



Domain-specificity in perfectionism: Variations across domains of life

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ABSTRACT

Perfectionism has been assessed in relation to salient or narrow domains within specific populations, yet little is understood across broader domains of life. The aim was to assess positive perfectionism (PP) and negative perfectionism (NP) in five broad domains; university/work, relationships, physical activity, domestic environment and appearance and to determine any gender differences within domains. One hundred and forty four university students (females $n = 101$; males $n = 43$) completed a modified perfectionism measure for each domain. Correlations within and between domains for PP and NP ranged from low to moderate with differential patterns by gender, supporting more domain specificity and less of a universal trait. Repeated measures ANOVAs revealed that, overall, PP and NP in the university/work domain was significantly higher than all other domains. Females reported greater PP in the university domain compared to other domains, and more PP in the relationship, domestic environment and appearance domains as compared to the physical activity domain. In contrast, males reported significantly higher PP in the physical activity domain. Females reported significantly higher NP in the university and appearance domains, while males had similar NP across all domains. These findings present a more complex picture of perfectionism with implications for domain-specificity in perfectionistic behavior.

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1. Introduction

Perfectionism has been characterized as the setting of unrealistically high standards, exhibiting of perfectionistic concerns and tendencies to be overly critical of one's behavior (Flett & Hewitt, 2002; Frost, Marten, Lahart, & Rosenblate, 1990). Perfectionistic individuals tend to place extreme value of their self-worth on achievement of these standards. Perfectionism is often viewed as a global construct, assuming that detrimental effects would impact upon an individual globally across situational contexts. Furthermore, perfectionism has also been considered as a maladaptive, extreme version of conscientiousness (Samuel & Widiger, 2008), where the beneficial effects of perfectionism at certain points become detrimental and hence a matter of degree (Le et al., 2011). Alternatively, other research suggests a dual nature of perfectionism (Gaudreau & Thompson, 2010; Stoeber & Otto, 2006; Terry-Short, Owens, Slade, & Dewey, 1995) with two dimensions being distinguished. Although falling under various labels, one form (adaptive/positive perfectionism) can be represented as perfectionistic strivings encompassing high personal standards and striving for perfection. The other dimension (maladaptive/negative

perfectionism) includes perfectionistic concerns, concerns over mistakes and failure to meet one's own and others' expectations. This distinction and differential patterns of relationships between the two dimensions parallels current literature (Gaudreau & Thompson, 2010; Stoeber & Stoeber, 2009).

However, levels of perfectionistic behaviors may also differ in degree and intensity (Hamachek, 1978), and potentially across different contexts or domains. The concept of domain specificity has been highlighted in clinical populations, where clinical perfectionism has been argued to influence only those particular domains relevant to maintaining clinical disorders (Shafran & Mansell, 2001). Within non-clinical populations, attempts have been made to resolve the viability of domain as opposed to global perfectionism, focusing on variations in situational contexts. Comparisons of perfectionistic thinking across problem-solving and interpersonal contexts revealed weak associations between contexts and poor cross-situational stability (Saboonchi & Lundh, 1999), while perfectionism in career mothers within the work domain was greater than perfectionism at home (Mitchelson & Burns, 1998). Both studies suggest perfectionism impacts on relevant domains of life, and as such may be detrimental to psychological health.

Extending this contextual idea, recent work suggests perfectionism has differential effects across domains depending upon the population studied. For instance, domain-specific perfectionistic tendencies within academically gifted adolescents (i.e.,

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perfectionism, competence, task value and contingent self-worth) were greater only in the school rather than sport domain (McArdle, 2010). However, perfectionism was measured as a total score, and individual subscales of the Frost Multidimensional Perfectionism Scale (MPS; Frost et al., 1990) were not assessed, restricting the understanding of types of perfectionism within and across domains. Similarly, Dunn, Gotwals, and Causgrove Dunn (2005) examined two domains, academic and sport, in a very specific domain-defined population. University student athletes exhibited higher perfectionistic tendencies in the sport rather than academic domain, and male athletes had significantly higher self-oriented and other-oriented sport perfectionism (Dunn et al., 2005). In these studies, findings appear dependent upon only two domains considered important and assumed most relevant within the target population (i.e., lack of comparison across groups of individuals and lack of comparison of dimensions of perfectionism (Stoeber & Otto, 2006)). Consequently, generalizability may be limited and this restriction of domains may exclude other important domains that may be relevant.

