic (implicit) response.

In the BSDS, which evaluated the explicit racial bias, most of the sample revealed low social distance in relation to African descent, indicating an affinity with this group, a small group of participants evidenced ambivalence and not even one participant reveal antipathy. On the contrary, the results of the IAT (implicit racial bias measure) revealed that participants show a stronger automatic association for the White

or Good combination. That is, participants, on average, presented a significantly lower response time in the trials with the White or Good combination (than in the trials with the Black or Good combination). This result is congruent with what has been reported in the literature and has frequently been found in previous studies (e.g., Greenwald et al., 1998; Nosek & Banaji, 2001; Nosek et al., 2002), including in previous studies conducted with security officers (e.g., James, 2018). According to the data collected by Project Implicit at Harvard University (between 2009 and 2019), Portugal was one of the countries with the higher implicit racial bias towards African descent (*M*=.405). Regarding explicit racial bias, according to data from three European surveys carried out between 1999 and 2020 (1999-2011; 2014-2015; 2019-2020), Portugal is one of the highest countries to express explicit racial bias toward African descents (Vala, 2021).

The recurrence of this discrepancy between explicit and implicit racial bias has already triggered different interpretations to substantiate this result. Subjects when evaluating less controversial topics suffer less social desirability than assessing more socially sensitive topics (e.g., race), resulting in a higher implicit-explicit correlation (Hofmann et al., 2005).

Fazio and colleagues (1995) highlighted that implicit measures are resistant to the intentional effects of social desirability, while at an explicit level, subjects can adjust their responses, assuming socially desirable attitudes and behaviors and denying attitudes that are socially undesirable about other social groups. The MODE model can be presented as a theoretical basis of the influence of automatic (implicit) and controlled (explicit) processes in race-related attitudes. This model claims that motivation and opportunity are necessary for the subject to get involved in a deliberate process to counter automatically activated negativity. Therefore, the will to avoid biased responses can be a motivating factor (Fazio et al., 1995; Fazio & Olsen, 2003).

In a study by Nosek (2005) that sought to assess moderators of the relationship between automatic ratings (implicit) and controlled operations (explicit), participants were randomly assigned to one of the object pairs (e.g., Jews-Muslims, tea-coffee, emotions-reasons). They completed the IAT (implicit measure), the feeling thermometer (explicit measure), and moderator measures for the object pair (self-representation, evaluative strength, dimensionality, and perceived distinctiveness). The results revealed that the implicit and explicit attitudes were related, and this relationship varied

depending on the object evaluated. Nosek (2005) further argued that, this relationship can be moderated by the subject's experiences such as (a) the concern for self-presentation, in which greater concern predicts a weaker relationship between implicit and explicit measures (higher social desirability), (b) evaluative strength, where stronger evaluations relate to a consistency between measures, (c) dimensionality, where assessments with a bipolar structure indicate a greater relationship between the two measures (less variability), and (d) distinction, in which people's assessments considered different from the norm suggest greater consistency between implicit and explicit measures.

The present study also analyzed the effect of different dimensions of empathy in implicit bias, usually pointed as contributing to its reduction. According to our results, participants with higher levels on the Perspective Taking scale, that is, who have a greater tendency in spontaneously adopt the perspective of the other, present a smaller difference between White or Good and Black or Good conditions, meaning a reduction in racial implicit bias. On the other hand, despite not having reached the level of significance, our results pointed a tendency in the relationship between the Personal Distress Subscale scores and implicit bias. Participants with feelings of anxiety and discomfort in intense interpersonal relationships, showed more implicit racial bias, that is, a larger difference between the White or Good and Black or Good conditions

