

Research report

Guilt, fear, submission, and empathy in depression

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Abstract

Background: This study compares self-focused motivations (fear of negative evaluation, social comparison, and fear of envy) and other-focused motivations (empathy and interpersonal guilt) in submissive behavior and depression. *Methods:* The Beck Depression Inventory, Submissive Behavior Scale, Fear of Negative Evaluation Scale, Social Comparison Scale, Interpersonal Guilt Questionnaire, and Interpersonal Reactivity Inventory were administered to 50 patients hospitalized for depression and 52 students. *Results:* Depressed patients were significantly higher in survivor guilt, omnipotent responsibility guilt, submissive behavior, fear of negative evaluation, fear of envy, and empathic distress, and lower in social comparison. *Limitations:* This research was limited in that it was a correlational study. *Conclusions:* This study suggests that altruistic concern about others may be an important factor in depression and submissive behavior. Evolutionary implications of these findings are discussed.

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1. Introduction

Depression is one of the most debilitating psychiatric disorders in the United States. Over 15 million people suffer from depression annually, accounting for 4.7 million office visits (Vital and Health Statis-

tics, 1996) and costing over \$30 billion annually (National Institute of Mental Health, 1998). The prevalence of depression has been increasing over the past 50 years (Klerman, 1988; Seligman et al., 1995), tends to be recurrent (Coryell et al., 1994), and has a lifetime prevalence of 17.1% (Blazer et al., 1994). Given the human cost of this disorder, research has been aimed at understanding its causes and developing treatments, focusing on genetic, neurobiological, cognitive and psychodynamic explanations.

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Cognitive and psychodynamic approaches to depression emphasize the depressed patient's preoccupation with the self. From a cognitive perspective, depression occurs in people who have negative cognitions about the self, manifesting in detrimental self-statements and a pessimistic attributional style (Beck et al., 1979; Hollon and Kendall, 1980; Seligman et al., 1979). From a self-psychological viewpoint, depression is the result of a lack of early mirroring and support needed for a healthy and secure sense of self (Kohut, 1977; Shane and Shane, 1988; Stolerow et al., 1987). Blatt and Zuroff (1992) classify depression into two types, both related to concerns about the self.

Evolutionary psychologists have described depression as an involuntary self-protective response to defeat, or to loss of attractiveness or reputation (Allan and Gilbert, 1997; Gilbert, 1992; Price, 1967; Price et al., 1994; Stevens and Price, 1996) and attempted to identify psychobiological mechanisms that account for the associated passivity, loss of confidence, and low self-esteem. Depressed people see themselves as inferior, tend to behave submissively in conflict situations and feel trapped and defeated (Gilbert and Allan, 1994). Data supports the proposition that depression may be related to biological states which evolved to cope with losses of rank, status and heavy defeats (McGuire and Troisi, 1998).

While self-focused concerns and defensive strategies explain some types of depression, they fail to address depression related to worry about others (Akiskal, 1998; Modell, 1965, 1971; Neiderland, 1961, 1981; O'Connor et al., 1997, 1999; Weiss et al., 1986). Akiskal (1998) has proposed that Generalized Anxiety Disorder (GAD), which predisposes a person to depression, is based on an adaptive form of 'altruistic anxiety' that, when exaggerated, is pathological. Weiss (1993) suggests that depression occurs as the result of inhibitions derived from pathogenic beliefs inferred from childhood experiences. These beliefs warn a person that by pursuing normal developmental goals, he or she risks harming loved ones. The person vulnerable to depression often suffers from a set of pathogenic beliefs, predicting that personal success will make others feel inadequate by comparison.

2. Empathy, altruism and concern about others

While concern for the self is an important motivational system in human life, some researchers believe that the importance of self-concern has been overstated (McClelland, 1995; Miller and Ratner, 1998). Other goals include care for others, altruistic pursuits, and protection of the family and social group. Humans and other higher primates appear to be predisposed to empathy, to respond emotionally to others' distress, and to attempt to help others who are suffering (Batson and Weeks, 1996; Baumeister and Leary, 1995; Baumeister et al., 1994; de Waal, 1996; Eisenberg et al., 1989; Ferguson et al., 1997; Hoffman, 1981).

