Self-criticism, dependency, silencing the self, and loneliness: a test of a mediational model

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Abstract

The current study extended recent research on the relational aspects of self-criticism and dependency by examining their association with individual differences in silencing the self and loneliness. A sample of 167 respondents (including 78 in current romantic relationships) were administered the McGill version of the Depressive Experiences Questionnaire (DEQ), the Silencing The Self Scale, and measures of loneliness and depression. The results indicated that self-criticism was associated with silencing the self, loneliness, and depression, while dependency was not associated significantly with loneliness. As expected, a mediational model confirmed that silencing the self mediated the link between self-criticism and loneliness, even after taking related individual differences in levels of depression into account. Our findings held generally for people in a current relationship or not in a current relationship, but certain findings highlighted the need to distinguish whether self-silencing is being evaluated within the context of a current relationship. Overall, our results point to self-silencing as a tendency that links depressive orientations and loneliness. The theoretical and practical implications of the associations among personality vulnerabilities, self-silencing, and loneliness are discussed.

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Recently, several findings have shown that personality factors associated with depression are also associated with significant interpersonal problems (Habke, Hewitt, & Flett, 1999; Lynch, Robins, & Morse, 2001; Whisman & Friedman, 1998). This research is consistent with previous observations about the need to examine personality vulnerability factors from a contextual per-
One influential model has been proposed by Blatt and his associates (see Blatt, 1974). This model was developed ostensibly to examine the role of self-criticism and dependency in depression, but research has been expanded to include an analysis of how individual differences in self-criticism and dependency relate to interpersonal processes. According to Blatt and Zuroff (1992, 2002), self-criticism reflects an introjective orientation that involves a focus on achieving personal goals and being highly competitive; self-critical people derive little satisfaction from their accomplishments and engage in a harsh self-scrutiny. People high in self-criticism are characterized by feelings of inferiority, guilt, and diminished self-worth that stem, in part, from their tendency to strive for absolute standards of perfection.

In contrast, dependency reflects an anaclitic orientation that involves a preoccupation with other people and a need to keep them in close proximity. Dependent individuals with unresolved needs may experience an anaclitic depression that involves feelings of helplessness and weakness, and abandonment fears. The dependent orientation reflects a need for relatedness and association with significant others, while self-criticism reflects a need for self-definition and personal identity (see Blatt & Blass, 1996). Both orientations reflect an insecure attachment style stemming from earlier problems between the child and caregivers.

Collectively, a number of findings in this area have confirmed that people high in dependency have a relatively positive response to other people, but people high in self-criticism have a negative interpersonal style that can lead to a variety of interpersonal problems (see Mongrain, Vettese, Shuster, & Kendal, 1998; Priel & Besser, 2000; Santor & Zuroff, 1997; Whiffen & Aube, 1999; Whiffen, Aube, Thompson, & Campbell, 2000; Zuroff & Duncan, 1999). Self-critical individuals appear to be less agreeable, introverted, and more controlling in terms of their interpersonal styles (Dunkley, Blankstein, & Flett, 1997; Fichman, Koestner, & Zuroff, 1994; Zuroff & Fitzpatrick, 1995). For instance, Whiffen and Aube (1999) examined self-criticism, dependency, depression, and interpersonal functioning in couples and found that both husbands and wives with high self-criticism had spouses who had more complaints about them, relative to husbands and wives with low self-criticism. These differences extend to perceived social support. Priel and Besser (2000) studied longitudinal differences in levels of social support reported by first-time mothers and found that controlling for initial levels of depression, self-criticism was associated with lower satisfaction with social support, which, in turn, increased their vulnerability to postpartum depression.

Although much has been learned about the interpersonal worlds of people high in self-criticism and dependency, several issues remain to be investigated. The first goal of the current study was to compare self-criticism and dependency in terms of their associations with loneliness. This focus is in keeping with previous research on personality and loneliness (e.g. Saklofske & Yackulic, 1989; Saklofske, Yackulic, & Kelly, 1986).

Loneliness has cognitive, affective, and behavioural components that reflect a desire to have closer contact with people (see Dill & Anderson, 1999; Ernst & Cacioppo, 1999). At a conceptual level, although there has not been a detailed analysis of loneliness in terms of the dimensions of depressive experience, Blatt (1974) has suggested that loneliness is linked with the anaclitic, dependent orientation (Blatt, 1974). Indeed, in his classic paper, Blatt (1974) described the case study of Mrs. H. It was indicated that:
Mrs. H. had great difficulty tolerating feelings of loneliness ... Diagnostically, Mrs. H. seemed to have an anaclitic depression in a basically infantile narcissistic character disturbance with possibly borderline features. Her depressive concerns focused on being unwanted, unloved, and abandoned, which she defended against by seeking direct physical and sensory contact with objects (Blatt, 1974, pp. 122–125).

