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Parental recall, attachment relating and self-attacking/self-reassurance: Their relationship with depression

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Objectives. When things go wrong for people they can become self-critical or focus on positive, reassuring aspects of the self. This study explored the relationship between forms of self-criticism and self-reassurance, recall of parental experiences and attachment style in relation to depressed symptoms in students.

Methods. A sample of 197 undergraduate students from the UK and Canada completed self-report questionnaires measuring recall of parental styles, attachment, forms of self-criticism, self-reassurance, and depression symptoms.

Results. Recall of parents as rejecting and overprotecting was significantly related to both inadequacy and self-hating self-criticism. In contrast, parental warmth was negatively correlated with these forms of self-criticism. In addition, when things go wrong for the person, recall of parental warmth was associated with the ability to be self-reassuring. A mediator analysis suggested that (1) the impact of recall of negative parenting on depression is mediated through the forms of self-criticism and (2) the effect of parental warmth on depression was mediated by the ability to be self-reassuring.

Conclusions. The impacts of negative parenting styles may translate into vulnerabilities to depression via the way children (and later adults) develop their self-to-self relating (e.g. as self-critical versus self-reassuring). Hence, there is a need for further research on the link between attachment experiences, recall of parental rejection/warmth and their relationship to internal, self-evaluative and affect systems in creating vulnerabilities to psychopathology.

Research has consistently shown a relationship between the recall of negative experiences with parents (such as neglect, low emotional warmth and threat/rejection) and depression (e.g. Parker, 1983; Perris, 1994), and between insecure attachment and

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depression (Besser & Priel, 2003; Pettem, West, Mahoney, & Keller, 1993; Reis & Grenyer, 2002; Roberts, Gotlib, & Kassel, 1996; Whiffen, Aube, Thompson, & Campbell, 2000). These qualities of the early environment have also been linked to self-criticism, which is known to be a major prospective and concurrent vulnerability factor in depression (Brewin & Frith-Cozens, 1997; Hartlage, Arduino, & Alloy, 1998; Zuroff, Igreja, & Mongrain, 1990; Zuroff, Koestner, & Powers, 1994). Blatt and Homann (1992) suggested that self-criticism develops from anxieties of losing the approval of harsh, detached and punitive parents, who also lack emotional warmth. In a sample of 54 adolescent girls, Thompson and Zuroff (1999) found that maternal coldness and insecure attachment were related to self-criticism, and that insecure attachment mediated the relationship between maternal coldness (low emotional warmth) and self-criticism. In a prospective longitudinal study, Koestner, Zuroff, and Powers (1991) found that children who experienced their parents as excessively restrictive and rejecting were more likely to become self-critical.

In recent years, research has moved away from the concept of self-criticism as a single entity with a unitary function. Thompson and Zuroff (2004) developed the Levels of self-criticism scale (LOCS), which measures two related but independent types of selfcriticism. One form focuses on comparative self-criticism (involving negative perceptions of the self in comparison to others), the other focuses on internalized self-criticism (involving negative perceptions of the self in regard to certain personal standards). Gilbert, Clarke, Hempel, Miles, and Irons (2004) developed self-report scales to measure how people think about and treat themselves when things go wrong. One scale focuses on people's abilities to be self-reassuring in contrast to their tendencies to be self-critical. Factor analysis revealed that self-criticism could be distinguished between feeling inadequate and inferior, and feeling hatred for the self. Gilbert et al. also reasoned that people have functional reasons for self-criticizing and so developed the Functions of self-criticism scale. Factor analysis of this scale revealed two factors. One was linked to a desire to self-improve (and stop the self from making mistakes). The other was linked to self-persecution, focusing on a desire to harm or take revenge on the self. Different types of self-criticism may play different roles in relation to depression and other pathologies (Gilbert, Baldwin, Irons Baccus, & Palmer, in press).

There have been a number of concerns with viewing processes such as self-criticism as a vulnerability to depression. For example, self-criticism can increase or decrease with the waxing or waning of depression and may not predict the onset of depression (Coyne & Whiffen, 1995). However, these concerns have been addressed (Santor, 2003; Zuroff, Mongrain, & Santor, 2004). One aspect that has been less addressed in this literature is the degree to which vulnerability to psychopathology is due to self-critical style and/or the inability to be self-reassuring or compassionate to the self (Neff, 2003a, 2003b). Gilbert *et al.* (in press) found that the ability to self-reassure is significantly negatively related to depression symptoms. Interestingly, mediational analyses implicated two separate paths into depression—one related to the inability to be selfreassuring and warm to the self, the other related to the degree of self-persecution and self-hatred.