Altruistic behaviors are often interpreted as serving to protect or enhance the self, or to promote genetic self-interest by helping kin. Empirical studies suggest that people may behave altruistically in the absence of selfish motives (Batson, 1991; Caporael et al., 1989). Some suggest that multiple levels of selection have led to our success in small group living (Baumeister and Leary, 1995; Boehm, 1993, 1997; Brewer and Caporael, 1990; Caporael and Brewer, 1995; Caporael, 1997; Sober and Wilson, 1998; Wilson and Sober, 1994). The need to belong to a group, beyond the mother and child dyad and the biological family, has been described as a fundamental human motivation (Baumeister and Leary, 1995).

Empathy and concern about others appear in the first months of life and remain throughout the life span (Dunn and Kendrick, 1982; Hoffman, 1981; Zahn-Waxler et al., 1983, 1992). Within the family, parents are invested in the well-being of their children, and children are highly motivated to be like their parents and siblings, and to care for their loved ones, including their care-takers (Radke-Yarrow et al., 1994; O'Connor, 2000).

People are motivated by a need for affiliation, belonging and equality on the one hand, and individual achievement and success on the other (Wolfe et al., 1984). A drive for equality or a leveling mechanism appeared in hunter gatherer groups (Boehm, 1993, 1997), with antecedents in higher primates (D'amato and Eisenstein, 1972; de Waal, 1996; Itani, 1988; Nissen and Crawford, 1936;

Power, 1988). Caporael (1997) suggests that in humans, sociability is in fact the overarching factor.

3. Altruism-based depression

While depressed people often see themselves as defeated and lacking in feelings of confidence (Allan and Gilbert, 1997; Gilbert, 1992; Gilbert and Allan, 1994), some have suggested that depression and submission may be related to altruistic concerns (Modell, 1965, 1971; Neiderland, 1961, 1981; O'Connor et al., 1997, 1999; Weiss, 1993). In clinical settings, some depressed people demonstrate a high proneness to survivor guilt, that is, guilt over surviving the death of a loved one, or guilt about being better off than others. Freud noted 'that tendency toward self-reproach which death invariably leaves among the survivors' (Freud, 1897, cited in Ernest Jones, 1960). Neiderland described depression in survivors of World War II prison camps (Neiderland, 1961, 1981). Modell (1965, 1971) expanded the construct to include the guilt that people feel when they believe they are better off than others in their family. He described patients who develop psychiatric symptoms to avoid feeling better off than less fortunate or disturbed family members. Alexander et al. (1999) reported that in clinically depressed patients, guilt but not shame predicted depression.

Survivor guilt may be a fundamental emotion developed by evolutionary pressure related to living in small groups; it may promote social organization, insure an equitable distribution of resources, and long provisioning of the young.

4. The present research

The present research investigates these factors, comparing the relative contributions of self-focused and other-focused motivations in depression. In a sample of depressed patients and a non-patient student sample, we compared the contribution of survivor guilt with the contribution of feelings of inferiority and the fear of negative evaluation. We hypothesized that both factors would be found to be relevant to the presence of depression; we expected

that in some cases self-interest and concern about status would be most highly associated with depression, and in other cases altruism, empathy and guilt would be most highly associated with depression. In addition to using instruments measuring survivor guilt and fear of negative evaluation, we also used a measure of empathy. It is often theorized that depressed people are less empathic, and thus less altruistically motivated. In the survivor guilt theory of depression, it is hypothesized that while behaviors may be inhibited by guilt and therefore a depressed person may appear less likely to act altruistically as well as less likely to act in their own behalf, people who are depressed are in fact more likely to be highly prone to guilt and to an empathic response to the distress of others. Because it is possible that people may fear being better off than others because of fear of envy (Gilbert, 1992), this study also used a measure of the fear of envy to ascertain the contribution of this factor in depression.

5. Method

5.1. Participants and procedure

There were two groups of participants in this study: 52 (18 men and 34 women) students and 50 (30 men and 20 women) patients hospitalized for depression. The mean age for the non-patients was 20.2 (S.D. = 2.6) and for the patient sample was 39.2 (S.D. = 10.7). All participants in both samples were Caucasian. In both samples participation was voluntary.