Clearly, this description suggests a close association between dependency and loneliness.

This possibility notwithstanding, the need to further investigation of this issue is indicated by the results of two previous investigations that have examined the empirical association between the DEQ and loneliness in participants from Israel. Schachter and Zlotogorski (1995) administered the DEQ and the Revised UCLA Loneliness Scale to 70 normal participants. It was found that self-criticism rather than dependency was the dimension linked most closely with loneliness. Subsequently, Wiseman (1997) conducted a prospective study of the transition to university. The DEQ and measures of trait and state loneliness as assessed by the UCLA Loneliness Scale were administered at the beginning of the term. The loneliness measures were re-administered during the middle of the academic year. There were no significant associations between dependency and trait and state measures of loneliness. However, Wiseman (1997) found that trait loneliness was associated with higher levels of self-criticism and lower levels of self-efficacy. Moreover, longitudinal analyses indicated that participants with lower self-criticism and higher self-efficacy at Time 1 reported decreases in state loneliness. These data are in keeping with more general evidence of a link between low self-esteem and loneliness (McWhirter, 1997; Overholser, 1993), and observations that lonely people “... are readier than other people to use negative terms to describe themselves and their performance” (Vitkus & Horowitz, 1987, p. 1272).

The second goal of the current study was to examine the extent to which self-criticism and dependency are associated with self-silencing. To the best of our knowledge, no research has examined the link between the DEQ and self-silencing despite the obvious relevance of the self-silencing construct. The construct of self-silencing was hypothesized by Jack (1991) as a way of accounting for the preponderance of depression among females rather than males. However, subsequent research has shown that self-silencing is relevant for both females and males (Page, Stevens, & Galvin, 1996; Thompson, 1995). People high in self-silencing are self-sacrificing individuals who keep their distress to themselves in an attempt to maintain or improve interpersonal relationships. This distress often takes the form of anger, and this anger is not expressed (see Jack, 2001). Research with the Silencing The Self Scale (Jack & Dill, 1992) has shown that the inventory consists of four inter-related factors. This inventory consists not only of a subscale measuring self-silencing, it also has three correlated subscales that assess a tendency to engage in externalized self-perception (i.e. judging the self according to the expectations of others), the use of care as a form of self-sacrifice, and a divided sense of self that involves portraying an overly positive self in public situations while harbouring private resentments and anger. Numerous studies have confirmed the link between self-silencing and depression (Duarte & Thompson, 1999; Gratch, Bassett, & Attra, 1995; Jack & Dill, 1992; Page et al., 1996; Thompson, 1995; Thompson, Whiffen, & Aube, 2001).

The paucity of previous research precludes exact predictions about whether dependency or self-criticism would have a stronger association with the self-silencing construct. On the surface, it might be expected that people high in dependency would be especially likely to engage in self-silencing in
an attempt to maintain or enhance relationships. Indeed, Whiffen and Aube (1999) discussed self-silencing within the context of dependency and neediness and postulated that women high in dependency and interpersonal neediness are likely to engage in self-silencing behaviour. This follows from Blatt and Zuroff’s (1992) statement that “… dependent individuals rely intensely on others to provide and maintain a sense of well-being, and therefore have great difficulty expressing anger for fear of losing the need gratification that others can provide” (p. 528). The unwillingness or inability to express anger is a central characteristic of women who engage in self-silencing (see Jack, 2001).

However, it is equally plausible that self-criticism is the dimension that is linked more closely with self-silencing. This would be in keeping with the fact that self-criticism involves a more explicit focus on personal identity issues involving self-definition (Blatt & Blass, 1996), as well as the descriptive case examples that Jack (1999) provided of self-critical individuals who engage in self-silencing behavior. A possible link between self-criticism and self-silencing is also indicated by research showing that self-critical individuals are characterized by low levels of frankness and they tend to avoid self-disclosure (Wiseman, 1997) as well as pursue self-presentational goals that revolve around making a positive impression on other people and concerns about portraying certain emotional states (Mongrain & Zuroff, 1995). Finally, both self-criticism and dependency have been associated with an ambivalence over emotional expression (Mongrain & Zuroff, 1994; Zuroff, Moskowitz, Wielgus, Powers, & Franko, 1983); perhaps this ambivalence is a byproduct of the self-silencing process.

