

**DOES GOAL SETTING HAVE A DARK SIDE?  
THE RELATIONSHIP BETWEEN PERFECTIONISM  
AND MAXIMUM VERSUS TYPICAL  
EMPLOYEE PERFORMANCE**

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**ABSTRACT:** *A possible “dark side” of goal setting, namely perfectionism and its relationship with employee performance, was investigated. A study of police officers (n = 235) revealed that perfectionists’ predisposition to (1) set goals that they perceive to be extremely high, and (2) base evaluations of self-worth on the attainment of those goals were positively related to maximum performance, namely promotional exam scores. The mediating variable was perceived effort. In the second study involving police officers (n = 242), however, perfectionism displayed a complex relationship with typical performance. The two dimensions of perfectionism, perceived high goals and contingent self-worth, were negative predictors of this criterion through their relationship with emotional exhaustion. Nevertheless, the goal difficulty dimension was a positive predictor of typical performance.*

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*True perfection only exists in obituaries and eulogies.*

—Pacht (1984, 388)

The beneficial effect of a specific, difficult goal, the object of purposeful individual action (Locke and Latham 1990), is emphasized in the human resource management (HRM) and public management literature. This is because a specific high goal is a

powerful cognitive motivator that increases an individual's job performance (Latham and Locke 2007) as well as, through its attainment, job satisfaction (Latham and Brown 2006). Central to goal-setting theory is that, given individual commitment to the goal, the higher the goal, the higher the performance (Locke and Latham 2002). However, many clinical psychologists, who have studied perfectionism, a trait, have held a less favorable view of self-set goals that are perceived to be very high (Ellis 1962). This is because goals perceived to be very high can cause psychological distress (Beck 1967; Hewitt and Flett 1991), and hence impair an individual's performance (Burns 1980; Frost and Marten 1990; Hollender 1965) due to the need on the part of the person who sets them for perfection.

These two seemingly conflicting perspectives stem in part from a focus on goal difficulty as a state versus a trait. Whereas HRM goal-setting researchers (e.g., Locke and Latham 1990; 2002) have focused on the benefits of setting and committing to a high yet attainable goal in work settings, researchers in clinical psychology (e.g., Beck 1967; Burns 1980; Ellis 1962; 1994; 2002) have focused on the detrimental effect of perfectionists repeatedly setting and rigidly committing to goals that they perceive to be extremely high. The two different research camps have also focused on different levels of goal importance. While HRM researchers have stressed that high goal importance, as a state, fosters goal commitment, a boundary condition for goal-setting effectiveness in the workplace (Locke and Latham 1990; 2002), clinical psychologists have focused on the effect on an individual of placing *excessive* importance on goal attainment, so much so that striving to do so becomes self-defeating because it is tied to a person's self-worth (Burns 1980; Ellis 1962). To date, this research on perfectionism has been conducted largely outside of work settings.

The purpose of the present field research was two-fold. First, the relationship between perfectionism and an individual's maximum and typical performance in an organizational setting was examined. Extant research findings from the clinical and HRM literatures were drawn upon to hypothesize the relationship between perfectionism and employee performance. Second, possible mediating variables underlying the relationship between perfectionism and maximum versus typical performance were studied.

## GOAL-SETTING STUDIES IN HUMAN RESOURCE AND PUBLIC MANAGEMENT LITERATURES

Locke and Latham's (1990; 2002) goal-setting theory states that, given goal commitment, individuals who set a specific, high goal outperform those who are told to do their best, or who set no goals. The theory further states that the higher the goal, the higher the performance. This is because a specific, high goal directs attention, increases effort and persistence, and cues the use of effective task strategies (Latham and Locke 2007; Locke et al. 1981). Four decades of empirical research have demonstrated that goal-setting theory is one of, if not the most valid and practical theories of motivation in the workplace (Miner 2003; Mitchell and Daniels 2003; Pinder 2008).

Bandura's (1986; 1989; 2001) social cognitive theory too posits a central role for goals in the regulation of volitional behavior. Both this theory and goal-setting theory view goal setting as a state, and argue that a goal enhances motivation primarily by the arousal of proactive and reactive self-evaluative responses to it. Both theories also state that committing to a specific, challenging goal creates a discrepancy between a current and a desired end state. This proactive discrepancy production arouses self-dissatisfaction, which an individual is motivated to overcome (Bandura 1986; 1989; 1991; Latham and Locke 1991; Locke and Latham 1990). Self-dissatisfaction also arises in reaction to goal-directed efforts that fall short of a given standard. Bandura (1989; 1991) argued that proactive and reactive responses work together to produce a continuous, cognitive comparison process that underlies human motivation.

