

**Guardianship Against Crime: Exploring the Individual Factors on Exhibiting  
Guardianship**

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### **Abstract**

This research focused on an individual's willingness to intervene to prevent a potential crime event. Previous studies stated that every ordinary person could be a guardian. Yet, research on guardianship focused mostly on the environmental factors that disrupt or discourage guardianship and not on the individual factors. However, a person's decision to be an active guardian is influenced by individual factors that have not been extensively researched. To address this knowledge gap about a person's willingness to intervene, the present study investigated how participants' political orientation, implicit bias, life experience and knowledge about crime have an effect on their willingness to intervene when being confronted with an ambiguous crime scene based on self-reported data from 148 participants. The results showed that political orientation, implicit attitudes, and life experience and knowledge about crime do not influence the willingness to intervene. In conclusion, no significant differences were found in participants' willingness to intervene regarding the likely offenders' ethnicity.

The routine activity theory (RAT) presumes that the occurrence of a criminal act requires three essential elements “the convergence in space and time of a motivated offender, the absence of a capable guardian, and a suitable target against crim” (Felson & Cohen, 1979, p. 588). Subsequently, the absence of one element, such as the capable guardian, elevates the probability of crime since the potential guardian is not near the target’s vicinity. In other words, the proximity of people, thus potential guardians, which can intervene in a crime, has been shown to discourage offenders from committing criminal violations and decrease the likelihood of a crime occurring.

Nevertheless, notwithstanding the guardianship’s essential role in preventing crime, there is relatively little research on the guardian. Previous research predominantly focused on environmental factors that affected intervention but seldom on individual factors or situational factors that might affect an individual’s intervention responses. A number of studies have either tried to assess the effect of guardianship on offenders or have centred on the motivation of offenders (Hollis-Peel et al., 2011; van Bavel, 2019; van Sintemaartensdijk et al., 2022). In comparison, others explored the individual’s self-protective behaviours (Tewksbury & Mustaine, 2003). Still, the potential guardian has not been thoroughly studied and empirically tested enough. There is a lack of experimental research on potential guardians, their willingness to exhibit guardianship, and the intervention skills one have to have to discourage crime. Despite the fact that studies have been carried out regarding guardianship, many researchers used various concepts concerning guardianship (Miethe & Meier, 1990; Reynald, 2009, 2010; Tewksbury & Mustaine, 2003). However, there is little information on the motivations of individuals to become guardians, the experience or knowledge of those who act as guardians, and the extent to which their interventions in criminal incidents are influenced by their bias, which remains to be determined.

The aim of the present study is to understand and examine an individual’s intentions and willingness, or the lack of them, to intervene and prevent a potential criminal violation. Therefore, this research will investigate the following research questions to examine the decision-making process of guardians and possible factors that influence a guardian’s willingness to intervene: (1) What are the underlying reasons for people to exhibit guardianship? (2) To what extent do individual factors, such as their experience, political orientation and implicit bias, influence the execution of guardianship?

### **The Capable Guardian: Awareness, Active Monitoring, and Intervention**

Felson (2006) defines the guardianship concept as “a guardian keeps an eye on the potential target of crime”. This includes the mere presence of any person in any given space

and time with the capability to actively monitor their surroundings and the target. This assumes that through the guardians' vigilantly observation skills, they are also capable of detecting suspicious behaviour of a potential offender or their criminal intentions, leading offenders to reconsider their decision to commit a crime (Cohen & Felson, 1979; Felson, 2006; Felson & Cohen, 1980). Further, Hollis-Peel et al. (2011, p. 57) define guardianship as "a guardian is any person and every person on the scene of a potential crime that may notice and intervene whether they intend to or not", which includes formal guardians, informal guardians (those looking after the target), handlers (those looking after potential offenders), and managers (guarding the places) (Hollis-Peel et al., 2011; Hollis et al., 2013). Since anybody can act as a guardian to inhibit criminal activities from happening, prior studies differentiated between formal and informal guardians. The former includes official government representatives, for example, police personnel, whereas informal guardians are third parties, such as passersby, family members, or neighbourhood residents (Felson, 1995; Felson & Boba, 2010).

Sometimes the mere presence of a person is not enough to discourage criminal activities. In general, it is assumed that the availability of a person can deter a potential criminal and discourage a crime. This also indicates that the potential offender considers the present person as a threat able to expose the offender's intention to commit a crime or their doing, which assumes that the potential guardian plays a passive role in crime deterrence (Felson & Cohen, 1979; Hollis-Peel, 2011). This means that the guardian is exhibiting guardianship unwittingly since the person does not actively perform the role of a guardian. This passive role provides limited insight into their capability to monitor the target or their willingness to intervene when encountering a likely offender as the offender decides whether to commit a crime.

Hollis et al. (2013) posit that the feeling of someone watching over the target or property of other people increases the likelihood of witnessing a crime. This is the most fundamental part of guardianship to deter criminal activity, as it reminds a motivated offender that a person is watching them, increasing the possibility of getting exposed if they commit a crime. They further need to possess other qualities, such as being able to monitor and detect suspicious behaviour of potential offenders and possess the required intervention skills (e.g., calling the police or talking to the likely offender) to disrupt or prevent crime (Cohen & Felson, 1979; Felson & Cohen, 1980; Reynald, 2010). Thus, when guardians attempt to intervene directly, they must be aware of the consequences that their action could provoke a reaction from the potential offender, such as retaliation by the potential offender against the

guardian (Felson et al., 2005). Together these three components: availability, active monitoring, and willingness to intervene measure guardianship and are viewed as the dimensions of guardianship in action (GIA) (Hollis-Peel et al., 2012; Reynald, 2009, 2010).

To understand guardianship intervention in crime, it is necessary to take the guardian's individual and situational factors into account. This includes an individual's perception of risk to personal safety, capability, and responsibility. For instance, when the perceived risk is low, and perceived capability and responsibility are high, available guardians are more willing to step in (Reynald, 2010, 2014). Reynald (2010) demonstrated in their study that 38 of the 255 available residential guardians decided not to pay attention to their environment. However, those who chose to actively monitor paid more attention to their surroundings and were able to recognise suspicious behaviour (Reynald, 2010). In other words, even if a person has the ability to monitor, the unwillingness to monitor reduces the level of awareness. This in turn, affects a person's ability to perform guardianship, as they have difficulty distinguishing people with good intention from those with malicious intentions. Meaning that the capable guardian needs contextual awareness to differentiate suspicious behaviour from ordinary behaviour when they encounter a person that behave in a strange manner, which is influenced by their existing observation skills. According to Reynald (2010), observing assists in gathering contextual knowledge and information. Thus, the ability of an available guardian to recognise untoward behaviour while monitoring depends on a number of factors, such as awareness, knowledge, and experience.

Moreover, when observing a crime, the potential guardian goes through a rational decision-making process when deciding whether or not to intervene directly or indirectly (Reynald, 2010). The guardian's rational choices and cost-benefit analysis thus influenced the action they take when a crime is observed (Elffers & Reynald, 2017; Reynald, 2014). So, if the perceived costs outweigh the benefits, the potential guardian will not intervene. Therefore, guardians might be influenced by factors associated with the severity of the crime committed and the future outcome when taking action against the offender (Hart & Miethe, 2008).

### **The Capable Guardian: Recognising Potential Offenders**

Reynald (2010) showed that situational awareness and knowledge regarding non-suspicious and suspicious behaviour, such as avoiding eye contact, being nervous, walking around aimlessly, and eyeing potential targets, assists in identifying potential offenders, as the behaviours are deemed as unusual (Quinton et al., 2000). In other words, behaviours classified as unnormal draw more attention towards the likely offender and enhance the

guardian's ability to differentiate ordinary people from motivated offenders. Therefore, effective guardianship requires situational awareness and the ability to recognise suspicious behaviours and activities perceived as atypical by the guardian that may lead to disrupting or preventing criminal activities.

One interesting factor that has not received much attention is the informal guardians who have been victims of a crime, like theft, and their capability to take action against offenders. The experience they have as victims can impact how they perceive their surroundings and how they act. Research has shown that past victimisation and 'risk thinking' constrain a person's physical and social activity, affecting one's ability to exercise social control to prevent harmful events from happening in the future (Foster et al., 2010; Walklate, 1997). At the same time, Schaefer et al. (2017) found that individual characteristics, including previous victimisation, were positively associated with people taking direct or indirect measures against different types of crimes, such as public drinking, loitering, and vandalism. In line with this, prior research has shown that those who intervene behave differently from non-interveners, which depends on the bystanders' experiences and indirect exposure to crimes (Huston et al., 1981). It is important to consider how past life experiences and knowledge about crime influences one's perception and intervention ability when witnessing a crime.