A recent study including several domains found that individuals with higher perfectionism report being perfectionistic in a greater number of domains, along with their perfectionism being internally motivated (Stoeber & Stoeber, 2009). However, the domain-specific perfectionism measure covers 22 domains, with interpretation becoming complex and difficult to generalize when examining the relevance of associations (Stoeber & Stoeber, 2009). Hence, multiple narrow domains could be collapsed into a high-order structure to simplify interpretation of domain-specificity. In a qualitative study, Slaney and Ashby (1996) investigated what domains of perfectionists' lives were most affected by perfectionism, where 12 domains, as opposed to 22, emerged. Almost all participants reported perfectionism affecting their professional or academic work, while over half reported effects on relationships, housework and cleaning and some reported effects on parenting, recreational activities and appearance. Further to these broader domains, approximately half of women reported perfectionistic behavior relating to housework/cleaning (i.e., domestic environment), as opposed to considerably fewer men in their sample (Slaney & Ashby, 1996), indicating that gender and gender-specific behaviors may actively influence expression of perfectionism within particular domains. Following Slaney and Ashby's (1996) findings as an example of higher order domain structure, consolidation into key domains such as professional/academic work, relationships, domestic environment, physical activity and appearance may improve interpretation, ease of application, and ability to distinguish key domains between men and women.

None of these studies has considered the possibility that perfectionism, and in particular two dimensions of positive and negative, may vary across domains of an individual's life. Terry-Short et al.'s (1995) study only examined positive perfectionism (PP) and negative perfectionism (NP) in a global sense within different groups. Individuals with varying levels of commitment across different contexts may exhibit higher maladaptive/negative perfectionism across some domains (Stoeber & Stoeber, 2009) or across all domains (Flett & Hewitt, 2002). As such, an individual may report more NP relating to work or education, yet more PP with participation in physical activity. For instance, university students may demonstrate higher PP in their university studies due to the relevance and importance of high realistic goals in relation to successful completion of a degree. Hence, university students may be considered an important group where the two dimensions of perfectionism may potentially play an active role. This raises the idea that, based on the reinforcement of behaviors, thoughts and beliefs, positive (healthy) and negative (unhealthy) perfectionism potentially may evolve in different directions. Thus, both positive and negative perfectionism may coexist at different levels within

different and relevant domains. On the other hand, perfectionism (both positive and negative) may be fairly constant across domains. Given the speculative nature of this 'domain specificity' concept, it is not clear the extent to which we may be able to characterize and distinguish individuals based on levels of perfectionism (either NP or PP) within or across broad domains.

Thus, the main aim was to determine if PP and NP differed across domains in university students. Furthermore, as it has been suggested that men and women have different experiences of perfectionism in different domains (Slaney & Ashby, 1996), a second aim was to explore if perfectionism differed by gender within domains. The present study, therefore, considered five broad domains or areas of life in men and women, in the hope of clarifying the global or domain specific nature of perfectionism, with domains encompassing university/work, relationships (interpersonal aspect), physical activity/sport, domestic environment and appearance. In relation to possible differences across domains, it was hypothesized that university students would report higher perfectionism in the 'university studies/work' domain than any other domain. Further *a priori* hypotheses were not proposed, specifically in relation to type of perfectionism and gender differences, as this was to be explored through the analysis.

2. Method

2.1. Participants

The sample consisted of 144 university students (females $n = 101$; males $n = 43$) from undergraduate psychology university courses (student athletes were excluded). The M_{age} for females was 20.08 ($SD = \pm 4.23$) and for males was 21.49 ($SD = \pm 4.67$).

2.2. Measures

2.2.1. Domains

Five domains or areas of life were assessed; university/work, relationships, physical activity, domestic environment and appearance. Domains covered broad areas or aspects of an individual's life, as perfectionism may potentially influence one domain more than another. Perfectionism scores were determined in each domain and for each gender.

