

Perfectionism and performance expectations at university: Does gender still matter?

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The present study examines the relationship between the perfectionist orientation and performance expectations at university and whether gender moderates this relationship. One-hundred first year university students responded to two subscales from the Multidimensional Perfectionism Scale (MPS-HF): the Self-Oriented Perfectionism (SOP) subscale and the Socially Prescribed Perfectionism (SPP) subscale. Results of the study showed that SOP and SPP correlated positively. Students, regardless of gender, demonstrated higher levels of SOP than SPP. Both SOP and SPP correlated positively with performance expectations. Self-oriented perfectionists and high perfectionists reported significantly higher performance expectations than socially oriented perfectionists and non-perfectionists. There were no significant differences between socially oriented perfectionists and non-perfectionists nor were there significant differences between self-oriented perfectionists and high perfectionists in performance expectations. Gender did not moderate the effect of types of perfectionism on performance expectations. There were no gender differences in SOP, SPP, or performance expectations.

Keywords: Perfectionism, performance expectations, gender.

El perfeccionismo y expectativas de desempeño en la universidad: ¿El sexo sigue siendo importante? El presente estudio analiza la relación entre una orientación perfeccionista y expectativas de desempeño en la universidad, mirando si el género modera esta relación. Para eso, un centenar de estudiantes universitarios del primer año responden a dos subescalas de la Escala Multidimensional del Perfeccionismo (MPS-HF): la subescala del Perfeccionismo Auto-Orientado (SOP) y la subescala del Perfeccionismo Socialmente Establecido (SPP). Los resultados del estudio muestran una correlación positiva entre SOP y SPP. Los estudiantes, a pesar del género, demuestran niveles más altos de la SOP que la SPP. Ambas SOP y SPP tienen una correlación positiva con las expectativas de desempeño. Los perfeccionistas auto-orientados y perfeccionistas de secundaria informan de expectativas de desempeño significativamente mayores que las de los perfeccionistas orientados socialmente y los no-perfeccionistas. No se encuentran diferencias significativas entre los perfeccionistas orientados socialmente y no-perfeccionistas ni entre los perfeccionistas auto-orientados y perfeccionistas de alta en las expectativas de rendimiento. El género no modera el efecto del tipo de perfeccionismo en las expectativas de desempeño. No se encuentran diferencias por género en la SOP, SPP, o en las expectativas de rendimiento.

Palabras clave: Perfeccionismo, expectativas de rendimiento, género.

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Hewitt and Flett (1991) developed the Multidimensional Perfectionism Scale (MPS-HF) to evaluate the multi-faceted nature of perfectionism. The MPS-HF is composed of three subscales. Self Oriented Perfectionism (SOP) refers to the tendency to set high standards, strictly evaluate behavior, and to have the motivation to attain perfection. Socially Prescribed Perfectionism (SPP) refers to the perception that others have unrealistic standards for oneself, that others evaluate one strictly, and that others expect one to be perfect. Other Oriented Perfectionism (OOP) refers to the tendency to set high standards and expect perfect performance from others, and to strictly evaluate others' performance.

Despite a large literature on the relationship between perfectionism and actual academic achievement (e.g., Blankstein and Winkworth, 2004), little is known about the relationship between perfectionism and performance expectations. Performance expectations reflect individuals' beliefs about how well they will do on upcoming tasks, either in the intermediate or longer term future (Wigfield and Eccles, 2000). Performance expectations are important because this construct is one of several factors that influence freshmen's decisions to remain in university, their choice of majors, and their career aspirations (Hesse-Biber, 1985). Performance expectations have also been found to affect academic achievement even when perceived ability, prior preparation, and previous grades are controlled (Vollmer, 1986). Finally, performance expectations structure the explanations (attributions) we make for our successes or failures, which in turn influence our emotional responses and future actions (Weiner, 1985).

