



The Influence of Case Characteristics, Attitude, and Affect on Citizens' Willingness to Help Search for a Missing Person

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Abstract

Not all missing persons are treated equally. Research shows that certain types of victims are overrepresented in the media, but it is not clear whether these patterns also reflect differences in people's propensity to help certain types of victims. Therefore, the purpose of this study was to examine whether the characteristics of a missing person's case influence respondents' willingness to help find the missing person. Using a $2 \times 2 \times 2$ vignette study ($N = 675$), gender (male/female) and background of a missing person (western/non-western) and police involvement (yes/no) were manipulated to test respondents' subsequent willingness to search. We further examined the influence of two-person specific factors among potential searchers: the respondent's attitude toward searching and levels of perceived positive and negative affect. This study found that, despite a small but significant effect of gender, respondents' intention to search is primarily determined by affect and attitude, with the former having relatively the strongest influence. Of the two affective states, positive affect had the strongest effect, about twice that of negative affect. Affect not only fully mediated the effects of gender on intention, but also had an independent influence on willingness to help that exceeded the indirect effect of gender. Therefore, it can be concluded that willingness to help find someone depends primarily on the (positive) affective state of the potential searcher than on specific characteristics of the missing person case or considerations regarding the search itself. The study has important practical implications for engaging citizens in missing persons cases.

Keywords Missing person cases · Citizen participation · Policing · Decision making · Missing white woman syndrome

Introduction

Our society distinguishes between missing persons. This is evident in the fact that some cases receive disproportionate amounts of media attention. In particular, stories about white, female victims and children get proportionally more exposure than missing minority women (Slakoff 2013). This unequal news representation is important for three reasons: first, outside attention can put additional pressure on police investigations (Gilchrist 2010; Lam and Kop 2020a, b). Second, extensive

media coverage ensures that a disappearance comes to the attention of more people (Van den Berg and Band 2018). Subsequently, this increases the likelihood of spontaneous searches by citizens (Lam et al. 2023). Third, it is possible that media patterns reflect the type of victim that (subconsciously) most appeals to the public and elicits the strongest reactions.

The influence of victim characteristics on media coverage is well established scientifically (e.g., Neely 2015; Liebler 2010; Van den Berg and Band 2018; Pritchard and Hughes 1997; Peelo et al. 2004; Buckler and Travis 2005; Conlin and Davie 2015; Moody et al. 2008). In fact, the disproportionate focus on white women is so well supported by research that it is known as the “missing white woman syndrome” (Slakoff 2013). Missing, especially white, women are in the news more often, receive longer and repeated attention, and are on the front page more often (Sommers 2016; Gilchrist 2010). The same pattern extends to social media, where posts about missing white women are shared more frequently on Facebook and Twitter (Van den Berg and Band 2018). As one reporter summarized “when you're missing, it helps to be young, white, and female” (Johnson 2004).

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Despite demonstrated media differences, it has not yet been determined whether victim characteristics are also related to direct action by the public. Although much research has been done on missing persons, most of it focuses on a limited number of main themes: who goes missing, how do those left behind cope with a disappearance and different methods of (forensic) investigation (e.g., Greene and Alys 2016 for an overview). Research on the subject of citizen assistance in missing person cases is limited and tends to focus on police-citizen cooperation and how to support citizens rather than on what actually motivates citizens to search (e.g., Lam et al. 2022b; Lam and Kop 2020a, b; Lam et al. 2022a; Ulnhoo and Hansen Löfstrand 2018). Although research is lacking, (Dutch) well-known missing persons cases seem to suggest that gender and background influence the willingness of the public to search. However, while consistent with studies on the missing white woman syndrome, this observation has not yet been scientifically substantiated.

Furthermore, real life examples of citizen initiatives also indicate that public action can be driven by the perception that the police are not doing enough. This is often the case, for example, with pedophile hunters who claim to act against child abuse (e.g., Huey et al. 2013; Hadjimatheou 2021; Kraak 2020). In missing persons cases, citizens can similarly respond by initiating a search when they notice that the police are not doing so. This is clearly illustrated by a Dutch case, where the family initially organized their own search because the police had no leads to look for the missing young woman, which subsequently attracted a lot of attention and volunteers (Lam and Kop 2020a, b). Therefore, (lack of) police deployment may directly influence citizens' willingness to search themselves.