2.2.2. Positive and negative perfectionism

A shortened form of the Positive and Negative Perfectionism Scale (PANPS; Terry-Short et al., 1995) was used to assess positive and negative perfectionism in each of the five domains. Factor and discriminant validity has been demonstrated in the original PANPS (Terry-Short et al., 1995), while acceptable internal factor structure has been reported in university students (Chan & Owens, 2006; Haase, Prapavessis, & Owens, 1999). A shortened measure was deemed necessary due to the specificity of some original items and length of the original measure (time required for a 200-item measure – 40 items \times 5 domains). Although a short version of PANPS is available for athletes (Haase, Prapavessis, & Owens, 2002), no such shortened version exists for non-athlete populations. Even if the short version was used, 19 items over 5 domains would demand substantial completion time and increased participant burden. Hence, items from the original 40-item PANPS were selected based on ability of each item to apply to each of the five domains.

The reduced PANPS (PANPS-13) is a 13-item self-report measure where participants respond to six positive perfectionism (PP) items and seven negative perfectionism (NP) items on a 5-point Likert type scale with anchors of *strongly disagree* (1) to *strongly agree* (5). Numerical values are summed to produce a PP

score (range of 6–30) and an NP score (range of 7–35). Adopting similar procedures to Dunn et al. (2005), five versions corresponding to each of the five domains were developed with short phrases relating to each domain appended to the end of the items; for instance to assess participants' perfectionism in school/university and/or work domain (version one), a short phrase was added at the end of the item (e.g., 'I feel guilty or ashamed if I do less than perfectly with my studies/work'), while version two and three assessed perfectionism in relationships/friendships and physical activity/sport. Version four assessed perfectionism in domestic environment/home/flat/room, while version five determined perfectionism in appearance/looks/clothes. Three independent raters assessed and agreed upon the item content to ensure wording was relevant in each domain. Unclear wording was rephrased to improve relevance and readability. In this study, Cronbach's α values for PP and NP across all domains were 0.74 and 0.77, respectively.

2.3. Procedure

The study was approved through the university ethics committee and adheres to the Code of Ethics of the World Medical Association (Declaration of Helsinki). The perfectionism and demographic measures were distributed to students in undergraduate psychology courses. All participants were informed that questionnaire completion was voluntary and anonymous. The completed questionnaires were returned directly to the investigator or after class to a labeled, locked drop-box. Questionnaire items were rearranged for each domain, and domain order was rearranged to reduce occurrence of response set scenarios (i.e., avoid individuals responding similarly if items are in the same order for each domain). The overall response rate was 73%.

2.4. Data analysis

To determine correlations between PP and NP within and across domains, bivariate correlation analyses were conducted. Based on variability between PP and NP and the distinction described above, separate repeated analyses of variance were conducted for each type of perfectionism. As recorded observations for each domain may not be independent (Weinfurt, 2000), repeated measures analysis of variance was employed using a mixed-model 2×5 design (gender by domains) to compare differences by gender and across the five domains. Post hoc comparisons were adjusted using Bonferroni criterion. Multisample sphericity (how equal variances are at each level) is required for repeated measures analysis, although difficult to achieve with more than two levels of the within-subjects variable (five domains). The degree of sphericity was assessed with the epsilon value (ϵ), where the sphericity assumption is met if the $\epsilon > .90$ (Weinfurt, 2000). Thus, possible differences in perfectionism across domains and gender were to be explored.

3. Results

Descriptive statistics and correlations of positive perfectionism (PP) and negative perfectionism (NP) for all five domains for males and females are presented in Table 1. Firstly, we examined the bivariate correlations between PP and NP within domains in the overall sample. Correlations ranged from low to moderate, for example the correlation between PP and NP in the university/work domain was $r = 0.29$. The correlations between PP and NP in the other domains were as follows; relationship domain, $r = 0.46$; physical activity domain, $r = .53$; domestic environment domain, $r = 0.46$; and appearance domain, $r = 0.47$.