Patané and colleagues (2020) conducted an experimental study with Caucasian subjects to assess not only the effects of cooperation in a virtual reality scenario but also to explore the hypothesis that empathy and political attitudes may contribute to reduce implicit racial bias. Participants were exposed to a virtual reality scenario with cooperative or non-cooperative activity. Both the implicit racial bias and the participant’s perceived closeness (explicit racial bias) were measured before and after the virtual reality scenario. Additionally, before the virtual reality activity, the researchers assessed the political attitudes and empathy traits through the IRI. The authors found that the Perspective Taking, and Personal Distress subscales were significant predictors of implicit biases. Participants with higher Perspective Taking scores showed a lower implicit racial bias, while participants with higher Personal Distress scores revealed a higher implicit racial bias. The authors suggested that Perspective Taking is a protective factor against prejudice, as it is negatively associated

with implicit racial bias, while high levels of Personal Distress may indicate a risk factor. Similarly, other studies demonstrated the role of empathy in reducing implicit racial biases, being considered a predictor of prejudice (Bäckström & Björklund, 2007; Johnson et al., 1997; McFarland, 2010; Pashak et al., 2018).

Personal Distress is related to feelings of anxiety and discomfort in social situations, therefore, subjects with higher scores in Personal Distress will have more difficulty establishing rewarding relationships (Davis, 1883). When facing stressful stimuli, people with high levels of Personal Distress tend to avoid or escape these stimuli. When this is not possible, the subjects may be more likely to use aggression to reduce the discomfort, meaning that this dimension is less likely to improve intergroup relationships (Bock & Hosser, 2013; Stephan & Finlay, 1999). A study that exposed participants to an irrelevant video or discrimination video toward African Americans, while focusing on their feelings or thoughts, concluded that the subjects who focus on their feeling while viewing the discrimination video were less likely to report negative feelings, such as fear, toward the outgroup, and were more willing to engage with outgroup member, than participants in the other conditions. With that said, reducing fear towards the outgroup increases positive responses (Esses & Dovidio, 2002).

Participants who frequent and easily engage in taking another's perspective report more favorable implicit attitudes toward discriminated groups (Batson et al., 1997; Todd et al., 2011; Vescio et al., 2003). Perspective-taking not only weakens associations with negative views on African descents as it fosters associations related to oppression, such as concepts related to privilege (Todd et al., 2011). It is suggested that subjects who more easily take the other's perspective do remember the behavior-stereotype inconsistencies performed by an African descent male target, which leads subjects to process this information more extensively. So, instructions for perspective-taking can activate accountability concerns, as it leads the subject to consider alternative perspectives (Todd et al., 2012). Dovidio and colleagues (2002) suggest that when perspective-taking triggers feelings of injustice or compassion towards the target subject, it can mediate intergroup attitudes, reducing prejudice.

Galinsky and Moskowitz (2000) argue that one of the mechanisms by which perspective-taking reduces implicit bias is by increasing the perception of similarity between the subject's group (ingroup and us) and the target group (outgroup or others).

In this sense, Perspective Taking is a beneficial strategy in reducing bias, as it tends to increase the expression of favorable evaluations of the object, reduce the expression of stereotypes, prevent hypersensitivity to stereotypes, and decrease treatment differences between groups (Galinsky & Moskowitz, 2000; Todd et al., 2001;2012).

In conclusion, two hypotheses are raised for the role of perspective-taking in reducing implicit bias. Firstly, it is possible that taking a perspective alters automatic interracial reactions by activating positive evaluations (Todd et al., 2011). Second, it is possible that perspective-taking increases perceptions of similarity between the group to which he belongs and the target subject's group (Galinsky & Moskowitz, 2000). Therefore, empathy training in various contexts, such as in security force agents, can have an impact on reducing implicit racial biases (Pashak et al., 2018).

Conclusion

The interpretation of the present study results must consider limitations. In the first place, it is important to mention that conducting the study online had both advantages and disadvantages. This format allowed not only to have a larger sample, but to assess participants from all regions of the country, contributing to a representative sample of law enforcement officials. However, methodologically there were some errors that could not be controlled due to the online format: some participants completed the tasks twice, some participants only completed the explicit measure, and some participants did not use the same identification code in the two platforms used in this study. Second, we also lost some subjects' data because was not possible to perform the IAT on a smartphone. A last, but very relevant limitation regarding data analyses was due to ethical reasons. We weren't able to ask about participants' racial group, a variable that could contribute to further explanations and conclusions.