Among the moderating variables in goal-setting theory are ability and commitment. Latham and Locke (2006) have acknowledged a possible "dark side" to goal setting, namely committing to a level of goal difficulty that exceeds a person's ability. Goal-setting theory states that setting and committing to a goal becomes ineffective when the upper limits of cognitive and/or physical ability are reached (Latham 2007; Latham and Locke 2006). Social cognitive theory also states that relentlessly pursuing stringent standards and "...judging one's attainments against lofty, global or distal goals...is, indeed, conducive to despondency and performance debilitation" (Bandura 1991, 274). The theory further states this is particularly true when large, negative discrepancies between self-set goals and goal attainment are perceived by individuals who feel inefficacious, but who nonetheless demand goal attainment. People who have a tendency to engage in this behavior in conjunction with basing their self-worth on goal attainment are called perfectionists. An extensive body of literature in clinical psychology has investigated this potentially "dark side" of goal setting and associated self-regulatory processes.

## GOAL-SETTING STUDIES IN THE CLINICAL PSYCHOLOGY LITERATURE

Although perfectionism has been conceptualized in myriad ways, there is relative consensus in the clinical psychology literature that perfectionism is a trait that encompasses one or more of the following behaviors: (a) a tendency to self-set goals that are unrealistically high (Beck 1967; Burns 1980; Ellis 1962; Hewitt and Flett 1991; Hollender 1965; Pacht 1984), (b) an excessive concern with avoiding mistakes (Frost et al. 1990), and (c) a tendency to base evaluations of self-worth on goal attainment (Burns 1980; DiBartolo et al. 2004; Ellis 1962; Hamachek 1978; Pacht 1984).

The extent to which findings from clinical psychology regarding the relationship between perfectionism and an individual's performance generalize to employee behavior in the workplace has yet to be investigated. That there is a paucity of research on the relationship between perfectionism and job performance is surprising given the self-regulatory processes embedded in this trait (e.g., goal setting and self-evaluative

reactions). Self-regulatory processes based on goal setting and knowledge of results have been consistently shown to positively affect an individual's performance in organizational settings (Bandura 1989; 1991; Latham 2007; Latham and Locke 1991).

Findings regarding perfectionism and individual performance in the clinical psychology literature are based largely on student and clinical patient samples (e.g., Frost and Marten 1990; Witcher et al. 2007). From the early part of the twentieth century, organizational psychologists have encouraged researchers to examine the generalizability of clinical research findings in organizational settings (e.g., Bingham 1937). Indeed, both clinical and organizational psychologists have much to learn from one another. Organizational psychology can inform clinical research and practice, and vice versa. Although efforts have been made to merge theoretical and empirical research across these two domains, further integration is needed (Latham and Heslin 2003). Research on perfectionism in organizations is important within the context of both selection and performance management because it is likely that perfectionists may perform effectively in a context requiring maximum performance due to setting goals that are excessively high for them. But doing so may be deleterious in contexts requiring typical performance.

## **PERFECTIONISM AND MAXIMUM VERSUS TYPICAL PERFORMANCE**

Cronbach (1970) defined performance as maximum or typical. Maximum performance is representative of a person's ability. It is elicited, Cronbach stated, in evaluative contexts that require intensive effort and persistence over a relatively short, defined period of time (e.g., an individual's performance on a test) and therefore typically involves the performance of a single, or a very limited, number of tasks. Hence, choice, effort, and persistence are relatively constrained under maximum as opposed to typical performance conditions (Dubois et al. 1993).

Contrary to maximum performance, Cronbach (1970) argued that typical performance is representative of what an individual does under everyday conditions. It is normally elicited in contexts that require sustained effort and persistence over an extended time period (e.g., the daily performance of one's job duties) and therefore involves performing multiple tasks that compete for an individual's attention and effort. Hence, an employee's decisions regarding choice, effort, and persistence are relatively unconstrained.<sup>1</sup>

In short, maximum and typical performance differ with respect to: (a) the number of work tasks requiring an individual's attention (i.e., few vs. many); (b) the relative duration of work tasks (i.e., short vs. long); and (c) the relative amount of information (i.e., a high vs. a low level) the individual has on: (i) which work tasks to attend to, (ii) the level of effort that is required to perform the work tasks (i.e., a high vs. a low level), and (iii) how long he or she should persist at a given level of effort required in performing the requisite work tasks.