Brown, Heimberg, Frost, Makris, Juster and Leung (1999) reported that expectations regarding course performance correlated significantly and positively with personal standard ($r = .26$) but not concern over mistakes. Another study by Enns, Cox, Sareen and Freeman (2001) showed that adaptive perfectionism correlated positively with performance expectations of medical students. However, maladaptive perfectionism was unrelated to performance expectations. More recently, Canter (2009) reported that college students' performance expectations correlated positively ($r = .16$) and negatively ($r = -.17$) respectively with two dimensions of perfectionism; high standards (i.e., adaptive perfectionism) and discrepancy (i.e., maladaptive perfectionism).

The role of gender

Several studies have reported no gender differences in SOP and SPP (e.g., Flett, Blankstein, Hewitt, Koledin, 1992; Hewitt and Flett, 1991). However, a recent study by Caglar, Bilgili, Karaca, Ayaz and Aşçi (2010), using a sample of Turkish adolescents, showed that females scored significantly higher than males on the SOP subscale but they scored lower than males on the SPP subscale. Likewise, numerous studies have report that university females have lower performance expectations than university males (e.g., Vollmer, 1984; Furst, Tenenbaum and Weingarten, 1985). On the

other hand, there are many studies showing no sex difference in performance expectations (e.g., McMahan, 1982; Vollmer, 1986). Other studies have examined the role of students' gender in the differential associations between perfectionism and personality characteristics. For example, Hewitt and Flett (2002) reported that SOP among males was related to traits of hostility and arrogance, while SOP among females tended to be agreeable and gregarious.

The present study

University is an important place to study the relationship between perfectionism and performance expectations because it presents an environment that induces significant amounts of stress and has implicit and explicit performance demands (DuChossois and Michaels, 1994). In addition, the prevalence of perfectionism has been found to be particularly high among university students (Rice and Ashby, 2007) and one study (Parker and Adkins, 1995) found that levels of perfectionism were higher in Honors students than regular students. Also, numerous studies have reported that performance expectations can influence freshmen's decisions to remain in university (Kramer, 1985), their choice of majors, their career aspirations (Zuckerman, 1985), and their academic achievement (Vollmer, 1986). Therefore, the continued examination of the relationship between perfectionism and performance expectations of university students is an important endeavor. However, it should be noted that most of the studies that have investigated the relationship between perfectionism and performance expectations are limited in their generalizability, particularly because they have been exclusively carried out on Western samples, which would mean that the relationships shown by these studies might not be true in other contexts. In fact, the effect of cultural contexts on the relationship of trait perfectionism to other variables has been documented in several studies (see, Gilman, Ashby, Sverko, and Florell, 2005). Thus, these studies can be extended by examining whether the relationship between perfectionism and performance expectations will hold in other cultural contexts.

The aim of the present study is to investigate the relationship between perfectionism and performance expectations in a sample of university students in a non-Western context. Two subtypes of perfectionism representing personal and social components of the construct - SOP and SPP- were considered in the present study. Also, the present study suggests that students' gender can play a role in the differential association of these two perfectionistic orientations with performance expectations. Our main hypothesis in the present study was that SOP would report greater performance expectations, whereas SPP would report poorer performance expectations. We also predict that there will be some gender differences in the relationship of SOP and SPP to performance expectations but the direction of these differences is uncertain.

Furthermore, four groups of students can be formed based on their responses to the two perfectionism subscales: self oriented perfectionists (high self oriented and low socially-prescribed perfectionism), social-prescribed perfectionist (high social-prescribed and low personal-oriented perfectionism), non-perfectionist (low self oriented and low social-prescribed perfectionism), and overall high perfectionists (high self-oriented and high social-prescribed perfectionism). In line with the previous hypothesis, we predicted that self-oriented perfectionists would report higher levels of performance expectations than socially prescribed perfectionists, non-perfectionists, and overall high perfectionists. We also predicted that there would be some gender differences in the effect of types of perfectionism on performance expectations but the direction of these differences was uncertain. No hypotheses were developed for low perfectionists and high perfectionists groups because these groups have not been previously studied in relation to performance expectations.

