Self-Oriented and Socially Prescribed Perfectionism:
Differential Relationships With Intrinsic and Extrinsic Motivation and Test Anxiety

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Author Note and Acknowledgements

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Abstract

Previous studies suggest that self-oriented and socially prescribed perfectionism show differential relationships with intrinsic–extrinsic motivation and test anxiety, but the findings are ambiguous. Moreover, they ignored that test anxiety is multidimensional. Consequently, the present study re-investigated the relationships in 104 university students examining how the two forms of perfectionism are related to intrinsic–extrinsic motivation and multidimensional test anxiety (worry, emotionality, interference, lack of confidence, and total anxiety). Regarding motivation, self-oriented perfectionism showed positive correlations with intrinsic reasons for studying, and socially prescribed perfectionism positive correlations with extrinsic reasons. Regarding test anxiety, only socially prescribed perfectionism showed positive correlations with total anxiety. Moreover, socially prescribed perfectionism showed positive correlations with interference and lack of confidence, whereas self-oriented perfectionism showed positive correlations with worry, but negative correlations with interference and lack of confidence. The findings confirm that socially prescribed perfectionism is a maladaptive form of perfectionism associated with extrinsic motivation for studying and higher anxiety in exams. Self-oriented perfectionism, however, is an ambivalent form associated with intrinsic motivation for studying and with both higher and lower anxiety (higher worry, lower interference, lower lack of confidence) in exams.

Keywords: motivation for studying; autonomous and controlled reasons; worry; emotionality; interference; lack of confidence; fear of failure; self-esteem
Introduction

Perfectionism has been described as a personality disposition characterized by striving for flawlessness and setting excessively high standards for performance accompanied by tendencies for overly critical evaluations of one’s behaviour (Flett & Hewitt, 2002; Frost, Marten, Lahart, & Rosenblate, 1990). Moreover, research has shown that perfectionism is best conceptualized as a multidimensional characteristic (see Enns & Cox, 2002, for a comprehensive review).

Regarding multidimensional models of perfectionism, one of the most prevalent and widely researched models is Hewitt and Flett’s (1991) model of perfectionism. This model differentiates between two main forms of perfectionism: self-oriented perfectionism and socially-prescribed perfectionism. Self-oriented perfectionism comprises beliefs that striving for perfection and being perfect are important and is characterized by setting excessively high standards and having a “perfectionist motivation” for oneself. In contrast, socially prescribed perfectionism comprises beliefs that others have high standards for oneself and that acceptance by others is conditional on fulfilling these standards (Enns & Cox, 2002; Hewitt & Flett, 1991, 2004). Thus, self-oriented perfectionism is a mainly internally motivated form of perfectionism whereas socially prescribed perfectionism is mainly an externally motivated form.

When reviewing the research literature on self-oriented and socially prescribed perfectionism, all findings are in agreement that socially prescribed perfectionism is a maladaptive form of perfectionism associated with negative characteristics, processes, and outcomes. For example, socially prescribed perfectionism has shown positive correlations with neuroticism and negative affect (e.g., Hewitt & Flett, 2004; Molnar, Reker, Culp, Sadava, & DeCourville, 2006) and with psychopathological symptoms such as anxiety, depression, somatization, and obsessive-compulsive symptoms (Hewitt & Flett, 2004).
In contrast, self-oriented perfectionism has been associated with both negative and positive characteristics, processes, and outcomes. Like socially prescribed perfectionism, self-oriented perfectionism has shown positive correlations with psychopathological symptoms (Hewitt & Flett, 2004). However, unlike socially prescribed perfectionism, self-oriented perfectionism also has shown positive correlations with positive characteristics, processes, and outcomes such as conscientiousness, self-esteem, positive affect, and goal attainment (e.g., Hewitt & Flett, 2004; Molnar et al., 2006; Powers, Koestner, & Topciu, 2005; Trumpeter, Watson, & O’Leary, 2006). Consequently, self-oriented perfectionism should be regarded as an ambivalent form of perfectionism (Enns & Cox, 2002).