Further, it is assumed that one's personal experiences can shape one's implicit attitudes and beliefs. As we interact with different people, we experience different interactions and situations in various social settings, which can unconsciously lead to biased judgements and behaviours toward others (Spencer et al., 2016). It is worth noting that a person's implicit biases can be shaped by their experiences, and conversely, their experience can be affected by their implicit bias. For example, officers are more likely to associate with criminals than with ordinary people. Thus, if an officer has a negative association between Blacks and crime, this bias makes an officer more likely to view a black person as a criminal. However, this is also strengthened when the officer runs into any blacks engaging in criminal activities (Eberhardt et al., 2004; Spencer et al., 2016). This means if a person has a bias or tendency to associate certain groups with crime, this may influence their perception of the situation, their level of suspiciousness, and their willingness to intervene in regards to the offender. This raises the question of the extent to which implicit bias influences guardians' unconscious judgments and perceptions of potential offenders and the possible actions they take.

### **Guardianship: Political Orientation and Implicit Bias**

Stereotypes, biases, and discrimination are omnipresent and deeply embedded in our society. This impacts our judgements and perception of others, which creates ideas of a criminal's physical attributes and behaviour (MacLin & Herrera, 2006; Shoemaker & South, 1978). Previous research on criminal appearance indicated that males from different ethnicities, with a dark complexion, and those who appear unintelligent, poor and unkempt were stereotyped as offenders (MacLin & Herrera, 2006; Madriz, 1997). Also, it has been frequently observed that people are stereotyping others, specifically minorities, based on their appearance. For example, Arabs are more stereotyped as having a beard, wearing a turban, and being terrorists (D'Orazio & Salehyan, 2018; Teige-Mocigemba et al., 2017). Eberhardt et al. (2004) found out that male college students and police officers associated Black male faces with those of criminals. In both cases, it appears to be invoked unconsciously or without deliberate thought. This discriminatory treatment is most likely due to automatic evaluations involving negative or positive stereotype-based associations of an out-group. This, in turn, affects one's behaviour and judgments toward others through misattribution disambiguation and stereotype activation (Payne & Lundberg, 2014; Spencer et al., 2016). The former misattribution happens if someone attributes an experience or incident to a false cause. In general, assigning an incident to the corresponding cause is needed to explain and predict an individual's behaviour (Spencer et al., 2016). Disambiguation occurs when things are apparent, which makes the circumstances easy to interpret. However, if a situation is uncertain, an individual's implicit bias is most likely to affect their judgment in trying to resolve the ambiguous situation.

Lastly, stereotype activation refers to an automatic process by which people activate their beliefs and generalisation about a certain social group when encountering members of an out-group. Thus, certain characteristics, traits, or behaviours are attributed to these individuals based on their social, cultural, or ethnic background (Groom et al., 2009; Spencer et al., 2016). In the context of guardianship, stereotype activation can play a role in influencing a person's willingness to exhibit guardianship. Stereotype activation can affect how potential guardians perceive and evaluate the situation and decide whether or not to interfere. When potential guardians witness a crime, they could resort to stereotypes to assess the situation and predict the likely offender's behaviour. Thus, the guardian's reaction could either be in favour of the offender or not, which depends if the potential guardian perceives the offender as a member of their own group or as an out-group member.

Another factor that can influence a person's willingness to intervene is their political orientation, as it consists of their attitudes and beliefs, which can influence their perspective and behaviour towards others. Regarding an individual's implicit biases, right-wing-oriented tends to have stronger biases than left-wing-oriented. Previous studies have shown that right-wing-oriented, in general, exhibit higher prejudice than left-wing-oriented (Prezza, 2008). The reason is that these groups are more resistant to change, holding onto their traditional values than left-wing-oriented (Hibbing et al., 2014; Jost et al., 2003). In other words, they perceived out-group members as threats, challenging their values, and thus, react sensitively towards out-groups, which leads to prejudice toward stigmatised individuals. Therefore, a likely guardian with a certain political bias may be more inclined to uphold stereotypes or biases against certain ethnicities, which they perceive as an out-group. This bias may influence perceptions of likely offenders and potentially impact a guardian's decision to exhibit guardianship.

Considering guardianship intervention, examining the relationship of perceived race or ethnicity, a guardian's political orientation, existing implicit bias and their willingness to intervene to prevent criminal activities when showing an ambiguous crime scene is essential. By introducing an unclear crime scene, we aim to explore and understand how participants cope and assess the ambiguous situation and their decision-making process of whether or not to intervene. Taking these individual characteristics into account, this study will use these factors as predictors of whether a person is willing to exhibit guardianship when they observe a crime in progress.

### **Current Study**

In the experiment, we will study how the ethnicity of the likely offender affects participants' willingness to intervene. We are interested in determining if a person's personal experience and knowledge about crime, as well as their political orientation, affect their willingness to intervene when noticing the likely offender's ethnicities and if political orientation is moderated by implicit bias and decreases their willingness to exhibit guardianship. Considering the previously discussed theoretical frameworks and literature, the three hypotheses are tested in this study:

**Hypothesis 1:** people who have life experience and knowledge about crime are more aware of their surroundings and likely to exhibit guardianship

**Hypothesis 2:** people who are left-wing oriented are less likely to intervene/exhibit guardianship if they witness a crime committed by a person of a different ethnicity than theirs

**Hypothesis 3:** implicit racial bias moderates the relationship between political orientation and exercising guardianship toward offenders with a different ethnicity

## **Method**

### **Design**

This study utilised a within-subject design. The independent variable (offender's ethnicity, Asian vs White) was experimentally manipulated and displayed in the clips. Participants' willingness to intervene, which is the dependent variable in regard to the offenders' ethnicity displayed in the clips, was measured with an open-ended question. To assess its moderating effect, the independent variable, political orientation, is going to be examined in predicting the participants' willingness to intervene. Further, the Affect Misattribution Procedure (AMP) was used to assess the implicit racial bias to examine its moderating effect on the participants' willingness to intervene, regardless of their political orientation.

### **Participants**

207 participants were included in this study, 46 of whom were excluded as they did not consent or filled out the survey properly. In total, 148 participants indicated their ethnic/racial background was White. Contrarily, only 13 participants revealed that they are non-White. Thus, additionally, 13 participants were excluded because the comparison group was too small.

A total of 148 participants were included in the data analysis. Of the 148 participants, 97 (66%) were female, and 51 (34%) were male. The age of the participants ranged from 18 to 59 years ( $M = 26.2$ ,  $SD = 5.9$ ). The majority of participants, 114 (77%), are from Germany, 13 (9%) from Austria, five (3%) from the Netherlands, and one from Belarus (1%), Belgium (1%), Italy (1%), Lithuania (1%), Romania (1%), Russian Federation (1%), Spain (1%), Switzerland (1%), and the United Kingdom (1%).

In addition, out of 148 participants, 48 indicated that they have a Bachelor's degree (32%), followed by 40 participants who have a high school degree (27%), 17 participants who have a master's degree (11%), five have vocational training (3%), one participant had no formal training (1%), and finally one participant held a professional degree (1%).

Concerning participants' political orientation, 93 participants indicated that they were left-wing-oriented (62%), 26 participants were right-wing-oriented (18%), and 29 were centrist (20%).

Moreover, 91 participants reported they were not acquainted with someone who worked in law enforcement (61%), whilst 57 indicated that they knew someone (39%).

Regarding their general interest in law enforcement, 90 participants expressed their interest in law enforcement (61%), whilst 58 participants indicated that they were not interested in law enforcement (39%). Furthermore, 80 of the participants indicated that they did not know someone in their close social circle, who could have been a victim of a crime (54%), and 66 were acquainted with someone who had been a victim (45%). Further, of the 148 participants, 124 claimed not to have been victims (84%), while 24 people said they had been victims of either theft, robbery/assault, identity theft/fraud, or other (16%).

## **Materials**

### ***Scenario***

First, participants received a written scenario prior to the clips. This included a description of the location and the behaviours of the people. The content of the written scenario was identical to the content shown in the clips. To facilitate immersion and to encourage participants to put themselves in the role of a third-party witnessing a potential crime in progress while being in a public space.

We created two clips for this study, differing only in the ethnicity of the likely offender. Due to the availability, we used an Asian (clip A) and White (clip B) actor for our mock crime. The clip was filmed to give the appearance of a possible crime in a public space. It included various behaviours of the likely offender, such as repeatedly walking by and looking at the items on the potential victim's table. As the created scenario showed a low risk of crime happening, this scene might have appeared ambiguous to the audience, leaving room for the participants' imagination to indicate whether they perceive the likely offender as a criminal that is about to commit a theft. Additionally, no responsibility was attributed to the participant, which could result in different responses than intended.

