EMOTION GOALS: A MISSING PIECE IN RESEARCH ON PSYCHOPATHY AND EMOTION REGULATION

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Psychopathy is associated with profound emotional disturbances. Yet little is known about associations between psychopathic traits and what individuals *want* to feel (i.e., emotion goals). Associations between psychopathy and emotion goals were investigated in two studies with nonclinical samples (*N* = 148 undergraduate students; *N* = 520 community sample). Four emotions often studied in psychopathy research were targeted: anger, fear, sadness, and joy. Furthermore, perceived utility and perceived pleasantness of emotions were assessed to investigate whether potential associations between psychopathy and emotion goals could be partly explained by instrumental or hedonic considerations, respectively. Psychopathic traits were positively related to negative emotion goals (primarily anger). Although joy was the most wanted emotion on average, psychopathy was negatively but less robustly related to the emotion goal of joy. Mediation analyses suggested differential motivational (hedonic and/or instrumental) mechanisms for different emotion goals. These findings provide preliminary evidence for motivated emotion regulation in psychopathy.

Keywords: psychopathy, emotion regulation, motivation, desired affect

Psychopathic personality is defined as a constellation of interpersonal (e.g., manipulation, superficial charm), affective (e.g., callousness, lack of empathy, meanness), and behavioral (e.g., impulsivity, irresponsibility, disinhibition) features (Hare, 1996; Hare & Neumann, 2008; Patrick, Fowles, & Krueger, 2009). Contemporary conceptualizations of psychopathy vary in that some add more emphasis on antisocial tendencies (Hare, 2003), whereas others add more emphasis on potentially adaptive interpersonal features, such as boldness or fearless dominance (Hall & Benning, 2006; Patrick et al., 2009). In the current study, we focus on individual differences in psychopathic traits,

which at their extreme characterize the psychopathic personality syndrome, but that exist to varying degrees in nonclinical populations as well (Gordts, Uzieblo, Neumann, Van den Bussche, & Rossi, 2017; Jeandarme et al., 2017). Many theories have in common that abnormalities in emotional functioning are a core feature of psychopathy (Blair, 2003; Cleckley, 1976; Lykken, 1995; Meloy, 1988). However, the scope of such abnormalities remains unclear and likely involves several components. Previous research has provided insights into the emotional experiences related to psychopathic traits (for a review, see Kosson, Vitacco, Swogger, & Steuerwald, 2016), and more recently into links between psychopathic traits and emotion regulation (Garofalo & Neumann, 2018; Garofalo, Neumann, & Velotti, 2018). Building on recent advances in emotion research, the present study adopted a motivational framework of emotion regulation to investigate associations between psychopathic traits and emotion goals (i.e., what people *want* to feel).

CONCEPTUAL AND EMPIRICAL BACKGROUND

Given the absence of prior research on emotion goals and psychopathy, we first provide a theoretical context for the current investigation with a brief summary of studies on psychopathy and both emotional *experience* and *regulation*. The most often studied emotions in relation to psychopathy are anger/hostility, fear/anxiety, sadness/depression, and to a lesser extent happiness/joy (Kosson et al., 2016). Conceptually, emotion deficit perspectives of psychopathy have largely focused on impaired processing and responding to emotional information, as well as on the capacity for and threshold of experiencing fear in particular (Blair, 2003; Cleckley, 1976; Lykken, 1995; Meloy, 1988). Regarding the subjective emotional experience of individuals with high levels of psychopathic traits, findings are mixed. In some studies, anger, fear, and sadness yielded positive associations with psychopathy, whereas negative associations were revealed with regard to happiness (e.g., Lishner et al., 2012). Other studies reported negative (e.g., Neumann, Johansson, & Hare, 2013) or null (e.g., Schmitt & Newman, 1999) associations between psychopathy and both fear and anxiety. However, recent reviews and meta-analyses suggest that overall levels of psychopathy are positively associated with anger and negatively with happiness, whereas near-zero associations are reported with fear and anxiety (Derefinko, 2015; Hoppenbrouwers, Bulten, & Brazil, 2016; Kosson et al., 2016). In addition, taking a different perspective, a recent study reported associations between psychopathic traits and reduced aversion for feeling fear (Hosker-Field, Gauthier, & Book, 2016). At the facet level, interpersonal features of psychopathy, and boldness in particular, have been related to lower levels of negative emotions (Patrick et al., 2009), whereas the affective (e.g., callousness, lack of empathy) and behavioral (e.g., impulsivity, disinhibition) features of psychopathy have been related to higher levels of negative emotions, especially other-directed ones, such as anger, hostility, and contempt (Garofalo, Neumann, Zeigler, & Meloy, 2019; Jackson, Neumann, & Vitacco, 2007; Neumann & Pardini, 2014). These studies speak to the emotions that people report experiencing. To the best of our knowledge, however, there are

no studies documenting the association between psychopathic traits and the emotions that people want to experience (i.e., emotion goals). These emotion goals, or the emotions that people want to experience, set the direction of emotion regulatory efforts, as we describe in more detail below.

When it comes to associations with emotion regulation, overall levels of psychopathy tend to be positively related with problems in emotion regulation, even after controlling for negative emotionality, although effect sizes are often small to moderate (e.g., Garofalo, Neumann, & Mark, 2020). At a facet level, recent studies have been consistent in reporting positive associations between the affective (e.g., callousness, lack of empathy) and behavioral (e.g., disinhibition) features of psychopathy and problems in emotion regulation. In contrast, the interpersonal (e.g., manipulation) features of psychopathy have typically been found to be unrelated or positively related to emotion regulation, paralleling findings on negative emotional experiences (Garofalo & Neumann, 2018; Garofalo et al., 2018).

In summary, these studies provide valuable insights into the emotional experiences as well as the emotion regulation skills related to psychopathic traits. Overall, it appears that psychopathic traits are related to abnormalities in emotional experience and regulation, with intriguing differences among psychopathy dimensions. However, no prior studies have investigated the possibility that another aspect that may be dysfunctional in psychopathy is the *direction* of the regulatory efforts toward a desired affective state, that is, the emotion *goals*.

A MOTIVATIONAL APPROACH TO EMOTION REGULATION: THE FOCUS ON EMOTION GOALS

Emotion regulation involves using strategies to attain a desired emotional state (i.e., reducing unwanted emotions and increasing desired ones; e.g., Gross & Thompson, 2007). Therefore, desired emotional states[1] (i.e., *emotion goals*; Tamir & Millgram, 2017) are a defining feature of emotion regulation (Gross, Sheppes, & Urry, 2011). Emotion goals capture what specific emotion people want to achieve when they engage in emotion regulation, and to what extent. For instance, some people may want to feel intense pride, whereas others may want only moderate pride (e.g., Tamir, Bigman, Rhodes, Salerno, & Schreier, 2015). By capturing the desired end state in emotion regulation, emotion goals set the direction and possible outcomes of the emotion regulatory process (for a review, see Tamir, 2016). An emotion goal captures a desired level of an emotion, and so it can reflect either greater desire for an emotion or lower aversion to an emotion. In the current study, we consider an emotion goal as an emotion that is "wanted," in relative rather than in absolute terms. That is, we sought to tap individual differences in the relative desirability of an

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1. Although there is a difference between wanting something and pursuing it, in this study, we consider a goal as equivalent to something that is wanted. Thus, we operationalized emotion goals in the sense of desired affective end states, regardless of whether individuals also pursue that affective end state. We chose to use this terminology (i.e., "emotion goals") to establish links between the literature on emotion regulation, motivation, and psychopathology and the literature on psychopathy.

emotion (e.g., Matt wants to feel more anger than Jade), without claiming that an emotion is preferred in an absolute sense over another (e.g., Matt wants to feel more anger than joy).

For many years, it has been assumed that people regulate their emotions to increase pleasure and decrease pain, leading researchers to focus almost exclusively on how people regulated emotions rather than on what they wanted to feel (Larsen, 2000; Schacter, Gilbert, Wegner, 2001[1]; Tamir, 2009, 2016; Tice, Baumeister, & Zhang, 2004). Accordingly, emotion regulation was considered as the ability to reduce negative emotions and maintain or increase positive ones (e.g., Tice et al., 2004). Although, in general, people typically want to experience positive emotions more than negative emotions, people vary in the extent to which they want to feel different emotions (e.g., Augustine, Hemenover, Larsen, & Shulman, 2010; Kämpfe & Mitte, 2009; Klimstra & Denissen, 2017; Tamir, 2009, 2016; Tsai, Knutson, & Fung, 2006).