Given these findings, a key question concerns the relative contributions of selfcriticism and the ability to reassure the self to depression in the context of recall of parenting and attachment. The relationship between early parenting and subsequent selfevaluation has been articulated by Baldwin (1992, 2005), who suggested that experiences within relationships lay down interpersonal schemas that become a source for selfrelating; that is, we may come to think about and treat ourselves in the way others have.

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Moreover, it is possible to prime judgments of 'self by others' and measure the impact on self-evaluation (Baldwin, 1994; Baldwin & Holmes, 1987). Gilbert (2000) and Gilbert and Irons (2005) suggest that people's relationships with themselves (e.g. whether they are critical or warm and accepting) operate through similar psychological systems to those used to relate to others. Thus, one can be critical and hostile to oneself and then feel depressed and beaten down as a consequence (see also Greenberg, Elliott, & Foerster, 1990, Whelton & Greenberg, 2005).

This study therefore set out to explore the way in which recall of parenting and attachment style related to a person's internal self-to-self relating style. Specifically, we hypothesized that recall of parents as rejecting would relate to a more hostile self-criticalness and that recall of parents as warm would relate to abilities to be self-reassuring. We wanted to explore if these internal processes (e.g. self-criticism vs. self-reassurance) might mediate the link between recall of parenting and depressive symptoms. If so, this might have implications for therapy, such as that helping people from difficult backgrounds become self-reassuring could be a focus for therapy (Gilbert & Irons, 2004, 2005; Gilbert & Procter, in press).

Methodology

Participants

Participants in this study were 197 undergraduate students (171 women, 26 men) from the University of Derby (UK) and the University of McGill (Canada) who completed a number of self-report questionnaires. There were no differences between the groups. Participants either volunteered to take part in the research or were given course credit for participation. The study conformed to local ethical guidelines and permissions. Studies were run during blocks in class time.

Measures

EMBU short form (s-EMBU)

The EMBU (Swedish acronym translated as 'My memories of upbringing') is a widely used measure of recall of parental rearing behaviour developed by Perris, Jacobsson, Lindström, von Knorring, and Perris (1980). The s-EMBU is an adapted, 23-item, short form of the original scale consisting of three subscales: rejection (i.e. 'my parents treated me in such a way that I felt ashamed'), emotional warmth (i.e. 'my parents praised me') and (over) protection (i.e. 'I felt my parents interfered with everything I did') (Arrindell *et al.*, 1999). Participants respond to each question using a 4-point Likert scale, with: 1 = no/never; 2 = yes, but seldom; 3 = yes, often and 4 = yes, most of the time. For the purposes of this study, participants were asked to rate how their parents behaved towards them, rather than separate ratings for father and mother. Arrindell *et al.* found Cronbach's alphas above 0.72 for all three subscales and found the scale to be a reliable equivalent to the original 81-item version. In this study, the Cronbach's Alphas were .89 for rejection, .79 for overprotection and .90 for emotional warmth.

Attachment security: The relationship questionnaire

The Relationship Questionnaire was developed by Bartholomew and Horowitz (1991) based on their four-category model of attachment styles in adulthood, as opposed to the original three-category model. The four categories were developed by exploring a person's self-image (positive or negative) and their image of others (positive or negative)

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to propose the following adult attachment styles: *secure* (positive model of self, positive model of other), *dismissing* (positive model of self, negative model of other), *preoccupied* (negative model of self, positive model of other) and *fearful* (negative model of self, negative model of other).

Participants are asked to read four short paragraphs describing each of the attachment styles and decide which one is the most characteristic of them. They are then asked to mark on a 7-point Likert scale the degree to which they feel each description is true of them. Bartholomew and Horowitz (1991) found that intercorrelations of the participants' attachment ratings (measured by both self- and friend-report) were consistent with the proposed four-category model and that these findings could be replicated.