Secondly bivariate correlations were examined across domains for the overall sample (ranging from $r = 0.03$ to 0.53 ; 10×10 matrix available upon request). Correlations for PP across domains were small to medium, ranging from $r = 0.08$ to 0.46 , while correlations for NP across domains were broadly medium in range ($r = 0.29$ – 0.53). Bivariate correlations by gender (shown in Table 1) showed similar variation from very small to medium correlations, but the pattern of correlations differed in males and females. For instance, NP in the university/work domain and in the domestic environment domain was moderately correlated at $r = 0.28$ in males, but in females the correlation was much larger at $r = 0.51$.

To assess the relationship of PP and NP across individuals, repeated measure analyses using 2 (gender) \times 5 (domains) mixed-model ANOVA examined the effects of domain and gender on PP and on NP. The assumption of sphericity was met (PP: Greenhouse–Geisser $\epsilon = .91$; Huynh–Feldt $\epsilon = .95$; NP: Greenhouse–Geisser $\epsilon = .92$; Huynh–Feldt $\epsilon = .95$), and, despite gender sample size differences, the assumption of homogeneity of variances (Levene's test) was upheld across all domains ($p > .05$), subsequently comparisons were conducted.

For PP, significant multivariate test statistics were found for domains, Wilks' $\Lambda = .60$, ($F(4, 133) = 22.36$, $p < .001$, $\eta^2 = .40$) and for domain by gender, Wilks' $\Lambda = .82$, ($F(4, 133) = 7.33$, $p < .001$, $\eta^2 = .18$). Follow-up univariate F -tests (using Huynh–Feldt ϵ sphericity correction) showed a significant within-subject simple effect for domains, ($F(3.79, 120.31) = 14.93$, $p < .001$, $\eta^2 = .10$), with significant differences between all five domains for PP. Examining comparisons, the university/work domain for PP was significantly higher ($p < .001$) than the others (relationship, physical activity, domestic environment and appearance). Follow-up univariate F -tests also showed a significant within-subject interaction effect for domains by gender, ($F(3.79, 62.84) = 7.80$, $p < .001$, $\eta^2 = .05$), where significant differences were reported between males and females on the university/work domain and the physical activity domain for PP. Females reported greater PP than males in the university work domain ($F(4, 136) = 4.76$, $p = .03$, $\eta^2 = .03$), while PP was higher in males for the physical activity domain ($F(4, 136) = 14.85$, $p < .001$, $\eta^2 = .10$).

A significant simple multivariate interaction effect for domain by gender was found (males: Wilks' $\Lambda = .86$, ($F(4, 133) = 5.43$, $p < .001$, $\eta^2 = .14$); females: Wilks' $\Lambda = .47$, ($F(4, 133) = 37.13$, $p < .001$, $\eta^2 = .53$), suggesting a differential pattern of salient domains depending upon gender. Comparisons revealed that there were significant differences ($p < .001$) between domains within each gender. In males, the university/work domain was significantly higher ($p < .01$) than three other domains (relationship; domestic environment; and appearance), with no differences between the university/work and physical activity domains. In females, the university/work domain was significantly higher ($p < .001$) than all other domains. For PP, the relationship ($p = .004$), domestic environment ($p = .008$) and appearance domains ($p = .03$) were significantly higher than the physical activity domain.

For NP, significant multivariate test statistics were found for domains, Wilks' $\Lambda = .72$, ($F(4, 133) = 12.94$, $p < .001$, $\eta^2 = .28$). Follow-up univariate F -tests (Huynh–Feldt ϵ sphericity correction) showed a significant within-subject simple effect for domains, ($F(3.81, 124.65) = 10.52$, $p < .001$, $\eta^2 = .07$), with significant differences reported between all five domains for NP. Examining comparisons, NP within the university/work domain was significantly higher ($p < .001$) than NP in the other domains (relationship, physical activity, domestic environment and appearance). Small but significant multivariate test statistics were found for domain by gender, Wilks' $\Lambda = .91$, ($F(4, 133) = 3.29$, $p = .01$, $\eta^2 = .09$), yet when examining comparisons, no differences between NP domains were found for males. In females, NP within the university domain was

Table 1
Summary of correlations, means and standard deviations for scores on positive perfectionism and negative perfectionism within and between the five domains for male and female university students.