Notably, valence-based distinctions are only one way to categorize emotions. Different emotions may have different reinforcing properties and thus be more or less wanted, regardless of their valence (e.g., anger and sadness are both negative emotions, but anger may have more reinforcing properties than sadness; Tamir & Bigman, 2014; Tamir & Gutentag, 2017). From an attribution perspective, the same emotion can be positively or negatively appraised by an individual, based on perceptions and expectancies of outcomes related to an emotion (Conway, Di Fazio, & Mayman, 1999; Rudolph & Tscharaktschiew, 2014; Weiner, 2014). Similarly, individuals may differ in how much they want to feel different emotions (e.g., Harmon-Jones, Harmon-Jones, Amodio, & Gable, 2011; Tamir et al., 2015), and this can be related to reasons we will discuss below. In this study, we used the terms *negative emotions* and *positive emotions* for the sake of simplicity because the emotions that are the focus of the present investigation have clear connotations in terms of valence. However, we do not dispute the adaptive (Hess, 2014) as well as the potentially reinforcing subjective experience associated with emotions such as anger (Tamir, Mitchell, & Gross, 2008).

Individual differences in emotion goals have also been associated with personality traits and psychopathology, with relevance for psychopathy. Agreeableness and extraversion, for instance, have been related to differential emotion goals (Augustine et al., 2010). Individuals with higher levels of agreeableness, which is a robust negative correlate of psychopathy (Sherman & Lynam, 2016), tend to want more positive emotions (Augustine et al., 2010). Extraversion, which is related to boldness, tends to be associated with wanting to experience positive emotions (especially those associated with high arousal; Augustine et al., 2010). There is also empirical evidence that depressed individuals tend to want to experience at least some level of sadness (Millgram, Joormann, Huppert, & Tamir, 2015). This is not to say that depressed individuals want to feel sadness in absolute terms (e.g., more so than they want to feel joy), but that they want to feel sadness more than nondepressed individuals do. Importantly, although the absolute preference for positive emotions was greater than the preference for sadness, the relative differences in preferences for happiness between depressed and nondepressed individuals prospectively predicted

clinical symptoms in response to stress (Millgram et al., 2015). In all the above studies, the findings could not be accounted for by current emotional states (state emotions) or trait emotions. These findings rule out the possibility that people may simply want to continue feeling what they already feel. No studies to date, however, have directly examined emotion goals in relation to dark personality traits or psychopathic traits, in particular.

Research has expanded to study potential factors that may explain individual differences in emotion goals. Such factors are important in the context of the present study to the extent that they could function as mediators of potential associations between psychopathic traits and emotion goals. Specifically, it has been shown that people may differ in the enjoyment they derive from experiencing a specific emotion, that is, in their perceived pleasantness of an emotion. In turn, they may want to experience those emotions that they perceive as more pleasant (short-term hedonic benefits), regardless of their valence (i.e., positive or negative) (Harmon-Jones et al., 2011; Tamir & Gutentag, 2017). In that sense, negative emotions such as anger or fear might be wanted because of their hedonic properties (e.g., enjoyment of a given emotion; see Tamir et al., 2008; Menninghaus et al., 2017). The perceived pleasantness of emotions has also been related to objective indicators of emotion goals, such as the use of emotion regulation strategies (e.g., situation selection) in order to attain those emotions. For example, in an experimental study, participants who reported more positive attitudes toward (i.e., higher perceived pleasantness of) anger were more likely to select anger-inducing stimuli (Harmon-Jones et al., 2011). To our knowledge, only one study to date has addressed the possibility that psychopathy may be associated with increased enjoyment of the experience of fear (as opposed to an absence of fear; Hosker-Field et al., 2016), but this possibility has yet to receive further empirical scrutiny.

This hedonic conceptualization of emotion regulation assumes that people want to experience emotions that *feel good*. Alternatively, an instrumental conceptualization of emotion regulation argues that people may also want to experience emotions that *do good* irrespective of their valence (Kalokerinos, Tamir, & Kuppens, 2017; Tamir & Ford, 2012). That is, individuals may want to feel "bad" (i.e., negative emotions) if they believe that it can help them perform better in a given situation. The fact that some people want to experience negative emotions might seem paradoxical from a hedonic perspective, but there is considerable evidence for variance in instrumental emotion goals (for an overview, see Tamir, 2016). For instance, individuals may want to feel angry if they believe that anger will be helpful in confronting others (e.g., winning in a competition or negotiating a pay raise; Levenson, 1999; Tamir & Ford, 2012). This approach is consistent with the emotion attribution perspective mentioned above, wherein perceived causes and outcomes connected with specific emotions contribute to emotional experience and motivated (pro- or antisocial) behaviors (Rudolph & Tscharaktschiew, 2014; Weiner, 2014). Indeed, individuals who implicitly associated worry with utility in avoidance situations sought to increase their worry before an anticipated threat (Tamir, Chiu, & Gross, 2007). Furthermore, increasing participants' association of

anger with utility, even outside of conscious awareness, led them to try to up-regulate their anger (Tamir et al., 2015). Such evidence demonstrates that emotion goals depend, in part, on the individual's perceived utility of emotions (i.e., their instrumental value in goal pursuit).

Embedding the study of emotion regulation in a motivational framework with a focus on emotion goals may be particularly useful in relation to psychopathic traits. This motivational framework can potentially offer a novel angle on the understanding of the emotion regulation processes related to psychopathic traits (Shane & Groat, 2018). Indeed, historical (Cleckley, 1976; Meloy,1988) and contemporary conceptualizations (e.g., Neumann, Hare, & Newman, 2007) agree that psychopathy is characterized by antagonistic motivation. If individuals with psychopathic traits are more likely driven by antagonistic motives (Glenn, Efferson, Iyer, & Graham, 2017; Sherman & Lynam, 2016) in relation to emotion regulation, this may also explain why they try to attain seemingly maladaptive emotion goals (Tamir & Millgram, 2017). This could occur both because certain negative emotions (e.g., anger) could be perceived as more pleasant for individuals with antagonistic tendencies (e.g., positive attitudes toward other-directed negative emotions, such as anger) and because these negative emotions may be perceived as more useful for attaining antagonistic goals.

THE PRESENT STUDIES

In two studies with two independent nonclinical samples, we examined associations between psychopathic traits and emotion goals, focusing on anger, fear, sadness, and joy. In light of the paucity of prior relevant research, our hypotheses were tentative. First, we expected that average levels of emotion goals in the overall samples would indicate that, in general, people report that they want to feel joy more than anger, fear, and sadness (i.e., in terms of mean levels of each emotion goal). Second, on the basis of previous studies on emotion goals in relation to personality (e.g., Augustine et al., 2010) and psychopathology (e.g., Millgram et al., 2015), we expected to find significant associations between psychopathic traits and emotion goals (Study 1). Specifically, we assumed that overall scores of psychopathy would be positively linked to some levels of negative emotion goals, in particular other-directed negative emotions such as anger. Furthermore, we also examined whether state (i.e., current) or trait (i.e., typical) emotional experiences could account for any associations. At the facet level, we expected that the affective and behavioral features of psychopathy would be related to these negative emotion goals (e.g., anger), whereas the interpersonal features of psychopathy (and in particular boldness traits) would be related to positive emotion goals (e.g., joy). In the second study, we also explored mechanisms that may explain these associations, focusing on the two potential mediators described above: perceived pleasantness of emotions, and perceived utility of emotions. To avoid mono-operationalization bias and broaden the bandwidth of our assessment, psychopathic traits were assessed using

two different questionnaires, based on two different conceptualizations of psychopathy: Hare's (2003) four-facet model, and Patrick's triarchic model (Patrick et al., 2009).

STUDY 1

METHOD

Participants and Procedures

The sample of the first study consisted of Dutch undergraduate psychology students (N = 148, M_{age} = 20, SD = 2.81, ~80% females). Course credit was offered for participation. Students who self-identified as ethnic Dutch represented the vast majority of the sample (89%). The rest of the students self-identified as having Moroccan, Turkish, Surinamese, or Antillean background (1.3% did not declare). Almost half (54%) of the participants were single, 40% were in a relationship, and 3% were in a marital relationship and/or living together (1.3% reported "other" and 1.3% was missing).

Measures

Psychopathic Traits. One measure of psychopathic traits used in the present study was the Self Report Psychopathy-Short Form (SRP-SF; Paulhus, Neumann, & Hare, 2016). The scale measures overall levels of psychopathy and provides scores on four facets, in line with Hare's (2003) PCL-R model: interpersonal, affective, lifestyle, and antisocial. The SRP-SF contains 29 self-report items, scored on a 5-point Likert scale (ranging from 1 = *strongly disagree* to 5 = *strongly agree*). For the current study, the Dutch version of the SRP-SF was administered (Gordts et al., 2017). Overall, the SRP-SF has proven to be a valid measure of psychopathic traits in nonclinical samples, demonstrating good reliability and test–retest reliability coefficients for the total scores, satisfactory reliability at the facet level (Gordts et al., 2017), and good construct validity (Foulkes, McCrory, Neumann, & Viding, 2014; Gordts et al., 2017). In this study, internal consistency coefficients for SRP-SF scales ranged from .68 (Affective) to .89 (Total) (see Table 1). Thus, reliability coefficients were good, with the exception of SRP-SF Affective facet, which was modest.