The forms of self-criticizing/attacking and self-reassurance scale (FSCRS)

The FSCRS was developed from clinical work concerning self-criticism and the ability to self-reassure (Gilbert *et al.*, in press). The FSCRS is a 22-item self-report questionnaire which asks participants to rate how they might typically think and react when things go wrong for them. Factor analysis of the scale suggested three factors: *inadequate self* (a sense of feeling internally put-down and inadequate from failures), *bated self* (a sense of self-dislike and aggressive/persecutory desires to hurt the self following failure) and *reassured self* (a sense of concern for the self and efforts to encourage the self when things go wrong). Gilbert *et al.* (2004) found that this measure of self-criticism/self-reassuring was congruent with other measures of self-criticism (e.g., when compared with the Levels of self-criticism scale; Thompson & Zuroff, 2004) and found internal consistency to be good (Cronbach's alphas of above 0.86 for each subscale). In this study, Cronbach's Alpha of 0.85 and over were found for each subscale.

Centre for epidemiologic studies depression scale (CES-D)

The CES-D scale was designed as a short, 20-item self-report measure of depressive symptomology in non-clinical populations (Radloff, 1977). Participants have to rate how often they experienced symptoms in the past week on a 4-point scale. It has been commonly used with student populations (Gotlib & Hammen, 1992) and has been found to have high internal consistency and validity across a wide range of demographic characteristics (Radloff, 1977). A Cronbach's Alpha of 0.93 was found in this study.

Results

Analysis was conducted using the SPSS version 10.1 programme for windows. Results were screened based on the recommendations of Norman and Streiner (2000). Data were found to be normally distributed.

Multivariate ANOVA (MANOVA)

A multivariate ANOVA was conducted using the categorical attachment choice on the Relationship Questionnaire as the independent variable. Means and Scheffe *post boc* comparisons for the three attachment styles are displayed in Table 1. A multivariate *F* value of 1273.10 (p < .01) was found.

Secure and insecurely attached individuals differed in interesting ways. First, the fearfully attached group endorsed significantly higher levels of inadequate self and hated self-criticism than the secure individuals, while the dismissing and preoccupied groups

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	Secure	ıre	Dismi	Dismissing	Preoccupied	upied	Fearful	ful		
Variable	Mean	SD	Mean	SD	Mean	SD	Mean	SD	н	Post hoc (Scheffe) comparisons
FSCRS										
Inadequate self	12.32	6.77	14.87	6.78	16.38	6.11	19.44	7.72	7.36***	Secure < fearful
Hated self	2.70	3.06	3.53	2.98	4.17	3.90	7.25	5.91	8.90***	Secure < fearful
Reassured self	23.85	5.03	20.87	7.35	19.25	6.19	17.66	5.55	8.22***	Secure > preoccupied, fearful
Depression										
CES-D	12.15	8.78	15.47	10.10	21.63	11.99	25.84	13.42	12.12***	Secure < preoccupied, fearful
Key: FSCRS = Forms of self-criticism	is of self-cri		and self-reassuring scale.	ing scale.						

Table 1. Multivariate ANOVA

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fell in between the two. It would seem then that individuals with fearful attachments are not only fearful of their external relationships but their self-to-self relationships are also critical and persecuting. In contrast, securely attached individuals appear significantly more self-reassuring and warm to themselves than either preoccupied or fearful individuals. Hence, fearful and preoccupied individuals may have an underdeveloped, under-elaborated or difficult to activate reassuring/warmth system to call on. This result is also mirrored in depression, with the secure individuals having significantly lower CES-D scores than preoccupied and fearful individuals.

Correlation analysis

Table 2 gives Pearson product moment correlations (r) between our research variables.

Parental rearing and forms of self-criticism/self-reassuring

Inadequate and self-hating self-criticism was significantly associated with parental rejection and, to a lesser extent, overprotection. Recall of warmth was negatively related to self-criticism and positively related to the ability to reassure and sooth oneself. As noted below in our mediation analysis, these relationships are not straightforward.

Attachment relating and forms of self-criticism/self-reassuring

A consistent pattern of correlations was found between attachment and selfcriticism/self-reassuring. Secure attachment was negatively correlated with inadequate and self-hating self-criticism whilst fearful attachment was positively correlated with inadequate and self-hatred self-criticism. Interestingly, the dismissing style showed no relationship to either of the self-attacking measures or the self-reassurance measure. When it comes to the ability to reassure oneself, there is a positive relationship between secure attachment and self-reassurance but a negative relationship between fearful attachment and self-reassurance/warmth.

Parental rearing, attachment relating and depression

Early recall of parents as rejecting, overprotective or emotionally warm were all significantly but marginally correlated with depression symptoms. In regard to attachment styles, secure attachment was negatively associated with depression while fearful attachment was positively associated with depressive symptoms.