This was a pioneering study, the first to measure racial bias in Portuguese law enforcement officials. Our results constitute an important contribution to the study of prejudice and to the development of future practical implications. In the first place, the results showed a discrepancy between the implicit and explicit measures, with absence of explicit racial bias and presence of implicit racial bias towards African descent. In this sense, a first important implication is to raise awareness of the existence of this implicit bias and of its possible negative consequences. As we discussed, to change implicit bias, it is necessary to have opportunity and motivation, therefore when training

law enforcement officials it is critical to draw attention to these findings. This study also explored the relationship between implicit racial bias and different dimensions of empathy. Our results reinforced previous literature and indicated that Perspective Taking is a protective factor against implicit racial bias while Personal Distress is a risk factor. We consider that our findings are the guideline to future investigation aiming to develop theoretical and practical training in law enforcement officials to reduce implicit bias.

References

Aberson, C. L., & Haag, S. C. (2007). Contact, perspective taking, and anxiety as predictors of stereotype endorsement, explicit attitudes, and implicit attitudes. *Group Processes and Intergroup Relations*, *10*(2), 179–201. https://doi.org/10.1177/1368430207074726

Allport, F. H. (1954). The structuring of events: Outline of a general theory with applications to psychology. *Psychological Review, 61*(5), 281–303. https://doi.org/10.1037/h0062678

Arif, S. A., & Schlotfeldt, J. (2021). Gaps in measuring and mitigating implicit bias in healthcare. *Frontiers in Pharmacology*, *12*:*633565*. https://doi.org/10.3389/fphar.2021.633565

Bäckström, M., & Björklund, F. (2007). Structural modeling of generalized prejudice: The role of social dominance, authoritarianism, and empathy. *Journal of Individual Differences*, *28*(1), 10–17. https://doi.org/10.1027/1614-0001.28.1.10

Bates, D., Maechler, M., Bolker, B. and Walker, S. (2015). Fitting linear mixed-effects models using lme4. *Journal of Statistical Software*, *67*(1), 1-48. doi:10.18637/jss.v067.i01.

Batson, C. D., Polycarpou, M. P., Harmon-Jones, E., Imhoff, H. J., Mitchener, E. C., Bednar, L. L., Klein, T. R., & Highberger, L. (1997). Empathy and attitudes: Can feeling for a member of a stigmatized group improve feelings toward the group? *Journal of Personality and Social Psychology*, *72*(1), 105–118. https://doi.org/10.1037//0022-3514.72.1.105

Blanco, F. (2017). Cognitive bias. *Encyclopedia of Animal Cognition and Behavior*, *1*(6) https://doi.org/10.1007/978-3-319-47829-6_1244-1

Bock, E. M., & Hosser, D. (2014). Empathy as a predictor of recidivism among young adult offenders. *Psychology, Crime & Law*, *20*(2), 101–115. https://doi.org/10.1080/1068316X.2012.749472

Bogardus, E. S. (1925). Measuring social distance. *Journal of Applied Sociology*, *9*, 299-308.

Bogardus, E. S. (1933). A social distance scale. *Sociology & Social Research, 17,* 265–271.

Cardoso, A., & Garlhardo, A. (2021). Desenvolvimento do questionário de atitudes em relação à população em situação de sem-abrigo: Estudo da estrutura fatorial e características psicométricas. *Revista Portuguesa de Investigação Comportamental e Social, 7*(1), 66–83. https://doi.org/10.31211/rpics.2021.7.1.209

Dasgupta, N. (2013). Implicit attitudes and beliefs adapt to situations: A decade of research on the malleability of implicit prejudice, stereotypes, and the self-concept. *Advances in Experimental Social Psychology*, *47*, 233-279. https://doi.org/10.1016/B978-0-12-407236-7.00005-X