### ***Affect Misattribution Procedure***

The AMP was used to measure participants' implicit racial attitudes. First, they were exposed to a prime stimulus. In this case, pictures of young males were shown. Only the face was shown in each picture, and each model had a neutral expression. This was quickly followed by a target stimulus, which was Chinese characters. The target stimulus was presented for 100 milliseconds until the participants responded a pattern mask was displayed. The procedure lasted three rounds in which participants had to rate the target stimulus from pleasant to unpleasant. In total, 24 pictures, 12 of White and Black men, were shown.

To measure their experience or knowledge about the AMP, three items were developed. One item was assessed on a 7-point Likert scale: "What do you think the content of this task is?". One item was an open-ended question: "Have you ever completed a task

similar to this before?”. Further, two items were measured on a dichotomous scale (1 = No, 2 = Yes): “Are you familiar with the purpose of this task?” and “Do you believe your rating represents your true assessment of the presented images?”, which was used to evaluate participants’ seriousness, in completing the task.

Regarding participants’ experience or knowledge about the AMP, 80 participants indicated that they were familiar with the purpose of the AMP (54%). In comparison, 68 stated they were unfamiliar with the procedure (46%). Further, 99 participants had an idea about the content of the task (67%), and 49 had no idea what the content of the task was (33%). Moreover, 106 participants pointed out that they never completed the AMP or something similar (72%), whereas 42 completed something similar (28%). Of the 148, 72 participants did not assess the presented images truthfully (49%), and 76 indicated that they rated them truthfully (51%). For this study, participants were recruited through random sampling, which lasted about three weeks.

### ***Questionnaires***

**Life Experience and Knowledge About Crime.** Life experience and knowledge about crime were measured using a dichotomous scale to standardise the participants’ responses (1 = No, 2 = Yes). In total, four items were developed to measure participants’ knowledge about crime (two items, “I am interested in law enforcement or criminal justice”; “Do you know someone close to you, such as a family member[...] who worked in a job related to law enforcement [...]?”), and experiences (two items “Do you know someone close to you who has been a victim of a crime”, “Have you ever been a victim of a crime?”).

**Perceived Emotions.** Perceived Emotions were a control variable and were measured using a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). Five items were used and adjusted to measure people’s perceived emotions in one’s surroundings regarding theft and whether they are afraid of crime. For instance, from “in this neighbourhood, people really do not need to lock their doors when they leave their homes for a short period of time” (Austin & Furr, 2002) to “People do not need to watch their belongings when they leave for a short period of time”. Other items were “People leaving their belongings in a public space have to worry about someone stealing their things”, “I usually leave my personal belongings outside unattended when I am familiar with the environment without fearing that it will be damaged or stolen by others” (see Appendix A). Higher sum scores reflect higher levels of perceived positive emotions. The KMO = .70 and Bartlett’s sphericity test  $p < .01$  indicated that the collected data is suited for factor analysis. The items loaded on one factor (eigenvalue

= 2.01,  $R^2 = 26.00$ ). Cronbach's alpha and Lambda4 indicated moderate internal consistency ( $\alpha = .60$ ,  $\lambda_4 = .64$ ).

**Open Questions.** In total, eight questions were asked. Six open questions were employed to investigate participants' initial feelings, awareness, monitoring and intervention skills, and two questions were included as exclusion criteria. Participants were asked to refer to the clips they had previously seen when answering the questions. This was done in preparation for the following qualitative analyses.

Five out of six open questions were used as control items: "How did the clip make you feel?", awareness (one item, "What did you focus on when watching the video?"), observational skills (three items, "Please describe shortly what you saw in the video (the people, and their actions)?", "Did you observe any suspicious activities? If yes, what specific characteristics of the person with the black/green T-shirt or situation aroused your suspicion (face, gesture, clothing)", subjective perception (two items, "Do you think that the person with the black/green T-shirt in the video would commit a crime?", "What do you think the person in the black T-shirt will do next?"). One item regarding participants' willingness to intervene was used for the statistical analyses: "Would you intervene? Please elaborate, on why or why not? If yes, what would you do?". Lastly, these two items were used as exclusion criteria: "Do you personally know the person with the black T-shirt", "If yes, please indicate the name of the person").

**Perception Video.** This variable measured participants' subjective perception of the likely offender, target, and realness of the previously shown clips. This variable was used as a control variable. Five items were developed: "Did you perceive the belongings in clip A with the person in the green T-shirt as being at high risk for theft?" ( $M = 4.4$ ,  $SD = 1.6$ ), "Did you perceive the belongings in clip B with the person in the black T-shirt as being at high risk for theft?" ( $M = 4.5$ ,  $SD = 1.6$ ), were measured using a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). A higher score implied that participants believed that the attended belongings were at high risk of being stolen. The other items: "How sure are you that the person with the green T-shirt had the same ethnicity as you?" ( $M = 2.8$ ,  $SD = 1.8$ ), participants', "How sure are you that the person with the black T-shirt had the same ethnicity as you?" ( $M = 4.4$ ,  $SD = 1.8$ ) were assessed using a 7-point Likert scale (1 = very uncertain, 7 = very certain). Higher scores indicated that participants identify with the likely offender's ethnicity. Lastly, "Do you feel the video accurately reflects a real-world situation?" was an open question. Of the 148, 114 (77%) participants indicated that they perceived the scenario

displayed could also happen in the real world. In contrast, 32 mentioned that the provided clips were too unrealistic and obvious (23%).

**Monitoring.** Monitoring was assessed using a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). Four items were developed to measure participants' general observation and monitoring abilities of their environment: "When I am doing something, I am often so focused that I don't notice if someone nearby is at risk of having their belongings stolen", "I am confident in my abilities to recognise when someone is acting suspiciously". Higher sum scores on the scale reflect participants' ability to notice untoward behaviour. The KMO = .68 and Bartlett's sphericity test  $p < .01$  indicated that the collected data is suited for factor analysis. The items loaded on one factor (eigenvalue = 2.03,  $R^2 = 37.60$ ). Cronbach's alpha and Lambda4 indicated moderate reliability ( $\alpha = .64$ ,  $\lambda_4 = .68$ ). This variable was used as a control variable.

**Intervention.** This variable consisted of two sub-scales with a total of six items using a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). Originally, the intervention scale consisted of two separate scales, intervention skills and responsibility. However, when conducting the KMO, it became apparent that the latter scale was unsuitable for PCA. As a result, we merged the two scales. By merging them, the suitability of the variables was increased for further analysis. KMO = .77 and Bartlett's sphericity test  $p < .01$  indicated that the collected data is suited for factor analysis. The -items loaded on one factor (eigenvalue = 3.22,  $R^2 = 45.70$ ). Cronbach's alpha and Lambda4 indicated good reliability ( $\alpha = .81$ ,  $\lambda_4 = .87$ ). This variable was not included in the analysis. However, it was considered a covariate.

**Intervention Skills.** This variable was measured using a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). Three items were created to assess participants' capabilities to intervene: "I am confident in my ability to intervene and act if I witness a theft", "Although I would like to intervene when someone's behaviour is questionable, I am not sure what to say or do", "Even if I thought it was my responsibility to intervene to prevent theft, I am not always sure how to intervene". A higher score would indicate a greater ability to intervene and prevent theft due to skills proficiency. An adapted version of the Failure to Intervene Due to a Skills Deficit for the last two items was used (Burn, 2009). To clarify, each item was reformulated, for example, from "... a guy's sexual conduct" to "when someone's behaviour" (e.g., "Although I would like to intervene when someone's behaviour is questionable, I am not sure I would know what to say or do") ( $\alpha = .80$ ,  $\lambda_4 = .76$ ,  $M = 4.4$ ,  $SD = 1.3$ ).

**Responsibility.** Responsibility was answered using a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). Three items were used to investigate participants' responsibility towards a likely victim of theft. Two items were adapted from the Failure to Take Intervention Responsibility scale (Burn, 2009). "If I saw someone I didn't know was at risk for being sexually assaulted, I would leave it up to his/her friends to intervene.", "I am more likely to intervene to prevent theft if I know the potential victim than I do not". A higher sum score indicated higher responsibility to exercise guardianship ( $\alpha = .67$ ,  $\lambda_4 = .75$ ,  $M = 4.9$ ,  $SD = 1.1$ ).

**Political Orientation.** To assess participants' political orientation, one item was asked "In political matters, people talk of 'the left' and the 'the right'. How would you place your views on this scale, generally speaking" (EVS, 2008), which was rated on a scale from 1 to 10. A higher value indicated left-wing political sympathies.