To fully understand why people decide to help, however, case characteristics should not be considered in isolation, as they are inextricably filtered through internal psychological processes underlying behavior. Cognitive (rational) theories assume that decisions (to act) result from evaluating, valuing, and estimating the likelihood of the perceived outcome of behavior. The result of these judgments is a disposition to act positively or negatively toward an object, usually referred to as attitude. In general, attitudes are stable and resistant over time and have consistently been shown to drive behavior (Ajzen and Fishbein 2005; Bohnet and Dickel 2011). Moreover, attitudes have been specifically shown to influence both police and citizen behavior in the context of policing (Ishoy 2015, 2016; Schreurs et al. 2018; Lam et al. 2022b). This also applies to missing persons cases, where citizens will likely consider the advantages, disadvantages, and attractiveness of searching for a missing person when deciding whether or not to help. Therefore, it can be assumed that citizens form attitudes toward searching for a missing person themselves that (in part) drive their willingness to help.

However, not all behaviors and decisions are formed cognitively, and in certain circumstances, affective decision-making processes predominate. This is particularly relevant for understanding prosocial behavior, such as helping, sharing, donating, and volunteering, which benefits the other person but often comes at the expense of the helper (Snippe et al. 2018; Penner et al. 2005; Trivers 1971; Aknin et al. 2018). As such, helping others cannot always be fully explained rationally. When discussing the influence of feelings, the terms affect, mood, and emotion are often used interchangeably. More precisely, however, affect is considered to be the superordinate state that encompasses both mood and emotion (Niven 2013; Ekkekakis 2012; Andrade and Cohen 2007). Two primary dimensions of affect can be distinguished, which are both bipolar and orthogonal: positive affect reflects enthusiastic, alert, and active states, while negative affect is described as a dimension of subjective distress and unpleasurable experience (Ekkekakis 2012).

Studies have now shown a clear relationship between affect and helping behavior, with the effect of positive affect in particular being "remarkably consistent" (Dovidio 1984; Isen et al. 1976; Snippe et al. 2018; Aknin et al. 2018; Laguna et al. 2022). Positive affect promotes kindness, honesty, social connectedness, responsibility, problem-solving skills, and the ability to see the other person's perspective (Isen 2008). The influence of negative affect on prosocial behavior is less clear-cut. In general, there is substantial empirical evidence that negative affect is causally related to helping behavior, but prosocial behavior does not increase in all circumstances (Miller 2009; Dovidio 1984; Andrade and Cohen 2007; Dempsey and Mann 2017). The dominant model to explain this relationship is the mood maintenance model (or negative state relief model): helping others improves mood, and thus provides a way for people to regulate negative feelings (Miller 2009; Bauman et al. 1981; Cialdini et al. 1973; Batson et al. 2008). Therefore, negative affect increases helping when positive affect is anticipated and decreases helping when subjects are unable to perceive the mood-lifting benefits of helping or see more effective means of relieving the bad mood (Andrade and Cohen 2007; Miller 2009). Critics note that although support was initially found for the state relief model, subsequent studies have failed to support this explanation and instead suggest the hypothesis that helping stems primarily from other-oriented feelings (Batson et al. 2008). Regardless of the underlying psychological process, Lam et al. (2023) found that people searching for a missing person cited feeling bad as one of the main reasons for helping.

Consequently, high levels of positive and negative affect can both be expected to be associated with a high willingness to help search for a missing person. Moreover, negative affect is expected to mediate the psychological impact of the case: when a disappearance makes people feel bad, they

are more likely to protect themselves from that feeling by helping (find) others.

The purpose of the current study is to examine to what extent case- and helper-related factors influence the willingness to help find a missing person. By means of an experimental design, the effect of three case-related factors is examined: gender and background of the victim and whether or not the police will search. In addition, the direct effect of attitude and mediating role of affect on helpfulness are examined. The study tests the following hypotheses:

1. The intention to help search for a missing person is higher when the victim is a western female.
2. The intention to help search for a missing person is higher when the police does not search.
3. Attitude toward searching is positively related to the intention to help search for a missing person.
4. Affect (positive and negative) is positively related to the intention to help search for a missing person.
5. Negative affect mediates the effects of gender, background, and police deployment on to the intention to help search for a missing person.