**Perfectionism and Motivation**

Because self-oriented perfectionism is conceptualized as an internally motivated form of perfectionism, and socially prescribed perfectionism as an externally motivated form, it can be expected that self-oriented perfectionism is associated with intrinsic motivation and socially prescribed perfectionism with extrinsic motivation. However, so far only Miquelon, Vallerand, Grouzet, and Cardinal (2005) found evidence that clearly supported this expectation. In two studies examining academic motivation, they investigated how self-oriented and socially prescribed perfectionism correlated with reasons why students pursue academic activities. In both studies, only self-oriented perfectionism showed positive correlations with self-determined academic motivation (intrinsic and identified reasons for pursuing academic activities) whereas only socially prescribed perfectionism showed significant positive correlations with non-self-determined academic motivation (extrinsic and introjected reasons for pursuing academic activities).

Other studies, however, failed to find a clear-cut pattern. Van Yperen (2006), for example, found both self-oriented perfectionism and socially prescribed perfectionism to show positive correlations with intrinsic and extrinsic motivation. Also Mills and Blankstein (2000) reported findings that ran contrary to expectations: Self-oriented perfectionism showed
positive correlations with extrinsic motivation, but not with intrinsic motivation. Only socially
prescribed perfectionism showed the expected correlations: positive correlations with extrinsic
motivation, and negative correlations with intrinsic motivation. Consequently, further research
is needed to confirm that self-oriented perfectionism is associated with intrinsic forms of
motivation, and socially-prescribed perfectionism with extrinsic forms.

Perfectionism and Test Anxiety

Regarding achievement motivation, test anxiety is a problem for many students
(Zeidner, 1998). Achievement motivation theory traditionally distinguishes between two
motives: hope of success and fear of failure (DeCharms & Davé, 1965). Fear of failure,
however, is intimately related to test anxiety (Hagtvet & Benson, 1997). Both self-oriented and
socially prescribed perfectionism have shown positive correlations with fear of failure (Flett,
Davis, & Hewitt’s study as cited in Hewitt & Flett, 2004) and with test anxiety (Mills &
Blankstein, 2000). The relationship between self-oriented perfectionism and test anxiety,
however, was not very strong. Mills and Blankstein found that self-oriented perfectionism
showed a significant positive correlation with test anxiety, but only when bivariate correlations
were regarded. When partial correlations were regarded controlling for the overlap between
the different forms of perfectionism, self-oriented perfectionism ceased to show a significant
correlation with test anxiety whereas socially prescribed perfectionism retained its significant
positive correlation.

Test anxiety, however, is not a unitary characteristic. Several dimensions of test anxiety
can be differentiated. The first differentiation, introduced by Liebert and Morris (1967), is that
between worry and emotionality. Worry represents the cognitive component of test anxiety
capturing concerns about failing in test situations (e.g., “I worry about my results”).
Emotionality represents the emotional component of test anxiety capturing perceptions of
being tense and nervous in test situations (e.g., “I feel uneasy”). Liebert and Morris found that
only worry was associated with poor academic performance whereas emotionality was
unrelated to academic performance, once the overlap between worry and emotionality was controlled for (Morris & Liebert, 1970).

However, there are further differentiations, particularly regarding the cognitive components of test anxiety (see Zeidner, 1998, for a comprehensive overview). One prominent instrument in this regard is the German Test Anxiety Inventory (TAI-G; Hodapp, 1991, 1995). Besides worry, the TAI-G captures two further cognitive components of test anxiety: interference, and lack of confidence. Interference represents experiences of distracting and blocking cognitions during test-taking (e.g., “I am preoccupied by other thoughts which distract me”). Unlike worry, which captures cognitions regarding the anticipation of possible failure and its consequences, interference captures cognitions during test-taking that interfere with task-performance. In addition, lack of confidence captures expressing lack of self-confidence to be able to produce task performance should difficulties arise (e.g., “I am confident about my performance,” reverse-coded) and has been associated with low self-esteem (Keith, Hodapp, Schermelleh-Engel, & Moosbrugger, 2003).

So far, all studies on perfectionism and test anxiety have only regarded total test anxiety (e.g., Bieling, Israeli, & Antony, 2004; Mills & Blankstein, 2000; Stöber, 1998). Because individual dimensions of test anxiety may show different relationships than total test anxiety, it would be important to investigate how self-oriented and socially prescribed perfectionism are related to test anxiety when the different dimensions of test anxiety are regarded.