Dasgupta, N., & Greenwald, A. G. (2001). On the malleability of automatic attitudes: Combating automatic prejudice with images of admired and disliked individuals. *Journal of Personality and Social Psychology*, *81*(5), 800-814. https://doi.org/10.1037/0022-3514.81.5.800

Dasgupta, N., Greenwald, A. G., & Banaji, M. R. (2003). The first ontological challenge to the IAT: Attitude or mere familiarity? *Psychological Inquiry*, *14*(3–4), 238–243. https://doi.org/10.1080/1047840x.2003.9682886

Dasgupta, N., McGhee, D. E., Greenwald, A. G., & Banaji, M. R. (2000). Automatic preference for white americans: Eliminating the familiarity explanation. *Journal of Experimental Social Psychology*, *36*(3), 316–328. https://doi.org/10.1006/jesp.1999.1418

Daumeyer, N. M., Onyeador, I. N., Brown, X., & Richeson, J. A. (2019). Consequences of attributing discrimination to implicit vs. explicit bias. *Journal of Experimental Social Psychology, 84:103812*. https://doi.org/10.1016/J.JESP.2019.04.010

Davis, M. H. (1980). A multidimensional approach to individual differences in empathy. *JSAS Catalog of Selected Documents in Psychology, 10,* 85

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*(1), 113– 126. https://doi.org/10.1037/0022-3514.44.1.113

De Houwer, J. (2019). Implicit bias is behavior: A functional-cognitive perspective on implicit bias. *Perspectives on Psychological Science*, *14*(5), 835–840. https://doi.org/10.1177/1745691619855638

Dovidio, J. F., Kawakami, K., & Gaertner, S. L. (2002). Implicit and explicit prejudice and interracial interaction. *Journal of Personality and Social Psychology*, *82*(1), 62–68. https://doi.org/10.1037/0022-3514.82.1.62

Esses, V. M., & Dovidio, J. F. (2016). The role of emotions in determining willingness to engage in intergroup contact. *Personality and Social Psychology Bulletin*, *28*(9), 1202–1214. https://doi.org/10.1177/01461672022812006

Fazio, R. H. (2007). Attitudes as object-evaluation associations of varying strength. *Social Cognition*, *25*(5), 603–637. https://doi.org/10.1521/soco.2007.25.5.603

Fazio, R. H., Jackson, J. R., Dunton, B. C., & Williams, C. J. (1995). Variability in automatic activation as an unobtrusive measure of racial attitudes: A bona fide pipeline? *Journal of Personality and Social Psychology*, *69*(6), 1013–1027. https://doi.org/10.1037/0022-3514.69.6.1013

Fazio, R. H., & Olson, M. A. (2003). Implicit measures in social cognition research: Their meaning and use. *Annual Review of Psychology*, *54*(1), 297–327. https://doi.org/10.1146/ANNUREV.PSYCH.54.101601.145225

Galinsky, A. D., & Moskowitz, G. B. (2000). Perspective-taking: Decreasing stereotype expression, stereotype accessibility, and in-group favoritism. *Journal of Personality and Social Psychology*, *78*(4), 708–724. https://doi.org/10.1037/0022-3514.78.4.708

Gawronski, B., & Strack, F. (2004). On the propositional nature of cognitive consistency: Dissonance changes explicit, but not implicit attitudes. *Journal of Experimental Social Psychology*, *40*(4), 535–542. https://doi.org/10.1016/J.JESP.2003.10.005

Glaser, J., Spencer, K., & Charbonneau, A. (2014). Racial bias and public policy. *Policy Insights from the Behavioral and Brain Sciences*, *1*(1), 88–94. https://doi.org/10.1177/2372732214550403

Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: attitudes, self-esteem, and stereotypes. *Psychological review*, *102*(1), 4-27. https://doi.org/10.1037/0033-295X.102.1.4

Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of personality and social psychology*, *74*(6), 1464-1480. https://doi.org/10.1037/0022-3514.74.6.1464