5.2. Instruments

5.2.1. *The Interpersonal Guilt Questionnaire-67*

IGQ-67 (O'Connor et al., 1997) is a 67-item, self-report questionnaire designed to assess guilt related to the fear of harming others. This instrument has four subscales: survivor guilt (22 items), separation guilt (16 items), omnipotent responsibility guilt (14 items), and self-hate (15 items). Only the first three subscales, which are directly related to worry about harming others, are used in this study. Responses to items are given on a 5-point Likert-

type scale, and subscale scores are the sum of item responses for that subscale. Internal consistencies (Cronbach's alpha coefficients) have ranged from 0.82 to 0.85 for survivor guilt, from 0.82 to 0.83 for separation guilt, and from 0.74 to 0.83 for omnipotent responsibility guilt (O'Connor et al., 1997).

Survivor guilt is characterized by the pathogenic belief that by pursuing normal goals and achieving success and happiness, one will cause others to suffer simply by comparison. This subscale contains items such as 'I conceal or minimize my success'; and 'It makes me uncomfortable to receive better treatment than the people I am with'. Separation guilt is characterized by the pathogenic belief that if a person separates from loved one's, or differs from loved ones in some way, loved ones will suffer as a consequence. Examples include: 'I feel that bad things may happen to my family if I do not stay in close contact with them' and 'I prefer to do things the way my parents did them'. Omnipotent responsibility guilt involves an exaggerated sense of responsibility and concern for the well being of others. Examples include: 'It is very hard for me to cancel plans if I know the other person is looking forward to seeing me' and 'I often find myself doing what someone else wants me to do rather than doing what I would most enjoy'.

5.2.2. *The Submissive Behaviour Scale*

SBS (Allan and Gilbert, 1997) is a 16-item self-report measure adapted from Buss and Craik (1986), used to assess submissive social behavior. The authors report a Cronbach's alpha coefficient of 0.89 and test-retest reliability at 4 months of 0.84. This measure has been used in studies of social comparison (ranking) and evolutionary theory (Gilbert and Allan, 1994; Gilbert et al., 1995). The alpha coefficient in the present study was 0.78.

5.2.3. *The Interpersonal Reactivity Inventory*

IRI (Davis, 1980) is a 28-item, self-report inventory that assesses four dimensions of empathy: (1) empathic concern, a tendency to feel sympathy, compassion, and concern for others; (2) perspective-taking, the ability and proneness to adopt the point of view of others; (3) fantasy, a tendency to identify with characters in fictional works; and (4) personal distress, the tendency to become upset and anxious

when observing other people in negative circumstances. Davis (1980) reports internal consistencies ranging from 0.68 to 0.79 for the subscales, and test-retest reliabilities ranging from 0.61 to 0.81 over intervals of between 60 and 75 days. The factor structure of the scales appears to be similar in male and female samples. The construct validity of the scales has been supported through correlations with other empathy measures and with measures of other theoretically related variables (Davis, 1983).

5.2.4. *The Social Comparison Scale*

SCS (Allan and Gilbert, 1995) is an 11-item, semantic differential type scale that measures judgment of social rank, relative attractiveness, and group fit. Higher scores indicate higher self-perceived ranking. The authors report a Cronbach's alpha coefficient of 0.91 in a sample of college students and of 0.88 in a sample of psychiatric patients. The scale has been shown to differentiate between clinical and non-clinical groups and to correlate with a variety of psychological symptoms. In the present study, the alpha coefficient was 0.89.

5.2.5. *The Beck Depression Inventory*

BDI (Beck, 1972) is a frequently used, 21-item self-report depression inventory representing cognitive, affective, and vegetative symptoms of depression. The reliability and validity of the BDI have been well-established.

5.2.6. *Fear of Negative Evaluation-brief form*

Brief-FNE (Leary, 1983) adapted from FNE (Watson and Friend, 1969) is a 12-item scale rated on a 5-point Likert scale. Internal consistency as measured by Cronbach's alpha was 0.90. In the present study, alpha was 0.92.

5.2.7. *Fear of Envy Scale*

FES (Gilbert, unpublished, 1997) is a 7-item, Likert-type scale developed for this study. It includes items such as 'I fear others will not like me if I show I am too confident', 'People who have a lot are usually seen as selfish', and 'I play down my abilities in case this makes others envious of me'. Internal consistency for the items in this study was 0.79.