The prediction of a positive link of SOP to performance expectations was based on the acknowledgment that a tenacious achievement striving component is part of SOP (see Hewitt and Flett, 1991). In addition, research has confirmed that SOP is linked with self-determined academic motivation and this should translate into elevated performance expectations (Miquelon, Vallerand, Grouzet and Cardinal, 2005). In contrast, the prediction of a negative link of SPP to performance expectations was based on the acknowledgement that SPP can reflect motivational deficits involving a sense of helplessness and hopelessness as a result of being exposed to unrealistically high expectations (see, Flett, Hewitt, Blankstein and Pickering, 1998). Also, research has confirmed that SPP is linked with non self-determined academic motivation (Miquelon *et al.*, 2005). Furthermore, the hypothesis involving SPP can be extrapolated from the motivation literature which indicates that the presence of a controlling orientation tends to undermine motivation and performance (Deci and Ryan, 1985). By extension, the belief that others are imposing perfectionist expectations on the self represents a type of controlling situation and this should translate into decreased performance expectations because the individual is striving to meet someone else's expectations rather than self standards. Specifically, social-oriented perfectionists feel that friends, family and society in general expect them to be perfect (i.e., others-imposed expectations). They accept this role to some degree, but it is primarily from a need for social approval and acceptance (see, Flett, Hewitt, Oliver and Macdonald, 2002).

METHOD

Participants

Subjects of the present study included 100 first year students at a public university in North Upper Egypt. Students were enrolled in 10 different academic majors

with students majored in chemistry were the most representative of the sample ($n = 18$). There were 75 females and 25 males. Although no information was collected on students' age, the average age of first year university students in Egypt is 18 years (Ministry of Higher Education, 2010).

Measurements

Perfectionism

Hewitt and Flett (1991) developed the MPS-HF; a 45-item self-report measure of three distinct dimensions of perfectionism: (a) self oriented perfectionism (i.e., holding perfectionist standards for oneself), (b) socially prescribed perfectionism (i.e., beliefs that others hold unrealistic standards for one's behavior) and (c) other oriented perfectionism (i.e., holding perfectionist standards for others). There are 15 items for each dimension of perfectionism. Respondents rate their agreement with each item of the MPS-HF on a 7-point scale that ranged from 1 (Absolutely not applicable to me) to 7 (Absolutely applicable to me).

The present study examines only personal oriented and socially prescribed types of perfectionism because these two types are most closely related to inward conceptualization of perfectionism that involves placing an emphasis on oneself achievements and standards (i.e., demand perfectionism from oneself). In addition, these two types are consistent with the general definition of perfectionism set forth by Hewitt and Flett (1991); 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 behavior. Also, focusing on personal oriented and socially prescribed types of perfectionism allow us to extend previous research which has revealed the importance of these particular types of perfectionism within the academic domain (see Brown *et al.*, 1999; Canter, 2009; Enns *et al.*, 2001). Finally, the OOP was excluded due to lack of relevance to the goal and the research questions of the present study.

We noticed that several items of the SOP and the SPP subscales did not translate easily from English to Arabic. In addition, many of these items were conceptually overlapping probably because they were worded similarly. We therefore excluded all problematic items and this resulted in 10 items represent each of the SOP and the SPP subscales. The selected items were characterized as having the highest loadings on their designated factors in the original study by Hewitt and Flett (1991); they translated easily from English to Arabic, and they were conceptually distinguishable.

A forward translation strategy (Cha, Kim and Erlen, 2009) was used wherein the selected items were translated from English to Arabic by the first two authors of the present study. Other three qualified translators and a professor of educational psychology rated the match between the Arabic and the English versions of the items on a scale from

1 to 7. A score of 1 represents a poor match whereas a score of 7 represents a perfect match. An intraclass correlation coefficient (ICC) based on a two-way random model was used to assess inter-rater reliability for the SOP and the SPP subscales (Shrout and Fleiss, 1979). Shrout and Fleiss (1979) explained that in a two-way random model, a random sample of k judges is selected from a large population, and each judge rates each target, that is, each judge rates n targets altogether. In the present study, the average ICC was .95 (95% CI: .88-.99) and .96 (95% CI: .90-.99) for the SOP and the SPP subscales respectively. Fleiss (1981) and also Cicchetti and Sparrow (1981) highlighted these guidelines of the average ICC: < .40 is poor, .40-.59 is fair, .60-.74 is good, and > .74 is excellent.