Method

Design

The research was conducted by means of a vignette study. Eight different scenarios manipulated gender and background of the missing person and police deployment through a $2 \times 2 \times 2$ experimental design. The basic scenario was based on a real message posted on Facebook by the friend of a missing young woman several years ago, to make the presented case as realistic as possible. Names and locations were fictitious for reasons of traceability and privacy. The scenario invariably included a call for information from the missing person's partner because the victim had not returned home after a bike ride and had subsequently missed an appointment the next day. The message included the name, a physical description, the presumed route taken, and the last known location. Eight different experimental conditions were created by describing the victim as either male or female, implying a Western or non-Western background, and indicating that the police did or did not want to initiate a search. The experimental conditions used typical Dutch or Arabic sounding names and physical descriptions to imply a distinction between Western and non-Western background, such as Robert or Amir and blond or dark hair. To ensure consistency, the name of boyfriend or girlfriend was held consistent with the name of the missing person in the respective experimental

condition, i.e., Robert and Sophie, Amir and Meryam. The experimental conditions were randomly assigned, with the number of subjects distributed equally. Three constructs were measured during the experiment: attitude toward searching for a missing person, affect, and willingness to help find that person.

Attitude

Attitude was measured with a semantic-differential scale. This scale consisted of eight antagonistic word pairs. Five of the items related to the functional aspect of attitude, such as searching for a missing person yourself (along), are useless or useful. Three items concerned the experiential component of attitude, such as searching for a missing person yourself is unpleasant or pleasant. The word pairs were scored using a 7-point Likert scale. Calculation of Cronbach's alpha showed that the general scale had good internal reliability, $\alpha = 0.89$.

Affect

Affect was measured with 9 items asking respondents to indicate on a 5-point Likert scale the extent to which they felt a particular emotion. Five items measured positive affect, such as "can you indicate how you are feeling right now, as you read this message? Alert." The other four items focused on negative affect, such as "can you indicate how you are feeling right now, now that you are reading this message? Upset." The conceptual difference between positive and negative affect was confirmed by a principal component analysis, using a varimax rotation, which showed two corresponding factors with an eigenvalue greater than 1. The items were combined into two separate scales, for positive affect and negative affect. Both item-sets had good internal reliability, $\alpha_{\text{Pos}} = 0.86$ and $\alpha_{\text{Neg}} = 0.76$.

Intention

Intention was measured using 8 different items on an 11-point scale. One item focused on general willingness to help: "if you read this message, to what extent would you be willing to help find this person?" The subsequent seven items focused on specific forms of active help, such as "participating in a search organized by the police," and more passive forms of help, such as "actively telling other people about the missing person to bring this to the public's attention." The intention scale had very good internal reliability, $\alpha = 0.89$.

All variable scores are presented on a 7-point scale for ease of interpretation and comparison.

Participants

Participants were recruited through an external panel agency, which distributed the link to an online questionnaire to people within their database. Efforts were made to ensure a balanced distribution of gender, education level, and social class. The questionnaire was (partially) started by 807 respondents. Nine respondents were automatically excluded because they did not give their consent, leaving 798 respondents. The dataset was checked for straight-line errors by calculating the variance between the scores on the independent variables. Participants with a variance of 0, indicating that they gave the same answer to all questions, were excluded from the analysis. Eventually, 675 valid participants remained after verifying the dataset. Male and female respondents were approximately equally distributed: 330 men (48.9%) and 343 women (50.8%).¹ Just over half of the respondents were 56 years old or older ($N=368$; 54.2%), and over a quarter was aged between 36 and 55 ($N=199$, 28.5%). Younger people (up to age 35) were slightly underrepresented ($N=110$; 16.3%). Respondents were predominantly lower ($N=255$; 37.8%) or middle level educated ($N=257$; 38.1%). Those with higher education constituted slightly less than a quarter of the total dataset ($N=161$; 23.9%). Half of the respondents reported approximately received a modal income² or lower: ($N=344$; 51.0%). The majority of respondents were born in the Netherlands ($N=635$, 93.6%) and had a Dutch-born father ($N=647$, 95.9%) and/or mother ($N=599$, 88.7%).