Table 1
Correlations between severity of depression (BDI) and major predictive variables

	Depression
Social ranking variables	
Submissive behavior	0.58***
Social comparison	− 0.80***
Self-focused variables	
Fear of negative evaluation	0.56***
Fear of envy	0.55***
Other-focused variables	
Survivor guilt	0.56***
Omnipotent guilt	0.42***
Separation guilt	0.16
Empathy concern	0.06
Empathy perspective	0.03
Empathy distress	0.35**
Empathy fantasy	− 0.21*

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.

6. Results

6.1. Prediction of severity of depression

Table 1 presents the zero-order correlations between severity of depression (BDI scores) and major predictor variables. As suggested by the involuntary yielding theory of depression, severity of depression was significantly correlated with both submissiveness (positively) and social comparison (negatively). Se-

verity of depression was also significantly correlated with fear of negative evaluation and fear of envy, both of which reflect self-focused motivations and self-protective concerns. Finally, as hypothesized, severity of depression was significantly correlated with survivor guilt, omnipotent responsibility, and empathic distress. These variables reflect concern about others. Severity of depression was uncorrelated with empathic concern and perspective-taking.

To determine the relative contributions of guilt versus self-protective concerns in depression, multiple regressions were calculated predicting scores on the BDI from (a) survivor guilt and fear of negative evaluation; (b) survivor guilt and social comparison; and (c) survivor guilt and fear of envy. Gender was also included in these analyses because of a significant difference for gender on survivor guilt and a significant difference in the percentage of females between the non-patient (62.9) and patient (37) samples, chi-square (1) = 6.6, $P < 0.01$. Table 2 presents the standardized partial regression coefficients from these analyses for the non-patient and patient sample separately, and for the combined samples. In the combined sample both fear of harm to self and fear of harm to others (survivor guilt) appear to contribute independently to depression. However, the pattern of results differed for the non-patient and patient samples. In the patient sample, survivor guilt but not the self-concern variables (fear of negative evaluation, social comparison, and fear

Table 2
Results of multiple regressions predicting BDI scores in non-patients and patients from survivor guilt and three measures of self-protective concerns

	Depression		
	Non-patients Partial r	Patients Partial r	Combined Partial r
Survivor guilt	0.11	0.50**	0.42***
Fear of negative evaluation	0.19	0.18	0.31***
Gender	− 0.33*	0.25	0.18*
Survivor guilt	0.08	0.48**	0.16*
Social comparison	− 0.33*	− 0.22	− 0.70***
Gender	− 0.34*	0.28*	0.06
Survivor guilt	0.04	0.48*	0.42***
Fear of envy	0.28	0.18	0.28**
Gender	− 0.33*	0.21	0.17*

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.

of envy), predicted severity of depression. However, in the non-patient sample, there was a tendency for the self-focused concerns to provide a stronger prediction of depression. This would suggest that both theoretical perspectives on depression appear to be valid; the self-concern theory of depression appears more explanatory in a non-clinical sample, and the guilt theory of depression appears more explanatory in a clinical sample.

6.2. Comparisons of patient and non-patient samples

To compare the patient sample to the non-patient sample, we calculated 2×2 (population by gender) analyses of covariance for each dependent variable, using age as a continuous covariate because of the large difference in age between two samples. Table 3 presents the marginal means for each sample and the F value for the main effect for population. Patients were significantly higher in depression. The two samples had similar variability in BDI scores. For the non-patient sample, the S.D. was 7.5, range of 30; for the patient sample the S.D. was 9.9 with a range of 34.

In line with the involuntary yielding or social rank theory of depression, patients were significantly higher on fear of negative evaluation and signifi-

cantly lower on social comparison (higher scores indicate lower social rank). Consistent with previous research, the patients were significantly higher in submissive behavior. In line with the guilt hypothesis of depression, the patients were significantly higher in survivor guilt and omnipotent responsibility guilt. The only empathy subscale on which the groups differed was empathic distress, with the depressed patients scoring significantly higher.

Table 4 presents the marginal means for men and women on all the dependent variables and the F -values for the main effect for gender. Women were significantly higher than men on the three subscales of interpersonal guilt: survivor guilt, omnipotent responsibility guilt and separation guilt.