More generally, the current investigation also investigated the link between self-silencing and loneliness. Self-silencing has been associated with a range of adjustment difficulties, including marital problems (Thompson, 1995); however, to the best of our knowledge, no research has directly investigated the association between self-silencing and loneliness. Given that loneliness is linked with relatively low levels of self-disclosure and reduced ability to self-disclose (Berg, 1982; Chelune, Sultan, & Williams, 1980; Davis & Franzoi, 1986; Franzoi & Davis, 1985; Schwab, Scalise, Ginter, & Whipple, 1998; Solano, Batten, & Parish, 1982), it follows that loneliness and self-silencing should be associated. In fact, Page et al. (1996) conceptualized self-silencing as a specific kind of low self-disclosure that occurs when relationship stability is threatened.

A link between loneliness and self-silencing would also be in keeping with observations made by Rook (1988). Rook (1988) observed that, “… lonely people may engage in self-deprecation to convey an impression of modesty or to signal their approachability, yet research shows that such self-deprecation often fails to kindle others’ enthusiasms” (p. 583).

In addition to examining the associations among self-criticism, dependency, loneliness, and self-silencing, the current study also sought to test a mediational model that considers self-silencing as a mediator of the link between the personality measures (i.e. self-criticism and dependency) and loneliness. As part of their discussion of Jack’s (1999) model, Joiner, Coyne, and Blalock (1999) suggested that depressive orientations could lead to loneliness via a process that involves self-silencing. Specifically, they noted that:

… many women learn that self-sacrifice and self-denial are the keys to being “good” and are required to maintain closeness to others. The dilemma is that self-sacrifice and self-denial lead to lowered self-value as well as anger, and the “reward,” closeness to others, engenders loneliness and hopelessness because it is not true closeness (p. 8).
If viewed from the perspective of accommodative processes in relationships, as outlined by Rusbult and colleagues (see Rusbult, Bissonnette, Arriaga, & Cox, 1998; Rusbult, Johnson, & Morrow, 1986), self-silencing likely manifests itself in terms of an absence of constructive ways of dealing with conflict, such as an active use of voice, and instead involves more passive methods, and this should contribute to psychosocial problems, such as heightened loneliness. The introjective and anaclitic styles described by Blatt (1974) come into play because it has been demonstrated that people high in self-criticism and dependency can behave in certain ways in order to create their own interpersonal worlds for themselves (see Zuroff, Stotland, Sweetman, Craig, & Koestner, 1995). Self-silencing may seem like a viable response by vulnerable people seeking more positive relationships, but it may not represent a particularly constructive orientation in terms of maximizing the quality and quantity of interpersonal relationships. In light of these observations, we tested a mediational model that linked self-criticism, self-silencing, and loneliness, after controlling for depression, which is a factor that is associated with all three constructs (see Dill & Anderson, 1999; Ernst & Cacioppo, 1999).

Our tests of the associations among these constructs took into account the potentially important factor of whether our participants were currently in or not in a relationship with a partner. Clearly, the self-silencing construct is a more relevant construct when an individual is actually in a relationship with a significant other, especially when considering aspects of the silencing the self construct such as taking care of others. Accordingly, in our analyses, we distinguish between those students who are or who are not in a relationship. Parenthetically, it should be noted that loneliness can occur in a relationship; lonely people in a relationship desire quantitative and qualitative improvements in their relationship (Flora & Segrin, 2000).

1. Summary and hypotheses

In summary, the present work examined: (1) the links between the depressive personality styles of dependency and self-criticism and silencing the self; (2) the relation of dependency and self-criticism to loneliness; and (3) a model in which the relation between self-criticism and loneliness is mediated by the effect of self-criticism on silencing the self. The following main hypotheses were tested: First, consistent with past research, it was expected that self-criticism and dependency would both be associated with loneliness, with self-criticism having the stronger association. In addition, it was hypothesized that both self-criticism and dependency would be associated with dimensions of silencing the self. Finally, it was predicted that the hypothesized association between self-criticism and loneliness would be mediated by silencing the self. No explicit predictions were made for people in versus not in current relationships other than to suggest that certain variables such as silencing the self may be more relevant for individuals in a current relationship.

