Psychological Profile, Emotion Regulation, and Aggression in Police Applicants: A Swiss Cross-Sectional Study

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Abstract

Although police officers are recurrently exposed to traumatic situations during their duties, only a minority report notable emotional complaints. This can be explained either by strong emotional coping skills or by a repressive self-presentation style. The current study describes the emotional profile and personality dispositions of police candidates (i.e., prior to exposure to occupational trauma) and explores the possible association between these personal characteristics and predisposition to aggression. In a cross-section design, 149 Swiss police applicants were compared to 110 individuals of the community matched by age, gender and level of education. Validated scales were used to obtain self-report markers of emotions and attitudes (anxiety, happiness/depression, aggressive attitudes) and personal dispositions (sensitivity to reinforcement, impulsivity, social desirability). Compared to civilian individuals, police candidates self-reported being happier, less anxious, less aggressive, and less impulsive. They declared being less sensitive to reinforcement, whether punishment or reward, but showed a higher degree of social desirability. Their aggressive tendencies were influenced by anxiety, urgency, and sensitivity to reward. The findings will be discussed within the framework of a diathesis-stress model of emotion regulation. It suggests that the repressive coping style described in police candidates may be a protective factor against negative and overwhelming emotions in the short term, but a risk factor for emotional imbalance in the long term, particularly if exposed to recurrent adverse events.

While ensuring public safety, police officers are repeatedly confronted with stressful, violent, and traumatic events. A considerable corpus of literature supports the idea that police officers are under tremendous psychological pressure (e.g., Foley and Massey 2021). In fact, it is not uncommon for a police officer to be called upon to provide protection to victims of crime while dealing with dangerous offenders at the same time, or to perform law enforcement duties while maintaining friendly relations with citizens and superiors. Consequently, this occupation requires police officers to exercise great restraint and self-control. More specifically, these situations require sophisticated emotion coping strategies, a solid personal predisposition to deal with stressors, and sufficient cognitive resources to

implement them in a flexible way. As described by Grol and De Raedt (2018), flexible affective processing is necessary to maintain an overall positive mood, high levels of resilience in the face of adversity, a good degree of self- and life-acceptance, and a reduced impact of irrelevant negative information.

Beyond these differences that may allow some people to cope with adverse events in a flexible manner, numerous studies have established that, in general, exposure to traumatic events contributes to the development of emotional symptoms that may vary in intensity, frequency, and type (Ceschi et al. 2014). Exposure to adverse events has been associated, to mention just a few, with post-traumatic stress disorder (PTSD), trauma-induced depression (David et al. 2008), trauma-related obsessive–compulsive symptoms (Ceschi et al. 2011), and anger and aggressive attitudes (Ceschi et al. 2020; Civilotti et al. 2021).

Research suggests that police officers may report possible psychological distress in more indirect ways, such as feelings of chronic fatigue, worries about various aspects of their work, feelings of lack of support from superiors, a constant sense of work overload, or feelings of meaninglessness or burnout (Foley and Massey 2021). Possible

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self-destructive behaviors have also been described. A study concerning 768 police officers (173 women) indicated that the average weekly alcohol consumption of police officers exceeded 28 drinks for men (14 for women), with a tendency to a pattern of binge drinking consumption at least twice a month (Richmond et al. 1998). Offering similar conclusions, a cross-sectional survey of New York and Bay Area revealed that a large percentage of police officers ($N = 747$ compared to 301 peer-matched controls not working in law enforcement) reported poor sleep quality and various somatic symptoms such as headaches, dizziness, cardiovascular disorders, and chest or muscle pain (Marmar et al. 2006). According to Griffin and Bernard (2003), the high-stress level perceived by police officers during the course of their routine work increases their perception of threats and their potential aggressive response to them. Presumably, these negative appraisals increase the risk of occupational mistakes and errors in the performance of their duties.

It is interesting to note that despite acknowledged recurrent exposure to traumatic events and reports of possible psychological distress in more indirect ways such as described above, only a minority of police officers report chronic PTSD or noteworthy emotional imbalance. In a recent Swedish study, for instance, police officers were found to have better mental health than community individuals (Ghazimour et al. 2010). The apparent discrepancy between studies noting that police officers show astonishing emotional competencies and those describing their complains and mental issues can both be accounted for in the context of a diathesis-stress model of emotional distress (McKeever and Huff 2003). This model conceptualizes symptom onset and maintenance as the consequence of an interactive effect between dispositions, such as personality or cognitive styles, and unshared environmental factors, such as trauma (Zuckerman 1999). The diathesis-stress model of emotional distress postulates that individuals with low diathesis factors would be at a higher risk of emotional dysfunction when exposed to stressful situations (McKeever and Huff 2003). On the other hand, when confronted with similar adverse events, individuals with high degrees of diatheses may experience less affective symptoms or none at all.