Hall, W. J., Chapman, M. v., Lee, K. M., Merino, Y. M., Thomas, T. W., Payne, B. K., Eng, E., Day, S. H., & Coyne-Beasley, T. (2015). Implicit racial/ethnic bias among health care professionals and its influence on health care outcomes: A systematic review. *American Journal of Public Health*, *105*(12), 60–76. https://doi.org/10.2105/AJPH.2015.302903

Hofmann, W., Gawronski, B., Gschwendner, T., Le, H., & Schmitt, M. (2005). A meta-analysis on the correlation between the implicit association test and explicit self-report measures. *Personality and Social Psychology Bulletin*, *31*(10), 1369-1385. https://doi.org/10.1177/0146167205275613

James, L. (2018). The stability of implicit racial bias in police officers. *Police Quarterly*, *21*(1), 30–52. https://doi.org/10.1177/1098611117732974

James, L., James, S. M., & Vila, B. J. (2016). The reverse racism effect: Are cops more hesitant to shoot black than white suspects? *Criminology and Public Policy*, *15*(2), 457–479. https://doi.org/10.1111/1745-9133.12187

Johnson, M. E., Brems, C., & Alford-Keating, P. (1997). Personality correlates of homophobia. *Journal of Homosexuality*, *34*(1), 57-69. https://doi.org/10.1300/J082v34n01_05

Joseph, O. R., Flint, S. W., Raymond-Williams, R., Awadzi, R., Johnson, J., Jeffrey, L., Winkle, V., Rogers, S. L., Michels, N. M., & Fischer, F. (2021). Understanding healthcare students experiences of racial bias: A narrative review of the role of implicit bias and potential interventions in educational settings. *International Journal of Environmental Research and Public Health*, *18*(23), 12771. https://doi.org/10.3390/IJERPH182312771

Kovera, M. B. (2019). Racial disparities in the criminal justice system: Prevalence, causes, and a search for solutions. *Journal of Social Issues*, *75*(4), 1139–1164. https://doi.org/10.1111/JOSI.12355

Lai, C. K., Cooley, E., Devos, T., Xiao, Y. J., Simon, S., Joy-Gaba, J. A., Roussos, G., Schellhaas, F. M. H., Hu, X., Axt, J. R., Schmidt, K., Marini, M., Shin, J. E. L., Skinner, A. L., Murrar, S., Brauer, M., Calanchini, J., Pedram, C., Marshburn, C. K., … Nosek, B. A. (2016). Reducing implicit racial preferences: II. Intervention effectiveness across time. *Journal of Experimental Psychology: General*, *145*(8), 1001–1016. https://doi.org/10.1037/XGE0000179

Lai, C. K., Marini, M., Lehr, S. A., Cerruti, C., Shin, J. E. L., Joy-Gaba, J. A., Ho, A. K., Teachman, B. A., Wojcik, S. P., Koleva, S. P., Frazier, R. S., Heiphetz, L., Chen, E. E., Turner, R. N., Haidt, J., Kesebir, S., Hawkins, C. B., Schaefer, H. S., Rubichi, S., … Nosek, B. A. (2014). Reducing implicit racial preferences: I. A comparative investigation of 17 interventions. *Journal of Experimental Psychology: General*, *143*(4), 1765–1785. https://doi.org/10.1037/A0036260

Limpo, T., Alves, R. A., & Castro, S. L. (2010). Medir a empatia: Adaptação portuguesa do Índice de Reactividade Interpessoal. *Laboratório de Psicologia*, *8*(2), 171–184. https://doi.org/10.14417/LP.640

Mather, D. M., Jones, S. W., & Moats, S. (2017). Improving upon Bogardus: Creating a More Sensitive and Dynamic Social Distance Scale. *Survey Practice*, *10*(4), 1–9. https://doi.org/10.29115/SP-2017-0026

McConahay, J. B. (1986). Modern racism, ambivalence, and the Modern Racism Scale. In J. F. Dovidio & S. L. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 91–125). Academic Press.

