The Relationship of Multidimensional Perfectionism to Psychological Birth Order

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Abstract

This study was designed to investigate the relationship between perfectionism and psychological birth order. The results of the study suggest that psychological birth order position characteristics of adaptive, maladaptive, and nonperfectionists significantly differ. Specifically, maladaptive perfectionists and nonperfectionists had significantly higher middle-child birth-order means. Additionally, nonperfectionists had significantly higher psychological youngest child birth-order means than maladaptive perfectionists.

Striving for perfection is central to the theory of Individual Psychology (Ansbacher & Ansbacher, 1956). Lazarsfeld (1991) noted that, for Adlerian psychologists, the pursuit of perfectionistic standards is "a healthy and necessary attribute as long as it manifests itself within the range of common sense and with social interest" (p. 93). In contrast to this healthy striving for perfection, Adler (as cited in Ansbacher & Ansbacher, 1956) identified an unhealthy or neurotic perfectionistic striving: "The neurotic with his striving for personal superiority . . . that is all too strongly dissociated with social interest . . . lives as though he were in enemy country" (p. 294).

Recent empirical research has supported an Adlerian conceptualization of healthy and unhealthy types of perfectionism. For instance, Frost, Heimberg, Holt, Mattia, and Neubauer (1993) conducted a principal components factor analysis using two multidimensional perfectionism measures and identified two factors underlying these measures. The authors found that the factors seemed to represent positive dimensions of perfectionism they labeled positive striving and negative dimensions they labeled maladaptive evaluation concerns. In a similar analysis using three measures of multidimensional perfectionism, Slaney, Ashby, and Trippi (1995) found two underlying factors representing what they labeled adaptive perfectionism and maladaptive perfectionism. Rice, Ashby, and Slaney (1998) used confirmatory factor analysis to replicate and extend these earlier studies and found evidence for factors representing Adler's (as cited in Ansbacher & Ansbacher, 1956) conception of adaptive or healthy and maladaptive or unhealthy perfectionism.

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Lazarsfeld (1991), summarizing the Adlerian literature on perfectionism, noted the importance of understanding "the difference between the sound striving for perfection and the neurotic wanting to be perfect. The first is a useful realistic attitude; the second involves the neurotic tendency to withdraw from reality, in as much as perfection per se is not within human reach" (p. 93). Recent investigations of perfectionism and Individual Psychology have supported Lazarsfeld's contention. For instance, Ashby and Kottman (1996) found that identified maladaptive perfectionists had significantly higher levels of inferiority than adaptive perfectionists. Ashby and Kottman (2002) found that maladaptive perfectionists had significantly higher mean subscale scores on a measure of personality priority than adaptive perfectionists. Specifically, they found that maladaptive perfectionists scored higher on the Outdoing and Detaching personality priority scales. Adler (as cited in Ansbacher & Ansbacher, 1956) contended that the origins of lifestyle differences such as those found between adaptive and maladaptive perfectionists lie chiefly in the perceptions an individual holds of his or her family atmosphere and birth order position.

Birth order is widely recognized in Individual Psychology as a determinant of personality (e.g., Ansbacher & Ansbacher, 1956; Shulman & Mosak, 1977; Toman, 1959). Manaster (1977) summarized the construct of birth order as follows:

> The assumption is that particular birth order positions have in common presses or demands which influence the child's view of his or her position in the family, and increase the likelihood of the child developing attitudes and styles of behavior in correspondence with his or her perceived position. (p. 4)

Adler (as cited in Ansbacher & Ansbacher, 1956) identified four patterns or styles, associated with those who are firstborn, middleborn, youngest, and or born and reared as only children. Numerous authors have described these four birth order classifications. Firstborns often strive for perfection and have a need to please adults (White, Campbell, Stewart, Davies, & Pilkington, 1997). They feel responsible for the welfare of others (Ansbacher & Ansbacher, 1956) and have a strong need for achievement (Phillips, Bedeian, Mossholder, & Touliatos, 1988). Firstborns also respect the position of authority and the importance of rules (Ansbacher & Ansbacher, 1956; Shulman & Mosak, 1977). Middle children may feel squeezed between the firstborn and the youngest child. They see themselves as surrounded by competitors (Shulman & Mosak). Middle children might become the peacemakers or the arbitrators to help others achieve justice. The youngest child is the baby of the family. Youngest children have many competitors and often overcome them all. At times, the youngest may experience extreme feelings of inferiority (Ansbacher & Ansbacher). The only child is accustomed to being the center of attention.