Though even the most resourceful personal dispositions, traditionally considered as stable personality traits, have sometimes been described as changing over time. It has, for instance, been shown that exposure to stressful events can gradually modify the expression of individual diathesis and therefore erode the individual's resilience potential (Hobfoll et al. 2011). The preceding authors have shown that resilient Palestinians exposed to recurrent trauma gradually lost the ability to express their adaptive potential. This interesting result is at odds with the classical expectation derived from stress habituation theory, which suggests that responses to stressors gradually decline with repeated exposure (Grissom and Bhatnagar 2009).

In summary, police officers show remarkable emotional competencies in the face of aversive events. However, the fact that they are significantly and recurrently exposed to traumatic situations throughout their professional career puts them at risk of gradually leading these police officers to an emotional imbalance and a progressive erosion of their initial temperament. Beyond any explicit positive affectivity, some police officers could be more susceptible to adverse events than others in the long term. It is, therefore, necessary to anticipate these inter-individual differences in order to be able to support at-risk police officers from the beginning of their career and to preserve their professional potential at its best.

It is worth noting that police officers were widely reported to have a positive response bias with difficulties in recognizing the presence of negative emotions (Detrick and Chibnall 2008; Garbarino et al. 2012). Consistently, police officers are likely to use emotion regulation strategies such as denial, suppression, dissociation, and overall avoidance of negative emotions (Berking et al. 2010). These coping strategies have been empirically associated with a repressive attitude and strong social desirability (Ceschi et al. 2005). Extensive research has shown that while a repressive style may initially reduce the negative impact of stressful and traumatic events, it ultimately has a paradoxical effect by perpetuating and even increasing the negative emotion it is intended to suppress at first. Given the number of studies consistently suggesting a high score of social desirability in police applicants worldwide (Detrick and Chibnall 2008; Habersaat et al. 2021), we can suppose that Swiss police applicants would display a positive response bias in self-reported measures of emotional disorders.

In accordance with the aforementioned evidence, the aim of the current study is twofold. First, define the *emotion profile*—anxiety, happiness/depression, and aggression—and *personal dispositions*—coping strategies, impulsivity, sensitivity to positive and negative reinforcements, and social desirability—of Swiss police applicants before the beginning of their work activity, compared with individuals recruited in the community, matched by age, gender, and level of education. In accordance with the literature, we predict that police applicants, when compared to their community counterparts, would explicitly report a more congruent psychological profile with a positive and socially desirable self-presentation. Second, we aim to evaluate if specific personal dispositions, especially an over-positive self-presentation with a strong sensitivity to positive incentives, can be associated with a tendency towards aggression.

Methods

Population and Procedure

Police applicants were recruited by the psychological service of the Lausanne police department, Switzerland, between 2009 and 2014. After their application to the police training program, 236 participants were sent a letter inviting them to participate in the study along with a set of questionnaires to fill out and send back with prepaid mailing. Police applicants were informed that participation was voluntary and anonymous. The response rate with a consent form sent to the second author was 72.88% ($N = 172$), 23 candidates did not send their survey to the first author (*attrition rate* = 13.37%). The overall *response rate* with this two-tiered recruitment procedure was 63.14%. The respondent sample included 149 police applicants (116 men) ranging from 20 to 36 years of age, with a mean age of 23.76 years ($SD = 3.048$).

Control individuals were recruited from professional or personal acquaintances of the researchers and their students. Participants targeted for the control group were invited to participate in the survey when they matched the general characteristics of police applicants (see Table 1 for details). After receiving a written explanation of the purpose of the study, 110 out of 162 people volunteered to complete the survey. Participants were given the collection of scales to return anonymously by prepaid mailing. The 110 respondents (85 men) range from 18 to 33 years of age ($M = 24.05$, $SD = 3.211$). The overall *response rate* with this recruitment procedure was respectable (67.90%). As described in Table 1, the two groups did not differ in a statistical fashion on any matched variable (age, number of siblings, gender, level of education).

All the participants were fluent French speakers. They were asked to fill in the scales presented in a fixed order, at home without time constraints. The scales were either available in a validated French version or adapted to French with a translation/back-translation procedure (Hambleton et al. 2004). The Ethics Committee of the University of Geneva and the secretary general in charge of ethics within the Lausanne police approved the study.