### **Procedure**

Prior to the start of this study, the Ethics Committee of the Department of Behavioural, Management, and Social Sciences (BMS) of the University of Twente, under application number #230331 gave its permission to conduct this research. At the start of the online survey, participants were provided with a consent form informing them about their rights, such as that their participation was completely anonymous and voluntary and the right to withdraw from the study at any point in the process. Once participants gave their consent to take part in the study, they were first presented and asked to answer demographic questions regarding their age, gender, nationality, ethnicity, and education. Afterward, the AMP was displayed to measure the participants' implicit racial attitudes and questions about the AMP. Following this, participants were asked questions about their experience and knowledge about crime, whether they had been victims of a crime before or known someone in their close social circle that had been a victim. Next, participants had to read a scenario in which they had to imagine themselves being a witness of a crime while being in a public space. Then they were randomly assigned to one of the two video clips. Each participant had to view both videos. This was followed by open-ended and closed-ended questions measuring their perception of the crime scene, the offender and victim, observation skills, and their willingness to intervene. Lastly, to measure their political ideology, participants were prompted to rate if they were politically left- or right-oriented. Once the survey was completed, participants were debriefed about the study's aim and purpose. Afterward, they still had the option to opt out of the study. The online survey lasted about 15-20 minutes (see Appendix A).

## **Data Analysis**

### ***Quantitative Data***

The survey responses were gathered from Qualtrics and underwent data processing, which involved removing unnecessary information. In addition, R-Studio was used to analyse the scales. When performing the parametric tests, results show that the data was not normal distributed.

**Analytic Strategy.** A Kruskal-Wallis test was performed to determine possible differences between the two groups based on the independent variable, life experience and knowledge about crime. Responses of participants with life experience and knowledge about crime were compared to those participants without these experiences and knowledge. This was done to assess participants' willingness to intervene regarding the clips, which was the dependent variable.

Further, a cumulative link mixed model (CLMM) was employed to analyse the relationship between the independent variable, political orientation and the ordinal responses of the dependent variable willingness to intervene, which refers to participants' inclination to take action when witnessing a crime in progress, in regards to the actors' ethnicities, which was displayed in the two clips. This allows the use of random effects, as measurements were taken on the same participants under different conditions (Asian vs White). The same analysis was conducted to investigate the relationship between the independent variable, political orientation, the moderation variable, implicit bias and the dependent variable, willingness to intervene.

### ***Qualitative Data***

To develop the coding scheme, an inductive method was employed by using participants' self-reported responses to the open-ended questions. Thus, the responses were imported into Atlas.ti, analysed and coded to create the final codes for the six main open-ended questions. With this, the following steps were taken to develop these codes.

Each response was coded, checked, and then evaluated independently by the first and second coders to avoid biases. Moreover, the differences were discussed until a compromise was found. Throughout the coding process, the codes were revised and adjusted. This means that codes with high similarity were grouped together or excluded.

Consequently, responses to the question were broken down into various codes. Resulting in a coding scheme for each question consisting of different codes and meanings, which was applied to all of the six main questions of the 148 participants' responses see Appendix B.

## Results

### Descriptive Statistics

Table 1 shows a correlation matrix of the scales comprising their mean scores and standard deviations.

**Table 1**

*Means, SDs and Interscale Correlations Between Live Experience and Knowledge About Crime, Perceived Emotions, Monitoring, Intervention, and AMP (N = 148)*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Life Experience and Knowledge About Crime	1.3	0.2	1					
2. Perceived Emotions	2.5	0.9	-.01	1				
3. Monitoring	4.7	1.0	.19	-.15	1			
4. Intervention	4.7	1.1	.09	-.04	.27	1		
5. AMP	0.6	0.5	-.20	.05	-.20	-.03	1	
6. Political Orientation	6.2	1.9	-.11	.17	-.05	-.04	.05	1

*Note.* Answers ranging for variable 1 from 1 = No and 2 = Yes, variable 2 to 4 from 1 = strongly disagree to 7 = strongly agree, variable 5 from 0 = unpleasant to 1 = pleasant, and variable 6 from 1 = right to 10 = left

As shown in Table 1, the mean scores of the perceived emotions suggest that, on average, people felt uncomfortable leaving their belongings unattended in public spaces ( $M = 2.5$ ). Furthermore, the sum mean score suggests that people somewhat monitor their environment ( $M = 4.7$ ). Concerning people's ability to take action to discourage criminal actions, the general mean score of intervention was answered rather moderately ( $M = 4.7$ ), suggesting that participants were slightly uncertain about their intervention skills to intervene ( $M = 4.4$ ) and felt responsible for intervening in case of theft ( $M = 4.9$ ). Furthermore, regarding the AMP, on average, participants scored the shown pictures of Black and White males as pleasant ( $M = 0.6$ ). The mean score of political orientation suggests participants' tendency towards the left side ( $M = 6.2$ ). Lastly, we did not find significant correlations between the variables.

### Main Analysis

Statistical analyses were conducted on the participants' political orientation, the AMP, and open-ended question, 'Would you intervene?' (willingness to intervene) in regards to the actors' ethnicity shown in the clips, answers were categories (no/yes/maybe).

***Testing Hypothesis 1: The Effect of Life Experience and Knowledge About Crime on Participants' Willingness to Intervene***

For the first hypothesis, 'people who have life experience and knowledge about crime are more aware of their surroundings and likely to exhibit guardianship', a Kruskal-Wallis test was performed to investigate the relationship between life experience and knowledge and participants' willingness to intervene, with life experience and knowledge as the independent variable and willingness to intervene as the dependent variable. The test revealed a non-significant difference between the groups that scored high on the life experiences and knowledge scale and those that did not, in terms of the likelihood of exercising guardianship [ $\chi^2(7, N = 148) = 4.7, p = .695$ ]. Therefore, the hypothesis will be rejected.<sup>1</sup>

***Testing Hypothesis 2: The Effect of Participants' Political Orientation on Their Willingness to Intervene***

To examine the second hypothesis, 'people who are left-wing are less willing to exercise guardianship if they are about to witness a crime committed by a person of a different ethnicity', a cumulative link mixed model fitted with the Laplace approximation was performed to investigate the relationship between participants' political orientation on their willingness to exercise guardianship in relation to the offenders' ethnicity, with political orientation as the independent variable and willingness to intervene, in relation to the shown clips with actors of different ethnic background, as the dependent variable. Based on the results, the hypothesis was rejected since a non-significant interaction was found between the participants' political orientation and their willingness to exercise guardianship in relation to the offenders' ethnicity [ $B = -0.24, SE = 0.15, z = -1.57, p = .115$ ]. Thus, willingness to intervene appears in regard to the actors' ethnicity equal across groups.

***Testing Hypothesis 3: Participants Implicit Racial Bias on Political Orientation and Their Willingness to Intervene***

The third hypothesis, 'implicit racial bias moderates the relationship between political orientation and exercising guardianship toward offenders with a different ethnicity', a generalised linear mixed model fit by maximum likelihood was conducted, with political

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<sup>1</sup> We were interested to split the independent variable into two variables. Thus, one Kruskal-Wallis test for life experiences and one for knowledge about crime was performed. First, we wanted to examine the relationship between life experience and participants' willingness to intervene. The test showed a non-significant difference between the groups that scored high on the life experiences and those that did not [ $\chi^2(7, N = 148) = 0.45, p = .799$ ]. Next, the relation between knowledge about crime and participants' willingness to intervene was investigated [ $\chi^2(7, N = 148) = 2.82, p = .727$ ]. Results revealed a non-significant difference between the two groups.

orientation as an independent variable, implicit bias (AMP) as the moderator and willingness to intervene, in regards to the likely offenders' ethnicity shown in the clips, as the dependent variable. The results indicated no significant main effect of political orientation or implicit racial attitudes on participants' willingness to intervene. Further, no interaction effect can be found. Therefore, the second hypothesis was rejected [ $B = 0.45$ ,  $SE = 0.48$ ,  $z = 0.95$ ,  $p = .341$ ].

### **Qualitative Analysis**

In the present study, six open-ended questions in regard to the ambiguous crime scene were answered, which might have encouraged participants' imagination about whether they perceived the likely offenders as criminals and whether they would take any actions against them. In general, results suggest that participants were often careful not to make any assumptions when answering the open-ended questions about the potential male offenders as they perceived the clips as ambiguous. The findings focus more on how the participants perceive the clips and how their perceptions and daily experiences influence their willingness to intervene. The analysis revealed that they paid more attention to the actors' behaviours, which were perceived as suspicious, than their appearance. Consequently, we did not differentiate participants' responses regarding clips A (Asian) and B (White).