Procedure

Respondents were sent an invitation to complete an online questionnaire about citizen participation in missing persons cases. This web-based questionnaire could be accessed on both computers and mobile devices. A direct link opened an informed consent page, where participants were informed that their participation was anonymous and voluntary, and that they could discontinue the questionnaire at any time. The questionnaire opened with some general background questions. Participants were then asked about their attitudes toward citizen searches in missing persons cases. Next, participants were asked to read one of eight different, randomly assigned scenarios, followed by a short series of questions about their emotional state after reading about the (fictitious) missing person. The final questions focused on the extent to which and the form in which respondents would be willing to help find a missing person.

¹ One person identified with neither and one preferred not to answer.

² Assuming a modal income of around €38,000.

Table 1 Variable means, standard deviations, and bivariate correlations (7-point scale, $N=675$)

Variables	<i>M</i>	<i>SD</i>	1	2	3
1. Intention	4.04	1.30	–		
2. Positive affect	4.20	1.21	0.60***	–	
3. Negative affect	2.68	1.16	0.46***	0.51***	–
4. Attitude	5.37	1.07	0.25***	0.26***	0.02

*** $p < 0.001$

Results

On average, respondents showed a neutral intention to help find the missing person ($M=4.04$, $SD=1.30$). A repeated-measures ANOVA revealed that participants experienced significantly higher levels of positive than negative affect after reading the scenario ($M_{pos}=4.20$, $SD=1.21$, $M_{neg}=2.68$, $SD=1.16$, $F(1, 674)=1135.76$, $p < 0.001$). Attitudes toward help searching were decidedly positive ($M=5.37$, $SD=1.07$). Pearson's correlations show that intention correlated most strongly with positive affect ($r=0.60$), moderately with negative affect ($r=0.46$), and low with attitude ($r=0.25$). See Table 1 for means, standard deviations, and Pearson's correlations.

The Influence of Case-Related and Individual Factors on the Intention to Help Search

A one-way ANCOVA was conducted to determine significant differences between gender, background, and police deployment on the intention to help, controlling for respondents' attitude toward searching. There was a significant effect of gender: respondents were more willing to help a female ($M=4.16$, $SD=1.28$) than a male victim ($M=3.93$, $SD=1.31$), $F(1, 666)=7.47$, $p < 0.01$. Background had a marginally significant effect with respondents more helping toward a Western ($M=4.14$, $SD=1.31$) than a non-Western victim ($M=3.94$, $SD=1.30$), $F(1, 666)=3.54$, $p=0.06$, see Table 2. Partial eta square showed that both effect sizes were small ($\eta^2=0.01$). Attitude significantly adjusted the association between the independent variables and intention to help $F(1, 666)=42.48$, $p < 0.01$, which constituted a medium-sized

Table 2 Means and standard deviations of helpfulness for gender and background ($N=675$, 7-point scale)

	Male		Female		Total	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Western	4.08	1.34	4.22	1.27	4.14	1.31
Non-Western	3.78	1.27	4.11	1.30	3.94	1.30
Total	3.93	1.31	4.16	1.28		

Table 3 Analysis of covariance for intention to help by case characteristics, with attitude and affect as covariates ($N=675$)

Source	SS	df	MS	<i>F</i>	Sig	η^2
Gender	0.05	1	0.05	0.05	0.83	0.00
Attitude	17.03	1	17.03	16.79	> 0.001	0.02
Negative affect	43.19	1	43.19	42.60	> 0.001	0.06
Positive affect	155.01	1	155.01	152.87	> 0.001	0.19
Error	679.30	670	1.01			

R squared = 0.41 (adjusted R squared = 0.40)

effect ($\eta^2=0.06$). Police deployment made no significant difference on helpfulness. Also, no significant interaction effects between gender and background were found. Overall, the independent variables and attitude together explained 7% of the variance in intention ($R^2=0.07$).