Measures

Anxiety was assessed with the French version of the state part of the Spielberger State Anxiety Inventory (STAI-S; Bruchon-Schweitzer and Paulhan 1993). Twenty items describing possible anxiety symptoms constitute the STAI-S. For each item, respondents are asked to self-report their current anxiety level on a 4-point scale ranging from 1 (not at all) to 4 (very much). The French adaptation of the scale, used in the study, has shown good psychometric properties (Bruchon-Schweitzer and Paulhan 1993). In the current sample, its internal consistency was found to be excellent ($\alpha = 0.92$).

Happiness versus depression was measured with the Short Depression-Happiness Scale (SDHS; Joseph et al. 2004). The SDHS is a 6-item self-reported scale assessing happiness (e.g., "I felt happy") and depression (e.g., "I felt that life was meaningless"). Each item is assessed by reference to a 5-point scale ranging from 0 (never) to 4 (often). Depression items were reversed in order that a high score on the SDHS reflects a tendency to experience happy thoughts and feelings. The internal consistency of the original version of the SDHS ($\alpha = 0.80$; Joseph et al. 2004) is comparable to the one observed in the current sample ($\alpha = 0.79$).

Aggression was measured with the Buss-Perry Aggression Questionnaire Short-version (AQ; Bryant and Smith

Table 1 Police applicants and control individuals' characteristics ($N = 259$)

	Police applicants ($N = 149$)		Control individuals ($N = 110$)		Test
	M	*SD*	*M*	*SD*	*t* (255) or $X^2(1)$
Age	23.76	3.048	24.05	3.211	− 0.766 n.s
Siblings	1.43	0.798	1.65	1.021	− 1.900 n.s
	N women	*N* men	*N* women	*N* men	
Gender (a)	31	118	25	85	0.990 n.s (c)
Level of education (b)					
Professional training	9	56	16	35	0.393 n.s
Professional high school	8	41	14	37	
High school	2	4	0	0	

n.s. non-significant; Professional training (i.e., "blue collar" training); Professional high school (i.e., commercial, social or health high school); High school (i.e., bachelor)

(a) missing variables casewise; $n = 2$; (b) missing variable casewise; $n = 37$; (c) $X^2(1)$

2001; Gallardo-Pujol et al. 2006). The AQ is a 12-item questionnaire meant to measure participants' aggressive action tendencies, shown to be a rapid, simple, valid, and reliable way to assess aggressiveness. Participants are asked to indicate if each given aggressive attitude is characteristic of him or her. Answers are reported by a 6-point scale ranging from 1 (not at all characteristic of me) to 6 (very much characteristic of me). A general aggression score (AQ), ranging from 12 to 72, is obtained by adding items to responses. In our sample, AQ presented a good internal consistency ($\alpha = 0.84$).

The sensitivity to reinforcement was assessed with the Sensitivity to Punishment and Sensitivity to Reward Questionnaire (SPSRQ; Lardi et al. 2008). The short SPSRQ version is a 35-item questionnaire elaborated on Gray's personality model (Gray and McNaughton 2000). It consists of two subscales, the Sensitivity to Punishment scale (SP) and the Sensitivity to Reward scale (SR). The 18 items of the SP subscale are developed to assess behavioral inhibition in situations involving the possibility of aversive consequences and threats (e.g., "Do you prefer not to ask for something when you are not sure you will obtain it?"). The 17 items of the SR subscale evaluate sensitivity to signals of reward in relation to approaching behaviors and hedonism (e.g., "Does the good prospect of obtaining money motivate you strongly to do some things?"). Each item is rated on a 4-point scale, ranging from 1 (no) to 4 (yes). The English and French versions of the SPSRQ showed good reliability and validity (Lardi et al. 2008). In our sample, good internal consistency was established for both subscales (SP: $\alpha = 0.86$; SR: $\alpha = 0.82$).

A multifaceted construct of *impulsivity* tapping into the four facets described by Whiteside and Lynam (2001) was measured with the short version of the urgency, lack of premeditation, lack of perseverance, sensation seeking (UPPS) impulsivity behaviors scale (short-UPPS; Billieux et al. 2012). The short-UPPS measures participants' agreement with 16 items on a 4-point scale from 1 (totally in agreement) to 4 (totally in disagreement). Four different facets of impulsivity are assessed: negative *urgency* (the tendency to have strong impulses in the context of negative affect; e.g., "When I am upset I often act without thinking"); *lack of premeditation* (the inability to reflect on consequences before acting; e.g., "I usually make up my mind through careful reasoning, reversed score"); *lack of perseverance* (the inability to remain focused on difficult or boring tasks; e.g., "I tend to give up easily"); and *sensation seeking* (the tendency to enjoy and pursue exciting activities; e.g., "I welcome new and exciting experiences and sensations, even if they are a little frightening and unconventional"). As in previous studies with the original and the French version of this impulsivity scale, in our sample, good psychometric properties were established for all the short-UPPS facets (urgency:

$\alpha = 0.86$; lack of premeditation: $\alpha = 0.79$; lack of perseveration: $\alpha = 0.80$; sensation seeking: $\alpha = 0.79$).