More often than not, he or she lives in an atmosphere of parental anxiety (Ansbacher & Ansbacher; Ferguson, 1984). Shulman and Mosak noted that birth order position "leaves an imprint which is often recognizable in adult life; it affects adult personality" (p. 114).

From the beginning, Adler (as cited in Ansbacher & Ansbacher, 1956) clarified that it is not the actual order of birth, but the child's interpretation of his or her perceived situation that is the most important factor. To operationalize the construct of birth order in a manner that most closely resembled Adler's conceptualization, several researchers have used perceived or psychological birth order in their investigations. Psychological birth order is generally defined as the way a person perceives and interprets his or her position in the family constellation (Campbell, White & Stewart, 1991; Greene & Clark, 1970). Measuring psychological birth order, researchers have found several theoretically consistent results. Investigating psychological birth order and achievement, Melillo (1983) found a significantly greater representation of only children and firstborns within the population of women with doctorates. Lohman, Lohman and Christensen (1985) found that, more often than other birth positions, psychological firstborns rated themselves higher than their siblings on standards of behavior, right and wrong, and achievement oriented work ethic.

Most recently, a group of researchers have developed and used the Psychological Birth Order Inventory (PBOI; Campbell et al., 1991). The PBOI is designed to measure a person's perceived birth order position, which may or may not be a person's ordinal birth position. Campbell et al. found evidence for the reliability and validity of the PBOI's measurement of oldest, middle, youngest, and only psychological birth order positions. White, Campbell, and Stewart (1995) found significant relationships between lifestyle themes and psychological birth order. In addition, their analysis supported a stronger relationship between psychological birth order and lifestyle than actual birth order position and lifestyle. Subsequent research has indicated that psychological birth order, as measured by the PBOI, is significantly related to coping resources (Pilkington, White, & Matheny, 1997) and career interests (White et al., 1997).

Despite the documented connection between psychological birth order and lifestyle characteristics, including perfectionism, we could not identify any empirical investigations of the two constructs. This study was designed to investigate the theoretical connection between perfectionism and psychological birth order. Based on the theoretical descriptions of psychological birth order positions (e.g., Adler as cited in Ansbacher & Ansbacher, 1956; Ferguson, 1984; Shulman & Mosak, 1977) and the theoretical and empirical work on multidimensional perfectionism (e.g., Adler as cited in Ansbacher & Ansbacher, 1956; Ashby & Kottman, 1996; Slaney & Ashby, 1996), we posed

the following research question: Do adaptive perfectionists, maladaptive perfectionists, and nonperfectionists differ significantly from one another on a measure of psychological birth order?

Method

Participants. One hundred thirty-six undergraduate college students participated in this study. Participants were recruited from an undergraduate psychology course from a university in the midwestern United States. The sample consisted of 92 (68%) women and 44 (32%) men; the sample was predominantly Caucasian (95%) with small representations of African American (3%) and Asian American (2%) students. The mean age of the sample was 21 years (minimum 18, maximum 51, $SD = 4.80$).

Measuring perfectionism. The Almost Perfect Scale—Revised (APSR; Slaney, Rice, Mobley, Trippi, & Ashby, 2001) contains 23 items designed to measure adaptive and maladaptive dimensions of perfectionism. Participants respond to the items using a 7-point Likert scale from 1 (Strongly Disagree) to 7 (Strongly Agree). The inventory has three subscales: Standards (7 items measuring personal standards), Order (4 items measuring organization and need for order), and Discrepancy (12 items measuring the respondent's distress caused by the discrepancy between performance and standards). Slaney, Rice, and Ashby (2002) described a series of confirmatory factor analyses that provide support for a factor structure consistent with the scales. Validity has been supported by a confirmatory factor analysis with a goodness of fit index of .92. In two separate studies with undergraduate student samples of 600 and 260, factor loadings for the items ranged from .49 to .86 and .50 to .86, respectively. Slaney et al. also provided support for the convergent and divergent validity of the subscales. Reliability was calculated using Cronbach's coefficient alphas for Standards (.85), Discrepancy (.92), and Order (.68). Internal consistency reliabilities for this sample were .91 (Standards), .96 (Discrepancy), and .70 (Order). Because the Order subscale is not used in identifying perfectionists and nonperfectionists, it was not included in this study.

Measuring Psychological Birth Order. The PBOI (Campbell et al., 1991) is a 40-item instrument made up of four factors representing the psychological birth order positions of first, middle, youngest, and only child. Campbell et al. provided the following descriptions of each factor. The oldest child scale measures feeling important, powerful, and striving to achieve. The middle child scale measures respondents' reporting of feeling squeezed, unimportant, and pressured from competition. The youngest child scale consists of items that allow respondents to report feeling pampered and

searching for significance. The only child scale items pertain to being the center of attention and feeling anxious about pressure to achieve.