The second measure used for the assessment of psychopathic traits was the Triarchic Psychopathy Measure (TriPM; Patrick, 2010). The TriPM is also a self-report measure, consisting of 58 items. Along with a psychopathy total score, it includes scores on three distinct scales that correspond to the three constructs depicted in the Triarchic Model of Psychopathy (Patrick et al., 2009): Boldness, Meanness, and Disinhibition. Each item is scored on a 4-point Likert-scale, ranging from 0 (*false*) to 3 (*true*), with reverse scoring for items reflecting a lower degree of psychopathic traits. The Boldness scale measures interpersonal dominance and grandiosity, endurance in the face of risk or uncertainty, and a high threshold for fear. The Meanness scale reflects

TABLE 1. Means, Standard Deviations (SD), and Internal Consistency Coefficients (α) for All Variables in Study 1 (S1; N = 148) and Study 2 (S2; N = 520) Samples

		S1		S2		S1	S2	S1s Males		S1 Females		S2 Males		S2s Females	
		M	SD	M	SD	α	α	M	SD	M	SD	M	SD	M	SD
SRP-SF	Interpersonal	1.86	0.67	1.81	0.66	.77	.80	2.10	0.64	1.80	0.67[a]	2.05	0.70	1.63	0.55[a]
	Affective	1.87	0.60	1.76	0.57	.68	.67	2.20	0.55	1.79	0.59[a]	2.01	0.58	1.58	0.49[a]
	Lifestyle	2.15	0.68	1.95	0.67	.74	.76	2.44	0.62	2.08	0.67[a]	2.15	0.70	1.81	0.60[a]
	Antisocial	1.12	0.33	1.13	0.37	.75	.81	1.20	0.40	1.10	0.30	1.20	0.45	1.07	0.29[a]
	Total	1.75	0.47	1.66	0.48	.89	.89	1.99	0.45	1.69	0.46[a]	1.85	0.51	1.52	0.39[a]
TriPM	Boldness	27.13	8.84	30.42	8.40	.83	.83	31.71	7.62	25.96	8.77[a]	33.65	7.76	28.22	8.13[a]
	Meanness	12.00	8.06	10.40	7.91	.85	.86	15.81	7.54	11.03	7.92[a]	13.70	8.95	7.99	5.87[a]
	Disinhibition	13.74	8.07	12.16	7.23	.86	.83	16.28	8.21	13.09	7.94	13.30	8.32	11.30	6.13[a]
	Total	52.86	18.27	52.97	16.53	.88	.87	63.80	14.82	50.08	18.07[a]	60.64	17.35	47.52	13.31[a]
Emotion goals	Anger	0.49	0.69	0.55	0.83	.57	.72	0.60	0.69	0.46	0.69	0.68	0.84	0.46	0.82[a]
	Sadness	0.46	0.80	0.55	0.81	.57	.58	0.55	0.74	0.44	0.82	0.59	0.83	0.49	0.79
	Fear	0.51	0.81	0.49	0.82	.84	.85	0.43	0.60	0.53	0.86	0.51	0.79	0.46	0.83
	Joy	4.37	0.97	4.31	1.08	.42	.61	4.57	0.88	4.32	0.99	4.28	1.05	4.34	1.09
ATE	Anger			1.81	0.63		.65					1.93	0.68	1.72	0.56[a]
	Sadness			2.43	0.65		.68					2.37	0.66	2.47	0.63
	Fear			1.77	0.65		.68					1.95	0.67	1.64	0.60[a]
	Joy			4.35	0.53		.57					4.30	0.55	4.39	0.51[a]
Utility beliefs	Anger			1.25	0.85		.59					1.44	0.92	1.11	0.77[a]
	Fear			0.71	0.76		.72					0.90	0.87	0.56	0.63[a]
	Sadness			0.42	0.64		.82					0.49	0.74	0.36	0.54[a]
	Joy			3.47	0.96		.65					3.50	0.98	3.46	0.93

Note. Emotion goals = Preferences for emotions. ATE = Attitudes Toward Emotions scale. Utility beliefs = Beliefs about the utility of emotions. SRP-SF = Self-Report Psychopathy Scale–Short Form. TriPM = Triarchic Psychopathy Measure. [a]Means that differ significantly between genders. Because Emotion goals and Utility beliefs are assessed by only two items, we report in the text Spearman-Brown coefficients.

individual differences in empathy, callousness, and interpersonal aggression. The Disinhibition scale assesses impulsivity, lack of goal-directed behavior, and reckless acts. For the current study, the Dutch version of the TriPM was administered (van Dongen, Drislane, Nijman, Soe-Agnie, & van Marle, 2017). This measure has shown good internal consistency and construct validity, suggesting that it may be efficiently used to measure psychopathic traits (van Dongen et al., 2017). In this study, internal consistency coefficients ranged from .83 (Boldness) to .88 (Total) (see Table 1).

Emotion Goals. Emotion goals were assessed with a questionnaire widely used in emotion research (e.g., Tamir & Millgram, 2017). Specifically, participants were presented with the following question: *Indicate the extent to which you generally WANT to experience these emotions in your daily life. That is, if you could control your feelings, to what extent would you want to experience each of the feelings below, in general?* Participants responded to this question with reference to eight distinct emotions, on a 7-point Likert scale (0 = *not at all*, 6 = *extremely*). Scores on the four target emotions were obtained by averaging scores on two items for each emotion (anger: anger and hostility; fear: anxiety and fear; sadness: sadness and depression; joy: excitement and enthusiasm). Emotion terms were presented in Dutch. Because emotion goals were assessed based on two-item measures, Cronbach's alpha coefficients may not be robust or even appropriate estimates of internal consistency. Thus, we also computed Spearman–Brown coefficients (e.g., Eisinga, te Grotenhuis, & Pelzer, 2013), which equaled .84 for fear, .59 for sadness, .58 for anger, and .45 for joy.

State and Trait Emotions. State and trait emotions were investigated as possible confounds, again listing the same emotion terms in Dutch. Following the paradigm used in prior research (e.g., Tamir & Millgram, 2017) to assess current emotional experiences (state emotions), we asked participants to rate the extent to which they are experiencing each emotion "right now." To measure trait emotions, participants reported on the extent to which they generally experience each emotion in their daily lives. Responses were provided with respect to each of the same eight emotions assessed for emotion goals, and ratings were provided on the same 7-point Likert scale (0 = *not at all*, 6 = *extremely*). Previous studies have shown adequate psychometric properties for these scales (e.g., Tamir, Ford, & Ryan, 2013). In this study, internal consistency coefficients for state emotions ranged from .75 (joy) to .87 (fear) and for trait emotions from .74 (joy) to .91 (fear). Spearman–Brown coefficients of these two-item scales ranged from .75 (joy) to .88 (fear) for state emotions, and from .74 (joy) to .91 (fear) for trait emotions.

Data Analytic Plan

Descriptive statistics and zero-order correlations were calculated for all study variables. Zero-order correlations addressed the main hypotheses about the associations between psychopathic traits and emotion goals. We also conducted

robustness checks: We checked which significant associations would survive Bonferroni correction for multiple testing, and we repeated the correlations controlling for state emotions, trait emotions, and sex. All analyses were conducted using SPSS version 25 (IBM Corp., 2017).

RESULTS

Descriptive statistics, including means, sex differences, standard deviations, and scale reliabilities for all study variables are reported in Table 1. A full correlation matrix is displayed in Table 2. Not surprisingly, observing the mean levels of the emotion goals, we found that, on average, participants wanted to feel joy more than anger, fear, and sadness.[2] However, these emotion goals were associated with psychopathic traits (Table 2, above the diagonal). Specifically, we found significant positive associations between the emotion goal of anger and total scores of both psychopathy measures, and also with all subscales of the SRP-SF and TriPM, except for Boldness. Regarding fear, only the SRP-SF total, interpersonal, and antisocial scores manifested significant positive associations with the emotion goal of fear. For sadness, significant positive associations emerged with the SRP-SF total, interpersonal, lifestyle, and antisocial facets, as well as for TriPM total and Disinhibition scales. Finally, regarding joy, only the SRP-SF antisocial facet revealed significant negative associations. We also report in Table 2 the significant associations that would survive Bonferroni correction. The most robust associations were between psychopathic traits and the emotion goal of anger, so that as levels of psychopathic traits increased, so did the level of anger that one wants to feel. All analyses were repeated controlling for state and trait levels of the corresponding emotions, and results remained virtually unchanged. We also repeated analyses controlling for sex, and results revealed the same patterns as the reported correlation analyses. Only two exceptions occurred: the SRP-SF affective facet correlated significantly with the emotion goal of joy, and the TriPM Disinhibition scale correlated significantly with the emotion goal of fear.[3]

DISCUSSION OF STUDY 1

Results of the first study revealed associations between psychopathic traits and emotion goals, which seemed most consistent for anger. These positive associations could be interpreted as indicating that participants scoring higher in psychopathy want to experience a relatively higher level of negative emotions (and especially anger) compared to individuals with lower psychopathic tendencies. This is particularly important because although the mean levels of

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2. The percentage of participants scoring over the midpoint (i.e., the neutral option) in the emotion goals of anger, fear, and sadness in Study 1 ranged from 0% to 2%. In the case of the emotion goal of joy, 84.5% scored over the midpoint.