The effectiveness of strategies used for the control of unpleasant and unwanted intrusive thoughts were assessed with the French version of the *Thought Control Questionnaire* (TCQ; Wells and Davies 1994). The TCQ is constituted of 30 items, each of which is scored on a 4-point scale from 1 (never) to 4 (almost always). A general thought control effectiveness index (TCQ) was calculated by adding scores across the 30 items. The TCQ presents good validity and reliability (Wells and Davies 1994) as well as a sound internal consistency in the current sample ($\alpha = 0.78$).

Social desirability assessment was realized by the Marlowe-Crowne Social Desirability Scale (SDS; Crowne and Marlowe 1960). The social desirability level is evaluated with 33 items describing culturally approved but infrequently embraced behaviors and attitudes (e.g., "Before voting I thoroughly investigate the qualifications of all the candidates"). By reference of each statement, participants are asked to report their degree of agreement on dichotomous scales ("true", "false"). Good internal consistency was established in the current sample ($\alpha = 0.81$).

Data Analysis

In order to be comparable, raw data were *z*-transformed using available reference sample means and standard deviations. Preliminary statistical analyses showed that basic assumptions were well-respected without further need for data transformation. Missing data were excluded pairwise. Cross-section multivariate analyses of variance were used to compare group profiles. Hierarchical regression analyses were calculated to predict aggression as a function of emotion (anxiety, happiness) and personal dispositions (social desirability, impulsivity, sensitivity to reinforcement). The variables were entered into the regression within a four steps hierarchical multiple linear regression model.

Results

Police applicants have a markedly different psychological profile than matched control individuals (see Fig. 1; $F_{(11,239)} = 18.087$; $p < 0.000$; *partial* $\eta^2 = 0.454$). This remains true despite the introduction into the equation of social desirability as covariate ($F_{(10,239)} = 18.35$; $p < 0.000$; partial $\eta^2 = 0.434$).

As illustrated in Fig. 1, police applicants were found to report more happiness ($F_{(1,249)} = 57.077$; $p < 0.000$; *partial* $\eta^2 = 0.198$), less anxiety ($F_{(1,249)} = 61.343$; $p < 0.000$; *partial* $\eta^2 = 0.198$) and less aggression ($F_{(1,249)} = 58.652$; $p < 0.000$; *partial* $\eta^2 = 0.191$) than their matched counterpart.
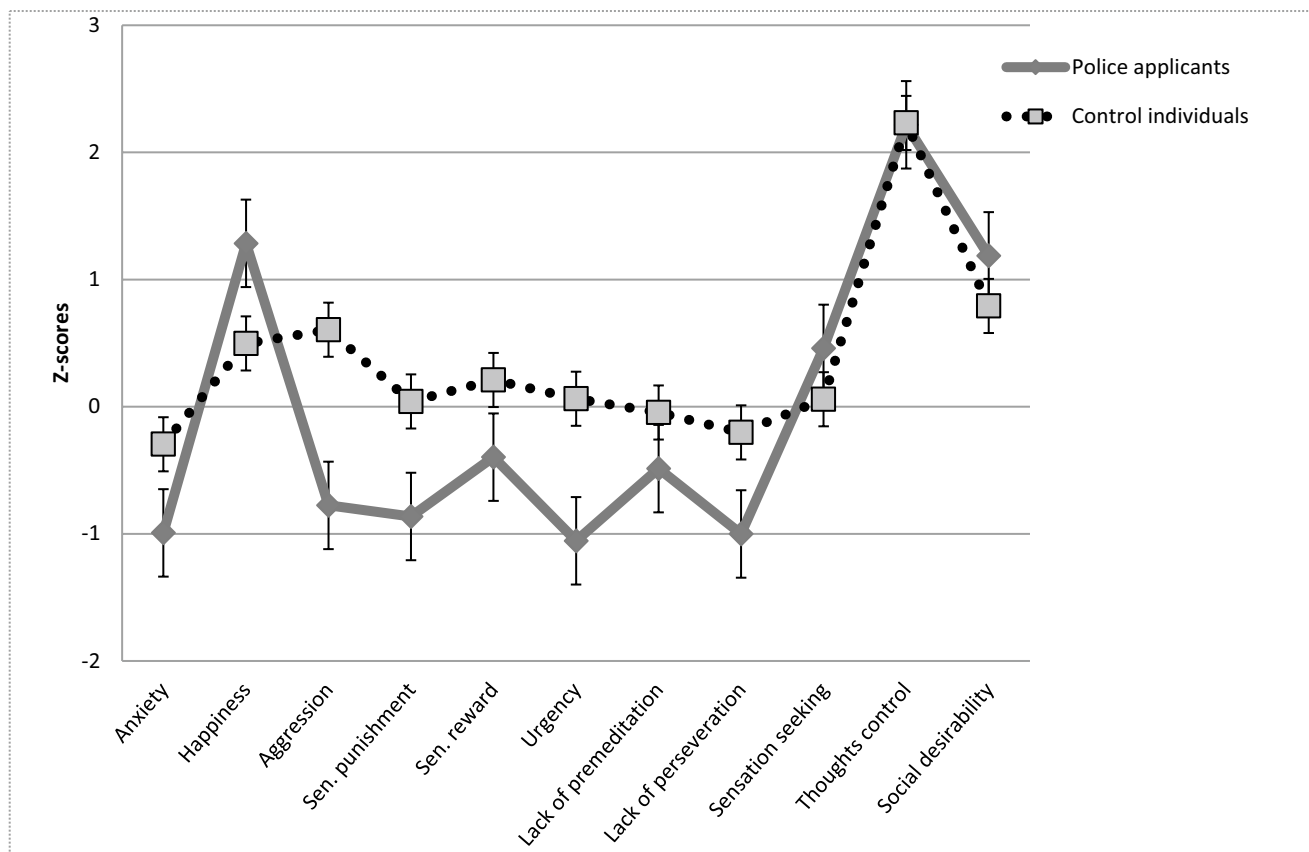
Fig. 1 Z-score psychological profile of police applicants and control individuals matched for age, gender, language and level of education