The Present Study

The aim of the present study was to further examine the relationships of perfectionism, intrinsic and extrinsic motivation, and test anxiety. Regarding intrinsic and extrinsic motivation, we examined students’ reasons for studying. In line with Miquelon et al.’s (2005) findings, we expected self-oriented perfectionism to show positive correlations with intrinsic motivation (intrinsic and identified reasons) and socially prescribed perfectionism to show positive correlations with extrinsic motivation (introjected and extrinsic reasons).
Regarding test anxiety, we examined the dimensions of test anxiety captured by the TAI-G (worry, emotionality, interference, lack of confidence) and the TAI-G total score (total anxiety). In line with Mills and Blankstein’s (2000) findings, we expected both self-oriented and socially prescribed perfectionism to show positive correlations with total test anxiety, but only when bivariate correlations were regarded. When partial correlations were regarded, controlling for the overlap between the two forms of perfectionism, we expected only socially prescribed perfectionism to show a positive correlation with total anxiety. Regarding the different dimensions of test anxiety, our analyses were largely exploratory except that we expected both forms of perfectionism to show positive correlations with worry. This expectation was based on the findings that both forms are associated with fear of failure (Flett, Davis, & Hewitt’s study as cited in Hewitt & Flett, 2004) and that fear of failure is closely related to worry in test anxiety (Hagtvet & Benson, 1997; Keith et al., 2003). Moreover, we expected self-oriented perfectionism to show a negative correlation with lack of confidence. This expectation was based on findings that self-oriented perfectionism in university students is associated with high self-esteem (Trumpeter et al., 2006) and that TAI-G lack of confidence is an indicator of low self-esteem (Keith et al., 2003).

Method

Participants and Procedure

A sample of N = 105 students (12 male, 93 female) was recruited at a large British university. Mean age of participants was 20.0 years (SD = 2.5, range = 18-37). All students were undergraduates in their second year at university studying psychology. The reason why second-year students were selected was that, unlike first-year students, they have one year of university experience—including experience with university exams—enabling them to provide informed answers to questions on why they study (intrinsic vs. extrinsic motivation) and how they feel in exams (test anxiety). In exchange for participation, students received extra course credits.
Measures

Perfectionism. To measure self-oriented perfectionism and socially prescribed perfectionism, we used the respective scales of the Multidimensional Perfectionism Scale (MPS; Hewitt & Flett, 1991, 2004). The scales comprise 15 items to capture self-oriented perfectionism (e.g., “I demand nothing less than perfection of myself”) and 15 to capture socially prescribed perfectionism (e.g., “People expect nothing less than perfection from me”). Students responded to all items using a 7-point answer scale from “strongly disagree” (1) to “strongly agree” (7).

Motivation for studying. To measure intrinsic and extrinsic motivation, students wrote down two personal goals that they wanted to achieve with studying psychology. Afterwards they rated each goal with respect to four reasons (see Sheldon & Elliot, 1999, p. 486): intrinsic reasons (“I pursue this goal because of the fun and enjoyment that it provides me”), identified reasons (“… because I really believe it’s an important goal to have”), introjected reasons (“… because I would feel ashamed, guilty, or anxious if I didn’t”), and external reasons (“… because someone else wants me to or because the situation demands it”) using a 7-point scale from “disagree completely” (1) to “agree completely” (7). To form scores for intrinsic, identified, introjected, and external reasons, the respective ratings were averaged across the two goals.

Test anxiety. To measure test anxiety, we used the English version of the German Test Anxiety Inventory (TAI-G; Hodapp, 1991; English version: Hodapp, 1995; Hodapp & Benson, 1997). The TAI-G comprises 30 items of which 10 measure worry (e.g., “I am thinking about the consequences of failing”), 8 emotionality (e.g., “My heart is pounding”), 6 interference (e.g., “I’m preoccupied by other thoughts, and thus distracted”), and 6 lack of confidence (e.g., “I’m confident concerning my own performance,” reverse keyed). In addition, the TAI-G provides a total anxiety score (30 items). As the TAI-G was originally developed for school students, two items containing school-specific content (Items 2 and 21)
were modified to apply to university students (cf. Keith et al., 2003). Students were asked to respond to each statement describing their feelings and thoughts in exam situations using the same 7-point scale that was used with the MPS.