3. A final robustness check concerned the examination of possible response biases for the TriPM measure. On average, scores (M = 7.08, SD = 2.76) of the Triarchic Assessment Procedure for Inconsistent Responding (TAPIR; Mowle et al., 2017) did not indicate inattentive responding (i.e., they were below the cutoff-of 13 recommended for Dutch community samples (Kelley et al., 2017). Only 0.7% of participants scored above the cutoff of 13, and results were unaltered removing these participants from the main analyses.

the emotion goals in our sample were higher for joy than for the other three emotions, the relative degree to which each emotion was wanted was actually linked to psychopathy levels. In other words, individuals with psychopathic traits seemed to tolerate more, or be less averse to, negative emotions and thus wanted to experience them at least to a small degree. Notably, the limited percentage of participants scoring above the midpoint in negative emotion goals bolsters this interpretation (see footnote 2). Findings of Study 1 suggest that the behavioral traits of psychopathy (i.e., disinhibition, antisocial tendencies) were more strongly associated with emotion goals. Some associations between interpersonal or affective traits and negative emotion goals emerged as well, warranting further investigation. In particular, the emotion goal of anger seemed consistently related to psychopathic traits across domains, excluding Boldness. Notably, these associations could not be accounted for by sex and levels of state or trait emotions, suggesting that the association between psychopathic traits and emotion goals was not merely due to current or typical emotional experience or sex differences in these constructs. To expand on these findings, Study 2 explored potential motivational mechanisms that could underlie these associations, focusing on perceived pleasantness and perceived utility of emotions.

STUDY 2

In Study 2, we sought to replicate and extend the findings obtained in Study 1 in a larger and more diverse sample of community participants. After testing the replicability of the findings obtained in Study 1, we sought to further explore mediating mechanisms that possibly explain associations between psychopathic traits and emotion goals. Specifically, we tested whether associations between psychopathy and emotion goals were mediated by hedonic (i.e., perceived pleasantness of emotions) or instrumental (i.e., perceived utility of emotions) considerations.

METHOD

Participants and Procedures

For the second study, a larger community sample was recruited, consisting of 520 Dutch adults (M_{age} = 35.27, SD = 16, 56.6% females). The educational background of the participants varied from higher education (60.7%) to vocational training (16.1%), higher secondary education (11.3%), lower secondary education (5.6%), and primary school (1.5%). Information on ethnicity, civil status, and employment status were disclosed by approximately 53% of the sample (the large degree of missingness may be attributed to the pen-and-paper completion of the questionnaires). However, participants with and without missing information on these three variables (i.e., ethnicity, civil status, and employment status) did not differ significantly on any of the main study variables, with the exception of the SRP Lifestyle facet, but this difference had a small effect size, ethnicity: $t(518)$ = 2.74, d = 0.32, civil status: $t(518)$ = 2.79, d = 0.24. Missing data for the variables used in the main analyses ranged from

0.0% to 1.9%, and psychopathy total scores did not differ systematically as a function of missing demographics. With regard to these demographic characteristics (ethnicity, civil status, and employment status), participants who self-identified as ethnic Dutch represented 49.7% of the sample, while 1% self-identified as of Moroccan, Surinamese, Dutch Antillean, or other origin. The relationship and civil status were diverse: 23% of the participants were married or cohabiting, 11.9% were in a relationship, 14.4% were single, 1.5% were divorced, and 1% were widowed (the remaining 48.2% did not report data). With regard to employment status, more than 30% were working full-time or part-time (32.4%), 9.4% were living on a scholarship or student loan, 3.1% reported parental financial support, and 23% were receiving some kind of allowance or pension (the remaining 32.1% did not report data).

Participation was voluntary and based on self-report questionnaires, which were filled out either on paper or online (using the Qualtrics platform) as per participants' preference. An introductory letter on behalf of the researchers was included in the questionnaire package, as well as an informed consent form. In both conditions (pen/paper and online), responses were kept pseudo-anonymous by replacing participants' names with an identification code. We relied on a convenience sample, recruited by psychology Master's students. Each student recruited around 30 participants, and a total of 18 students were involved in the data collection, approaching potential participants from their social environment (including friends, acquaintances, and people from their neighborhood) in order to reach a wide sample of adults of different ages, social status, and education. All procedures were approved by the local university Ethics Review Board.

Measures

The same measures as in Study 1 were used to assess psychopathic traits, emotion goals, and state and trait emotionality. Internal consistency (Cronbach's α) coefficients are reported in Table 1. For the SRP-SF, they ranged from .67 to .89; for the TriPM, they ranged from .83 to .87. Thus, as in Study 1, reliability coefficients were good, with the exception of SRP-SF Affective facet, which was modest. Because two items were used to assess emotion goals, Spearman–Brown coefficients were also computed (Eisinga et al., 2013). Spearman–Brown coefficients were equal to .85 for fear, .72 for anger, .63 for sadness, and .61 for joy. Cronbach's α coefficients for state emotions ranged from .69 to .90 and for trait emotions from .71 to .93. Spearman–Brown coefficients were, in these cases, identical to α coefficients. Correlations among all study variables can be found in Table 2.

Two additional measures were added in order to extend the findings of the first study and investigate possible mediators of the relations between psychopathy and emotion goals. These measures are described below.

Perceived Utility of Emotions. Participants rated the extent to which they felt that each of the eight emotions might be useful for them to experience (i.e., "*To what extent might it be useful for you to feel the following emotions?*") on a 7-point Likert scale (0 = *not at all*, 6 = *extremely*). Because beliefs about

TABLE 2. Zero-Order Correlations Between Psychopathic Traits, Emotion Goals, Attitudes Toward Emotions and Beliefs About the Utility of Emotions in Study 1 (S1; $N = 148$) and Study 2 (S2; $N = 520$) Samples

	SRP-SF					TriPM				Emotion Goals				Utility of Emotions				Attitude to Emotions		
	Total	Interpersonal	Affective	Lifestyle	Antisocial	Total	Boldness	Meanness	Disinhibition	Anger	Fear	Sadness	Joy	Anger	Fear	Sadness	Joy	Anger	Fear	Sadness
SRP-SF																				
Total		.87***	.87***	.85***	.65***	.69***	.26**	.66***	.63***	.39***	.18*[a]	.28**	-.12							
Interpersonal	.88***		.66***	.63***	.50***	.62***	.23**	.61***	.53***	.37***	.17*[a]	.22**[a]	-.11							
Affective	.86***	.66***		.64***	.49***	.60***	.21**	.62***	.50***	.28**	.11	.15	-.15							
Lifestyle	.87***	.63***	.64***		.39***	.61***	.25**	.51***	.61***	.25**[a]	.09	.20*[a]	.00							
Antisocial	.69***	.51***	.49***	.51***		.39***	.12	.39***	.37***	.44***	.30***	.45***	-.20*[a]							
TriPM																				
Total	.72***	.62***	.60***	.61***	.39***		.62***	.83***	.76***	.34***	.14	.20*[a]	-.06							
Boldness	.20***	.19***	.12**	.24***	0.040	.56***		.18***	.08	.110	.07	.09	.01							
Meanness	.72***	.63***	.69***	.63***	.40***	.84***	.23**		.63***	.28***	.07	.11	-.08							
Disinhibition	.63***	.51***	.47***	.63***	.45***	.70***	.08	.63***		.36***	.16	.25**[a]	-.07							
Emotion Goals																				
Anger	.25***	.15**	.25***	.21***	.24***	.18***	.03	.17***	.19***		.67***	.59***	-.09							
Fear	.14**[a]	.06	.15*	.11*[a]	.19***	.07	-.06	.09*[a]	.13*[a]	.65***		.71***	-.08							
Sadness	.14**	.07	.16**[a]	.09*[a]	.19***	.08	-.05	.09*[a]	.15**	.59***	.64***		-.12							
Joy	-0.020	.00	-.11*[a]	.05	-.04	-.04	.04	-.12*[a]	-.02	-.15*	-.10*	-.11*								
Utility of Emotions																				
Anger	.21***	.19***	.16***	.20***	.13**	.15**	.01	.17***	.14**	.28***	.23***	.15**	.08							
Fear	.23***	.19***	.21***	.20***	.15**	.17***	-.01	.17***	.19***	.25***	.35***	.33***	.01	.57***						
Sadness	0.080	.05	.09*	.03	.14**	.07	-.04	.07	.12**	.26***	.30***	.42***	-.07	.45***	.62***					
Joy	-.02	.01	-.07	-.01	-.02	-.04	.05	-.11*	-.02	-.01	-.01	.02	.36***	.10*	.04	.17***				
Attitude to Emotions																				
Anger	.42***	.35***	.40***	.37***	.29***	.41***	.06	.47***	.35***	.26***	.15**	.14**	-.14**	.23***	.17***	.17***	-.05			
Fear	.35***	.27***	.32***	.33***	.23***	.38***	.20***	.39***	.20***	.20***	.14**	.21***	-.16***	.16***	.26***	.14**	-.09*	.35***		
Sadness	.09*	.08	.01	.13**	.07	.03	-.00	-.03	.11*	.050	.12**	.11*	-.01	.09*	.19***	.13***	.06	.11*	.16***	
Joy	-.17***	-.10*	-.22***	-.06	-.24***	-.12**	.13**	-.23***	-.18***	-.18***	-.17***	-.26***	.28***	-.05	-.16***	-.24***	.16***	-.25***	-.19***	-.05