From a disposition point of view and compared to matched individuals from the community, police applicants appeared less sensitive to reinforcement, either punishment, or reward, respectively (F (1,249) = 87.864; $p < 0.000$; *partial* $\eta^2 = 0.261$), or F (1,249) = 29.322; $p < 0.000$; *partial* $\eta^2 = 0.105$) and self-reported less feeling of negative urgency F (1,249) = 99.301; $p < 0.000$; *partial* $\eta^2 = 0.285$), more premeditation F (1,249) = 13.837; $p < 0.000$; *partial* $\eta^2 = 0.053$), considerably more perseverance F (1,249) = 69.689; $p < 0.000$; *partial* $\eta^2 = 0.219$) and less sensation seeking, F (1,249) = 11.640; $p < 0.001$; *partial* $\eta^2 = 0.045$). As expected, police applicants were more inclined to score highly on socially desirable items than community matches F (1,249) = 9.198; $p < 0.003$; *partial* $\eta^2 = 0.036$). However, no significant group difference was found for the overall score of thoughts control (F (1,249) = 0.005; $p = 0.944$; *partial* $\eta^2 = 0.000$).

Table 2 displays zero-order Pearson correlations for the whole sample (police applicants and control individuals) between anxiety, happiness, aggression, sensitivity to punishment, sensitivity to reward, the four facets of impulsivity, thought control, and social desirability. Interestingly, individuals that report higher aggression scores tend also to

report a significant higher score of anxiety (r (256) = 0.528, $p = 0.001$) and a lower mood of happiness (r (254) = −0.518, $p = 0.001$). They also reported a greater sensitivity to reinforcement, either punishment (r (256) = 0.356, $p = 0.001$) or reward (r (256) = 0.504, $p = 0.001$), as well as more negative urgency (r (254) = 0.668, $p = 0.001$), lack of premeditation (r (255) = 0.289, $p = 0.001$) and lack of perseverance (r (254) = 0.321, $p = 0.001$). As expected, aggression was negatively correlated with social desirability (r (259) = −0.311, $p = 0.001$). The whole zero-order Pearson's correlation matrix, alongside the Cronbach's alphas, means and standard deviations for all the study variables can be found in Table 2.

As indicated in Table 3, a noteworthy amount of inter-individual variance of police applicants' aggressive action tendencies (39.3%) was predicted by the nine predictors introduced in the final step of the hierarchical regression (F (2,137) = 5.736, $p = 0.004$). A similar pattern of results was also obtained with the whole sample, suggesting that the result described above is more general than specific to police candidates.