### ***Affective Impact of the Clip***

The results of the analysis of the data we got from the 148 participants allowed us to identify six themes regarding participants' reactions to the likely male offender: curious, uneasy, suspicious, alert, indifferent, and assured.

On average, 64% of participants reported that the videos elicit anxiousness and uncomfortableness in response to the clips. Whereas 14% had no opinion, 9% felt alert, 7% felt suspicious, 6% were curious, and 1% felt assured that no criminal activities would occur.

P5: "Uncomfortable because I thought the man would steal something."

P15: "It makes me feel uneasy looking at the man lurking around."

P20: "I was interested in what will happen next."

P24: "... thought the man would steal something."

P160: "Curios, since I was trying to understand the person's behaviour, who is a stranger to me."

The data suggest that participants had a tendency to make assumptions or stereotypes about the actors' displayed behaviour. Notably, some did not express any emotions when watching the videos.

### ***Awareness***

The question ‘What did you focus on when watching the video? Why?’ contained four categories: ‘potential offender’, ‘target’, ‘whole situation’, and ‘indifferent’. 90% of the participants focused on the potential offender in both scenarios because they thought the potential offenders were exhibiting untoward behaviour or paying too much attention to the unattended belongings.

P1: “On the guy because he looked at the stuff of the girl.”

P5: “The man because I thought he might steal something.”

P29: “The guy walking around the empty place because he behaved very suspicious.”

P44: “The guy walking around. I was expecting him to do something with the stuff of the girl.”

Further, for the question, ‘What do you think the person in the green/black T-shirt will do next? Why?’ eight categories were established: ‘not sure’, ‘check out’, ‘meet someone’, ‘undermined’, ‘crime’, ‘nothing’, ‘quit’, and ‘protect’. Of the 148 Participants, on average, 29% of the participants indicated the male person as a potential offender who would try to steal the victim’s belongings or have an ulterior motive and might come back to inspect and assess the situation once more since the participants deemed his behaviour unusual or suspicious. While 51% suggested that nothing would happen, e.g., because the likely offender left the room, walked away to do something different, failed to steal as it was either too crowded and his moves was too obvious to ignore, or might want to meet someone or the woman as he was waiting in front of the table and texting someone. 14% of the participants expressed a fifty-fifty chance of the male committing a crime. Lastly, 6% of the participants were generally unsure about the situation.

P1: “Maybe check a bit longer for the laptop.”

P163: “I think he will come back to further evaluate the situation.”

P161: “Either try to steal the laptop or wait for the person because he is meeting up with her.”

P160: “I think the person is looking for the other person the unattended stuff belongs. That’s also why the person pulled out their mobile to text the other person and meet them.”

The findings suggest that participants applied their own perspectives and biases to interpreting the clips shown, as they were unsure about the situation and could not accurately attribute the male person’s actions, leading to different perceptions and responses.

### ***Willingness to Monitor***

In order to answer the open question, ‘What specific characteristics of the person with the green T-shirt or situation aroused your suspicion (face, gesture, clothing)?’ participants had to indicate first if they observed any suspicious activities (yes/no). The majority of the participants (83%) stated that they observed questionable actions from the male person in the displayed clips. At the same time, 17% indicated that they did not observe any suspicious behaviour. This implies that these participants were not able to identify suspicious characteristics. Those who were suspicious mentioned mostly the actors' behaviours.

P5: “Staring at the table, walking around and staying close to the table.”

P13: “Frequent glances at the items and nervous turning of the head to the sides.”

P14: “Checking everything.”

P20: “... the fact he hovered and glanced up a number of times aroused a slight interest in me and was sufficient to encourage me to remain alert until the area was empty or the apparent owner returned.”

Only 4% of the participant referred to their appearance. As one participant described:

P52: “How he looked, he looked poor. Also, I thought: Does he even study there? If he didn’t walk around and look so much at that laptop I wouldn’t care but that triggered my attention.”

Their answers showed that participants mainly pay attention to the actors’ behaviour and not to their appearance.

### ***Anticipating Criminal Behaviour***

For the question, ‘Do you think that the person with the green/black T-shirt in the video would commit a crime? Please elaborate on why or why not.’ we identify two categories: no, yes, and maybe. On average, 47% of participants stated that the male person would not steal something. For these participants, the male actors behaved normally, looked preoccupied with something else, the place was too crowded for them to commit a crime, or they left, indicating to the participant that the male actors were not trying to steal something (Table 9). Of the 148 participants, on average, 29% indicated the male person in the videos would commit a crime because their actions aroused suspicion among participants. 24% of the participants mentioned that they are uncertain about the potential offenders’ unusual behaviours or that the participants lack knowledge of the situation to make predictions about their next move.

P4: “Unlikely, as he walked away in the end.”

P6: “I don’t think he would commit a crime in such a public area ...”

P19: “No. He looked like a normal man waiting for something or similar.”

P23: “Yes, I think he would try to take something like the laptop because he seemed to be very interested...”

P44: “I would say there is a great chance because the situation doesn’t seem usual and he did behave like he was planning something.”

P18: “I do not think one can tell from this, though his lingering does raise suspicion.”

P98: “The behaviour was suspicious. But I don’t know if he would, its just personal evaluation based on what i saw in the video.”

P100: “Maybe. He could take the laptop. He was watching and observing like he wants to know where the owner of the laptop is. Maybe he is just waiting.”

The responses also suggest that participants’ perception and interpretation of the displayed clips and the resulting answers are due to their personal experiences and beliefs that attributed meaning to these clips.

### ***Intervention***

Finally, for the question, ‘Would you intervene? Please elaborate on why or why not. If yes, what would you do?’ answers were coded into three categories: no, yes, and maybe. Of the 148 participants, 65% indicated that they would not intervene, as the person did nothing illegal in order for them to intervene, even though the behaviour of the males was mostly recognised as suspicious and unusual.

P5: “No, only if he would actually do something. Just walking around is not illegal.”

P38: “No, only if he touches things on the table.”

In contrast, 33% of the participants said that they would intervene. Some of them stated that they would intervene directly by talking to the likely offender and taking action even though the male person had not committed a crime, but as a preventive measure before something could happen. Others assumed that they already commit a crime.

P37: “If he strolled around like this, I would have intervened ...”

P56: “Yea, I would. Because stealing is bad. I’d stop him, confront him, call police.”

### **Discussion**

The present study aimed to understand and examine an individual’s decision-making process and factors that impact a guardian’s willingness to intervene to prevent a potential criminal violation. Thus, the study aimed to answer the following research questions (1) ‘What are the underlying reasons for people to exhibit guardianship?’ and (2) ‘To what extent do individual factors, such as their experience, political orientation, and implicit bias, influence the execution of guardianship?’. In this context, we examined (1) participants’

political orientation, (2) whether implicit racial attitudes and lastly (3) whether the life experience would impact one's decision to exercise guardianship. The results show that no support was found for the prediction that political orientation had an impact on the willingness to exhibit guardianship in regard to the likely offenders' ethnicity to prevent crime. Further, no support was found for the implicit racial attitude concerning participants' willingness to intervene based on the likely offenders' ethnicity. Lastly, no relationship was found between life experience and knowledge about crime that impacted participants' intervention ability to discourage crime.

### **Main Findings**

We did not find evidence for the impact of life experience and knowledge about crime on exhibiting guardianship. Our findings suggest that regardless of their life experience and knowledge about crime, participants might have exhibited low self-efficacy due to the ambiguity of the shown scene participants did not know what to do. Thus, their lack of contextual knowledge to interpret the situation correctly could have reduced their willingness to intervene. According to Bandura (1997), self-efficacy is a person's belief in their ability to perform a task successfully, influencing motivation and action-taking. This implies that self-efficacy is vital to a person's perceived competence to accomplish a task (Bandura, 1989). In our case, participants indicated they were generally uncertain about their intervention skills. Even if the participants would like to step in and proactively intervene to protect the likely victim, they might not have believed in their ability to prevent crime from happening and, thus, remained passive by only monitoring the whole situation, which might have negatively impacted their willingness to intervene.

Furthermore, participants stated they could not read the room clearly, which added to their confusion about handling the situation to avoid accusations against the likely offender. Thus, participants' lack of willingness to intervene might have been linked to situational ambiguity and perceived lack of intervention skills.