Perfectionism may facilitate maximum job performance, but impair typical job performance for at least two reasons. First, under maximum performance

conditions, choice—the decision to engage in a particular behavior—is, as noted above, relatively constrained. Individuals are explicitly or implicitly told to focus their attention on a given task. This might be beneficial for perfectionists because their intense desire to perform exceptionally well on virtually everything removes their need to prioritize tasks (Hollender 1965). Consequently, they may benefit from the structure that an environment requiring maximum performance provides. Even a perfectionist's excessive concern with making mistakes may prove beneficial for a task that requires maximum performance because it may prompt the person to pay careful attention to task details.

However, in a typical work environment, where individuals encounter multiple, competing demands, perfectionists may have difficulty prioritizing their work tasks. Moreover, devoting careful attention to task details is neither warranted nor desirable on all work tasks, and hence may lead to inefficiency.

Second, maximum performance conditions provide a high level of information on how much effort to devote toward, and for how long to persist at, a given task (Dubois et al. 1993). Specifically, individuals are cued to exert maximum effort, and to sustain this level of effort, for the relatively short duration of the task. Setting what they perceive to be extremely high task goals and making self-evaluations contingent on goal attainment may prompt perfectionists to devote a high, sustained level of effort to attain their goal. Maintaining this level of effort and persistence is likely manageable in the short term, during the performance of a task that has a definitive beginning and end. Moreover, it is likely desirable on tasks where intense and sustained levels of effort are warranted. Since intense and sustained effort is seldom required on most work tasks, it may result in ineffectiveness in a typical work environment.

Based on this rationale, the following two hypotheses were tested:

H1: Perfectionism is positively related to maximum performance.

H2: Perfectionism is negatively related to typical performance.

### Intermediary Processes

The processes underlying the relationship between perfectionism and maximum versus typical employee performance have not been studied. Maximum and typical performance capture relatively short-term (e.g., acute) and long-term (e.g., chronic) functioning, respectively. Hence, different processes, which are acute and chronic in nature, may explain the relationship between perfectionism and maximum versus typical performance.

One psychological mechanism underlying the relationship between perfectionism and maximum job performance would appear to be effort. As noted earlier, goal-setting theory states that effort mediates the effect of setting a specific, high goal on task performance. The perceived difficulty level of a perfectionist's goal and the excessive importance placed on goal attainment likely cues the choice to exert a high level of effort on a work-related task.

H3: Effort mediates the relation between perfectionism and maximum job performance.

Perfectionism in typical performance conditions may lead to emotional exhaustion because of the number of tasks that perfectionists must manage on an on-going basis. Emotional exhaustion is a persistent, negative mental state involving “feelings of being emotionally overextended and depleted of one’s emotional resources” (Maslach 1993, 21). It is the core component of burnout (Baba, Jamal, and Tourigny 1998; Lee and Ashforth 1996; Shirom 1989), and thus is a chronic stress reaction (Sonnentag and Frese 2003; Xie and Johns 1995). Setting goals that are perceived as unrealistic across tasks and placing undue importance on the attainment of them likely acts as a chronic stressor, and hence may evoke emotional exhaustion.

Freudenberger and Richelson (1980, 13) stated that “whenever [a person’s] expectation level is dramatically opposed to reality and [that] person persists in trying to reach that expectation... a depletion of the individual’s resources, an attrition of [their] vitality, energy, and ability to function [will occur].” The conservation of resources (COR) model (Hobfoll and Freedy 1993) states that employee burnout results from the repeated failure to gain valued resources despite significant investments. Thus, the process of continually pursuing goals that are viewed as unrealistically high leads to a state of emotional exhaustion because, despite continued effort toward goal attainment, perfectionists do not experience satisfaction with goal progress. Indeed, perfectionism is shown to correlate with low goal satisfaction (e.g., Enns et al. 2001; Mor et al. 1995). In addition, research suggests that emotional exhaustion impairs typical job performance (e.g., Wright and Bonett 1997; Wright and Cropanzano 1998). Consequently, the following hypothesis was tested:

H4: Emotional exhaustion mediates the relation between perfectionism and typical job performance.