As indicated in step 1 ($R^2 = 0.188$; F (2,144) = 16.720; $p < 0.000$) aggressive action tendency was positively predicted by the level of stress/anxiety ($\beta = 0.308$; $t = 3.458$;

Table 2 Cronbach's a, means and standard deviations for emotion feelings, affective attitudes and personal dispositions of the whole sample, and zero-order Pearson's correlation matrix

	a	N valid	M (SD)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) Anxiety	.92	259	28.47 (8.317)	---									
(2) Happiness	.79	256	15.25 (2.946)	-.714**									
(3) Aggression	.84	256	23.90 (8.751)	.528**	-.518**								
(4) Sensitivity to punishment	.86	256	36.47 (8.460)	.539**	-.517**	.356**							
(5) Sensitivity to reward	.82	255	37.39 (7.720)	.242**	-.227**	.504**	.282**						
(6) Urgency	.86	257	7.79 (2.817)	.454**	-.427**	.668**	.418**	.382**					
(7) Lack of premeditation	.79	258	7.34 (2.055)	.227**	-.183**	.289**	.100	.190**	.492**				
(8) Lack of perseveration	.80	257	5.86 (2.058)	.441**	-.367**	.321**	.405**	.147*	.385**	.303**			
(9) Sensation seeking	.79	258	11.33 (2.476)	-.148*	.098	-.004	-.256**	.205**	-.023	.064	-.255**		
(10) Thoughts control	.78	256	65.38 (9.090)	.156*	-.055	.060	.126*	.149*	.135*	.098	-.040	.026	
(11) Social desirability	.81	259	19.61 (6.034)	.180**	.257**	-.311**	-.184**	-.238**	-.302**	-.284**	-.173**	.017	.018

N valid = between 259 and 256

*p<.05 bilateral; **p<.001 bilateral

$p = 0.001$) and negatively predicted by happiness ($\beta = -0.182$; $t = -2.035$; $p = 0.044$). The introduction into the regressive equation of social desirability (step 2) did not change the amount of explained variance ($\Delta R^2 = 0.004$; F (1,143) = 0.635; $p = 0.427$). However, introducing the four facets of impulsivity into the regression significantly increased the amount of variance explained at the aggression level (step 3; ($\Delta R^2 = 0.309$, F (4,139) = 7.916, $p < 0.000$); $R^2 = 0.342$, F (7,139) = 10.318, $p < 0.000$). Urgency is the impulsivity facet that mainly drives this increase ($\beta = 0.339$, $t = 4.196$, $p < 0.000$). Regression step 4 shows that sensitivity to reward ($\beta = 0.253$; $t = 3.387$; $p = 0.001$), but not sensitivity to punishment ($\beta = -0.064$, $t = -0.763$, $p = 0.447$), make an additional contribution to the prediction of the aggressive action tendency of police applicants ($\Delta R^2 = 0.051$, F (2,137) = 5.736, $p = 0.004$) above and beyond anxiety and urgency. Taken together, these results suggest that the most aggression-prone police candidates are likely to be those who report a higher state of stress/anxiety, with a strong sense of urgency and rushing, while being particularly driven by the desire to do especially well and increase their chances of obtaining positive incentives and rewards.

Discussion

The current study aimed to describe the psychological profile, in terms of stress/anxiety, depression/happiness, aggression, sensitivity to reinforcement, impulsivity, thought control, and social desirability, of Swiss police applicants compared to matched individuals from the community. In agreement with previous findings, the current cross-sectional research confirms that Swiss police applicants report a specific psychological profile characterized by balanced affective feelings (low anxiety, depression, and anger). Compared to their community counterparts, they also present themselves as more independent from each type of reinforcement, whether that be negative (punishments) or positive (rewards). Police candidates self-report few impulsive dispositions, such as the tendency to act impetuously in a context of negative affect (i.e., urgency). They show similar levels of sensation-seeking as controls, although police candidates are more likely than controls to think about consequences before acting (i.e., more premeditation) and remain focused even when performing complex or boring tasks (i.e., more persistence). This remarkably balanced psychological profile has to be qualified by a pronounced socially desirable style leading to an over-positive self-presentation bias (Ceschi et al. 2005; Ghazimour et al. 2010). Much of the literature points out that any explicit measure is subject to response bias depending on social desirability (Ceschi et al. 2009).