A second ANCOVA was used to explore the (mediation) role of affect on the intention to help search. This subsequent analysis demonstrated no significant effects of gender when also controlling for positive and negative affect. However, both forms of affect significantly influenced the association of the independent variables with the intention to help, $F_{pos}(1, 670) = 152.87$, $p < 0.001$ and $F_{Neg}(1, 670) = 42.60$, $p < 0.001$. Partial eta squared showed a large effect for positive affect ($\eta^2=0.19$) and medium for negative affect ($\eta^2=0.06$). Together, gender, affect, and attitude explained 40% of variance in intention ($R^2=0.40$). See Table 3 for full ANCOVA results.

A MANCOVA was used as the final step to determine whether affect mediated the effect of gender on intention to help. The degrees of both positive affect $F(1, 672) = 10.61$, $p = 0.001$ and negative affect $F(1, 672) = 17.99$, $p < 0.001$ differed significantly between the different gender conditions, while controlling for attitude. For a female victim, respondents reported significantly more positive ($M = 4.43$, $SD = 1.20$) and negative affect ($M = 2.87$, $SD = 1.15$) than for a male victim ($M = 4.07$, $SD = 1.23$ and $M = 2.50$, $SD = 1.14$, respectively). The effect sizes for positive affect ($\eta^2=0.02$) and negative affect ($\eta^2=0.03$) were, however, small. Attitude was significantly related to positive affect, $F(1, 672) = 49.85$, $p < 0.001$, with a medium effect size ($\eta^2=0.07$), but not to negative affect, $F(1, 672) = 0.38$, $p = n.s.$ Gender and attitude explained 8% in positive affect ($R^2=0.08$) and 2% of variance in negative affect ($R^2=0.02$).

Table 4 Multiple regression analysis with intention to help search as dependent variable

Variable	<i>B</i>	β	R^2	Adj. R^2
			0.41	0.40***
Positive affect	0.48	0.45***		
Negative affect	0.26	0.23***		
Attitude	0.16	0.13***		

Finally, a regression analysis was used to determine the relative weight of attitude and positive and negative affect as case independent predictors of the intention to help, which accounted for 40% of variance in intention to help, $R^2 = 0.40$, $F(3, 671) = 153.14$, $p < 0.001$. Both forms of affect contributed strongest to the model, with the influence of positive affect ($\beta = 0.45$, $p < 0.001$) twice as great as that of negative affect ($\beta = 0.23$, $p < 0.001$). Attitude explained the smallest amount of variance ($\beta = 0.13$, $p < 0.001$). See Table 4 for regression results.

Conclusion and Discussion

The purpose of this study was to determine what factors influence citizens' willingness to help search for a missing person. Using an experimental design, the following hypotheses were tested:

1. The intention to help search for a missing person is higher when the victim is a western female.
2. The intention to help search for a missing person is higher when the police does not search.
3. Attitude toward searching is positively related to the intention to help search for a missing person.
4. Affect (positive and negative) is positively related to the intention to help search for a missing person.
5. Negative affect mediates the effects of gender, background, and police deployment on to the intention to help search for a missing person.

The first two hypotheses focused on the influence of case-specific factors. Previous research on the missing white woman syndrome gave rise to the first hypothesis that citizens would be more willing to search for a western female than non-western females or males (e.g., Slakoff 2013; Gilchrist 2010; Sommers 2016). This hypothesis was, however, not supported: the combination of background and gender did not lead to significant differences in intention. However, there was a small effect of gender: the willingness to search for a female victim was slightly higher than for a male victim. Furthermore, despite real-life examples suggesting that citizens' willingness to take

action increases when the police do not (e.g., Lam and Kop 2020a, b), this second hypothesis was not supported either. Respondents were not more willing to help search when the police did not act.