Concerning the second and third hypotheses, surprisingly, we did not find evidence that participants on the left side of the political spectrum were less willing to intervene based on the likely offender's different ethnicity. In other words, political orientation did not moderate participants' willingness to intervene regarding the perceived ethnicity of the likely offenders, which is somewhat in line with Sola and Kubrin's (2023) study. The scholars conducted an experiment with US residents to assess if situational context, racial perception, and participants political orientation influenced their desire to call the police. Findings reveal that participants who describe themselves as liberal, moderate, or conservative all voice their

preference to call the police irrespectively of the vignette's racial compositions (Black vs White).

Further, Sola and Kubrin (2023) also discovered that a person's desire to call the police and perceived threats differ among the very liberal and very conservative participants in their perception of and reaction to the vignette featuring a Black person in a low severity and high situational ambiguity. Their evidence shows that very liberal participants exhibited a decreased willingness to call the police, while very conservative had a strong inclination to call the police. This suggests that participants' preferences, reserved stereotypes, and biases may influence their responses at lower levels of severity and greater situational ambiguity. Moreover, a person's heuristic can affect how they perceive their surroundings. Heuristics, also known as mental shortcuts, help a person to make fast decisions in an ambiguous situation where information or time to react is limited, leading people to resort to their preferences or prejudices (Popa-Roch & Delmas, 2010; Sola & Kubrin, 2023). One possible explanation for the conflicting findings between our study and the Sola and Kubrin (2023) study was that although our participants perceived the scene as ambiguous, they were still aware of the content of the AMP and the purpose of the study. Thus, participants may have restricted their self-heuristics when making judgements or decisions towards the likely offenders and were more willing to consider other viewpoints when deciding whether or not to intervene.

Additionally, Patané et al. (2020) test the role of empathy and political orientations on implicit bias in a simulated virtual reality (VR). Interestingly, their findings suggest that left-wing-oriented had a lower initial bias, as they exhibit higher perspective-taking skills and empathetic concern, which indicates that these two factors could be essential for protecting against bias. This might be because left-wing oriented are characterised as being open (Jost et al., 2003). Since our sample was leaning toward the left side of the political spectrum, indicating that they are open to change and prefer equality over inequality and inclusion of others, implying that left-leaning individuals are motivated to promote social change and equality, thus caring about advocating justice and avoiding harm. This means that our sample tried to evaluate both actors equally on the basis of their actions shown in the clips rather than focusing on their ethnicity, which was reflected in their responses.

Moreover, Carson and Politte (2021) investigated the relationship between public reporting as a potential expression of implicit bias in whether participants expressed their intention to contact the police when showcased with a Middle Eastern male. This study used written vignette scenarios and VR. VR enables participants to immerse themselves in a

computer-generated, simulated environment and experience it with all their senses, making it interactive (Van Gelder & De Vries, 2014). Their simulation used four actors; one Middle Eastern male and female and one White male and female (Middle Eastern vs White). The findings show that participants in a VR environment and in the written scenario were more willing to intervene and report suspicious activity when a Middle Eastern male displayed a suspicious person compared to the White actor. The results suggest that participants in both the written and VR scenario had implicit bias and negative stereotypes, which led to their unfavoured behaviour against the Middle Eastern actor. This aligns with previous research on implicit attitudes toward Arabs and Muslims (Agerström & Rooth, 2008; D’Orazio & Salehyan, 2018; Saleem & Anderson, 2013). However, our present findings suggest that implicit bias did not influence participants’ willingness to intervene when presented with the Asian likely offender. The result may be due to the task itself of the AMP, as participants were shown pictures of Black males than Asian males.

Further, since most of the participants were from Germany, it could be the case that they did not associate negative stereotypes regarding Blacks when participating in the task. Turks are with around 1.5 million, Germany’s most prominent ethnic minority (Zantow, 2016). This is consistent with prior research on the implicit attitudes of Germans (Teige-Mocigemba et al., 2017). Teige-Mocigemba et al. (2017) findings revealed in a pilot study that Germans did not prefer Whites over Blacks. Moreover, they indicated that pictures of Blacks were more pleasant than their White counterpart. However, in their preregistered study to investigate the existing prejudice of Germans against Turks. German participants negatively assessed the Turks showing a significant prejudice effect. Teige-Mocigemba et al. (2017) and other researchers questioned the validity of these tests. For example, Roch and Delmas (2010) concluded that a person’s heuristic can alter the results. Further, the results of a sample of college students in a laboratory setting with a non-probability sampling are questionable to predict direct prejudice regarding actual situations experienced in reality (Payne et al., 2010). As Oswald et al. (2013) stated, implicit attitude tests provide no more information than explicit measures indicating who discriminates against whom.

Regardless of participants’ life experiences and knowledge about crime, political views or implicit bias, the findings in the present study showed that most of the participants were not willing to take any actions to interfere, as they stated that the scenes shown were too ambiguous and the male actors did not officially commit a crime. Even when they indicated that the clips made them alert or suspicious of the likely male offenders, the majority were not willing to interfere but would interfere if the actors would officially commit a crime.

Consistent with the present study's findings, Bennett et al. (2014) and Reynald (2010) noted that participants' decision to intervene varies depending on multiple factors. Thus, if people did not classify the ongoing crime as high-risk, perceived their safety as high-risk, or lacked the necessary intervention skills or sense of responsibility, all these factors might reduce the likelihood of people taking action and interrupting criminal activity.

Interestingly, when asked what made them suspicious, the majority of the participants named the unusual or suspicious behaviour of the likely offender, such as their aimless walk, rather than commenting on their appearance, which is consistent with Quinton et al. (2000) and Reynald (2010) studies. Participants in their study deemed people as suspicious who stood out from the crowd with their behaviour. In contrast, prior studies revealed that physical features, clothing, and ethnicity were of importance in identifying a criminal (MacLin & Herrera, 2006; Madriz, 1997; Shoemaker & South, 1978). In addition, when watching the clips, mostly negative emotions were elicited. This indicates that our sample resorted to a certain extent to the application of stereotypes and life experiences, which is linked to the contextual situation, affecting how they attribute meaning to the ambiguous situation.

Not in the same context as our study, Elffers and Reynald (2017) demonstrated how individuals' evaluation of certain situations differs, as they hold different perceptions due to their different experiences throughout their life. The sample in our study indicated that the scenario shown would also occur in real life, e.g., students would leave for a short period to go to the bathroom or grab some coffee and leave their belongings behind as it would be a nuisance to pack their things up. Surprisingly, our sample indicated that they would feel uncomfortable leaving their belongings unattended, which shows that it might depend on the context of how they evaluate specific situations.

### **Limitations and Strengths**

The present study has a few limitations. First, to measure participants' implicit attitude, we used the Affect Misattribution Procedure and pictures of Black and White males were presented and not of Asians, which could have altered their responses when watching the provided clips.

Second, participants theorised/imagined their guardianship behaviour in relation to a hypothetical scenario rather than talking about actual experiences. Consequently, participants might tend to exaggerate desirable behaviours (social desirability bias) and understate socially undesirable behaviours, which might have affected their responses to appear socially desirable. In our case, participants were conscious of the purpose of the affect misattribution

procedure. Therefore, one can question their answers whether participants avoided appearing racist by carefully controlling their responses to the open-ended questions.

Another limitation is the presentation of the two clips. Even if the clips were shown in a random order, since two clips (Asian vs White) were displayed with the same content, participants anticipated the behaviour of the male actor in the second clip, which might have influenced their overall responses to the questions asked. In the first place, this was done to compare the answers of participants of different ethnicities to examine whether being of different ethnicity influences participants' willingness to intervene. However, the study relied exclusively on data reported by White participants. This is because we had to exclude non-White participants from our study because the sample size of the comparison group (non-White) was too small. This led to an insufficient representation of diversity, impacting the generalisability of the present study's findings.

One strength of the present study is that it explored a relatively under-researched topic, thereby gaining new insights and contributing to the existing body of knowledge. Furthermore, utilising videos with open-ended questions as a data collection method increases the richness and depth of the results and allows for a comprehensive understanding of the topic. Thus, we were able to showcase a realistic scenario to the participants and capture more nuanced answers and contextual information, helping us to understand the reasoning behind their responses. Lastly, including a large number of White participants assists us in directly comparing participants' responses, increasing the reliability and generalisability of one specific group.

### **Future Research**

Instead of using tests such as the affect misattribution or similar ones to measure a person's implicit bias, an alternative instrument could be used to measure an individual's unconscious behaviour. One possible alternative to the affect misattribution procedure or implicit association test is virtual reality (VR) technology. VR generally offers the possibility for participants to be immersed in the environment. This allows one to examine a person's behaviour in a relatively non-invasive real-time experiment. With the use of VR, past research tried to investigate intervention behaviours (Carson & Politte, 2021; Patané et al., 2020). For example, Carson and Politte (2021) employed a VR simulation to examine the relationship between public reporting and when a Middle Eastern male is involved in suspicious behaviour as a possible manifestation of implicit bias. To rely less on self-reports, one could use eye tracking as an additional measure and employ avatars that mimic the exact same behaviour as actors who still vary in their acting skills.