Performance expectations

Students' performance expectations were measured by asking students about the percentage of academic achievement that they believe they will get by the end of their first year at university. Several studies have used a similar question to assess students' performance expectations (e.g., Brown *et al.*, 1999, Canter, 2009, Enns *et al.*, 2001).

Procedure

A questionnaire incorporating 20 items intended to represent SOP (10 item) and SPP (10 items) was administered to participant students during their psychology lab classes. Data concerning expected academic achievement and other demographic information (i.e., gender and academic major) were also collected. Data collection took an average of under fifteen minutes in each lab class.

RESULTS

Exploratory factor analysis

An exploratory factor analysis with principal components was conducted to identify a viable factor structure of 20 items of the MPS-HF. It was intended that 10 items represent the SOP subscale and 10 items represent the SPP subscale. The resulting factors were rotated to a simple structure using varimax rotation. The number of factors retained was determined by using the following criteria: (1) Kaiser's rule of retaining factors with eigenvalues greater than 1, (2) factor explains at least 10% of the total variance extracted, and (3) each factor had to have at least three items. Inclusion criteria for items on the retained factor were that they had loadings of at least .3 on that factor. Items with high cross-loadings, wherein an item had a loading of .3 or greater on more than one factor, were assigned to a factor on the basis of logical fit. A corrected item-total correlation of .3 or above was required to confirm the assignment decision. The factors that were identified were named on the basis of their content (Nunnally and Bernstein, 1994).

The analysis yielded two factors; SOP (8 items, $\alpha = .71$) and SPP (6 items, $\alpha = .70$). The two factors explained cumulatively 39% of the total variance extracted (26% and 13%, respectively) and had eigenvalues of 3.7 and 1.9 respectively. It was found that item 15 and item 11 loaded .19 and .25 respectively on the SOP factor. In addition, item 2, item 14, item 10, and item 16 loaded .17, -.03, .18, and .16 respectively on the SPP factor. These items were discarded based on a rule of thumb to retain items with loading above .30 on their designated factor (Nunnally and Bernstein, 1994). The two factors correlated at .32, $p < .001$. The item-total correlation ranged between .46 and .73 ($p < .001$) for the SOP subscale and between .53 and .73 ($p < .001$) for SPP subscale. These values were in accordance with Nunnally and Bernstein's recommendations that corrected item-total correlations should be at least .30 to provide evidence of internal consistency (Nunnally and Bernstein, 1994). Items loadings on their designated factors are reported in Table 1.

Table 1. Factor loadings for the Multidimensional Perfectionism Scale (MPS-HF)

Items	Factor	
	Self prescribed perfectionism	Social oriented perfectionism
9. I am perfectionist in setting my goals.	.74	
5. I strive to be the best at everything I do.	.69	
17. I set very high standards for myself.	.65	
1. When I am working on something, I cannot relax until it is perfect.	.56	
13. I do not have to be the best at whatever I am doing.*	.52	
3. I never aim for perfection in my work.*	.51	
19. I must always be successful at school or work.	.45	
7. It makes me uneasy to see an error in my work.	.44	
12. Others think I am okay, even when I do not succeed.		.76
20. People around me think I am still competent even if I make a mistake.		.69
6. The people around me expect me to succeed at everything I do.		.67
4. The better I do, the better I am expected to do.		.64
8. Others will like me even if I do not excel at everything.		.55
18. People expect more from me than I am capable of giving.		.41

Note. $N = 100$. Factor loadings were obtained using principal components extraction with varimax rotation.

* Reserve scored items

Mean differences and correlation and analyses

A paired-samples t-test showed that students scored significantly higher on the SOP than the SPP ($M = 43.1$, $SD = 6.8$ vs. $M = 31.7$, $SD = 5.7$), $t(99) = 15.5$, $p < .001$, $d = 1.8$. Performance expectations correlated positively with SOP ($r = .43$, $p < .001$) and SPP ($r = .36$, $p < .001$).