2. Method

2.1. Participants

The sample consisted of 167 participants (86 men, 81 women) with a mean age of 21.61 years (S.D. = 4.07). The participants were recruited as volunteers from a third year undergraduate
psychology at a large university in Ontario, Canada. Overall, 78 participants were currently in romantic relationships and 89 did not have current romantic relationships. No significant differences were found for sex distributions among the subsamples of people in or not in current romantic relationships ($\chi^2 = 1.67, df = 1, P = 0.20$). In addition, no significant age differences were found between men ($M = 21.78; S.D. = 4.61$) and women ($M = 21.43; S.D. = 3.42$) $t (164) = 0.55, P = 0.58$, however, participants having current relationships were older ($M = 22.42; S.D. = 4.63$) than participants with no current relationships ($M = 20.86; S.D. = 3.38$), $t (164) = 2.41, P < 0.03$.

2.2. Measures

2.2.1. The Depressive Experiences Questionnaire (DEQ)

The DEQ is a 66-item measure of the dimensions of dependency and self-criticism (Blatt, D’Affliti, & Quinlan, 1976). Several studies have demonstrated its validity in a variety of contexts (see Flett et al., 1995). The McGill revision of the DEQ (Santor, Zuroff, & Fielding, 1997) was used in the current study. Their version of the scale was created to minimize the degree of correlation between the self-criticism and dependency subscales. Internal consistency reliability for DEQ scores in the present study was $\alpha = 0.83$.

2.2.2. The Silencing The Self Scale

The Silencing The Self Scale (STSS; Jack & Dill, 1992) is a 31-item inventory. As noted earlier, it consists of four factors that are described as silencing the self, externalized self-perception, care as self-sacrifice, and divided self. The test–retest reliability of the overall scale in various samples varied from 0.88 to 0.93. The factorial validity of the STSS has been confirmed (see Stevens & Galvin, 1995).

The overall scale score was used in this study. Internal consistency was $\alpha = 0.87$.

2.2.3. The UCLA Loneliness Scale—Revised

The revised UCLA Loneliness Scale is a 20-item scale (Russell, Peplau, & Cutrona, 1980) that assesses intimate and social loneliness (McWhirter, 1997). Extensive evidence indicates that loneliness, as assessed by this measure, is a relatively stable tendency over time (see Hartshorne, 1993, Oshagan & Allen, 1992; Russell, 1982, 1996). Internal consistency reliability for UCLA scores was $\alpha = 0.88$.

2.2.4. The Center For Epidemiological Studies Depression (CES-D)

The CES-D Scale is a 20-item inventory of symptoms of depression. It has acceptable levels of internal consistency (see Radloff, 1977). Internal consistency in the present study was $\alpha = 0.89$.

3. Results

3.1. Preliminary analyses

Initially, we explored differences between the two relationship groups. Three $2 \times 2$ analyses of covariance (ANCOVAs) were conducted with Sex and Romantic relationships (Groups) as the
independent variables and participants’ age as the covariate. CES-D score was the dependent variable in the first ANCOVA, loneliness was the dependent variable in the second ANCOVA, and STSS score was the dependent variable in the third ANCOVA. These analyses yielded no significant main effects or interaction effects. Next, we performed a MANCOVA, with dependency and self-criticism as the dependent variables and participants’ age as the covariate. A significant Gender main effect was obtained [Wilks’ λ (2,158)=0.92, P<0.001] as well as a significant Sex × Group interaction effect [Wilks’ λ (2,158)=0.95, P<0.02]. Univariate ANCOVAs found no significant main or interaction effects for Sex or Group nor Sex X Group interaction for self-criticism (data not shown here). However, results showed significant Sex differences for dependency [F (1,162)=13.75, P<0.001] with women, relative to men, reporting higher levels of dependency. There was also a significant Sex X Group interaction [F (1,162)=5.35, P<0.02]. This interaction effect is displayed in Fig. 1.

Post-hoc comparisons of the interaction presented in Fig. 1 showed that women in relationships reported significantly higher levels of dependency than men in relationships [F (1,162)=17.11, P<0.001]. However, no significant differences were found between men and women in the no-current romantic relationships group, [F (1,162)=1.04, ns.]. Table 1 presents the means and standard deviations for the study variables.

3.2. Correlational analyses

The correlations among the variables are shown in Table 2 for people with or without a relationship. Self-criticism was associated with loneliness and depression among people in relationships.

![Fig. 1. Sex differences for the effect of romantic relationships on levels of dependency.](image)
Dependency was also associated with depression, and it also had a small but significant association with loneliness, $r = 0.22$, $P < 0.05$. Self-criticism was also associated with depression and loneliness among people not in a current relationship, but dependency was not associated significantly with either depression or loneliness for people not in a current relationship. The pattern of findings involving the self-silencing was comparable for people who were in or not in a relationship. STSS scores were associated with self-criticism regardless of relationship status.