The subsequent three hypotheses concerned the (indirect) influence of two person-related factors, namely attitude and affect. A large body of research has shown that attitudes directly influence behavior (Ajzen and Fishbein 2005; Bohnet and Dickel 2011; Fishbein and Ajzen 2011). Consistent with these findings, the present results confirm that respondents' attitude toward searching themselves is positively related to the intention to help find a missing person, supporting our third hypothesis. Similarly, previous studies (e.g., Dovidio 1984; Isen 2008; Snippe et al. 2018; Akinin et al. 2018; Laguna et al. 2022) show that affect influences people's willingness to help. In line with these insights, the present results show that the willingness to help search is affected by positive and negative affect in two ways. First, affect fully mediated the effects of gender on intention. The effect of gender can thus be explained as a result of an affective response that subsequently influences intention. Second, affect had an independent influence on willingness to help that exceeds the indirect effect of case-specific factors. In other words, affect as a whole explained more variation in intention than just the affective response to gender differences. These findings support our fourth and fifth hypotheses.

Taken together, this study shows that, despite the small but significant effect of gender, respondents' intention to search is mainly determined by affect and attitude, with the former having relatively the most powerful influence. This is consistent with previous research showing that affect is a stronger predictor of intention than cognitive attitude (Morris et al. 2002). Of the two affective states, positive affect (the extent to which someone feels enthusiastic, alert and active), has the strongest effect, about twice that of negative affect (the amount of subjective distress). Therefore, it can be concluded that the willingness to help find someone depends primarily on the (positive) affective state of the potential searcher than on specific characteristics of the missing person case or considerations regarding searching itself.

Our study extends the insights of previous research in two important ways. First, by addressing possible implications of the missing white woman syndrome for civilian aid in missing person cases. Although there are clear differences in news coverage, our study suggests that these differences primarily reflect media choices rather than the public's opinion on who is more important to help. However, this does not mean that the missing white woman syndrome does not extend to civil aid in missing persons cases. More coverage results in more people being reached, which makes citizen searches much more likely in cases that are highlighted by the media.

Second, the results provide more insight into what drives people to help. Previous research has shown that positive affect, in general, strongly promotes prosocial behavior, while negative affect has a less unequivocal effect (Dovidio 1984; Van Kleef and Lelieveld 2022; Manucia et al. 1984; Andrade and Cohen 2007). The current findings extend these insights to the context of missing persons. The impact of positive affect is interesting because missing persons are generally not associated with enthusiast feelings. However, the results suggest that generally feeling active, alert, and interested, regardless of the case, is an important drive to help. This is consistent with the concomitance model of positive affect, which argues that prosocial behavior is not an instrumental consequence of positive affect (i.e., people striving to maintain a good mood) but should be viewed as a psychological by-product. In other words, an elevated mood promotes altruism through evaluative biases (Andrade and Cohen 2007; Manucia et al. 1984). Consistent with research on the state-relief model, which posits that people act prosocially to manage negative feelings (Cialdini et al. 1973; Miller 2009; Andrade and Cohen 2007), negative affect was also positively associated with willingness to help. Recently, a Dutch questionnaire study found that feeling bad was one of the main self-reported reasons why people actually participated in a search for a missing person (Lam et al. 2023). Subsequently, the present study experimentally substantiates the influence of negative affect as a driver of helpfulness.

Limitations

It is important to consider the limitations of this study carefully. First of all, high measures of self-reported intentions to help do not guarantee actual helping. Reviews of the Theory of Planned Behavior, which assumes at its core a strong intention-behavior relation, indicate that intentions explain around 20% of the variance in behavior (Armitage and Conner 2001; Conner and Norman 2022). For example, it is possible that people will not or cannot act on their intentions due to the influence of specific personal or situational factors.

Secondly, even though this study found a positive relationship between negative affect and helpfulness, this experiment likely underestimated the strength of this effect. The negative state relief model (Cialdini et al. 1973) offers several explanations for this relatively weaker influence. First, participants generally reported relatively low levels of negative affect, as might be expected in an experimental study. It is plausible that a real missing person case produces a stronger emotional response that, according to the state relief model, makes action subsequently more likely. Second, reporting the intention to help a missing person may not have been seen as an effective way to improve mood. Because both the disappearance and helping were hypothetical, respondents were not in a position to reap the

mood-enhancing benefits of actually searching, which may have influenced their reported willingness to help. Finally, the relationship between negative affect and helpfulness may have been influenced by factors beyond the scope of this study. For example, sadness may promote prosocial behavior, but only insofar as people believe that their negative mood is changeable (Manucia et al. 1984). Moreover, if the negative state is relieved by some other form of gratification (i.e., another positive event), prosocial behavior becomes unnecessary (Cialdini et al. 1973; Miller 2009). Both variables could not be controlled for in this experiment.