Perfectionism may also impair typical job performance through its relationship with goal disengagement. Goal disengagement, the withdrawal of effort and commitment from goals that are unattainable, is an important and desirable part of the self-regulation process. Doing so frees up resources (e.g., effort, attention) that are needed to pursue alternative goals (Maes and Karoly 2005; Wrosch, Scheier, Miller, et al. 2003). Hence, a preoccupation with unmet goals can interfere with one’s ability to engage in alternative activities (Kuhl and Helle 1986). Disengagement is important in typical performance contexts where individuals are faced with multiple task demands and must make ongoing decisions regarding which tasks to devote their effort toward, and for how long to persist at a given level of effort.

Goal disengagement is difficult when goal attainment is central to self-worth (Wrosch, Scheier, Carver, and Schulz 2003). Consequently, perfectionists devote too much effort and persist too long at tasks in an attempt to be precise in attaining their unrealistic goals (Ellis 2002). Moreover, perfectionists devote undue effort toward the performance of meaningless or minor task details and hence may spend

more time on a task than is warranted. This results in a chronic inability to meet work deadlines. Extant research provides preliminary support for the contention that perfectionists have difficulty disengaging from their goals (e.g., Brown et al. 1999; Flett, Sawatzky, and Hewitt 1995; Hewitt and Flett 2002). Hence, perfectionists are less efficient when it comes to completing ongoing work tasks.

H5: Goal disengagement mediates the relation between perfectionism and typical performance.

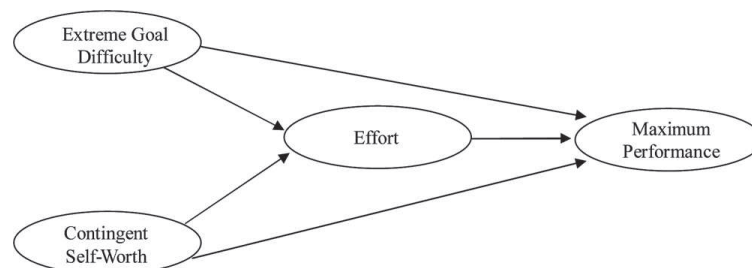
Findings from the literature on goal disengagement and psychological health suggest that individuals who fail to disengage from unattainable goals are exposed to “repeated failure experiences and their associated consequences for mind and body” (Miller and Wrosch 2007, 773). Disengaging from goals that cannot be attained, and re-engaging in realistic, alternative goals, has been shown to be an adaptive part of self-regulation that is associated with enhanced mental and physical health (Maes and Karoly 2005; Miller and Wrosch 2007; Wrosch et al. 2007). In short, the continued pursuit of a goal that has an extremely low probability of being attained can be source of chronic stress that may lead to a state of emotional exhaustion.

Hence, the present study tested the following hypothesis:

H6: Emotional exhaustion mediates the relation between goal disengagement and typical performance.

## RESEARCH OBJECTIVES

The first field study examined the relationship between the trait, perfectionism, and an employee’s maximum as opposed to typical job performance. Goal-setting theory was used as a framework for examining the psychological processes that may mediate the relationship between perfectionism and the performance criterion. Specifically, H1 and H3 were tested in this study. Figure 1 presents the full theoretical model that was tested.



**Figure 1.** Perfectionism and Maximum Performance Theoretical Model (Study 1).

## STUDY 1

### Method

#### *Context*

Police officers' performance on a promotional examination was assessed. The examination is an example of maximum performance as it represents a relatively short-duration, evaluative task. Under these job conditions, an employee's behavior regarding (a) the choice to focus on this one task, (b) the level of effort to devote to task performance, and (c) the length of time to persist at a high level of effort is relatively constrained.

#### *Participants*

Police officers ( $n=1,112$ ) in Canada who were administered the promotional exam were invited to participate in this study. In total, 235 officers agreed to do so, representing a 21% response rate. The respondent sample was comprised of 159 Constables applying to become Sergeants (68%), 48 Sergeants applying to become Staff Sergeants (20%), and 27 Staff Sergeants applying to become Inspectors (12%). The majority of respondents were male (83%) and Caucasian (85%). The only other ethnic groups to exceed 1% of the sample were native North Americans (3%), South East Asian (1.3%), and Filipino (1.3%). The mean age of the employees was 39 years. Most (77%) had completed a post-secondary degree.