The correlations for men versus women are shown in Table 3. Comparable findings were obtained, though a few differences involving the dependency dimension should be noted. Dependency and depression were linked for women, $r = 0.38$, $P < 0.001$, but not for men, $r = 0.18$, ns. STSS scores were associated with loneliness for both women and men.
3.3. Self-criticism and dependency effects on loneliness and silencing the self

Multiple regression analyses were conducted to evaluate two models to explore the association between self-criticism and dependency with silencing the self and with loneliness; one for the combined effect of self-criticism and dependency on silencing the self and the second on loneliness. We controlled in each model for the association that both self-criticism and dependency had with the CES-D, as well as for the effects of the CES-D on silencing the self and on loneliness. This approach was utilized to determine whether the associations between self-criticism and dependency with silencing the self and loneliness could be attributed to the participants’ current levels of depressive symptoms. The models were assessed separately for participants who were in versus not in a current relationship.

3.4. Self-criticism and dependency effects on silencing the self

We tested a multiple regression model of the predictor variables self-criticism and dependency controlling for their association with each other and with the CES-D scores on the criterion variable of Silencing The Self. The specified model accounted respectively for 40% [F(3,74) = 16.58, \( P < 0.0001 \)] and 30% [F(3,85) = 12.24, \( P < 0.0001 \)] of the variance in Silencing The Self for the relationship and no relationship subsamples, respectively.

Results showed that for both groups, even after controlling for participants’ levels of depressive symptoms and levels of dependency, it was still the case that self-criticism was associated positively with Silencing The Self \( (\beta = 0.31, t = 3.04, P < 0.002 \text{ and } \beta = 0.37, t = 3.10, P < 0.002 \) for the relationships and no relationships subsamples, respectively). In addition, in both groups, dependency was associated positively with Silencing The Self \( (\beta = 0.23, t = 2.45, P < 0.01 \text{ and } \beta = 0.22, t = 2.45, P < 0.01 \) for the relationships and no relationships subsamples, respectively). Thus, both self-criticism and dependency were associated with increased levels of Silencing The Self over and above participants’ levels of depressive symptoms.

Table 3
Correlations between dependency, self-criticism, loneliness and silencing the self for men and women

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personality vulnerability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Dependency</td>
<td>–</td>
<td>0.07</td>
<td>0.39***</td>
<td>0.40***</td>
<td>0.20</td>
</tr>
<tr>
<td>2. Self-criticism</td>
<td>0.10</td>
<td>–</td>
<td>0.38***</td>
<td>0.54***</td>
<td>0.50***</td>
</tr>
<tr>
<td>Silencing the self subscales</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. STSS</td>
<td>0.32***</td>
<td>0.56***</td>
<td>–</td>
<td>0.50***</td>
<td>0.53***</td>
</tr>
<tr>
<td>4. CES-D</td>
<td>0.18</td>
<td>0.59***</td>
<td>0.51***</td>
<td>–</td>
<td>0.58***</td>
</tr>
<tr>
<td>Loneliness</td>
<td>0.16</td>
<td>0.52***</td>
<td>0.60***</td>
<td>0.53***</td>
<td>–</td>
</tr>
</tbody>
</table>

* \( P < 0.05 \); ** \( P < 0.01 \); *** \( P < 0.0001 \); (two tailed test).

Correlations below the diagonal are for men \( (N = 86) \) and the correlations above the diagonal for women \( (N = 81) \).
3.5. Self-criticism and dependency effects on loneliness

Following Baron and Kenny’s (1986) recommendations, we tested for mediation by estimating the combined direct effects of dependency and self-criticism on loneliness. Zero-order correlations showed a significant positive association between self-criticism and loneliness but smaller associations between dependency and loneliness ($r = 0.43$, $P < 0.0001$ and $r = 0.62$, $P < 0.0001$ for self-criticism and $r = 0.22$, $P < 0.05$ and $r = 0.13$, $P = 0.22$ for dependency, for intimate and non intimate relationships, respectively). However, we estimated the simultaneous direct effect of self-criticism and dependency on loneliness while controlling for their association with each other and with levels of depressive symptoms. This approach was used to determine whether the association of self-criticism and loneliness found in both groups would remain significant, as well as the low direct effect of dependency on loneliness found for the romantic relationships group, while controlling for participants’ levels of depression. First, a regression analysis was conducted with loneliness as the criterion variable and CES-D, dependency, and self-criticism as the predictors. The specified model accounted respectively for 35% ($F[3,74] = 13.40$, $P < 0.0001$) and 42% ($F(3,85) = 20.88$, $P < 0.0001$) of the variance in loneliness for relationship and no relationship subsamples.