Regression analysis

To explore the relative contribution of self-criticism to depression in contrast to self-reassurance, we conducted a standard multiple regression. Inadequate self-criticism and self-hatred self-criticism were entered with self-reassuring data. These variables produced a significant model in the prediction of depression symptoms score $(F(3, 194) = 53.61, p < .001; R^2 = .45)$. Table 3 shows that the self-critical and self-reassurance variables made independent contributions to depression. However, of note is that self-reassurance has the highest standardized beta weight and, moreover, the highest part and partial correlation. This data suggests that it is not just self-criticism that is important in the self-evaluative system, but also the ability to be self-reassuring and warm with the self. This adds to the evidence that specifically focusing on developing self-compassion could be a useful therapeutic intervention (Gilbert & Irons, 2004, 2005).

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REJ PRO EMO SEC DIS PRI				
		INAD	HATE	REASS
PRO				
EMO – .67% – .11				
SEC – .25*** .03 .32***				
DIS –.02 –.02 .12 .06				
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FEAR .27*** .07 –.25*** –.60*** –.04	.10			
INAD .31*** .25***19**41***11 .2	.22**			
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REASS –.16* –.07 .30*** .47*** .13 –.2	23**36***	57***	48***	
CES-D .20** .19**17*38***14 .2	.25*** .40***	*** 09.	.55***	56***

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 Table 3. Multiple regression analysis: Depression symptoms regressed on to inadequate and selfhatred self-criticism and self-reassurance

	Standardized beta	Partial	Part*	Þ	
Inadequate self	.279	.245	.187	.001	
Self-hatred	.218	.207	.156	.004	
Self-reassurance	— . 297	311	242	.000	

*Semi-partial correlation

Mediator analysis

As discussed previously, we were interested in how the relationship between recall of parental rearing behaviour and depression symptoms may be influenced by the ability to self-criticize/self-reassure. For example, different types of early parental experiences may influence different types of self-criticism. To explore these relationships further, we tested for potential mediation effects between these variables using regression analysis, as recommended by Baron and Kenny (1986; see Fig. 1).

Step 1 of the analysis found that the predictor variables (i.e. the parental rearing variables) have a significant effect upon the dependent variable depression $(F(3, 194) = 4.13, p < .01, R^2 = .06)$. Step 2 found that the predictor variables significantly impacted on the self-criticism subscales of inadequate self $(F(3, 194) = 8.33, p < .001, R^2 = .11)$, self-hatred $(F(3, 194) = 8.31, p < .001, R^2 = .11)$ and self-reassurance $(F(3, 194) = 6.90, p < .001, R^2 = .10)$, respectively. Step 3 of the analysis examines whether the hypothesized mediators are related to the dependent variable when controlling for parental-rearing variables. A significant model was produced $(F(6, 191) = 26.80, p < .001, R^2 = .46)$ and the independent predictions are displayed in Figure 1. Importantly, although the parental-rearing variables showed significant simple correlations with depression as mentioned earlier

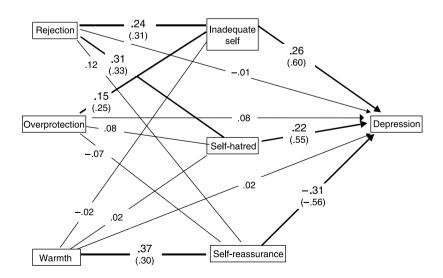


Figure 1. Path analysis. Note. Significant paths (p < .05) in bold; zero-order correlations of significant paths in parentheses.

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(see Table 2), the paths from parental-rearing variables to depression became nonsignificant and near zero when the regression controlled for the mediating self-criticism variables (see Figure 1).

Examination of the significant standardized beta weights suggests that inadequate self-criticism partially mediates the relationship between experiences of rejection and overprotection and the depression score, but not between parental warmth and depression. Criticism related to self-hatred, mediated the relationship between rejecting parents and depression scores, but not between recall of overprotection and warmth and depression. Self-reassurance mediated the relationship between recall of parental warmth and depression, but not between recall of rejection and depression.

These results have two major conceptual implications. The first is that the self-reassuring/warmth system may be quite distinct from a self-critical/persecuting system. One is not simply the opposite of the other. It would appear that the ability to self-reassure, linked with memories/recall of parents as warm, acts as a significant buffer against depression, independent of self-criticism. The second major implication is that adverse parenting has differential impacts on the type of self-criticism. Overprotection, after controlling for warmth and rejection, seems specifically linked to inadequate self-criticism. This makes theoretical sense, in that one's parents indirectly imply through their overprotection that one may not be 'up to looking after oneself'. Rejection however, specifically links to self-hatred. There is evidence that people whose parents were critical and hostile have intrusive memories and thoughts about these experiences, especially when depressed. Over time these may become fused with self-experience, so that the 'bad feelings/thoughts about the self' become like intrusions without clearly identified sources (e.g. parental rejection/criticism).