Secondly, the victim's ethnicity might be of importance. Saucier et al. (2005) found that White bystanders were less inclined to act when a victim was Black, suggesting that participants were engaging in rationalised discrimination. Following this, one study investigated the reactions of White female students to an alleged sexual assault of a Black woman (Katz et al., 2017). The results indicated that participants were less inclined to help Black women due to their prejudice against Blacks. However, another study found that when White participants were embodied in Black virtual bodies, participants treated Black as the new in-group, which reversed previously held prejudice (Hasler et al., 2017). This implies that the responses of the present study could have been influenced by participants' identification with the victim's ethnicity and, thus, increased the eagerness to monitor the situation.

Lastly, the situational context places a role in affecting the behaviour of potential guardians. Prior research suggested that the higher the situation is perceived as high risk, the more likely individuals are to take action, as they recognise the need for intervention. So, if an individual fails to recognise the situation as high risk due to ignorance or lack of clarity of the situation, it can hinder their ability to intervene. This lack of awareness prevents them recognising the need for intervention. Therefore, they are more likely not to intervene when a crime occurs (Bennett et al., 2014; Burn, 2009; Fischer et al., 2011). Thus, individuals may be reluctant to intervene if they cannot clearly grasp the situation since there is no valid reason for them to step in.

In this context, future research should aim to measure the impact of the victim's race or ethnicity on top of the likely offenders' race or ethnicity and the severity of the situation to gain better insight and understand individuals' motivation to intervene when crimes occur.

## **Conclusion**

Although our expectations could not be substantiated, the present study suggests that participants' willingness to intervene does not depend on the likely offender's ethnicity. Participants were cautious when indicating their readiness to act against the likely offenders because of the ambiguous situation. While the situation shown in the clips was ambiguous, there was no relationship between participants' implicit bias and their willingness to intervene. This suggests that inhibition of one's self-heuristics affects the implicit measures. Because participants were primarily aware of the purpose and content of the affect misattribution procedure. In other words, participants might have consciously controlled their answers regarding the open questions that were linked to the clips. Thus, we did not find support for our hypotheses. The result shows the importance of investigating further

individual factors to understand the motivation behind a potential guardian's willingness to intervene when witnessing a crime in progress.

By exploring these individual factors, researchers can gain a better understanding and insight into the complex relationship between race, ethnicity, life experiences and political orientation. As racial or ethnic minorities have received unjust or unequal treatment often due to discriminatory practices, resulting in discrimination because of a person's race/ethnicity. Systematic discrimination and ethnic profiling are no strangers in the context of crime and affect minorities every day. Guardians play an important role in carrying on stereotypes that depict certain ethnicities as criminals. With this study, a first attempt is made to shed light on the role of implicit racial biases might have on guardianship to open a path to tackle this problem.

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### Footnotes

<sup>1</sup> We were interested to split the independent variable into two variables. Thus, one Kruskal-Wallis test for life experiences and one for knowledge about crime was performed. First, we wanted to examine the relationship between life experience and participants' willingness to intervene. The test showed a non-significant difference between the groups that scored high on the life experiences and those that did not [ $\chi^2(7, N = 148) = 0.45, p = .799$ ]. Next, the relation between knowledge about crime and participants' willingness to intervene was investigated [ $\chi^2(7, N = 148) = 2.82, p = .727$ ]. Results revealed a non-significant difference between the two groups.

## Appendices

### Appendix A

#### Introduction

##### Welcome!

Thank you for your interest in participating in this study. The aim of this research is to explore the underlying reasons why individuals exhibit guardianship to disrupt or prevent crime. You will be presented with questions about your experience and knowledge of crime, a task, shown two clips, and then asked follow-up open-ended and closed-ended questions regarding the clips. Containing questions about your perception, awareness, and intervention abilities.

To ensure the study's accuracy and validity, **please complete the study on a COMPUTER.**

Thank you for your cooperation!

P.S.: This survey contains credits to get free survey responses at SurveySwap.io and SurveyCircle.

#### Informed consent

This study will take approximately 15 to 20 minutes to complete. Participation in this study is voluntary, and you can withdraw from participating at any given moment without having to state a reason for your withdrawal. Any response from you will be treated confidentially. The data will only be available for the researcher and the supervisor and will only be used for research purposes.

If you have any questions, feel free to contact me or my supervisor.

m.l.vu@student.utwente.nl

i.vansintemaartensdijk@utwente.nl.

Before proceeding, please confirm that you understand and agree to the following terms.

Your participation in the study is entirely voluntary, and you are at least 18 years old. You may withdraw from the study at any time for any reason. Your data will be anonymised and securely stored on a server for one year. Please be aware that participation may carry certain risks, such as potential psychological discomfort, based on the questions asked and the clips

shown. Further, the display of pictures may potentially trigger seizures for people with photosensitive epilepsy.

- I consent, begin the study
- I do not consent, I do not wish to participate

*Skip To: End of Survey If Welcome! Thank you for your interest in participating in this study. The aim of this research is... = I do not consent, I do not wish to participate*

**End of Block: Intro**

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**Start of Block: Demographics**

Age First, I would like to ask you some general questions.

What is your age?

▼ 18 (18) ... 100 (100)

Sex What is your gender?

- Male
- Female
- Non-binary
- Prefer not to say

What is your country/region of primary citizenship?

▼ Afghanistan (1) ... Zimbabwe (195)

---

What is your race or ethnic background?

If you have more than one ethnic background, which do you identify the most with?

For example: Asian would be the race and Vietnamese/Korean would be the ethnicity you identify with.

**P.S.** Ethnicity refers to a person's cultural identity, which can include factors, such as nationality, language, religion and traditions but also encompass factors like ancestry and heritage. Whereas race refers to physical characteristics to categorise people into groups, like skin colour and facial features.

▼ White or European (e.g., English, Italian, Irish, Polish, German) (1) ... Pacific Islander (e.g., Hawaiian, Samoan, Fijian) (7)

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Please specify your ethnic background.

If you have more than one ethnic background, please name them and state which you identify the most, if possible.

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What is your highest completed education?

- No formal education
  - High school diploma
  - Vocational training
  - Bachelor's degree
  - Master's degree
  - Professional degree
  - Other
-

**Start of Block: AMP**

Next, you will be asked to look at several images and state whether they are pleasant or unpleasant. Please pay attention!

Once you have completed the whole questionnaire, you will receive an answer regarding the purpose of the task.

**WARNING:** This display of pictures may potentially trigger seizures for people with photosensitive epilepsy.

---

Do you believe your rating represents your true assessment of the presented images?

- No
- Yes

Are you familiar with the purpose of this task?

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

What do you think the content of this task is?

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Have you ever completed a task similar to this before?

- No
- Yes

### **Life Experience and Knowledge**

Info In the following, you will find questions and statements about your knowledge and experience about crime. There are no right or wrong answers.

Do you know someone close to you, such as a family member (e.g. parents, siblings, or grandparents) or friend who worked in a job related to law enforcement or criminal justice, e.g. police officer, judge, victim advocate?

- No
- Yes

I am interested in law enforcement or criminal justice.

- No
- Yes

Do you know someone close to you who has been a victim of a crime?

- No
- Yes
- Prefer not to say

Victimisation Have you ever been a victim of a crime?

	No	Yes
theft or personal property	<input type="radio"/>	<input type="radio"/>
robbery or assault	<input type="radio"/>	<input type="radio"/>
burglary or home invasion	<input type="radio"/>	<input type="radio"/>
identity theft or fraud	<input type="radio"/>	<input type="radio"/>
other	<input type="radio"/>	<input type="radio"/>

### Perceived Emotions

People do not need to watch their belongings in a public space when they leave for a short period of time.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

People leaving their belongings in a public space have to worry about someone stealing their things.

- Strongly disagree (1)
- Disagree (2)

- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

I usually leave my personal belongings outside unattended when I am familiar with the environment without fearing that it will be damaged or stolen by others.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

I usually leave my personal belongings outside unattended even though I am not familiar with the environment without fearing that it will be damaged or stolen by others.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)

Strongly agree (7)

I feel uneasy about leaving my belongings unattended in a public space.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Neither agree nor disagree (4)

Somewhat agree (5)

Agree (6)

Strongly agree (7)

### **Scenario**

Please read the following scenario carefully and imagine yourself in this situation.