McFarland, S. (2010). Authoritarianism, social dominance, and other roots of generalized prejudice. *Political Psychology*, *31*(3), 453–477. https://doi.org/10.1111/J.1467-9221.2010.00765.X

Nosek, B. A. (2005). Moderators of the relationship between implicit and explicit evaluation. *Journal of Experimental Psychology: General*, *134*(4), 565–584. https://doi.org/10.1037/0096-3445.134.4.565

Nosek, B. A. (2007). Implicit–Explicit Relations. *Current Directions in Psychological Science*, *16*(2), 65–69. https://doi.org/10.1111/J.1467-8721.2007.00477.X

Nosek, B. A., & Banaji, M. R. (2001). The go/no-go association task. *Social Cognition*, *19*(6), 625-666.

Nosek, B. A., Banaji, M. R., & Greenwald, A. G. (2002). Harvesting implicit group attitudes and beliefs from a demonstration web site. *Group Dynamics*, *6*(1), 101–115. https://doi.org/10.1037/1089-2699.6.1.101

Parrillo, V. N., & Donoghue, C. (2019). Updating the Bogardus social distance studies: a new national survey. *The Social Science Journal*, *42*(2), 257-271. https://doi.org/10.1016/j.soscij.2005.03.011

Pashak, T. J., Conley, M. A., Whitney, D. J., Oswald, S. R., Heckroth, S. G., & Schumacher, E. M. (2018). Empathy diminishes prejudice: Active perspective-taking, regardless of target and mortality salience, decreases implicit racial bias. *Psychology*, *9*(6), 1340–1356. https://doi.org/10.4236/PSYCH.2018.96082

Patané, I., Lelgouarch, A., Banakou, D., Verdelet, G., Desoche, C., Koun, E., Salemme, R., Slater, M., & Farnè, A. (2020). Exploring the effect of cooperation in reducing implicit racial bias and its relationship with dispositional empathy and political attitudes. *Frontiers in Psychology*, *11:510787*. https://doi.org/10.3389/FPSYG.2020.510787/BIBTEX

Payne, B. K., & Hannay, J. W. (2021). Implicit bias reflects systemic racism. In *Trends in Cognitive Sciences*, *25*(11), 927–936. Elsevier Ltd. https://doi.org/10.1016/j.tics.2021.08.001

Payne, B. K., Vuletich, H. A., & Brown-Iannuzzi, J. L. (2019). Historical roots of implicit bias in slavery. *Proceedings of the National Academy of Sciences of the United States of America*, *116*(24), 11693–11698. https://doi.org/10.1073/pnas.1818816116

Peirce, J., Gray, J.R., Simpson, S., MacAskill, M., Höchenberger, R., Sogo, H., Kastman, E., Lindeløv, J.K. (2019). PsychoPy2: Experiments in behavior made easy. *Behavior Research Methods*, *51*(1), 195. https://doi.org/10.3758/s13428-018-01193-y

Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, *90*(5), 751–783. https://doi.org/10.1037/0022-3514.90.5.751

Power, P. M., Harte, C., Barnes-Holmes, D., & Barnes-Holmes, Y. (2017). Exploring racial bias in a european country with a recent history of immigration of black africans. *Psychological Record*, *67*(3), 365–375. https://doi.org/10.1007/S40732-017-0223-6/TABLES/3

Price, J. H., & Payton, E. (2017). Implicit racial bias and police use of lethal force: Justifiable homicide or potential discrimination? *Journal of African American Studies*, *21*(4), 674–683. https://doi.org/10.1007/S12111-017-9383-3/TABLES/2

Randall, N. H., & Delbridge, S. (2007). Perceptions of social distance in an ethnically fluid community. *Sociological Spectrum*, *25*(1), 103–122. https://doi.org/10.1080/027321790505360

R Core Team (2014). R: A language and environment for statistical computing. *R Foundation for Statistical Computing*, Vienna, Austria. http://www.R-project.org

Sawyer, J., & Gampa, A. (2018). Implicit and explicit racial attitudes changed during Black Lives Matter. *Personality and Social Psychology Bulletin*, *44*(7), 1039-1059. https://doi.org/10.1177/0146167218757454

Schlosser, M. D. (2013). Racial attitudes of police recruits in the United States Midwest Police Academy: A quantitative examination. *International Journal of Criminal Justice Sciences*, *8*(2), 215-224.