Taken together, this evidence suggests that the enrolment process of Swiss police candidates is guided, at least implicitly, by

Table 3 Multiple hierarchical regression analyses predicting aggression in police applicants ($N = 146$) as a function of different emotions and dispositions (anxiety, happiness, social desirability, impulsivity, sensitivity to punishment, and sensitivity to reward)

	Predictors	Beta	*t*	Sig	R^2	R^2 change
Step 1	Anxiety	.308	3.458	.001	.188***	
	Happiness	−.182	−2.035	.044		
Step 2	Anxiety	.319	3.533	.001	.192***	.004
	Happiness	−.164	−1.779	.077		
	Social desirability	−.062	−.797	.427		
Step 3	Anxiety	.288	3.322	.001	.342***	.150***
	Happiness	−.127	−1.493	.138		
	Social desirability	.012	.157	.975		
	Urgency	.339	4.196	.000		
	Lack premeditation	.078	.990	.324		
	Lack perseveration	−.124	−1.699	.092		
	Sensation seeking	.056	.781	.436		
Step 4	Anxiety	.265	3.087	.002	.393***	.051**
	Happiness	−.154	−1.812	.072		
	Social desirability	.025	.352	.726		
	Urgency	.291	3.541	.001		
	Lack premeditation	.085	1.106	.271		
	Lack perseveration	−.104	−1.446	.151		
	Sensation seeking	−.021	−.282	.778		
	Sen. punishment	−.064	−.763	.447		
	Sen. reward	.253	3.387	.001		

** $p < .05$; *** $p < .001$

the selection of inter-individual characteristics congruent with a psychological profile of positive self-presentation. At enrolment, this socially desirable self-presentation increases the candidate's chances of displaying a positive and socially adaptive emotion and interpersonal attitude. This psychological profile was clearly associated with a repressive attitude towards negative feelings and socially low-value attitudes such as aggressiveness. It has been found that police candidates are much more self-deceiving than other-deceiving-oriented (Derakshan and Eysenck 1999). For Eysenck and Derakshan (1997), repression could interfere with the evaluation of threatening or stressful situations. Repressors may selectively avoid paying attention to all kinds of negative information and, when confronted with it, may tend to interpret these situations as non-threatening or dangerous and overestimate their own coping potential and the controllability of the situation (Derakshan and Eysenck 1997; Eysenck and Derakshan 1997). Contrary to this prediction, the current study shows that police applicants do not display a better ability of negative thought control than matched community individuals. Breaking down this average thought control score could allow more detailed conclusions to be drawn. According to the literature (Ceschi et al. 2005), it is not uncommon to find that repressors and truly non-anxious individuals may be indistinguishable with respect to self-reported coping strategies. This might suggest that police candidates cope effectively and "healthily" with stressful events. However, this is precisely the opposite of what some studies have described. From this literature, it appears that,

although repressors have been associated with effective coping strategies, this defensive presentation may be accompanied by its own set of difficulties. Among other things, repressors have been found to be at higher risk than non-defensive individuals for a variety of psychosomatic problems, including asthma (Özyurt et al. 2021), hypertension (Casagrande et al. 2019), or chronic pain (Burns 2000). In particular, although repressors tend to see themselves, and be described by others, as non-impulsive, their negative affective state can sometimes lead to sudden and violent aggression outbursts and to very poor self-regulation when repeatedly over-stressed (Megargee et al. 1967; Schwartz and Pollack 1977). Consistent with these findings, police applicant selection agencies could more thoroughly assess the psychological profiles of police applicants with implicit measures of emotional responses, which are known to be less susceptible to social desirability bias (Ceschi et al. 2009).

The current study indicates that the aggressive action tendencies of police applicants, although they may be underreported, are influenced by police candidates' level of anxiety, degree of urgency when confronted with negative feelings, and a marked sensitivity to reward independently of mood or social desirability. To state it differently, police applicants more sensitive to reward, namely, those motivated by positive incentive and gratitude, might more easily use aggressive attitudes in the case of obstacles. Thus, the desire to gain rewards can be considered a risk factor for aggressive attitudes, above and beyond the independent effect of stress

and urgency. It should be borne in mind, however, that this pattern of results is not specific to police applicants, as it is also described in the sample as a whole.

These results deserve discussion. Firstly, as mentioned in the literature, the current data confirmed that a specific psychological profile is selected at the time of police application by candidate assessors. The psychological profile that is intuitively selected is highly specific and consistent with a repressive coping style (Ceschi et al. 2005). This defensive psychological profile is indeed considered very favorable to provide, at least at first, a positive self-image and adaptive emotional coping strategies when confronted with adversities. Contrary to our prediction (Ceschi et al. 2005) and despite their positive self-presentation, police candidates did not show a different competence in controlling their negative thoughts than community individuals. A more detailed analysis of each specific thought control strategy, such as distraction, cognitive reappraisal and self-blame, could help refine this general conclusion.