Analyses revealed that the respondent sample was representative of the candidate population in terms of sex ( $z = .88, ns$ ) and examination performance ( $z = 1.89, ns$ ). Further, there were no significant differences with respect to candidate age ( $z = .10, ns$ ), ethnicity (percentage who were visible minority group members,  $z = .88, ns$ ), or education (completed high school,  $z = .94, ns$ ; completed college/university,  $z = .98, ns$ ).

#### *Procedure*

Candidates were invited to complete a Web-based survey immediately after they had taken their promotional exams. Information on the Web site informed them that: (a) any information communicated to their organization would appear in aggregate form, and (b) only researchers would have access to their responses on the questionnaire. The officers completed an informed consent form, followed by a test battery.

#### *Measures*

With the exception of promotional exam performance and the demographic variables, all measures described below were scored on a five-point Likert-type scale (1 = *strongly agree*, 5 = *strongly disagree*).



### *Perfectionism: Extreme Goal Difficulty*

Five items from the brief personal standards subscale of the Frost Multidimensional Perfectionism Scale (FMPS; Cox, Enns, and Clara 2002) were adapted for use in this study. Respondents were asked to indicate their agreement to items such as: “I set extremely high goals for myself.” Cox, Enns, and Clara (2002) reported an internal consistency reliability estimate of  $\alpha = .86$  for this subscale.

### *Perfectionism: Concern over Mistakes*

The five-item concern over mistakes subscale of the FMPS (Cox, Enns, and Clara 2002) was used to assess candidate concerns with making mistakes (e.g., “The fewer mistakes I make, the more people will respect me”). Cox, Enns, and Clara (2002) reported an internal consistency scale reliability estimate of  $\alpha = .85$ .

### *Perfectionism: Contingent Self-Worth*

The three-item success-based self-worth subscale (SBSW; Dibartolo et al. 2004) of the Contingent Self-Worth Scale was used to assess self-worth based upon goal attainment. Respondents were asked to rate their agreement with statements such as: “I normally think of myself as a worthwhile person, but when I do badly at something, I sometimes feel worthless.” Dibartolo et al. (2004) reported an internal consistency reliability estimate of  $\alpha = .71$  for this scale.

### *Effort*

The level of effort an officer devoted to the examination was assessed by responses to three items (e.g., “I tried my best on this exam”) from the motivation subscale of the Test Attitude Survey developed by Arvey et al. (1990). Internal consistency reliability estimates for the full 10-item scale range from  $\alpha = .85$  (Arvey et al. 1990) to  $\alpha = .90$  (McCarthy and Goffin 2003). The use of self-reported ratings of effort is consistent with the measurement of this construct in the motivation literature (e.g., Léon 1979; Louro, Pieters, and Zeelenberg 2007; Yeo and Neal 2004).

### *Exam Performance*

As noted earlier, written, knowledge-based exams administered to police candidates applying for a promotion are given at one of three levels: Constable to Sergeant, Sergeant to Staff Sergeant, and Staff Sergeant to Inspector. Each exam is comprised of over 100 multiple choice items that assess knowledge of role/task demands. Specifically, the examination assesses knowledge in the subject areas of: community policing, supervision/management, the Police Services Act, and law. Scaled examination scores were computed ( $M = 500$ ,  $SD = 100$ ) by the police college that administers the examination. These scores were used in the analyses to ensure

that scores were relatively comparable across the promotional exam levels. An analysis of variance revealed that there were no statistically significant differences in performance among candidates across the three exam levels.

### **Control Variables**

#### *Education*

Highly educated employees may have developed critical thinking and reasoning skills as a result of their educational experiences. This variable, rather than perfectionism, may increase performance on the examination. Hence, education was assessed and statistically controlled in the analyses on promotional exam performance.

#### *Age*

Older employees might perform better on the promotional examination because they have more job experience and more experience taking a promotional exam than younger employees. Age was therefore used as a control variable in the analyses.