7. Discussion

These results support the hypothesis that survivor guilt may be an important psychological mechanism associated with depression. Prior perspectives on depression, informed by evolutionary theory, have focused on loss of social rank and fear of harm to the self, and this was supported in the present study in a non-clinical sample. A non-depressed person who loses a job, who is demoted in some area of life, is

Table 3
Comparison of patient and non-patient samples on major variables

	Students ($n = 52$)	Patients ($n = 50$)	Population main effect F
Survivor guilt	60.7	78.3	28.2***
Omnipotent responsibility guilt	45.4	53.6	11.9**
Separation guilt	39.5	43.9	2.3
Submissive behavior	21.4	38.3	30.2***
Fear of negative evaluation	32.5	49.7	30.4***
Social comparison	105.7	33.7	124.5***
Fear of envy	18.2	24.2	14.2***
Beck Depression Inventory	5.9	36.8	127.2***
Empathy concern	26.8	26.6	0.03
Empathy perspective	22.1	22.9	0.27
Empathy distress	17.3	22.1	9.8**
Empathy fantasy	21.1	20.7	0.05

The F values are based on the main effect from a 2×2 (population by gender) analysis of covariance, with age as the continuous covariate. The means are marginal means.

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.

Table 4
Comparison of men and women on major variables

	Men (<i>n</i> = 48)	Women (<i>n</i> = 54)	Gender main effect <i>F</i>
Survivor guilt	65.7	73.2	12.8**
Omnipotent responsibility guilt	47	51.1	4.6*
Separation guilt	39.7	43.8	4.9*
Submissive behavior	28.5	31.2	1.9
Fear of negative evaluation	39.9	42.2	1.2
Social comparison	73.1	66.3	2.7
Fear of envy	21.1	21.3	0.05
Beck Depression Inventory	19.7	23.0	3.6
Empathy concern	26.4	27.4	1.7
Empathy perspective	21.8	23.2	1.9
Empathy distress	19.0	20.4	1.9
Empathy fantasy	20.8	21.0	0.04

The *F* values are based on the main effect from a 2 × 2 (population by gender) analysis of covariance, with age as the continuous covariate. The means are marginal means.

P* < 0.05; *P* < 0.01; ****P* < 0.001.

likely to experience a lowering of mood, and possibly transient symptoms of depression. However, people who are clinically depressed tend to suffer from pathogenic cognitions in which they define themselves as harmful to others; these beliefs may then supersede normal concerns about the self. People who have been told by their parents that they are 'bad' are almost always told that their 'badness' is harmful to their parents, and given the child's need to be connected to parents, the latter may become the predominant or driving belief through which experience is organized. Additionally, it is possible that the chemistry of depression is essentially the chemistry of guilt, and that becoming depressed, by definition, leads to intense worry about harming others.

In both the self-focused and other-focused theories of depression, effectance, success, and resource holding power are inhibited by internal psychological mechanisms. It is the ultimate evolutionary functions of these mechanisms that require further exploration. The perspective emphasizing self-protection has focused on reproduction-based explanations. The perspective emphasizing guilt may suggest a hierarchical, multi-level theory of selection.

The rise in depression in individualism-based cultures suggests another perspective on depression. Homo Sapiens was psychologically adapted to life in hunter-gatherer cultures, many of which have been

described as relatively egalitarian (Boehm, 1993, 1997; Cosmides and Tooby, 1992; Woodburn, 1982). In an egalitarian setting, a high proneness to survivor guilt supported the sharing necessary for survival in complex group living. We may have inherited from our foraging ancestors, an inclination to equality, and a proneness to experience survivor guilt in situations of inequity. In modern individualism-based cultures, this discomfort with inequity (Exline and Lobel, 1999) may be less adaptive. Success may be dependent on being able to tolerate being better off than others, and to suppress a tendency to survivor guilt. From this perspective, depression may not be adaptive on both the individual and group level; the depressed person is less productive in basic life functions, and a group that contains many depressed individuals is less likely to be successful when compared to a group with few depressed people.

Future studies that include a larger non-patient sample from an older population and an out-patient depressed population might shed further light on this form of guilt and depression. Future studies that compare different psychopathologies, and in-patient and out-patient samples may also increase our understanding of these factors in mental disorders in general. Additionally, further research is needed to investigate exactly how survivor guilt operates its pathogenic effects and whether this sheds light on

the well-known gender differences in vulnerability to depression.

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