Sears, D. O. (1988). Symbolic racism. In P. Katz & D. Taylor (Eds.), *Eliminating racism: Profiles in controversy* (pp. 53–84). Plenum Press

Shih, M. J., Stotzer, R., & Gutiérrez, A. S. (2013). Perspective-taking and empathy: Generalizing the reduction of group bias towards Asian-Americans to general outgroups. *Asian American Journal of Psychology*, *4*(2), 79–83. https://doi.org/10.1037/A0029790

Spencer, K. B., Charbonneau, A. K., & Glaser, J. (2016). Implicit bias and policing. *Social and Personality Psychology Compass*, *10*(1), 16. https://doi.org/10.1111/spc3.12210

Sriram, N., & Greenwald, A. G. (2009). The brief implicit association test. *Experimental Psychology, 56*(4), 283–294. https://doi.org/10.1027/1618-3169.56.4.283

Steffens, M. C. (2004). Is the implicit association test immune to faking? *Experimental Psychology*, *51*(3), 165–179. https://doi.org/10.1027/1618-3169.51.3.165

Stephan, W. G., & Finlay, K. (1999). The role of empathy in improving intergroup relations. *Journal of Social Issues*, *55*(4), 729–743. https://doi.org/10.1111/0022-4537.00144

Sternadori, M. (2017). Empathy may curb bias: Two studies of the effects of news stories on implicit attitudes toward African Americans and native Americans. *Contemporary Readings in Law and Social Justice*, *9*(2), 11–27. https://doi.org/10.22381/CRLSJ9220171

Sukhera, J., Milne, A., Pim, Teunissen, W., Lingard, L., & Watling, C. (2018). Adaptive reinventing: Implicit bias and the co-construction of social change. *Advances in Health Sciencs Education, 23*, 587–599. https://doi.org/10.1007/s10459-018-9816-3

Timmer-Murillo, S. (2021). *Building empathy toward community and reducing bias in a Chicago police sample: A case for perspective taking and reappraisal within virtual reality* [Doctoral dissertation, Marquette University]. https://epublications.marquette.edu/dissertations_mu/1057

Todd, A. R., Bodenhausen, G. V., Richeson, J. A., & Galinsky, A. D. (2011). Perspective taking combats automatic expressions of racial bias. *Journal of Personality and Social Psychology*, *100*(6), 1027–1042. https://doi.org/10.1037/a0022308

Todd, A. R, Galinsky, A. D., & Bodenhausen, G. V. (2012). Perspective taking undermines stereotype maintenance processes: Evidence from social memory, behavior explanation, and information solicitation. *Social Cognition*, *30*(1), 94–108.

Vala, J. (2021). *Racismo, Hoje: Portugal em Contexto Europeu*. Fundação Francisco Manuel dos Santos.

Vescio, T. K., Sechrist, G. B., & Paolucci, M. P. (2003). Perspective taking and prejudice reduction: The mediational role of empathy arousal and situational attributions. *European Journal of Social Psychology*, *33*(4), 455–472. https://doi.org/10.1002/ejsp.163

Vuletich, H. A., & Payne, B. K. (2019). Stability and change in implicit bias. *Psychological Science*, *30*(6), 854–862. https://doi.org/10.1177/0956797619844270/ASSET/IMAGES/LARGE/10.1177_0956797619844270-FIG2.JPEG

Wark, C., & Galliher, J. F. (2007). Emory Bogardus and the origins of the social distance scale. *American Sociologist*, *38*(4), 383–395. https://doi.org/10.1007/S12108-007-9023-9/TABLES/1

Whitford, D. K., & Emerson, A. M. (2018). Empathy intervention to reduce implicit bias in pre-service teachers. *Psychological Reports*, *122*(2), 670–688. https://doi.org/10.1177/0033294118767435

Williams, M. (2021). The Science of Hate: How prejudice becomes hate and what we can do to stop it. In *Faber & Faber*.