Moderation analysis

Hewitt and Flett (2004) and also Dykstra (2006) converted raw scores on the MPS-HF into T-scores (with a mean of 50 and a standard deviation of 10) and noted that

T-scores of 60 or higher are within the clinically significant range. In the present study, individual's scores on SOP and SPP were used to group subjects into one of four perfectionism categories. Self oriented perfectionists are those individuals with T-scores of 60 or higher on SOP and T-scores of below 60 on SPP. Socially prescribed perfectionists are those individuals with T-scores of 60 or higher on SPP and T-scores of below 60 on SOP. High perfectionists are those individuals with T-scores of 60 or higher on both SOP and SPP. Non-perfectionists are those individuals with T-scores below 60 on both SOP and SPP. Based on these categorization criteria, the sample of the present study incorporated 23 students in the self oriented perfectionist group (6 males and 17 females), 24 students in the socially prescribed perfectionist group (7 males and 17 females), 32 students in the non-perfectionist group (6 males and 26 females), and 21 students in the high perfectionist group (6 males and 15 females).

Next, a 4 (Type of Perfectionism) x 2 (Gender) two-way ANOVA was conducted to examine whether gender, types of perfectionism, and/or an interaction effect between gender and types of perfectionism can influence performance expectations. The analysis showed that gender did not have a significant main effect on performance expectations, $F(1, 92) = 3.3$, ns, $\eta^2 = .04$. Likewise, there was no significant interaction effect between types of perfectionism and gender on performance expectations, $F(3, 92) = 2.6$, ns, $\eta^2 = .07$. However, the analysis showed that types of perfectionism had a significant main effect on performance expectations, $F(3, 92) = 13.8$, $p < .001$, $\eta^2 = .31$. In order to examine differences between groups with regard to performance expectations, post hoc analyses were performed using the Bonferroni method. The Bonferroni method has been found to be appropriate for equal or unequal sample sizes and with homogeneous variances (Hinkle, Wiersma and Jurs, 1998; Kirk, 1995). The analysis showed that self oriented perfectionists and high perfectionists reported significantly higher performance expectations than social oriented perfectionists and non-perfectionists. There were no significant differences between social oriented perfectionists and non-perfectionists in performance expectations. Likewise, there were no significant differences between self oriented perfectionists and high perfectionists in performance expectations. Means and standard deviations of performance expectations across types of perfectionism are reported in Table 2.

Table 2. Means and standard deviations of performance expectations across four types of perfectionism

Type of perfectionism	n	M	SD
1. Self oriented perfectionists	23	82.8	4.3
2. Social prescribed perfectionists	24	75.1	6
3. Non-perfectionists	32	73.2	8.6
4. High perfectionists	21	81.5	3

Note. N = 100.

DISCUSSION

The present study examines the relationship between perfectionism and performance expectations at university and whether gender moderates this relationship. The analysis revealed that students' perfectionist orientations could be discriminated along two dimensions: SOP and SPP. These two dimensions are meaningfully related to differences in students' academic functioning identified in a significant body of research within area of educational psychology (Brown *et al.*, 1999). Most importantly, it was possible, using standard psychometric criteria to discriminate self oriented perfectionists from socially prescribed perfectionists. In context, this finding can be seen as noteworthy since it indicates that students, albeit unwittingly, can inform researchers of substantial differences in the source of their performance standards and expectations. Specifically, self-oriented perfectionists set their performance standards and expectations themselves (i.e., self-imposed expectations) and stringently evaluate and censure their own behavior. They want to do things extremely well and they are willing to put out the effort to do so. They have thoroughly incorporated perfectionism into their values and belief system. Social prescribed perfectionists, on the other hand, perceive that others want and expect them to be perfect. Thus, SPP involves the perceived need to attain standards and expectations prescribed by significant others (Hewitt and Flett, 1991).