Note. Coefficients of Study 1 are displayed above the diagonal and coefficients of Study 2 are displayed below the diagonal. SRP-SF = Self-Report Psychopathy Scale–Short Form. TriPM = Triarchic Psychopathy Measure. Attitude to emotions = Attitudes Toward Emotions scale. Utility of emotions = Beliefs about the utility of emotions. [a]Correlation coefficients that are not significant at the Bonferroni-corrected significance level (i.e., $p < .0014$). *$p < .05$. **$p < .01$. ***$p < .001$.

the utility of emotions can be context-dependent (e.g., Tamir et al., 2008), we included four hypothetical contextual domains (exploration, collaboration, conflict, and protection) and then averaged across them.[4] Previous studies demonstrated adequate reliability coefficients for this scale (e.g., Tamir & Ford, 2009). As for the emotion goals, state emotions, and trait emotions, emotion terms were presented in the Dutch language. In this study, internal consistency coefficients ranged from .59 to .82 (see Table 1).

Perceived Pleasantness of Emotions. We used the Attitudes Toward Emotions Scales (ATE; Harmon-Jones et al., 2011) to assess individual differences in the perceived pleasantness of specific emotional experiences. This measure captures the affective (hedonic) component of attitudes toward emotions (Netzer, Gutentag, Kim, Solak, & Tamir, 2018). For each of the target emotions (anger, joy, sadness, disgust, and fear), items were scored on a 5-point Likert scale, ranging from 1 (*rarely/never*) to 5 (*always/almost always*). Disgust items were not included because they were not within the scope of the current study. Participants were asked to rate the extent to which they enjoy the target emotion. For example, "*I like it when movies make me feel sad, the sadder the better*" or "*I really like feeling happy*" were used to indicate attitudes toward sadness and joy, respectively. The scale has generally demonstrated satisfactory internal reliability and adequate validity (Harmon-Jones et al., 2011). For the purpose of the present study, the ATE items (internal consistency coefficients ranged from .57 to .68 [see Table 1]) were translated into Dutch using a standard translation/back-translation procedure that involved several iterations between native English and native Dutch speakers, until any disagreement was resolved.

Data Analytic Plan

Descriptive statistics and zero-order correlations were calculated for all study variables. As in Study 1, zero-order correlations addressed the hypotheses about the associations between psychopathic traits and emotion goals. We conducted the following robustness checks: We checked which significant associations would survive Bonferroni correction, and we repeated the correlations controlling for state emotions, trait emotions, and sex. The aforementioned analyses were conducted using SPSS version 25 (IBM Corp., 2017). The main hypotheses were tested using the SPSS PROCESS Macro (Hayes, 2013). Specifically, we examined the proposed mediation models testing the significance of indirect effects of the SRP-SF and TriPM total scores on emotion goals, via the perceived utility and pleasantness of emotions. We implemented a bootstrapping approach (Hayes, 2009; MacKinnon, Fairchild, & Fritz, 2007), which involved 5,000 resamplings with replacement of the original dataset. The 5,000 bootstrapping samples were used to compute 95% bias-corrected confidence intervals (CIs) for the examined indirect effects. Evidence of a significant indirect effect is provided by 95% CIs that do not include zero.

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4. Across the two studies, the same emotion terms were used inquiring about emotion goals, state and trait emotions, and perceived pleasantness and utility of emotions. However, the order in which the emotion terms were presented was randomized.

The completely standardized indirect effect (Preacher & Kelley, 2011) was employed as an index of effect size for the indirect effect (.01 = small effect, .09 = medium effect, .25 = large effect).

RESULTS

Descriptive statistics, including means, sex differences, standard deviations, and scale reliabilities for all study variables are reported in Table 1. As in Study 1, on average, individuals wanted to feel joy more, compared to negative emotions.[5] However, psychopathy scores were again positively associated with negative emotion goals. Correlation coefficients between psychopathic traits and emotion goals are displayed in Table 2 (below the diagonal). Replicating findings from Study 1, we found significant positive zero-order associations between the emotion goal of anger and total scores of both psychopathy measures, as well as all subscales of SRP-SF and TriPM, except for Boldness. Regarding fear, a similar but less consistent profile was observed. As in Study 1, SRP-SF total, antisocial, and lifestyle facet scores were positively related to the emotion goal of fear, but in this sample, the affective facet (but not the interpersonal facet) also demonstrated a significant positive association. Furthermore, the emotion goal of fear was weakly, yet significantly, positively associated with the TriPM meanness and disinhibition subscales in this sample (as opposed to Study 1). The emotion goal of sadness showed positive associations with SRP-SF total, affective (which were nonsignificant in Study 1), lifestyle, and antisocial facets (but not the interpersonal facet, as in Study 1). Significant positive associations were also found for the TriPM meanness (nonsignificant in Study 1) and disinhibition scales, both positively associated with the emotion goal of sadness (but not the total scores, as was found in Study 1). Finally, only the SRP-SF affective facet and the TriPM meanness scale were significantly and negatively related to the emotion goal of joy (whereas only the SRP antisocial facet yielded significant associations in Study 1). As for Study 1, we also report in Table 2 the significant associations that survived Bonferroni correction. Again, the most robust results appeared to be those linking psychopathic traits and the emotion goal of anger, with positive direction, although in this sample the associations with the emotion goals of fear and sadness were also relatively robust. We repeated analyses controlling for state and trait emotions, and the results remained unaltered. In addition, after controlling for sex, results revealed the same patterns as the main correlation analyses. Only two exceptions occurred: With regard to the associations with the emotion goal of sadness, SRP-SF lifestyle facet and TriPM meanness were insignificant, and TriPM meanness correlated insignificantly with the emotion goal of fear.[6]

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5. The percentage of participants scoring over the midpoint in Study 2 ranged from 1.2% to 1.7% for the emotion goals of anger, fear, and sadness. In the case of the emotion goal of joy, 82.7% scored over the midpoint.

6. A final robustness check concerned the examination of possible response biases for the TriPM measure. On average, TAPIR (Mowle et al., 2017) scores ($M = 7.23$, $SD = 3.06$) did not indicate inattentive responding (i.e., they were below the cutoff of 13 recommended for Dutch community samples; Kelley et al., 2017). Only 1.8% of participants scored above the cutoff of 13, and results were unaltered, removing these participants from the main analyses.

    Findings of the mediation analyses to test the indirect effect of psycho-
pathic traits on emotion goals through perceived utility of emotions and
perceived pleasantness of emotions are displayed in Table 3. To limit the
number of tests and for ease of interpretation, these analyses involved only
psychopathy total scores, because a clear pattern of differential associations
with emotion goals at the facet level did not emerge for psychopathy measures.
Results revealed that both perceived utility of anger and perceived pleasant-
ness of anger mediated the association between psychopathy scores (measured
by both SRP-SF and TriPM total scores) and the emotion goal of anger. For
the SRP-SF, the overall model explained approximately 13% of the variance
in the emotion goal of anger, R^2 = .13, $F(3, 512)$ = 26.19, $p < .001$. For the
TriPM, the overall model explained 12% of the variance in the emotion goal
of anger, R^2 = .12, $F(3, 504)$ = 23.12, $p < .001$. Next, only the perceived util-
ity of fear mediated the association between psychopathy scores (measured
by both SRP-SF and TriPM total scores) and the emotion goal of fear. For
the SRP-SF, the overall model explained approximately 13% of the variance
in the emotion goal of fear, R^2 = .13, $F(3, 515)$ = 26.26, $p < .001$. For the
TriPM, the overall model explained approximately 12% of the variance in
the emotion goal of fear, R^2 = .12, $F(3, 507)$ = 22.76, $p < .001$. Furthermore,
no mediation effects were found when examining the indirect effects of both
psychopathy scales on the emotion goal of sadness through perceived utility of
sadness and perceived pleasantness of sadness. Finally, only reduced perceived
pleasantness of joy mediated the association between psychopathy scores
(measured by both SRP-SF and TriPM total scores) and the emotion goal of
joy. The overall model explained approximately 18% of the variance in the
emotion goal of joy, R^2 = .18, $F(3, 511)$ = 38.12, $p < .001$, when using the
SRP-SF. In the case of the TriPM, the overall model explained approximately
18% of the variance in the emotion goal of joy, R^2 = .18, $F(3, 503)$ = 37.26,
$p < .001$. Results remained unaltered after repeating the mediation analyses
with sex as a covariate, with two exceptions for TriPM: After controlling for
sex, there was no longer a mediation effect through perceived utility of anger
nor a mediation effect through perceived pleasantness of joy.