Campbell et al. (1991) reported that the four factors accounted for 30.7% of the variance and provided the most interpretable latent structure to account for item intercorrelations. In a study using a sample of 1448 undergraduate and graduate students, Stewart and Campbell (1998) described a series of factor analyses that supported the validity of the PBOI. The authors indicated that, with one exception, all of the items had loadings greater than .3, "with most falling in the .4 to .6 range" and "none of the off-scale items correlated with any factor greater than .18" (p. 49). Stewart and Campbell reported internal consistency reliabilities (Cronbach's coefficient alphas) of .63 (First), .84 (Middle), .51 (Youngest), and .72 (Only) for women and .61 (First), .77 (Middle), .55 (Youngest), and .63 (Only) for men. These authors also reported three-week test-retest reliability coefficients for women of .89 (First), .93 (Middle), .90 (Youngest), and .91 (Only). White et al. (1997) reported that this four-factor solution yielded the most interpretable scale structure.

Procedure. Participants received a packet containing a demographic sheet, the APSR, the PBOI, and an informed consent form. All participants volunteered, and some received extra academic credit for their participation. The instruments were self-report measures that participants completed individually, either during class time or outside of class.

Results

Data were initially analyzed by computing Pearson correlation coefficients. The results of this analysis show that the APSR Standards scale was positively correlated with the PBOI First scale ($r = .31$, $p < .01$) and the APSR Discrepancy scale was positively correlated with the PBOI Middle ($r = .22$, $p < .05$) and Only ($r = .22$, $p < .05$) scales. Correlation coefficients for all of the scale relationships are presented in Table 1.

Consistently with other studies investigating multidimensional perfectionism (Ashby, Bieschke, & Slaney, 1997; Ashby & Kottman, 1996; Ashby & Kottman, 2002), we used the APSR to identify adaptive perfectionists, maladaptive perfectionists, and nonperfectionists. Participants were classified as adaptive perfectionists if their APSR Standards subscale scores were above the 66th percentile (in the top third of the sample) and his or her Discrepancy subscale score on the APSR was below the 50th percentile (in the bottom half of sample). Maladaptive perfectionists were identified as those whose APSR Standards subscale scores were above the 66th percentile (in the top third of the sample) and whose Discrepancy subscale scores on the APSR were

Table 1
Intercorrelations Between Almost Perfect Scale—Revised Subscales and Psychological Birth Order Inventory Subscales

Subscale	APSR Standards	APSR Discrepancy	PBOI First-born	PBOI Middle	PBOI Youngest	PBOI Only
APSR Standards	1.00	0.10	0.31**	–0.14	–0.15	0.08
APSR Discrepancy		1.00	0.11	0.22*	–0.16	0.22*
PBOI First-born			1.00	–0.08	0.20*	0.16
PBOI Middle				1.00	–0.20*	0.40**
PBOI Youngest					1.00	–0.09
PBOI Only						1.00

Note. $^{*}p < .05$. $^{**}p < .01$.

above the 50th percentile (in the top half of sample). Each participant scoring below the 66th percentile on the APSR Standards scale was classified as a nonperfectionist. This categorization process yielded 23 adaptive perfectionists (17%), 24 maladaptive perfectionists (18%), and 89 nonperfectionists (65%).

Data were subsequently analyzed using a one-way MANOVA. The between-subjects factor was perfectionism (adaptive perfectionist, maladaptive perfectionist, and nonperfectionist). The dependent variables were the subscales of the PBOI (first, middle, youngest, and only). Stevens (1996) recommended following significant overall multivariate results with pairwise multivariate tests to find which groups significantly differ from each other on the dependent variables. Stevens also noted that an alpha of .05 is sufficient for this first step, but that experimentwise alpha should be set at .15 to maintain adequate power and to keep some degree of control over alpha. Thus, for the three pairwise analyses in this study, alpha was adjusted to .05 by dividing .15 by 3. Significant pairwise multivariate tests (Hotellings T^2) were then followed by four independent variable tests using Tukey's procedure. These tests were conducted at alpha .0375 (computed by dividing .15 by 4). The means and standard deviations for the dependent variables appear in Table 2.