In both groups, CES-D was associated positively with loneliness ($\beta = 0.44$, $t = 3.94$, $P < 0.0001$ and $\beta = 0.24$, $t = 2.18$, $P < 0.03$ for relationship and no relationship subsamples, respectively). In addition, in both groups, self-criticism was associated positively with loneliness ($\beta = 0.22$, $t = 2.05$, $P < 0.04$ and $\beta = 0.46$, $t = 4.28$, $P < 0.0001$ for the relationship and no relationship subsamples, respectively). However, the low effect of dependency on loneliness found in the zero-order correlations for the romantic relationships group was no longer evident when controlling for participants’ levels of depressive symptoms ($\beta = 0.04$, $t = 0.43$, $P = 0.18$ and $\beta = 0.05$, $t = 0.65$, $P = 0.52$ for relationship and no relationship subsamples, respectively). Thus, self-criticism demonstrated a significant direct effect on loneliness above and beyond individual differences in depressive symptoms in both groups, while the weaker association of dependency on loneliness found in the romantic relationships group might be attributable to participants’ levels of depressive symptoms. 1

1 Although our sample is non-clinical we examined the personality × CES-D interactions by including them in the models predicting loneliness and found no significant moderation effects of depression.

3.6. Silencing the self as a mediator of self-criticism and loneliness

We followed Baron and Kenny’s (1986) criteria for mediation according to which: (1) There must be a significant association between the predictor (self-criticism) and the criterion variable (loneliness); (2) In an equation including both the mediator (Silencing The Self) and the criterion variable, there must be a significant association between the predictor and the mediator and the mediator must be a significant predictor of the criterion variable. If the significant direct relationship between the predictor and the criterion variable in the equation declines (after including both the mediator and the predictor variable), the obtained pattern is consistent with the mediation...
If the direct effect approaches zero, the mediator can be said to fully (although not necessarily exclusively) account for the relation between the predictor and outcome (Baron & Kenny, 1986).

3.7. Analysis of mediation

Hierarchical Multiple Regression (HMR) was used to test a full direct indirect meditational effect model of the predictor self-criticism controlling for its association with CES-D scores. Then we entered the mediator silencing the self (see Fig. 2). The specified model accounted respectively for 47% \( F(4,84) = 18.27, P < 0.0001 \) and 45% \( F(4,73) = 14.88, P < 0.0001 \) of the variance in loneliness for the group of people with and without a current intimate relationship.\(^2\)

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\(^2\) In order to test for the possibility that the differences related to sex (i.e. of mean scores and magnitude of associations) might affect the obtained results, we analysed the HMR models presented in Fig. 2 also, including the association between Sex with self-criticism, and CES-D, as well as sex effects on Silencing The Self and on loneliness. The effects presented in Fig. 2 were not altered and remained quite similar overall. Thus, we dropped Sex as a term in these analyses to simplify the presentations of the results we excluded Sex from the models.
As can be seen in Fig. 2, among participants who were not involved in current romantic relationships, high levels of self-criticism, beyond their significant association with depressive symptoms ($\beta = 0.65, t = 5.14, P < 0.0001$), were associated with increased levels of Silencing The Self ($\beta = 0.34, t = 2.77, P < 0.006$), which in turn, were associated with increased levels of loneliness ($\beta = 0.24, t = 2.68, P < 0.0007$). In addition, high levels of depressive symptoms did not have a significant effect on Silencing The Self scores ($\beta = 0.21, t = 1.76, P < 0.08$) or on loneliness scores ($\beta = 0.20, t = 1.94, P = 0.06$).

As can be seen in Fig. 2, among participants in current romantic relationships, high levels of self-criticism, beyond their association with depressive symptoms ($\beta = 0.47, t = 3.75, P < 0.0001$), were associated with increased levels of Silencing The Self ($\beta = 0.27, t = 2.62, P < 0.009$), which, in turn, were associated with increased levels of loneliness ($\beta = 0.39, t = 3.67, P < 0.00001$). In addition, participants’ depressive symptoms influenced both Silencing The Self ($\beta = 0.42, t = 4.01, P < 0.00001$) and loneliness scores ($\beta = 0.30, t = 2.86, P < 0.004$).