DISCUSSION OF STUDY 2

Overall, correlation patterns in Study 2 were partly consistent with the results
of Study 1, indicating that individuals higher in psychopathic traits reported
that they want to experience some level of negative emotions, and especially
anger. A few differences in the significance (but not the direction) of the asso-
ciations occurred on the facet level of both psychopathy measures. As noted
above, the mean scores for the different emotion goals may also indicate that,
rather than having an active preference for negative emotions, individuals
higher in psychopathic traits may be less motivated to avoid negative emo-
tions, and less motivated to experience joy. As in Study 1, this interpretation
is in line with the percentage of participants scoring above the midpoint in
negative emotion goals. Correlational analyses revealed that the behavioral
features of psychopathy had the most consistent pattern of associations with
negative emotion goals. In addition, the affective features of psychopathy had

TABLE 3. Summary of Multiple Mediation Analyses for the Indirect Role of Psychopathic Traits on Emotion Goals Through the Beliefs About the Utility of Emotions and Attitudes Towards Emotions (Study 2, N = 520; 5,000 Bootstraps)

Independent Variables	Mediating Variables	Dependent Variable	Effect of IV on M	Effect of M on DV	Total effect	Direct effect	Indirect effect (bias corrected intervals)	Effect size
(IV)	(M)	(DV)	(a)	(b)	(c)	(c')	(a)(b) [95% CI]	ab_{cs}
	Utility Anger		.370***	.207***			**.077 [.032, .145]**	.044
SRP-SF		Goal Anger			.433***	.244**		
	Attitudes Anger		.559***	.201**			**.112 [.039, .211]**	.064
	Utility Anger		.008**	.210***			**.002 [.001, .003]**	.031
TriPM		Goal Anger			.009***	.003		
	Attitudes-Anger		.016***	.258***			**.004 [.002, .007]**	.080
	Utility Fear		.360***	.366***			**.131 [.071, .227]**	.076
SRP-SF		Goal Fear			.240**	.083		
	Attitudes Fear		.473***	.056			.026 [−.031, .089]	.015
	Utility Fear		.007***	.357***			**.003 [.001, .005]**	.054
TriPM		Goal Fear			.003	−.001		
	Attitudes Fear		.015***	.079			.001 [−.001, .003]	.023
	Utility Sadness		.103	.513***			.053 [−.012, .137]	.031
SRP-SF		Goal Sadness			.236***	.176*		
	Attitudes Sadness		.119*	.057			.007 [−.003, .030]	.004
	Utility Sadness		.003	.511***			.001 [−.0004, .003]	.026
TriPM		Goal Sadness			.004	.003		
	Attitudes Sadness		.001	.064			.0001 [−.0001, 0.00]	.001
	Utility Joy		−.050	.365***			−.018 [−.088, .048]	−.008
SRP-SF		Goal Joy			−.045	.061		
	Attitudes Joy		−.182***	.477***			**−.087 [−.175, −.029]**	−.039
	Utility Joy		−.002	.368***			−.001 [−.003, .001]	−.012
TriPM		Goal Joy			−.002	.001		
	Attitudes Joy		−.004**	.469***			**−.002 [−.004, −.0002]**	−.028

Note. SRP-SF = Self-Report Psychopathy Scale–Short Form total score. TriPM = Triarchic Psychopathy Measure total score. Utility = Beliefs about the utility of emotions. Attitudes = attitudes towards emotions. ab_{cs} = completely standardized indirect effect, measure of the effect size of the indirect effect (.01 = small effect size; .09 = medium effect size; .25 = large effect size; Preacher & Kelley, 2011). Significant indirect effects are reported in boldface. *$p < .05$. **$p < .01$. ***$p < .001$.

positive associations with the emotion goal of anger, and negative associations with the emotion goal of joy.

Findings regarding the emotion goal of anger were more consistent across psychopathy measures and stronger in effect sizes, compared to the other negative emotions, suggesting that individuals higher in psychopathic traits may be particularly less motivated to down-regulate anger. Also, the pattern of associations with joy was largely consistent with the first study, with psychopathic traits being negatively related to the emotion goal of joy. These findings are consistent with previous findings that psychopathy is negatively associated with the experience of happiness and positively associated with the experience of anger (Hoppenbrouwers et al., 2016). Importantly, sex, state emotions, and trait emotions could not explain the associations between psychopathy and

emotion goals, suggesting that individuals with higher psychopathy scores do not simply want to feel (or not to feel) emotions in line with their current or typical emotional experiences, and these associations could not be attributed to mean differences across sex.

Finally, results of the mediation analyses to test potential mediators of the associations between psychopathic traits and emotion goals revealed intriguing differential mechanisms for different emotion goals. The link between psychopathy and the emotion goal of anger was mediated by both perceived utility and perceived pleasantness of anger, capturing both instrumental and hedonic considerations, respectively. This was not the case with the emotion goals of fear and joy. Indeed, we found that the association between psychopathy and the emotion goal of fear was uniquely mediated by perceived utility of fear (i.e., instrumental considerations). In contrast, the association between psychopathy and the emotion goal of joy was uniquely mediated by reduced perceived pleasantness of joy (i.e., hedonic considerations). Therefore, individuals higher in psychopathy may want to feel anger (or are less motivated to avoid it) both because they enjoy feeling it (or do not dislike feeling it) and because they are more likely to believe that anger can be useful to them. In contrast, it appears that individuals higher in psychopathy are less motivated to avoid fear because they consider it more useful, and they are less motivated to feel joy because they experience it as less pleasurable.

GENERAL DISCUSSION

The current studies tested whether individual differences in emotion goals (i.e., what people *want* to feel) were related to psychopathy in two nonclinical samples, adopting a novel motivational perspective to the study of emotion regulation in psychopathy. We also explored concurrent mechanisms (mediators) that may explain the associations between psychopathic traits and emotion goals, focusing on both instrumental (i.e., perceived utility of emotions) and hedonic (i.e., perceived pleasantness of emotions) considerations. Not surprisingly (Augustine et al., 2010; Ford & Tamir, 2014; Millgram et al., 2015), on average, participants in both studies wanted to feel joy more than anger, fear, and sadness. However, significant positive associations were revealed between psychopathic traits and negative emotion goals, with the most consistent pattern for the emotion goal of anger in both studies. An inverse pattern was observed in the case of the emotion goal of joy, which was negatively associated with psychopathic traits.

These associations indicated that individuals who scored higher on psychopathy wanted to experience anger (and, to a lesser extent, fear and sadness) at least to a certain extent. Considering the low mean levels of these emotion goals, this pattern can be more cautiously interpreted as being indicative of a lower aversion to, or greater tolerance toward, these negative emotions among individuals with higher levels of psychopathic traits. This interpretation is also in line with the percentage of participants scoring over the midpoint (i.e., neutral option) in negative emotion goals. Importantly, these findings are suggestive of a relatively higher reference value for the extent to which

each of these negative emotions might be wanted by individuals with higher levels of psychopathic traits, compared to individuals with relatively lower levels, and should not be viewed as a comparison of which emotion is wanted over the other (i.e., in absolute terms). Overall, these findings provide initial evidence that the emotional functioning related to high levels of psychopathic traits may involve differences in the direction of emotion regulatory efforts (i.e., emotion goals), such that individuals with higher levels of psychopathic traits may be less motivated to down-regulate anger (and, to a lesser extent, fear and sadness), and less motivated to up-regulate joy.

We also tested whether focusing on the different components of the psychopathic personality construct (i.e., affective, interpersonal, and behavioral) could be differentially associated with emotion goals, as is the case for emotional experience and emotion regulation (Hare & Neumann, 2008; Hicks & Patrick, 2006). Some evidence was found that associations with emotion goals were especially robust for the behavioral traits of psychopathy, and to a lesser extent for the affective features of psychopathy. Nonetheless, overall, results at the facet level were not very consistent when comparing the two samples (Studies 1 and 2) and the different psychopathy measures (SRP-SF and TriPM). As in Study 1, at the zero-order level, the most consistent finding appeared to link the emotion goal of anger with psychopathic traits across domains (i.e., affective, interpersonal, and behavioral).

Notably, both affective and behavioral traits of psychopathy have previously been related to antagonism (Lynam & Widiger, 2007; Miller & Lynam, 2015), negative emotions, and emotion dysregulation (Garofalo et al., 2018). In our findings, these traits were also related to negative emotion goals, and especially to the emotion goal of anger. A notable exception in our findings concerned boldness. Indeed, across both independent samples, boldness was not associated with emotion goals, which is in line with previously reported null associations between boldness and other correlates of psychopathic personality (Miller & Lynam, 2012; Vize, Lynam, Lamkin, Miller, & Pardini, 2016). This finding could indicate that boldness has a different set of correlates compared to other psychopathy features.