Measure	1	2	3	4	5	6	7	8	9	10	M	SD
1. University NP	–	.20*	.53*	.13	.42*	.14	.51*	.08	.46*	.12	18.70	4.16
2. University PP	.42*	–	.08	.34*	.20	.27*	.23*	.41*	.18	.40*	19.31	2.50
3. Relationship NP	.45*	.12	–	.37*	.24*	.00	.49*	.02	.37*	.01	15.93	4.31
4. Relationship PP	.35*	.32*	.63*	–	.10	.07	.04	.17	.08	.30*	16.93	2.72
5. Physical activity NP	.49*	.24	.23	.24	–	.45*	.37*	.28*	.56*	.32*	15.49	3.78
6. Physical activity PP	.52*	.44*	.08	.20	.61*	–	.13	.21*	.18	.25	15.40	3.35
7. Domestic environment NP	.28	.03	.65*	.63*	.43*	.03	–	.40*	.36*	.15	15.49	4.56
8. Domestic environment PP	.35*	.26	.26	.55*	.46*	.18	.60*	–	.14	.49*	16.94	3.69
9. Appearance NP	.08	–.15	.58*	.39*	.36*	.03	.61*	.36*	–	.42*	16.96	4.86
10. Appearance PP	.09	.04	.52*	.51*	.21	.17	.53*	.38*	.58*	–	16.79	3.82
M	17.56	18.24	15.88	16.39	16.78	17.80	15.54	16.07	16.20	16.15		
SD	4.49	2.89	4.88	3.08	4.06	3.33	4.23	3.74	4.96	3.62		

Note: Intercorrelations for females ($n = 101$) are presented above the diagonal, and intercorrelations for males ($n = 43$) are presented below the diagonal. Means and standard deviations for females are presented in the vertical columns, and means and standard deviations for males are presented in the horizontal rows. NP = negative perfectionism; PP = positive perfectionism.

* $p < .05$.

significantly higher than all other domains (p 's $< .01$), and NP in the appearance domain was significantly higher than the physical activity domain ($p = .02$).

4. Discussion

This study provides preliminary, albeit indirect, evidence for domain specificity of perfectionism, as university students reported differences for both positive perfectionism (PP) and negative perfectionism (NP) across all five domains, with differential patterns by gender. Across individuals, females reported greater PP in the university domain compared to all other domains, as well as reporting more PP in the relationship, domestic environment and appearance domains as compared to the physical activity domain (i.e., PP being lowest in the physical activity domain for females). However, males reported higher PP scores in the physical activity domain. NP in the university domain was higher as compared to other domains, yet within genders, females reported higher NP scores in the university domain, while males had similar NP levels across all domains. Furthermore, females reported greater NP in the appearance domain as compared to the physical activity domain. The correlational analyses highlight variability in the relationships between PP and NP, where some domains are more intercorrelated and others are completely unrelated, and that patterns of correlations differ by gender. For instance, PP in the university domain is moderately correlated with PP in the appearance domain in females ($r = .40$), while in males this correlation is very small ($r = .04$). These findings, in combination with the repeated measures results, suggest a domain specific orientation to perfectionism with differential levels of NP and PP within domains or perhaps unique domain-perfectionism profiles, presenting a complex picture of interrelationships of PP and NP in these broader domains and between men and women.

Similar to qualitative findings on perfectionism (Slaney & Ashby, 1996), overall, university students demonstrated moderate levels of both NP and PP in all domains. Closer examination revealed that NP and PP within the university/work domain was higher than all other domains, particularly in females. Thus it may be considered that not only are female university students experiencing the drive to succeed, they also are trying to avoid failure at their university studies. This raises questions concerning the underlying motivations for this combination of aiming to succeed and yet attempting to avoid failure based on the reinforcement of particular perfectionistic behaviors (Slade & Owens, 1998). Within this domain, as might be expected, university women have high

expectations, yet it seems perfectionism has not yet reached more extreme levels which could be associated with more detrimental outcomes (i.e., greater mental health problems). However, compared to other studies using comparable measures, perfectionism reported by this sample is consistent with similar populations (Haase et al., 2002; Terry-Short et al., 1995).