Discussion

There has been considerable work on the impact of self-criticism on depression (for a review see Zuroff *et al.*, 2004). This study builds on earlier work that has explored the different forms and functions of self-criticism and the role of self-reassurance/warmth on depression (Gilbert *et al.*, 2004). Previous work has also shown that self-critics differ from individuals with low levels of self-criticism in terms of their ability to create hostile and caring images (Gilbert *et al.*, in press). This study explored the linkage between self-criticism (focusing on inadequacies and self-hating) and self-reassuring in relation to attachment style and recall of parental rearing, and their impact on depression.

Multivariate ANOVA (MANOVA) showed that people with a fearful attachment style had significantly higher levels of self-hating and inadequate focused self-criticism than securely attached people. Fearfully attached people were also low on the ability for self-reassurance. In regard to the recall of parenting, it has been suggested that when children are subjected to threat and neglect they become more threat sensitive, more focused on issues of social power and more likely to internalize a critical style (Gilbert & Irons, 2005; Gilbert, Cheung, Wright, Campey, & Irons, 2003; Perris, 1994; Thompson & Zuroff, 1999).

In regard to the question of the relative contributions of self-criticism and self-reassurance, multiple regressions suggest that self-reassurance (or the inability to be self-reassuring and warm with the self) makes an independent contribution to depressive symptoms in students. Indeed, the part and partial correlation coefficients are higher for self-reassurance than self-criticism. The implications suggest (1) a need for better measures for self-reassurance and warmth for the self (Neff, 2003b) and (2) further

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explorations of the therapeutic benefits of developing inner warmth (Gilbert & Irons, 2004, 2005; Gilbert & Procter, in press).

This links to another question, which is the nature of the relationship between selfcriticism and self-reassurance/warmth and parental criticism/rejection and parental warmth in a pathway to depression. We conducted a mediation analysis to explore how recall of parenting may influence levels of self-criticalness and self-reassurance, which in turn is related to depression. We found that recall of warmth (as may be indicative of a developed and elaborated memory network of others being loving and reassuring; Baldwin, 2005) links to the ability to self-reassure/warm. The route into depression via parental warmth and self-reassurance is independent of the parental criticism/rejection and self-critical pathway. Thus, this pathway is not simply the absence of self-criticism but may be routed in a specific positive affect system that plays an important role in wellbeing. For example, there is increasing evidence that the human warmth system evolved in the context of supporting and investing relationships (MacDonald, 1992). Affiliation and warmth may in turn be mediated through opiate brain systems and involve oxytocin and vassopresin as part of a *soothing* positive affect system that facilitates affiliative behaviour (Carter, 1998; Depue & Morrone-Strupinsky, 2005; Wang, 2005).

Gilbert and Irons (2005) have suggested that internal self-criticism can be a form of internal self-harassment and that teaching people to develop a sense of self-warmth may help to develop self-soothing and 'warm' pathways in the brain. This may have additional therapeutic properties in toning down self-criticism (Gilbert, 2000).

There are a number of limitations to this study. First, our results are correlational and, hence, direction of causality cannot be determined. Second, our predominantly female student sample also means that our results may not be representative of, or able to be generalized to, other populations (e.g. males, clinical populations). Third, many of the concerns associated with the complications of identifying vulnerability factors (e.g. Santor, 2003; Zuroff et al., 2004) apply here. In regard to the mediation model, while the model provides a clear set of pathways, we note that the recall of parenting factors have low zero-order correlations with depression. Given the higher correlations of the selfevaluating variables, some may argue that these paths are inevitable. However, we reinforce the finding that when the self-evaluative variables are added into the path analysis, the correlations between parent rearing variables and depression come close to zero. Concerns may rest with the scales for measuring parental recall; ideally, longitudinal data would pick up on how parental style translates into self-experience, self-evaluation and feelings. Nonetheless, this study has highlighted a number of pathways through which early rearing and attachment experiences may relate to depression. These results suggest the potential value of developing self-reassurance and self-compassion as a therapeutic intervention for people who have experienced rejection and become self-critical, with promising results from an early study (Gilbert & Procter, in press).

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