Mediation has occurred when the indirect effect of a predictor through a mediator significantly reduces the predictor’s direct effect (Baron & Kenny, 1986). As found in the above analysis, the direct path from self-criticism to loneliness was significant while controlling for CES-D scores ($\beta = 0.22, t = 2.05, P < 0.04$). In Fig. 2, however, this path approached 0 ($\beta = 0.10, t = 1.0, P = 0.30$). The drop in the coefficients of the direct path from self-criticism to loneliness, once the mediator—Silencing The Self—was controlled, was significant according to Sobel’s test (Baron & Kenny, 1986): $Z = 2.18, P < 0.03$. Thus, silencing the self is an almost full (though not necessarily exclusive) mediator of the association between self-criticism and high loneliness scores (controlling for CES-D) in participants involved currently in romantic relationships. The significant direct effect of self-criticism on loneliness, controlling for depressive symptoms found among participants without a current romantic relationship ($\beta = 0.46, t = 4.28, P < 0.0001$), although diminished, still remained significant ($\beta = 0.37, t = 2.77, P < 0.0006$). In summary, for people in current romantic relationships, the effect of high self-criticism on increased levels of loneliness is fully mediated and accentuated by increased levels of Silencing The Self. However, among those without romantic relationships, self-criticism affects loneliness both directly and indirectly through increased levels of Silencing The Self.

4. Discussion

The purpose of the present study was to extend recent research on the psychosocial correlates of dependency and self-criticism by examining how these personality styles relate to loneliness and self-silencing. Consistent with previous research, we found that an introjective, self-critical personality style was associated with elevated levels of loneliness, and there was a less robust association between dependency and loneliness. This pattern of findings is in keeping with two previous studies of depressive experience and loneliness that were conducted with samples of participants from Israel (Schachter & Zlotogorski, 1995; Wiseman, 1997). Collectively, these findings further underscore the interpersonal difficulties known to be associated with the introjective personality style (e.g., Mongrain et al., 1998; Zuroff & Duncan, 1999).

Although Blatt (1974) has suggested a theoretical link between loneliness and dependency, and there is some indication that dependency and loneliness may be associated in clinical samples (see
Blatt, Quinlan, Chevron, McDonald, & Zuroff, 1982) our data provided little indication of a link between dependency and loneliness, with the exception of a slight association between dependency and loneliness for people in a relationship. These findings replicate previous results obtained with samples of participants from Israel (Schachter & Zlotogorski, 1995; Wiseman, 1997). Why is there not a stronger association between dependency and loneliness? Several possible factors may be relevant here. Perhaps dependent people in the general population act in a manner to ward off highly aversive feelings of loneliness by actively seeking out others, and dependency and loneliness are more evident among people with clinical levels of distress who have been less successful at attaining the support and recognition of others. Another possibility is that perhaps the link between dependency and loneliness varies depending on whether the focus is on seemingly adaptive aspects of dependency (i.e., connectedness) versus maladaptive aspects of dependency (i.e., neediness). We did not examine this issue because we utilized the abbreviated McGill revision of the DEQ rather than the original version of the DEQ; the original version of the DEQ has been shown to have distinct factors representing neediness and relatedness (see Blatt, Zohar, Quinlan, Zuroff, & Mongrain, 1995), but this version was not used in this study. A possible link between maladaptive dependency (i.e., neediness) and loneliness is indicated by the results of an analysis of different types of dependency (see Pincus & Wilson, 2001). This study used the interpersonal circumplex to show that there was a link between submissive dependence and loneliness, but not with other forms of dependence such as love dependence.

Although dependency was not associated extensively with loneliness in the current study, it was associated with overall levels of silencing the self. To the best of our knowledge, no previous investigation has examined how both self-criticism and dependency relate to the tendency to silence the self. We found that individuals with high levels of dependency tended to be characterized by silencing the self and this finding held regardless of whether the individuals were or were not in a current relationship and regardless of levels of depressive symptoms.

Our analyses involving self-criticism provided evidence consistent with case descriptions of self-silencing people characterized by excessive self-criticism (see Jack, 1999). Higher levels of self-criticism were associated with self-silencing regardless of relationship status. These data signify that many people with elevated levels of self-criticism are characterized by high sensitivity to external feedback and may be aware of conflicting aspects of the public self versus the private self, so one protective approach they adopt is that they engage in self-silencing behaviour in an attempt to maintain or improve their relationships. However, as noted, self-silencing is also evident among self-critical individuals who are not even in a current relationship. In general, these data are consistent with the results of a daily monitoring study that showed that self-critical individuals make fewer requests for social support and have a general style that distances themselves from other people (see Mongrain, 1998). It also qualifies findings that self-critical individuals engaged in conflict resolution show greater overt hostility toward their partners (e.g. Zuroff & Duncan, 1999) by suggesting that perhaps not all of the hostile feelings and related thoughts are expressed to the partner; rather, feelings of anger and hostility are suppressed in an attempt to minimize the negative impact on the relationship. Most importantly, our results qualify past observations (e.g. Whiffen & Aube, 1999) that focused on a hypothesized link between self-silencing and dependency and did not address the association between self-silencing and self-criticism that was obtained in the current study.
The possibility that self-silencing might mediate the association between self-criticism and loneliness is indicated by the fact that not only is self-silencing associated with self-criticism; it is also linked with loneliness. Our analyses showed that self-silencing scores were correlated significantly with loneliness, regardless of whether people were in a relationship. This is in keeping with suggestions that lonely people might be adopting a passive role (Vitkus & Horowitz, 1987) as well as Rook’s (1988) call for a more differentiated view of loneliness that includes the possibility that some lonely individuals engage in self-denigrating or self-defeating patterns in an attempt to win the approval of other people.