**Analytic Strategy**

Our analytic strategy comprised three steps. In the first step, we computed bivariate correlations between the variables. In the second step, we computed partial correlations controlling for the overlap between the two forms of perfectionism. In the third and final step, we computed multiple regressions for each dimension of test anxiety and for total anxiety (TAI-G total score). Previous research has found intrinsic and extrinsic motivation to be associated with lower and higher levels of test anxiety, respectively (e.g., Lopez, 1999; Wolters, Yu, & Pintrich, 1996). Consequently, the multiple regressions aimed to examine whether perfectionism predicted unique variance in test anxiety over and beyond intrinsic and extrinsic motivation.

**Preliminary Analyses**

*Descriptive statistics.* For all scales, mean scores were computed by averaging responses across items. Table 1 shows the descriptive statistics and Cronbach’s alphas. All alphas were above the .70 recommended for widely used scales, except those of the four reasons for studying which were between .51 and .62. Still they were higher than the .50 recommended for scales used for research purposes (Nunnally, 1967, p. 226). Moreover, note that these scores were based on two items only (each score was computed by averaging across two goals) so the alphas, when corrected for test-length (mean $r_{ij[est]} = .34-.45$; see Cronbach, 1951, Formula 44), were relatively high considering test length.

*Multivariate outliers.* Because multivariate outliers can significantly distort results of multivariate analyses, we inspected the data for multivariate outliers. One male student showed a Mahalanobis distance greater than the critical value of $\chi^2(10) = 29.59, p < .001$ (see Tabachnick & Fidell, 2007) and was excluded from all analyses.
To examine whether the variance–covariance matrices were different, we computed a Box’s $M$ test (see again Tabachnick & Fidell, 2007). Box’s $M = 92.77$ was nonsignificant, $F(55, 992) = 1.00, p = .47$ indicating that the matrices were not different. Consequently, data were collapsed across gender.

Results

Correlations

Following our analytic strategy, we first inspected the bivariate correlations (see Table 1). Regarding motivation for studying, the results were as expected. Self-oriented perfectionism showed positive correlations with autonomous reasons for studying (intrinsic reasons and extrinsic reasons), and socially prescribed perfectionism showed positive correlations with controlled reasons (introjected reasons and extrinsic reasons). Whereas self-oriented perfectionism also showed a positive bivariate correlation with introjected reasons, this correlation became nonsignificant when partial correlations were regarded and the overlap between self-oriented and socially prescribed perfectionism was controlled for (see Table 2). Moreover, socially prescribed perfectionism showed a significant negative correlation with intrinsic reasons when the overlap with self-oriented perfectionism was controlled for.

Regarding test anxiety, the results were largely as expected. Socially prescribed perfectionism showed positive correlations with total anxiety in both the bivariate and the partial correlations (see Table 1 and 2). Moreover, it showed positive correlations with interference and with lack of confidence in all correlations. In contrast, self-oriented perfectionism showed negative correlations with interference and with lack of confidence, but positive correlations with worry. As expected, the finding confirmed that self-oriented perfectionism is an ambivalent form of perfectionism as it was associated with both higher anxiety (worry) and lower anxiety (interference, lack of confidence) in exams. Unexpectedly, socially prescribed perfectionism showed no significant correlation with worry, and self-
oriented perfectionism showed no significant correlation with total anxiety. Moreover, neither form of perfectionism showed any significant correlations with emotionality.

Multiple Regressions

Because motivation for studying showed a number of significant correlations with test anxiety (see Table 1) as was expected from previous findings (e.g., Lopez, 1999; Wolters et al., 1996), we followed our analytic strategy and computed multiple regressions predicting test anxiety dimension scores and total score from perfectionism controlling for motivation. The results showed that perfectionism explained variance in interference, lack of confidence, and total anxiety over and above the variance explained by motivation (see Table 3).