Furthermore, SOP was found to correlate positively with SPP. Originally, Hewitt and Flett (1991) reported that the intercorrelations among the MPS-HF subscales ranged between .25 and .40. This finding suggests that the relationship between SOP and SPP is dynamic in nature and that these two dimensions of perfectionism do not necessarily contradict each other. As such, an individual may pursue several perfectionist orientations simultaneously. In context, this finding can be seen as noteworthy since it indicates that Egyptian students work hard and strive to achieve not only to meet their own standards, but also to satisfy performance expectations prescribed by significant others. This finding is consistent with the research on the private versus public aspects of the self (Greenwald and Breckler, 1985) and with suggestions that both intraindividual and interindividual personality components are important in the classification and etiology of psychiatric disorders (Kiesler, 1982).

Descriptive analyses revealed that students demonstrated higher levels of SOP than SPP. Thus, although SOP and SPP were found to coexist within students, it is likely that students place more importance on meeting their own performance standards than satisfying performance expectations prescribed by significant others. From this perspective, students may see SPP as subsidiary to SOP and as such the degree to which each perfectionist orientation is adopted should be the focus of measurement. This finding indicates that students have a tendency to set excessively high standards for themselves and a tendency to focus on failures or flaws in performance (Frost,

Heimberg, Holt, Mattia and Neubauer, 1993). In line with this finding, Jonge and Waller (2003) reported that American undergraduates set relatively high standards for themselves, but did not perceive themselves as needing to live up to unusually high standards set by significant others. More recently, Caglar *et al.* (2010) reported that Turkish adolescents exhibited higher levels of SOP than SPP.

Consistent with previous research (Brown *et al.*, 1999; Canter, 2009) and with the expectations of the present study, SOP correlated positively with performance expectations. In addition, self-oriented perfectionists reported significantly higher levels of performance expectations than social prescribed perfectionists and non-perfectionists. Within hindsight, this finding appears to be a readily understood relationship: the more a student is striving to be perfect and incorporates perfectionism into his/her values and belief system, the higher his/her performance expectations. In support of this notion, researchers have argued that achievement striving (Hewitt and Flett, 1991) and self-determined motivation (Miquelon *et al.*, 2005) is part of SOP. Also, recent studies have found that self oriented perfectionists are high-achieving individuals (Blankstein and Winkworth, 2004) and this should translate into elevated levels of performance expectations (Flett, Blankstein and Hewitt, 2009).

In contrast to the expectations of the present study, the analysis revealed that SPP was associated positively with performance expectations. This finding is at odds with the generally accepted view that SPP is a maladaptive type of perfectionism associated with negative academic outcomes. For example, SPP has shown positive correlations with lower levels of academic achievement among university students (Blankstein and Winkworth, 2004)). This finding might be explained by the cultural values of the Egyptian society. According to Hofstede (Hofstede, 2001) and other researchers (e.g., Kim, Triandis, Kagitcibasi and Yoon, 1994), Egypt would idealistically categorize as a collectivist society wherein greater emphasis is put on the views, needs, goals, and standards of the group rather than oneself. As such, students in collectivist societies may seek to attain approval and acceptance of the group by striving to set high performance expectations. For example, students may think that the best way to show filial piety and repay their parents is to show high performance expectations. Filial piety is a virtuous practice that is highly respected within the Egyptian society (Hofstede, 1991).

However, in line with the expectations of the present study, social prescribed perfectionists reported significantly lower levels of performance expectations than self oriented perfectionists and high perfectionists. Flett *et al.* (1998) explained that SPP reflects motivational deficits involving a sense of helplessness and hopelessness as a result of being exposed to unrealistically high performance expectations imposed and controlled by significant others. They argued that these negative perceptions should translate into decreased levels of performance expectations because the individual is

striving to meet someone else's expectations rather than self standards. Within the present study, it is interesting to note that while SPP by itself appeared to have a negative impact on students' performance expectations; SPP accompanied by SOP appeared to have a positive impact on students' performance expectations.