As we noted earlier, a central aspect of this investigation was to test a model in which self-silencing mediates the link between personality vulnerabilities and loneliness. Our analyses confirmed that silencing the self did indeed mediate the link between self-criticism and loneliness, and this effect was particularly strong among individuals who were in a relationship at the time of assessment. Also, among people not in a relationship, there was also a direct link between self-criticism and loneliness, in addition to the indirect association involving self-silencing.

Our findings held even after controlling for related individual differences in depressive symptoms. Although our results need to be replicated, it certainly highlights the seeming importance of the interpersonal processes associated with self-silencing. Dill and Anderson (1999) issued a call for research on possible mediators of the link between loneliness and depression. The current research indicates that self-silencing mediates the link between loneliness and an introjective style that has been associated consistently with depression. An important goal for future research will be to examine the interpersonal behaviors that accompany self-silencing in an attempt to further elucidate the associations among self-criticism, self-silencing, and loneliness. It is important that this research takes place within the context of ongoing interpersonal relationships so that inter-dependent processes and accommodative tendencies become a central focus. Unfortunately, it was not possible to test a mediational model linking dependency, self-silencing, and loneliness since dependency was not associated significantly with loneliness. Perhaps this issue should be re-examined in future research that is based on alternative conceptualizations of the dependency construct (see Pincus & Gurtman, 1995). Finally, some discussion of how the results varied for women versus men is in order, given the tendency for self-silencing to be described as a phenomenon that is primarily relevant for women (Jack, 1991). Overall, our correlational results indicated few sex differences, as the pattern of findings was quite similar for both women and men. However, it should be noted that dependency was correlated significantly with depression for women but not men. Our initial series of analyses also revealed that the women in our study in relationships, relative to the men in relationships, had substantially higher mean levels of dependency.

4.1. Limitations of the current study

Although this study provided additional insight into the interpersonal outcomes and processes associated with self-criticism and dependency, certain limitations of our research should be noted. First, although we incorporated the important distinction between those people who were in or not in a relationship at the time of assessment, the study could have been enhanced by also including a measure of relationship adjustment. A potentially important direction for future research is to extend this line of investigation by including self-report and behavioural indices of relationship functioning.
Second, although we found evidence to support a mediational model, it must be acknowledged that the current study was cross-sectional, and as such, no causal implications can be drawn from these data. Future research in this area should examine these issues in a prospective investigation, given past research on loneliness that has raised the issue of whether loneliness is an antecedent or consequence of other factors that operate in social situations (Nurmi & Salmela-Aro, 1997). Finally, our results are limited in that we relied on single measures of certain constructs (i.e. loneliness, dependency). Future research would be enhanced by including multiple measures of dependency and loneliness with a particular focus on aspects of loneliness not tapped by the UCLA Loneliness Scale. In this regard, recent evidence suggests that this measure of loneliness is essentially a measure of social loneliness as opposed to emotional loneliness or family loneliness (see Cramer & Barry, 1999; Cramer, Ofosu, & Barry, 2000). Also, on a related note, future research should control for the established association between loneliness and trait neuroticism (see Saklofske & Yackulic, 1989; Saklofske et al., 1986).

In summary, the current study examined the associations among personality vulnerability factors, self-silencing, and loneliness in a sample of students. Several unique findings emerged from this study; most notably, both dependency and self-criticism were associated with aspects of self-silencing, and analyses provided support for a mediational model that links self-criticism, self-silencing, and loneliness, even after taking related differences in depression into account. The proposed model and our empirical data represent a conceptual and empirical “bridge” that connects the models outlined by Blatt (1974) and by Jack (1991) and it provides further evidence of the need to examine the personality and self-definitional processes in interpersonal contexts.

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