Regarding interference, both motivation and perfectionism explained variance, but only socially prescribed perfectionism made a unique contribution predicting higher levels of interference during tests. Regarding lack of confidence, the pattern was different. Again motivation and perfectionism explained variance, and socially prescribed perfectionism made a unique contribution predicting higher levels of lack of confidence. Here, however, intrinsic reasons and self-oriented perfectionism also made unique contributions, but predicted lower levels of lack of confidence. Finally, regarding total anxiety, only perfectionism explained a significant amount of variance and only socially prescribed perfectionism made a unique contribution predicting higher levels of total anxiety.

Regarding worry, only motivation for studying explained variance. Here, introjected reasons for studying (studying because one would feel ashamed, guilty, or anxious if one did not) made a unique contribution predicting higher levels of worry in exams. Regarding emotionality, however, neither motivation nor perfectionism explained significant variance.

Discussion

The aim of the present study was to investigate how self-oriented and socially prescribed perfectionism in university students are related to intrinsic versus extrinsic motivation and to multidimensional test anxiety by examining four dimensions of test anxiety
(worry, emotionality, interference, lack of confidence) and total anxiety (the four dimensions combined).

Regarding motivation, self-oriented perfectionism showed positive correlations with intrinsic motivation for studying (intrinsic reasons, identified reasons), and socially prescribed perfectionism showed positive correlations with extrinsic motivation for studying (extrinsic reasons, introjected reasons). Thus the present findings corroborate previous findings (Miquelon et al., 2005) confirming that self-oriented perfectionism is an internally motivated form of perfectionism associated with intrinsic motivation whereas socially prescribed perfectionism is an externally motivated form associated with extrinsic motivation.

Regarding test anxiety, the present findings corroborate previous findings (Mills & Blankstein, 2000) that self-oriented and socially prescribed perfectionism are both associated with test anxiety. In addition, and going beyond previous findings, the present findings indicate that self-oriented and socially prescribed perfectionism show differential correlations with different dimensions of test anxiety. This was particularly evident in the partial correlations controlling for the overlap between the two forms of perfectionism. Here, three results are noteworthy. First, only socially prescribed perfectionism (but not self-oriented perfectionism) was associated with total test anxiety. This finding confirms the results from previous correlation analyses that it is mainly socially prescribed perfectionism, and not self-oriented perfectionism, that shows significant correlations with total test anxiety (Mills & Blankstein, 2000). Second, only self-oriented perfectionism (but not socially prescribed perfectionism) was associated with higher levels of worry. This finding suggests that the excessively high personal expectations associated with self-oriented perfectionism contribute to worry about test results and possible failure in exams (cf. Flett, Davis, & Hewitt’s study as cited in Hewitt & Flett, 2004), not the excessively high expectations of others associated with socially prescribed perfectionism.

Third, both self-oriented and socially prescribed perfectionism were associated with
interference and lack of confidence, but in opposite ways. Whereas socially prescribed
perfectionism showed positive correlations with interference and lack of confidence, self-
oriented perfectionism showed negative correlations. This finding suggests that the excessively
high expectations of others associated with socially prescribed perfectionism may contribute to
task-irrelevant cognitions interfering with performance during tests and be associated with
lower confidence to produce the expected performance. In contrast, the excessively high
personal expectations associated with self-oriented perfectionism may contribute to staying
focused on the task during tests. Moreover, they may be associated with higher confidence to
achieve the expected performance, despite increased worry about performance and possible
failure. Because lack of confidence in tests has been shown to be an indicator of low self-
estee (Keith et al., 2003), the findings that self-oriented perfectionism is associated with
higher confidence in tests corroborates previous findings that self-oriented perfectionism is
associated with higher self-esteem (Trumpeter et al., 2006).

In sum, the present findings demonstrate that it is important to examine different
dimensions of test anxiety when investigating the relationships between perfectionism and test
anxiety. Like perfectionism, test anxiety is multidimensional, and different dimensions of test
anxiety show different relationships. Moreover, the present findings explain why self-oriented
perfectionism shows no, or only weak, correlations with total test anxiety (Mills & Blankstein,
2000). If self-oriented perfectionism shows positive correlations with some dimensions of test
anxiety (e.g., worry) and negative correlations with others (e.g., interference, lack of
confidence), the effects cancel each other out so that overall there appears to be no
relationship between self-oriented perfectionism and test anxiety. Consequently, only when
regarding different forms of perfectionism and different dimensions of test anxiety, does the
complex relationships between perfectionism and test anxiety unfold.