Secondly, even very adaptative personal dispositions, currently considered stable personality traits, have sometimes been described as changing over time. Chronic exposure to stressful events can erode the individual's coping potential (Hobfoll et al. 2011). This suggests that "resilience" can both be considered a relatively stable personality disposition preceding exposure to trauma but can just as well become malleable in its expression under recurrent adverse factors such as repetitive violence or chronic socioeconomic tension. Thus, a study of Palestinian military personnel showed that while some former prisoners of war (POWs) were able to implement coping strategies, compared to their military peers who were not imprisoned, they still reported more severe PTSD and somatic symptoms (Punamäki et al. 2008). The diathesis-stress model of emotional distress postulates that highly stressful and long-lasting adverse environmental factors present a risk for emotional symptoms even in individuals that show a high diathesis in the initial phase. Longitudinal studies that would monitor the evolution of emotional regulation and mental issues of police applicants through their careers would allow us to understand better how a favorable disposition at enrolment may evolve over time and repeated trauma exposure.

This study presents some limitations. Firstly, our data have been collected with self-report measures, which are known to be biased by social desirability. Given the strong social desirability effect observed in our sample, it might be wise to replicate the current study with implicit measures (Ceschi et al. 2009).

Secondly, the lack of a longitudinal perspective rules out the possibility of establishing causal conclusions. Future work with a clear prospective design will shed new light on our understanding of the modulation impact of this specific psychological profile on emotion distress, work satisfaction, and aggressive action tendencies as a function of stress and trauma exposure over time.

Despite these limits, the current study confirms that Swiss police applicants display highly specific emotional and personality characteristics. This is consistent with a well-known defensive style characterized by an overly positive self-presentation bias and a repressive attitude toward stressful circumstances (Ceschi et al. 2005). These cognitive and emotional dispositions can be beneficial at first. However, they can be at risk for subsequent smooth adaptation to recurrent stressful situations in the long run. Given this potential risk, a more open integration and acceptance of distressing events and their consequences could be encouraged in primary and secondary prevention campaigns. We can assume that the acceptance of weakness with an open mind may help reduce the emotional distress and burnout commonly described among police officers. Interestingly, a prospective study suggests that a more benevolent view of negative emotions and a higher acceptance of negative outcomes of stressful events may be protective factors against PTSD (Yuan et al. 2011).

Despite the potential of our data, further empirical work is needed in order to draw conclusions on the etio-pathological factors progressively leading to the onset and maintenance of the various forms of post-traumatic disorders, including aggressive action tendencies, in this at-risk population. This cross-sectional study will help clarify the recruitment criteria for police candidates. It will also allow us to predict unfortunate outbursts of aggressiveness occasionally observed in police officers despite their remarkable capacity for emotional adaptation. Our findings strongly reveal the importance of a reward-driven disposition in understanding aggressive attitudes and hostile action tendencies. This might be of crucial interest especially among stress and violence-exposed professionals (Rowe et al. 2022). In accordance with the general personality model of Gray and McNaughton (2000), and more specifically the "Behavior Activation System" (BAS), it is possible to imagine that the decrease in satisfaction, due to the exposure to different adverse events at work (Foley and Massey 2021) and the progressive development of various unspecific distress symptoms (Marmar et al. 2006), would progressively deplete the inhibiting resources available for an effective executive control of spontaneous BAS dispositions. This will increase the activation of the BAS personality traits, leading to a poorer ability to manage stress and a significant increase in impulsive attitudes, besides other aggressive action tendencies. In fact, previous studies have clearly associated impulsivity with aggression (Miczek et al. 2002). As suggested by Yuan et al. (2011) low-intensity psychological interventions promoting police candidates' and officers' acceptance of their limitations and negative emotions could be considered warranted. Clearly, longitudinal studies with

randomized control trials are needed to conclude on the effect of this acceptance attitude on post-traumatic reactions, negative emotions, job satisfaction, or burnout. A prospective study run on police officers strongly suggests that this can indeed be the case. In fact, this study indicates that a more benevolent view of negative emotions and an increase on the acceptance of adverse outcomes of stressful events may be a protective factor against PTSD (Yuan et al. 2011). Further longitudinal studies must be designed to shed empirical light on this prediction.

Declarations

Ethics Approval This study was performed in line with the principles of the Declaration of Helsinki. Approval was granted by the Ethics Committee of the Faculty of Psychology and Educational Sciences of the University of Geneva (18.12.2020/ N° PSE.20200102.05) and the secretary general in charge of ethics within the Lausanne police.

Consent to Participate Informed consent was obtained from all individual participants included in the study.

Competing Interests The authors declare no competing interests.

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