Differences between domains and variability in correlations suggest PP and NP are perhaps more domain specific rather than a universal trait overarching domains, as well as contributing additional support for perfectionistic tendencies to be present only in selected domains of worth to the individual (Stoeber & Stoeber, 2009). The presence of differential patterns of perfectionism with variation between men and women supports current dual concept and 2×2 dimensional models (Gaudreau & Thompson, 2010; Stoeber & Otto, 2006) as well as differential reinforcement of perfectionistic behaviours (Owens & Slade, 2008). Alternatively, similar to specific traits underlying conscientiousness (e.g., orderliness, industriousness, self-control (Roberts, Lejuez, Krueger, Richards, & Hill, 2012)), perfectionistic behaviors within specific domains (i.e., lower order structures) could also underpin a more global perfectionism construct as a larger domain, although the extent of variation in correlations within the present study may not fully support this view. However, within this study, particularly within women, avoidance of failure in academic pursuits and appearance drives the behavior to ensure perfection (NP) within these domains, yet aiming and striving to succeed (PP) within the university domain also co-exists alongside unhealthy perfectionism. Thus, consistent with previous work (Slaney & Ashby, 1996) and to some degree dependent upon gender, perfectionists, thus, may experience perfectionism within only one or a few domains (e.g., high NP at work, yet high PP in relationships and physical activity) and the type of perfectionism present may differ based on domain relevance.

The perceived importance of being absolutely perfect in one domain may influence levels of positive or negative perfectionism in any other specific domains (Stoeber & Stoeber, 2009). In addition, perceived importance, attributed self-worth and competence at tasks within one domain may be associated with or explain whether one experiences greater PP or NP within that specific domain (McArdle, 2010). Furthermore, perfectionism within one domain may extend to other domains, depending upon how and if individuals attribute self-worth to one or many domains. For example, females reported greater NP in the appearance domain (i.e., maintaining unrealistic expectations of needing to appear perfect), and greater NP in the university/work domain, suggesting that these domains may be considered more relevant in this

sample, and the negative impact of perfectionism within these domains may be linked to more pathological outcomes (i.e., eating problems and appearance concerns in women). Hence, perfectionism in particular domains may be of relevance, where treatment could be targeted to address the detrimental perfectionistic behavior (Shafran, Cooper, & Fairburn, 2002). Future research could focus on the perceived importance of perfectionism in specific domains and in different populations (e.g., clinical patients) and psychopathologies.

Further psychometric work would ensure item stability and consistency for the reduced PANPS measure, as this would enhance the robustness of a broad domain relative measure applicable to wider populations and situations. Other perfectionism measures have been applied only within specific domains or been validated on populations where measured domains are most salient (e.g., Dunn et al., 2005). As this study used one approach to perfectionism, comparison and replication using other more 'context-free' perfectionism measures (perfectionistic strivings, perfectionistic concerns) may allow for exploration of the interaction of perfectionism dimensions (general and domain-specific) across domains. There may also be predictive usefulness in identifying and comparing domain profiles (i.e., similarities) across demographic variables and across populations, measuring domains within particular populations, and as such identifying which differential scores of perfectionism or perfectionism domain profiles are better predictors of a particular outcome. For instance, within employment contexts, perfectionism within the work domain may highlight those at risk for burnout (e.g., high NP, lower PP). Exploring individual level difference variables across domains could also highlight differences between how perfectionistic individuals are at their studies versus keeping their living environment clean and organized.

5. Conclusion

Our findings broadly support the idea of domain-specificity in perfectionism, and that defining domains more generally may be more encompassing and straightforward for interpretation. Using domains similar to Slaney and Ashby's (1996) study provided more over-arching and broader contexts, as well as allowing for easier delivery and less participant burden. Depending on gender, some domains are more salient than others and hence this idea has the potential for comparisons to be extended to other populations (i.e., clinical patients, athletes). Although these preliminary differences have been determined through quantitative assessment, exploration of the presence and development of perfectionism will provide greater clarity on the influence and management of perfectionism within specific domains.

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