The links between psychopathic traits and emotion goals were further explored through the examination of the potential mediating role of perceived utility and perceived pleasantness of emotions, capturing instrumental and hedonic considerations, respectively. Specifically, the association between psychopathy and the emotion goal of anger was mediated by both instrumental and hedonic considerations. Individuals scoring higher on both psychopathy measures reported that they wanted to feel more anger (or that they were less motivated to avoid anger), and the mediation effects suggest that this can be both because they found anger to be more pleasant (or less unpleasant) and/or because they found it to be more useful (or less harmful). This suggests that individuals higher in psychopathy may have a relatively weaker motivation to down-regulate anger, as hedonic and instrumental considerations are aligned.

Psychopathic traits were also positively and indirectly related to the emotion goal of fear, but in this case the association was uniquely explained by the belief that fear can be useful. This may indicate that individuals scoring higher in psychopathy tend to be less motivated to avoid fear because they

attach an instrumental value to the emotion, such that this experience may help them to achieve their goals or thrive in difficult situations. In contrast, the negative association between psychopathic traits and the emotion goal of joy was exclusively accounted for by a reduced perceived pleasantness of joy. That is, the extent to which joy is endorsed by individuals who score higher on psychopathy might be influenced by contra-hedonic considerations. It appears, therefore, that feeling joyful might be endorsed to a lesser extent among individuals with higher levels of psychopathic traits because they do not derive as much pleasure from this experience. Finally, results involving sadness were less robust across samples and did not yield significant mediation effects. Therefore, emotion processes involving the experience and regulation of sadness in psychopathy may be subject to different motivational processes.

Overall, our findings provide preliminary support for the application of a motivated emotion regulation framework (Tamir et al., 2015) to psychopathy. Taken together, our results suggest that one of the reasons why individuals scoring higher in psychopathy may not be successful in reducing negative emotions (especially anger) and increasing or maintaining positive emotions (here, joy) may be related to the fact that they are less motivated to do so. In turn, this can be related to abnormalities in the perceived utility and perceived pleasantness of certain emotions, with differential mechanisms for anger, fear, and joy. This knowledge can have important implications, because understanding *why* individuals with higher levels of psychopathic traits are less motivated to down-regulate anger and fear, or to up-regulate joy, could add to our understanding of the abnormalities in emotional experience and emotion regulation related to psychopathy (see Groat & Shane, 2019; Shane & Groat, 2018). That is, to the extent that individuals with higher psychopathy scores suffer less from anger, derive less pleasure from joy and more from anger, and believe that anger and fear are useful emotions, it stands to reason that they may be less likely to engage in emotion regulation strategies that would decrease their anger (and fear) or increase their joy. In other words, it may be that some of the emotional deficits typically ascribed to psychopathy may be related not only to deficits in the *ability* to experience and regulate emotions, but also to deficits in the *motivation* to do so.

LIMITATIONS

The present findings should be considered in light of the study limitations. One limitation of our studies is that all variables were measured via self-report questionnaires, which may be subject to socially desirable answers and response distortion. Another limitation related to the use of self-report measures is that associations might have been inflated due to shared method variance. However, anonymity was ensured, and a meta-analysis showed that social desirability generally does not bias results on associations between self-report measures of psychopathy and external correlates (Ray et al., 2013). Prior research has demonstrated that self-reported emotion goals tend to converge with behavioral and indirect indices of emotion goals (e.g., Tamir et al., 2013). Future studies that employ a multimethod assessment of psychopathy and emotion goals are warranted to replicate the present findings. In addition to that, in

our study, we controlled for state and trait emotions, so the possibility that psychopathic individuals might seek negative emotions as a means to secure a baseline emotional equilibrium was partly ruled out. We do believe, however, that this possibility merits further rigorous testing using experimental designs. Future experimental research could also employ an emotion induction paradigm in assessing desired emotions of psychopathic individuals.

Another issue, particularly in Study 1, concerns some of the internal consistency coefficients for the emotion goals measures, particularly joy. Computing reliabilities for two items often produces very conservative estimates, especially if the items are designed to reflect different aspects of the construct (e.g., Eisinga et al., 2013; Rammstedt & Beirlein, 2014). However, various studies using the same emotion goals measures have found comparable reliability estimates (e.g., Kim, Ford, Mauss, & Tamir, 2015; Tamir, 2005; Tamir & Ford, 2012), which makes it unlikely that a sample-specific reduction in internal consistency occurred. Importantly, Spearman–Brown coefficients were relatively higher, and all internal consistency coefficients were higher (acceptable to good) in Study 2, which provides greater confidence for the correlation and mediation analyses. That said, ideally future studies should use measures with additional items to increase reliability.

Another limitation concerns the cross-sectional design of our study. The mediation analyses therefore refer to concurrent associations (i.e., all variables were assessed at the same time point; Winer et al., 2016). Future research using longitudinal designs is warranted to examine whether these mediation effects also occur over time, or on a moment-to-moment basis (e.g., Experience Sampling Method [ESM] design). In addition, our convenience sampling procedure produced variation in age, educational background, relationship status, and socioeconomic status, as well as a balanced gender representation. However, because the vast majority of the participants self-identified as ethnically Dutch and were relatively well educated, the generalizability of our findings may be limited until future replications in more diverse samples are conducted. In addition, with regard to the missing demographic information of the second sample, and specifically information on ethnicity, civil status, and employment status, this may be attributed to the pen-and-paper completion of the questionnaires. Apart from demographic description, this information was not used in the analyses.

A replication of our findings in a clinical and/or inmate population is necessary to examine whether a similar pattern of results would emerge in severe manifestations of psychopathic personality. Nonetheless, although clinical levels of psychopathy are more prevalent in forensic settings, a growing body of literature supports the dimensional nature of psychopathy and suggests that studying psychopathic traits in the general population could also provide valuable insight into the disorder (Colins, Fanti, Larsson, & Andershed, 2017; Hare & Neumann, 2008; Salekin & Lynam, 2010; Vitacco, Neumann, & Jackson, 2005). Furthermore, our focus on four fundamental emotions (anger, fear, sadness, and joy; e.g., Ekman, 1992) does not dispute the importance of including other emotions (e.g., social or moral emotions such as guilt, shame, or remorse). Future research including other emotional states may provide notable input to the emotional functioning and regulatory processes in psychopathy. Finally, the small effect sizes and the differences

on the facet-level associations of psychopathy measures across samples suggest that the complexity of the emotional functioning related to psychopathy cannot be fully understood from a motivational perspective with a focus on emotion goals, but nevertheless indicate that such a motivational perspective should be taken into account.

CONCLUSIONS

The current research provides preliminary empirical evidence for individual differences in emotion goals related to psychopathy. Our findings suggest that individuals with higher levels of psychopathic traits are less likely to be motivated to avoid negative emotions, primarily anger. Furthermore, this differential goal endorsement could be driven by the pleasure they derive from the emotional experience (hedonic motives) as well as the belief about its beneficial value (instrumental motives). In addition, individuals with higher levels of psychopathic traits may be less motivated to down-regulate fear and less motivated to up-regulate joy, although for different reasons. Specifically, these individuals may consider fear to be more useful, and joy to be less pleasant, than individuals with lower levels of psychopathic traits.

Overall, the present findings may have important conceptual and practical implications. Conceptually, our findings provide tentative support for the role of motivation in emotion regulation processes related to psychopathic traits. Practically, given that the perceived utility of emotions may be malleable (Tamir et al., 2015), and that experiential techniques may increase the capacity to enjoy the experience of positive emotions (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008), future research may attempt to examine whether altering perceived utility and pleasantness of emotions can change the emotion goals related to psychopathic traits, and in turn the direction and outcome of emotion regulation efforts. As the first empirical investigation of motivated emotion regulation in psychopathy, the current study suggests that this may be an informative path to pursue to better understand the emotional functioning that characterizes psychopathy, and perhaps personality pathology more broadly.

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SUPPLEMENTAL MATERIALS

Table S1
Zero-order correlations between psychopathic traits and emotion goals, along with correlations with beliefs about the utility of emotions and emotion goals across contexts, in Study 2 (S2; N = 520) sample

		Emotion Goals for Collaboration			
		Anger	Fear	Sadness	Joy
		S2	S2	S2	S2
SRP-SF	Total	.22***	.18***	.09*	-.09*
	Interpersonal	.17***	.12**	.06	-.06
	Affective	.22***	.18***	.11*	-.16***
	Lifestyle	.14**	.12**	.03	-.01
	Antisocial	.24***	.24***	.14**	-.10*
TriPM	Total	.19***	.09*	.05	-.10*
	Boldness	0.6	-.01	.02	.02
	Meanness	.20***	.10*	.04	-.18
	Disinhibition	.16***	.11*	.05	-.05
Utility beliefs	Anger	.46***			
for Collaboration	Fear		.47***		
	Sadness			.62***	
	Joy				.64***

Note. SRP-SF = Self-Report Psychopathy Scale–Short Form. TriPM = Triarchic Psychopathy Measure. Utility beliefs = Beliefs about the utility of emotions.