The present findings have some limitations, however. First, the study was cross-
sectional so that the predictions from the multiple regressions cannot be interpreted in a
temporal or causal sense. Future studies should employ longitudinal designs to establish the
temporal and causal relationships between the variables. Second, the sample of the present
study was relatively small considering the large number of statistical analyses (correlations,
partial correlations, multiple regressions) and contained too few males to make meaningful
gender comparisons. Future studies should therefore employ larger samples and include more
male students to examine gender differences in perfectionism, test anxiety, and their
dimensions (e.g., Blankstein & Winkworth, 2004; Stöber, 2004). Finally, future studies should
include a measure of self-criticism when examining how self-oriented and socially prescribed
perfectionism are related to test anxiety. When investigating how the two forms of
perfectionism were related to measures of affect and psychological symptoms in university
students, Dunkley, Blankstein, Masheb, and Grilo (2006) found that socially prescribed
perfectionism failed to predict anxiety, once individual differences in self-criticism were
controlled for. Their findings question whether the social-evaluative aspects of socially
prescribed perfectionism are responsible for heightened anxiety (Hewitt & Flett, 1991).
Instead, self-evaluative aspects may be responsible.

Despite these limitations, the present findings make an important contribution to our
understanding of perfectionism, motivation, and test anxiety in academic settings. They
confirm that socially prescribed perfectionism is a maladaptive form of perfectionism
associated with extrinsic motivation for studying and with higher levels of test anxiety in
exams. In contrast, self-oriented perfectionism has positive and negative aspects in academic
settings. On the one hand, it is associated with intrinsic motivation for studying and with lower
interference and higher confidence in tests. On the other hand, it is associated with more
worry about test results and possible failure so that tests and exams become ambivalent
experiences for university students high in self-oriented perfectionism.
References


Perfectionism, Motivation, and Test Anxiety


Wolters, C. A., Yu, S. L., & Pintrich, P. R. (1996). The relation between goal orientation and...
students’ motivational beliefs and self-regulated learning. Learning and Individual Differences, 8, 211-238.

Footnotes

1The model comprises a further dimension, other-oriented perfectionism, which captures individual differences in holding perfectionistic standards for others. Because the significance of this dimension is unclear (e.g., Enns & Cox, 2002), it was disregarded in the present study.
Table 1

Correlations and Descriptive Statistics

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Note. N = 104. Total anxiety = TAI-G total score. All scores are mean scores (see Method).

*p < .05. **p < .01. ***p < .001.
Table 2

*Partial Correlations*

<table>
<thead>
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<th>Variable</th>
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<td>Worry</td>
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<td>.11</td>
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<tr>
<td>Emotionality</td>
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<td>.12</td>
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<tr>
<td>Interference</td>
<td>−.24*</td>
<td>.46***</td>
</tr>
<tr>
<td>Lack of confidence</td>
<td>−.39***</td>
<td>.32**</td>
</tr>
<tr>
<td>Total anxiety</td>
<td>−.02</td>
<td>.33***</td>
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*p < .05. **p < .01. ***p < .001.*
Table 3

Multiple Regressions: Perfectionism and Motivation for Studying as Predictors of Test Anxiety

<table>
<thead>
<tr>
<th>Variable</th>
<th>Worry</th>
<th></th>
<th>Emotionality</th>
<th></th>
<th>Interference</th>
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<th>Lack of confidence</th>
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<td>β</td>
<td>ΔR²</td>
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<tr>
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<td>.041</td>
<td>−.18</td>
<td>−.35**</td>
<td>−.11</td>
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<td>.23</td>
<td>.06</td>
<td>−.04</td>
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<td>.061*</td>
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Note. N = 104. Total anxiety = TAI-G total score. β = standardized regression coefficient. ΔR² = change in R². *p < .05. **p < .01. ***p < .001.