Xu, K., Nosek, B. A., Greenwald, A. G., Lofaro, N., & Axt, J. (2020, February 9). Experiment materials. Retrieved from osf.io/jrvg8

Appendix A

Sociodemographic Questionnaire

Questionário Sociodemográfico

Sexo:

___ Masculino

___Feminino

Faixa etária:

___18-25

___26-35

___36-45

___46-55

___56-65

Região onde realiza as suas funções profissionais:

___Norte

___Área Metropolitana do Porto

___Centro

___Área Metropolitana de Lisboa

___Alentejo

___Algarve

___Região Autónoma da Madeira

___Região Autónoma dos Açores

Habilitações literárias:

___4º ano de escolaridade

___9º ano de escolaridade

___Ensino secundário

___Licenciatura

___Mestrado

___Doutoramento

Numero de anos de serviço:

Funções:

___Administrativa

___Operacional

Appendix B

Informed Consent

Consentimento Informado

O presente estudo surge no âmbito de um projeto de investigação a decorrer no Iscte – Instituto Universitário de Lisboa em colaboração com a Universidade de Aveiro, financiado pela Fundação para a Ciência e Tecnologia (projeto número 758157107). O estudo tem por objetivo aprofundar o nosso conhecimento sobre o fenómeno de crimes de ódio ideologicamente inspirados, que sofreram um agravamento no período da pandemia. Pretendemos estudar o contexto do sistema de justiça criminal, procurando compreender as experiências de vítimas de crimes de ódio ideologicamente inspirados em Portugal e analisar enviesamentos cognitivos automaticamente ativados sem consciência ou intenção que poderão interferir na decisão da justiça penal e que por serem discrepantes com a atitude explícita podem levar a consequências psicológicas negativas.

A participação neste estudo não acrescentará qualquer risco ou desconforto para além dos normalmente encontrados na sua rotina diária.

A sua participação neste estudo é muito importante, pois irá contribuir para o avanço do conhecimento neste domínio científico, e consiste no preenchimento de um conjunto de questionários, com uma duração total de cerca de 15 minutos.

Nestes questionários não há respostas certas ou erradas. Por favor, responda com sinceridade a todas as questões, que têm por objetivo recolher a sua perceção pessoal. Salientamos que a sua participação é voluntária e a qualquer momento poderá desistir, sem qualquer tipo de consequência para si.

Certificamos, ainda, que será assegurada a confidencialidade e anonimato das suas respostas. Os dados recolhidos serão utilizados exclusivamente no âmbito deste projeto, podendo ser apresentados de forma completamente anónima em trabalhos académicos, apresentações públicas, congressos científicos e publicações.

Caso necessite de algum esclarecimento adicional, poderá contactar-nos através dos seguintes endereços eletrónicos:

Responsável pelo projeto: Professora Dr. Raquel Beleza da Silva: raquel.beleza.silva@iscte-iul.pt

Investigadora do Projeto: Doutora Catarina Rosa: catarina.p.rosa@ua.pt

No final do estudo entregaremos um relatório acerca do mesmo à instituição na qual exerce a sua atividade profissional e dinamizaremos também uma sessão de apresentação e discussão dos dados na mesma.

Declaração de Consentimento Informado: Ao selecionar CONCORDO abaixo, declaro que:

- Li integralmente o presente consentimento informado, considerando-o explícito e concordando com o seu conteúdo;

- Compreendi as condições de participação neste estudo;

- Participo de livre e espontânea vontade; - Aceito o tratamento de dados pessoais subjacente;

- Concordo que os dados sejam apresentados de forma completamente anónima em trabalhos académicos, apresentações públicas, congressos científicos e publicações.

__ Concordo

__ Não concordo