You are sitting in a public place where people come and go to work or to study. The location is familiar to you. You are working on your laptop when someone sitting near you leaves their seat. You can see that the person has left their belongings behind, e.g. a notebook and a phone. As you look around, you realise there are not many people around, and those few there do not seem to be paying any attention to the person who has left their things behind. Then, you see a male person approaching the table of the person who left it. What do you think will happen next?

The next button is displayed in a few seconds. Please watch the two clips.

---

### **Clip A**

Clip A is now displayed. Please watch it carefully in full-screen mode, if possible. Afterwards, there will be open questions for you to answer.

The next button is displayed in a few seconds.

How did the clip make you feel? Why?

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What did you focus on when watching the video? Why?

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What do you think the person in the green T-shirt will do next? Why?

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Please describe shortly what you saw in the video (the people, their action).

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Did you observe any suspicious activities?

No (1)

Yes (2)

*Display This Question:*  
*If Did you observe any suspicious activities? = Yes*

ClipA\_Q5b What specific characteristics of the person with the green T-shirt or situation aroused your suspicion (face, gesture, clothing)?

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ClipA\_Q6 Do you think that the person with the green T-shirt in the video would commit a crime? Please elaborate, on why or why not.

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ClipA\_Q7 Would you intervene? Please elaborate, on why or why not. If yes, what would you do?

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ClipA\_Q8 Do you personally know the person with the green T-shirt?

No (1)

Yes (2)

*Display This Question:*

*If Do you personally know the person with the green T-shirt? = Yes*

ClipA\_Q8b Please indicate the name of the person.

---

### **Clip B**

Clip B is now displayed. Please watch it carefully in full-screen mode, if possible.

Afterwards, there will be open questions for you to answer.

The next button is displayed in a few seconds.

How did the clip make you feel? Why?

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What did you focus on when watching the video? Why?

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What do you think the person in the black T-shirt will do next? Why?

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Please describe shortly what you saw in the video (the people, their action).

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Did you observe any suspicious activities?

- No (1)
- Yes (2)

*Display This Question:*

*If Did you observe any suspicious activities? = Yes*

What specific characteristics of the person with the black T-shirt or situation aroused your suspicion (face, gesture, clothing)?

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Do you think that the person with the black T-shirt in the video would commit a crime?

Please elaborate, on why or why not.

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Would you intervene? Please elaborate, on why or why not. If yes, what would you do?

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Do you personally know the person with the black T-shirt?

No (1)

Yes (2)

*Display This Question:*

*If Do you personally know the person with the black T-shirt? = Yes*

Please indicate the name of the person.

---



	very uncertain (1)	somewhat uncertain (2)	Slightly uncertain (3)	Neither certain nor uncertain (4)	Slightly certain (5)	somewhat certain (6)	very certain (7)
How sure are you that the person with the green T- shirt had the same ethnicity as you?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How sure are you that the person with the black T- shirt had the same ethnicity as you?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you feel the video accurately reflects a real-world situation? Why or Why not?

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I am more likely to intervene to prevent theft if I know the potential victim than if I do not.



### Political Orientation

This statement is about your political ideology. There are no right or wrong answers.

right

left

0 1 2 3 4 5 6 7 8 9 10

In political matters, people talk of 'the left' and the 'the right'. How would you place your views on this scale, generally speaking. ( )



### Purpose of the Study

Were you able to make predictions about the overall purpose and objectives of the research while participating in the study?

- No (1)
- Yes (2)

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*Display This Question:*

*If Were you able to make predictions about the overall purpose and objectives of the research while... =*

Yes

Purpose\_Q1b If yes, what is the purpose of the present study?

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### **Debriefing**

This study's aim is to explore participants' willingness to intervene or lack thereof when noticing a potential offender about to commit a crime and what individual factors, such as their knowledge, experience about crime, political orientation, and their implicit bias toward a different ethnicity than theirs, influence their intervention responses. Thus, an ambiguous scene was shown to explore your perception and intervention abilities.

In addition, the task you completed is called the Affect Misattribution Procedure (AMP), which measures "automatically activated responses based on the misattributions people make about the sources of their affects or cognitions" (Payne & Lundberg, 2014, p. 672). Meaning, people's attributions about their affective reactions can be used to measure attitudes implicitly. The procedure essentially measures the extent to which someone has implicit biases that are present in all people to some extent.

If you think you have an implicit bias and would like to address it, here is a link with steps to combat it and additional information if needed. [https://thinkculturalhealth.hhs.gov/maternal-health-care/assets/pdfs/Combating\\_implicit\\_bias\\_and\\_stereotypes.pdf](https://thinkculturalhealth.hhs.gov/maternal-health-care/assets/pdfs/Combating_implicit_bias_and_stereotypes.pdf)

If you have any doubts or concerns based on the information or questions provided, please feel free to contact me (m.l.vu@student.utwente.nl) or my supervisor (i.vansintemaartensdijk@utwente.nl).

Furthermore, links to victim support websites are provided if you need additional support. <https://victim-support.eu/>

<https://www.slachtofferhulp.nl/english/>

<https://weisser-ring.de/english>

Thank you for taking part in our survey. If you wish to withdraw your answers, please click "I withdraw". Otherwise, by clicking "I agree", you agree to your answers being used in our study.

**P.S:** Please click the '**Next**' **button** at the bottom right, or your answers will not be fully recorded, and the survey will be incomplete. Thank you for your time and opinion!

I agree (1)

I withdraw (2)

## Appendix B

**Table B1**

*Categories and Distribution Derived From Responses of the Question: How did the Clip Make you Feel? Why?*

Code	Explanation	Distribution	
		Clip A	Clip B
1. Curious	Interested in learning about the situation or their behaviour	11	6
2. Uneasy	Feeling anxious, worried, or uncomfortable in response to the situation	96	92
3. Suspicious	Feeling doubtful of someone or experiencing a lack of trust, That there is something illegal going on or that something is not right	7	13
4. Alert	Quickly recognise, understand, and act in a given situation setting, in this case, about theft, Indicate that an individual is actively monitoring their surroundings and preparing themselves for potential danger or risk.	12	15
5. Indifferent	The individual is not thinking about or interested in the situation, or they may not have an opinion	20	20
6. Assured	Feeling confidence or certainty, or lack of worry as they believe that the likelihood of theft is low	2	2

**Table B2**

*Categories and Distribution Derived From Responses of the Question: What did you Focus on When Watching the Video? Why?*

Code	Explanation	Distribution	
		Clip A	Clip B
1. Potential Offender	A person who could commit a crime	134	133

2. Target	Someone or something could be harmed or caused damage to	5	6
3. Whole situation	Focussed on every detail of the video	7	8
4. Indifferent	No interest in the given scenario	2	1

**Table B3**

*Categories and Distribution Derived From Responses of the Question: 'What do you Think the Person in the Green/Black T-shirt Will do Next? Why?'*

Code	Explanation	Distribution	
		Clip A	Clip B
0. Not sure	No answer or opinion about the situation	6	11
1. Check out	Examining something or getting more information about a certain situation	6	9
2. Meet someone	To see, wait and talk to someone/the girl	32	22
3. Undetermined	Indicates participants' uncertainty about the situation, whether a person might commit a crime or not	14	26
4. Crime	Stealing the belongings of the woman or assaulting her	34	37
5. Nothing	The male person goes somewhere and is doing something else	48	37
6. Quit	Potential offenders decided not to commit a crime	7	5
7. Protect	The male person tried to keep the woman's belongings safe	1	1

**Table B4**

*Categories and Distribution Derived From Responses of the Question: 'Did you Observe any Suspicious Activities?'*

Code	Explanation	Distribution	
		Clip A	Clip B
1. No	A person who could commit a crime	45	32

2. Yes	Someone or something could be harmed or caused damage to	103	116
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**Table B5**

*Categories and Distribution Derived From Responses of the Question: 'Do you Think that the person with the Green/Black T-shirt in the Video Would Commit a Crime? Please Elaborate, on why or why not.'*

Code	Explanation	Distribution	
		Clip A	Clip B
0. No	Did nothing wrong	70	70
1. Yes	Behaviour was suspicious	37	48
2. Maybe	There is a possibility that he might steal, Not sure about the situation or behaviour	41	30

**Table B6**

*Categories and Distribution Derived From Responses of the Question: 'Would you Intervene? Please Elaborate, on why or why not. If yes, What Would you do?'*

Code	Explanation	Distribution	
		Clip A	Clip B
1. No	The male person did nothing wrong	97	94
2. Yes	The male person did something	47	50
3. Maybe	There is a possibility that the male person might steal, Not sure about the situation or behaviour	4	4