Directions for Further Research

The current study constitutes a preliminary exploration of what drives citizens to search for a missing person. Our results set the stage for two subsequent research directions that deserve further scientific attention. The first direction involves specifying the (circumstantial) role of individual emotions. Following a considerable body of research on prosocial behavior, this study distinguished between two primary dimensions of affect, an encompassing feeling state. However, different emotions with the same general affective valence (i.e., positive or negative feelings) may have different effects on prosocial behavior (Van Kleef and Lelieveld 2022). For example, anger and sadness both have a negative valence. However, anger can have either prosocial or antagonistic effects depending on the contextual affordances and constraints for restoring equality (Van Doorn et al. 2014). On the other hand, sadness can promote prosocial behavior, but works through self-gratification mechanisms as to reduce sadness, which consequently depends on internal and external factors (Bauman et al. 1981; Manucia et al. 1984; Van Kleef and Lelieveld 2022).

The second research direction relates to clarifying the interpersonal effects of affect and emotion. A deep understanding of the role of emotions in prosocial behavior requires an integrative review of intrapersonal as well as interpersonal effects across the emotional spectrum (Van Kleef and Lelieveld 2022). People are driven not only by their own feelings but also by the emotions of others, which provide information that can be used as input to their decisions and elicit affective responses (Lelieveld et al. 2012; Van Kleef et al. 2010). For example, one of the key drivers of prosocial behavior is empathy, the capacity to resonate with the affective experiences of others. However, empathy is not always associated with prosocial behavior (Lockwood et al. 2014). More specific, a recent study concluded that little evidence was found for empathy (as evoked by perspective taking) as an effective intervention to increase search behavior (Saraqini et al. 2022). Further research is needed to broaden our understanding of these emotional influences, both on the individual as interpersonal level.

Implications for Police Practice

The most practical finding from this study is the impact of positive affect on respondents' willingness to help a missing person. This insight is directly applicable to police actions in missing persons cases, and with some caution, to police investigations in general. Often, the police need the public's help, whether by reporting information or actively helping by joining in a search. Police communications often emphasize the negative impact of the incident on society, and on the victim in particular, in order to attract public attention and activate citizens. The underlying assumption is that people are driven to help by feelings such as moral outrage, empathy, compassion, and the urge to contribute to a safe society.

However, the current study reveals the importance of enthusiasm, alertness, and interest as drivers of participation. This is consistent with previous research that has shown that people also contribute to security and policing for other reasons, such as general interest, expanding their network or the opportunity to learn new skills (Lam and Kop 2020a, b). This is further illustrated by the continued public interest in true crime, including the recent upsurge of many podcasts by journalists and the police themselves about murders, cold cases, and missing persons. Simply put, for many people, police work is interesting. A logical inference is that these forms of positive affect should be capitalized on and actively triggered when civic participation is desired.

Two final points are particularly important for the use of positive affect in police practice. First, positive affect refers to an alert and active state of mind, not necessarily to happiness, joy, or merriment. Therefore, it is neither necessary nor desirable to frame or exploit real cases as a source of pleasure or entertainment. What matters is that appeals for assistance are phrased in such a way as to hold attention, generate interest, and activate the audience. Second, when police strive to maximize public engagement, it is advisable to deliberately include in their communications the full affective spectrum of citizens. Positive and negative affect are orthogonally related, which means that both states are not mutually exclusive and can coexist. Therefore, the most effective message is formulated so that it captivates but at the same time evokes an uncomfortable feeling in the audience, without lapsing into resignation.

Declarations

Ethical Statements and Declarations The questionnaire and methodology for this study were approved by the University of Twente ethics committee. The procedures used in this study comply with the principles of the Declaration of Helsinki, as far as applicable to non-medical research. Informed consent was obtained from all individual participants included in the study.

Competing Interests The authors declare no competing interests.

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