In terms of gender effects, the analysis showed that there were no gender differences in SOP and SPP. This finding replicates the findings of other studies that have reported no gender differences in these two dimensions of perfectionism (e.g., Benjamin, Roberts and Gotlib, 1997; Flett *et al.*, 1992; Hewitt and Flett, 1991; Jonge and Waller, 2003). However, this finding is in contrast with the findings of Caglar's *et al.* (2010) study with a sample of Turkish adolescents which indicated that female scored significantly higher than males on the SOP subscale but they scored lower than males on the SPP subscale. Similarly, the analysis showed that there were no gender differences in performance expectations. This finding is in agreement with the findings of several studies that have showed no gender differences in performance expectations among university students (e.g., McMahan, 1982; Vollmer, 1986). Gigliotti and Secrest (1988, p. 282) concluded that "...the popularity of sex roles as an area of study probably catalyzed more work on the topic than was warranted, as the sex differences in performance expectations, even when found, are not that strong". However, this finding is at odds with other studies that have showed that university females have lower performance expectations than university males (e.g., Vollmer, 1984).

Finally, although previous studies have reported gender differences in the way perfectionism interacts with psychopathology symptoms (Hewitt and Flett, 1991 study 2-5), personality characteristics (Hewitt and Flett, 2002), and academic achievement (Kawamura, Frost and Harmatz, 2002), this was not the case in the present study. In contrast to our expectations, the analysis revealed that the effect of types of perfectionism on performance expectations was not moderated by gender. This means that the effect of types of perfectionism on performance expectations was similar across male and female students. This finding might be explained by the gender socialization practices within the Egyptian society. It is possible that Egyptian males and females have been socialized so that they incorporate both SOP and SPP in a similar manner into their values and belief system. They set performance standards and expectations themselves (i.e., self-imposed expectations) and stringently evaluate and censure their own behavior. Thus, they see performance expectations as a personal endeavor. They also strive to achieve performance standards and expectations set by significant others (i.e., others imposed expectations). Thus, they see performance expectations as a social obligation and probably a means to attain social approval.

The major limitation of the present study was the cross sectional nature of data. As a result, conclusions about the effects of types of perfectionism and gender on performance expectations cannot be drawn. A different method for understanding the

developmental precursors to performance expectations would be to examine them over time rather than at a single time point; such an approach would assume that growth in these processes would be the key to understand their impact on later performance expectations. The second limitation was the relatively small sample size which may result in lack of representation of the population and consequently lack of generalizability of the findings. The third limitation was the self-reported perfectionism measure. Although self-ratings of perfectionism remain the standard used by most studies of the construct, future studies are needed to assess any behaviors associated with perfectionism either as observed by significant others or by direct observations by researchers. Until such studies are conducted, the perfectionism construct will remain largely defined as a cognitive self-construal process rather than, as many authors contend, an observable trait.

Summary

To summarize, the present study extends previous research that has examined SOP and SPP in children to the context of university-aged students. Also, this study extends the research that has investigated the relationship between perfectionism and performance expectations in individualist societies to the context of collectivist societies (i.e., Egypt). Although further research in this area is warranted, the initial evidence from this study suggests that the development of perfectionism in collectivist societies may involve an array of interrelated pathways. Specifically, the current findings reveal that university students in collectivist societies may develop different types of perfectionism which may coexist within an individual. The current findings also suggest that an individual's personal goals and standards may sometimes outweigh the views and expectations of significant others in collectivist societies. Furthermore, the reported findings provide further insight into the dynamics which underpin students' performance expectations at university. One important stimulant of students' performance expectations is perfectionist orientations. There are suggestive evidences within the current study that self oriented perfectionists and high perfectionists differed significantly from social prescribed perfectionists in term of the levels of performance expectations. Specifically, self oriented perfectionists and high perfectionists reported higher levels of performance expectations than social oriented perfectionists. Also, there was no evidence of the moderating role of gender in the effect of types of perfectionism on performance expectations.

Future research

It is possible to provide some suggestions for future research. Further studies could examine the relationship between perfectionism and performance expectations across different educational levels and cultural contexts. In addition, the role of

socialization practices and cultural values in the development of perfectionist orientations and performance expectations need to be explored in more qualitative ways.

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