The one-way multivariate test for perfectionism was significant, Pillai-Barlett trace (8, 262) = 3.314, $p = .001$. All three subsequent multivariate

Table 2
Means and Standard Deviations for PBOI Subscales by Perfectionism Group

	Psychological Birth Order Inventory Subscales			
Perfectionism Group	First-born *M (SD)*	Middle *M (SD)*	Youngest *M (SD)*	Only *M (SD)*
Adaptive Perfectionists	50.35 (8.67)	43.63 (5.18)	47.09 (7.76)	43.62 (7.57)
Maladaptive Perfectionists	52.43 (8.92)	50.61 (8.23)	43.95 (7.16)	48.73 (10.02)
Non-Perfectionists	48.20 (8.87)	48.70 (9.41)	49.32 (8.85)	44.49 (9.72)

t-tests were significant at $p < .0375$: adaptive perfectionists vs. maladaptive perfectionists ($T^2 = 49.88$, $p = .001$), adaptive perfectionists vs. non-perfectionists ($T^2 = 11.00$, $p = .016$), and maladaptive vs. nonperfectionists ($T^2 = 31.81$, $p = .007$).

Tukey's procedure followed the Hotelling's T^2 procedure to examine differences between these groups on the individual dependent variables. Stevens (1996) contended that Tukey's follow up procedure affords better protection against Type I error. Critical values for significance were adjusted for unequal group sizes. Tukey's procedure yielded the following significant differences. Higher psychological middle child birth-order scores were observed for the maladaptive perfectionists and nonperfectionists when compared to the adaptive group, $F(1, 45) = 11.972$, $p = .001$ and $F(1, 111) = 5.940$, $p = .016$, respectively. Higher psychological youngest child birth-order scores were observed for nonperfectionists when compared to the maladaptive perfectionists group ($F(1, 112) = 7.635$, $p = .007$).

Discussion

The purpose of this study was to investigate the association between multidimensional perfectionism and psychological birth order. Consistent with the theoretical literature that links psychological birth order with life-style variables including perfectionism (e.g., Ansbacher & Ansbacher, 1956; Ferguson, 1984; Shulman & Mosak, 1977), our results suggest that adaptive

perfectionists, maladaptive perfectionists, and nonperfectionists differ significantly from one another on psychological birth order characteristics.

The results indicated that adaptive perfectionists exhibited fewer characteristics attributed to psychologically middle children (e.g., feeling less important than siblings) than maladaptive perfectionists or nonperfectionists. This finding is consistent with research suggesting that adaptive perfectionism contributes to self-esteem and feelings of worth (Ashby & Rice, 2002), that adaptive perfectionists have lower levels of inferiority than maladaptive perfectionists (Ashby & Kottman, 1996), and that adaptive perfectionists have significantly higher levels of Achieving personality priority than nonperfectionists (Ashby & Kottman, 2002). This result is also consistent with Adler's (as cited in Ansbacher & Ansbacher, 1956) contention that the adaptive perfectionist successfully finds belonging and significance by the healthy pursuit of perfection.

Our results also indicated that adaptive and maladaptive perfectionists exhibited fewer characteristics attributed to psychologically youngest children (e.g., having others do for them) than nonperfectionists. This finding is consistent with research suggesting that both adaptive and maladaptive perfectionists experienced home environments of high parental expectations (Slaney & Ashby, 1996). Ashby and Kottman's (2002) finding of the primary personality priorities of adaptive perfectionists (Achieving) and maladaptive perfectionists (Achieving and Outdoing) suggests that these individuals might have less of a tendency to need "pampering," caretaking, or other characteristics associated with the psychologically youngest child (Campbell et al., 1991) than nonperfectionists.

The nonsignificant findings for the oldest and only child scales among adaptive, maladaptive, and nonperfectionists were somewhat surprising. We had hypothesized that perfectionists would exhibit more oldest child characteristics (e.g., feeling powerful, important). One possible explanation for this nonsignificant finding is related to what Campbell et al. (1991) identified as the *dethroning* the oldest child eventually experiences. It is possible that perfectionists do not allow themselves to be dethroned and continue to strive and achieve no matter what the cost (Blatt, 1995).

In summary, the findings of this study support Adler's contention that individuals' perceptions of their positions in their families are associated with personal characteristics, specifically perfectionism. These findings also offer evidence consistent with Adler's original and Hamachek's (1978) subsequent conceptualization of two types of perfectionists. Future research might focus on the relationship of perfectionism to other Adlerian constructs (e.g., family atmosphere). These data do suggest that clinicians working with perfectionists may want to consider the effects of psychological birth order on the type of perfectionism (adaptive or maladaptive) exhibited by clients.

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