*p < .05. **p < .01. ***p < .001.

Table S1 (cont'd)

Zero-order correlations between psychopathic traits and emotion goals, along with correlations with beliefs about the utility of emotions and emotion goals across contexts, in Study 2 (S2; N = 520) sample

		Emotion Goals for Confrontation			
		Anger	Fear	Sadness	Joy
		S2	S2	S2	S2
SRP-SF	Total	.26***	.15**	.08	.01
	Interpersonal	.26***	.14**	.08	.01
	Affective	.19***	.11*	.07	-.02
	Lifestyle	.26***	.10*	.03	.01
	Antisocial	.12**	.17***	.11*	.06
TriPM	Total	.21***	.14**	.12**	.07
	Boldness	.08	.02	.05	.13**
	Meanness	.23***	.13**	.10*	-.01
	Disinhibition	.13**	.16***	.11*	.01
Utility beliefs	Anger	.61***			
for Confrontation	Fear		.55***		
	Sadness			.59***	
	Joy				.57***

Note. Emotion goals = Preferences for emotions. SRP-SF = Self-Report Psychopathy Scale–Short Form. TriPM = Triarchic Psychopathy Measure. ATE = Attitudes Toward Emotions scale. Utility beliefs = Beliefs about the utility of emotions.

*p < .05. **p < .01. ***p < .001.

Table S1 (cont'd)

Zero-order correlations between psychopathic traits and emotion goals, along with correlations with beliefs about the utility of emotions and emotion goals across contexts, in Study 2 (S2; N = 520) sample

		Emotion Goals for Protection			
		Anger	Fear	Sadness	Joy
		S2	S2	S2	S2
SRP-SF	Total	.24***	.18***	.12**	.00
	Interpersonal	.23***	.17***	.10*	-.01
	Affective	.15**	.13**	.10*	.01
	Lifestyle	.26***	.16***	.08	.00
	Antisocial	.15**	.16***	.16***	.03
TriPM	Total	.20***	.18***	.12**	-.01
	Boldness	.03	.06	-.02	.04
	Meanness	.23***	.15**	.11*	-.05
	Disinhibition	.18***	.18***	.17***	-.01
Utility beliefs	Anger	.64***			
for Protection	Fear		.55***		
	Sadness			.52***	
	Joy				.68***

Note. Emotion goals = Preferences for emotions. SRP-SF = Self-Report Psychopathy Scale–Short Form. TriPM = Triarchic Psychopathy Measure. ATE = Attitudes Toward Emotions scale. Utility beliefs = Beliefs about the utility of emotions.

* *p* < .05; ** *p* < .01; *** *p* < .001.

Table S1 (cont'd)

Zero-order correlations between psychopathic traits and emotion goals, along with correlations with beliefs about the utility of emotions and emotion goals across contexts, in Study 2 (S2; N = 520) sample

		Emotion Goals for Exploration			
		Anger	Fear	Sadness	Joy
		S2	S2	S2	S2
SRP-SF	Total	.24***	.18***	.14**	-.10*
	Interpersonal	.18***	.17***	.13**	-.04
	Affective	.22***	.13**	.11*	-.17***
	Lifestyle	.20***	.15**	.08	-.03
	Antisocial	.23***	.16***	.20***	-.10*
TriPM	Total	.19***	.14**	.10*	.12**
	Boldness	.04	.03	.08	-.01
	Meanness	.18***	.15**	.10*	-.19***
	Disinhibition	.19***	.13**	.11*	-.05
Utility beliefs for Exploration	Anger	.61***			
	Fear		.57***		
	Sadness			.62***	
	Joy				.58***

Note. Emotion goals = Preferences for emotions. SRP-SF = Self-Report Psychopathy Scale–Short Form. TriPM = Triarchic Psychopathy Measure. ATE = Attitudes Toward Emotions scale. Utility beliefs = Beliefs about the utility of emotions.

*p < .05. **p < .01. ***p < .001.

Table S2

Zero-order correlations between psychopathic traits and beliefs about the utility of emotions, across contexts in Study 2 (S2; N = 520) sample

		Beliefs about the utility of emotions for collaboration			
		Anger	Fear	Sadness	Joy
		S2	S2	S2	S2
SRP-SF	Total	.10*	.14**	.05	-.14**
	Interpersonal	.10*	.10*	.01	-.08
	Affective	.11*	.16***	.08	-.19***
	Lifestyle	.09	.12**	.02	-.09
	Antisocial	.05	.10*	.09*	-.15**
TriPM	Total	.05	.10*	.04	-.15**
	Boldness	-.01	-.02	-.02	.01
	Meanness	.06	.11*	.03	-.23***
	Disinhibition	.06	.15**	.07	-.11*
		Beliefs about the utility of emotions for confrontation			
		Anger	Fear	Sadness	Joy
		S2	S2	S2	S2
SRP-SF	Total	.15**	.15**	.05	.05
	Interpersonal	.15**	.13**	.03	.08
	Affective	.10*	.15**	.04	.03
	Lifestyle	.15**	.12**	.03	.02
	Antisocial	.07	.11*	.10*	.05
TriPM	Total	.08	.12*	.04	.07
	Boldness	.04	.01	-.01	.06
	Meanness	.09*	.14**	.03	.05
	Disinhibition	.04	.10*	.06	.04

Note. SRP-SF = Self-Report Psychopathy Scale–Short Form. TriPM = Triarchic Psychopathy Measure.

*p < .05. **p < .01. ***p < .001.

Table S2 (cont'd)

Zero-order correlations between psychopathic traits and beliefs about the utility of emotions, across contexts in Study 2 (S2; N = 520) sample

		Beliefs about the utility of emotions for protection			
		Anger	Fear	Sadness	Joy
		S2	S2	S2	S2
SRP-SF	Total	.16***	.18***	.05	.05
	Interpersonal	.14**	.16***	.05	.02
	Affective	.11*	.16***	.05	.02
	Lifestyle	.16***	.16***	.01	.05
	Antisocial	.10*	.10*	.10*	.08
TriPM	Total	.13**	.12**	.03	.01
	Boldness	-.02	-.01	-.07	.07
	Meanness	.16***	.12**	.04	-.04
	Disinhibition	.14**	.14**	.11*	-.01
		Beliefs about the utility of emotions for exploration			
		Anger	Fear	Sadness	Joy
		S2	S2	S2	S2
SRP-SF	Total	.21***	.21***	.11*	-.11*
	Interpersonal	.15**	.19***	.06	-.06
	Affective	.20***	.16***	.12**	-.16***
	Lifestyle	.16***	.19***	.05	-.05
	Antisocial	.19***	.14**	.15***	-.11*
TriPM	Total	.18***	.17***	.11*	-.14**
	Boldness	.03	.00	-01	-.05
	Meanness	.17***	.17***	.12**	-.21***
	Disinhibition	.18***	.21***	.14**	-.03

Note. SRP-SF = Self-Report Psychopathy Scale–Short Form. TriPM = Triarchic Psychopathy Measure.

*p < .05. **p < .01. ***p < .001.

Table S3

Multiple regression analysis results examining associations between psychopathic traits and emotion goals in Study 1 (S1; N = 148) and Study 2 (S2; N = 520) samples

		Emotion Goals							
		Anger		Fear		Sadness		Joy	
		S1	S2	S1	S2	S1	S2	S1	S2
	$R^2_{adjusted}$	.21***	.08***	.07** a	.04***	.20***	.04***		.03**
SRP-SF	Interpersonal	.23* a	-.13* a						
	Affective		.20**		.14* a		.17** a		-.25***
	Lifestyle								.20**
	Antisocial	.35***	.17**	.31**	.17**	.48***	.17**		
	$R^2_{adjusted}$	.12***	.03***	*ns*	.01* a	.05*	.02** a	*ns*	.02*
TriPM	Boldness								
	Meanness								-.18**
	Disinhibition	.31**	.13* a			.30** a	.14* a		

Note. Emotion goals = Preferences for emotions. SRP-SF = Self-Report Psychopathy Scale–Short Form. TriPM = Triarchic Psychopathy Measure. For ease of presentation, only significant β coefficients are reported. [a]Beta coefficients that are not significant after Bonferroni-corrected significance level (i.e., $p < .0018$).

*p < .05. **p < .01. ***p < .001.

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1. Carlo Garofalo, Craig S. Neumann, David S. Kosson, Patrizia Velotti. 2020. Psychopathy and emotion dysregulation: More than meets the eye. *Psychiatry Research* **290**, 113160. [Crossref]