#### *Exam Preparation*

The number of hours that officers studied for the exam was used as a control variable because previous research has shown that exam study behavior correlates positively with examination performance (Hacker et al. 2000).

#### *Conscientiousness and Emotional Stability*

These two personality measures were treated as control variables because they correlate positively with employee performance (Barrick and Mount 1991). Six items from each of the conscientiousness and emotional stability scales of the International Personality Inventory Pool's (IPIP) Big Five Factor markers were used to assess them. Goldberg (1999) found acceptable internal consistency reliability estimates for the conscientiousness ( $\alpha = .79$ ) and emotional stability ( $\alpha = .86$ ) scales. Further, both scales have been shown to correlate highly with the original Big Five Factor Inventory scale that they were designed to replicate (Goldberg 1999; 2006).

## **RESULTS**

### **Descriptive Statistics**

Means, standard deviations, and zero-order correlations are shown in Table 1. With respect to perfectionism, the scales assessing concern for mistakes and contingent self-worth were unit-weighted and combined into one overall contingent

**TABLE 1**  
Means, Standard Deviations, and Correlations (Study 1)

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. Education <sup>a</sup>	3.33	1.82	—								
2. Age	39.10	5.50	-.09	—							
3. Exam preparation	52.65	36.35	.07	.08	—						
4. Conscientiousness	4.00	0.42	.13	-.00	.15*	.64					
5. Emotional stability	3.74	0.62	-.03	.04	-.05	.29**	.81				
6. Extreme goal difficulty	3.29	0.75	.11	-.12	.21**	.32**	-.08	.84			
7. Contingent self-worth <sup>b</sup>	2.09	0.65	.04	-.07	.09	-.14*	-.54**	.39**	.88		
8. Effort	4.19	0.77	-.04	.05	.45**	.23**	.04	.16*	.09	.80	
9. Exam performance <sup>c</sup>	527.47	90.86	.23**	-.14	.39**	.21**	.01	.30**	.22**	.34**	.83

Note:  $N = 235$ .

<sup>a</sup>Education was coded: 1 = High school, 2 = Some college, 3 = Completed college, 4 = Some university, 5 = Completed university, 6 = Some graduate school, 7 = Completed graduate school.

<sup>b</sup>Combined scale.

<sup>c</sup>Standardized scores on the promotional examination ( $M = 500$ ,  $SD = 100$ ).

\* $p < .05$ ; \*\* $p < .01$ .

self-worth scale. The rationale for doing so is provided below. With the exception of the conscientiousness scale ( $\alpha = .64$ ), acceptable internal consistency reliability estimates were obtained for all study measures ( $\alpha = .84$ , extreme goal difficulty;  $\alpha = .88$ , contingent self-worth;  $\alpha = .80$ , effort;  $\alpha = .81$ , emotional stability;  $\alpha = .83$ , promotional exam performance). The relatively low internal consistency reliability of the conscientiousness scale may provide an underestimate of the true relationships observed in this study. Nevertheless, an alpha of .64 is above the value of .60 recommended by Murphy and Davidshoefer (1991). As shown in Table 1, the two dimensions of perfectionism were significantly and positively intercorrelated. They also correlated positively with exam performance. Extreme goal difficulty correlated positively with effort. Finally, effort, as well as most of the control variables, had a positive relationship with performance on the exam.

### Factor Analysis

A confirmatory factor analysis (CFA) was conducted on the perfectionism items for two reasons. First, the dimensionality of the perfectionism construct has not been clearly established in previous research. Second, the concern over mistakes and contingent self-worth scales were highly intercorrelated ( $r = .76$ ). Moreover, they displayed a similar pattern of relationships with the other variables in this study.

A three-factor model of perfectionism, with the perceived excessively high goals, concern over mistakes, and contingent self-worth items loading on their respective latent factors, was tested ( $\chi^2_{(65)} = 350.2$ ,  $p < .001$ ; comparative fit index [CFI] = .80; root mean square error of approximation [RMSEA] = .14). This model was compared to a two-factor model with concern over mistakes and contingent self-worth items loading on a single latent factor, and the extreme goal difficulty items loading on a second latent factor ( $\chi^2_{(65)} = 198.7$ ,  $p < .001$ ; CFI = .91; RMSEA = .09). These models were compared to a one-factor model, with all items from the three scales loading onto a single factor ( $\chi^2_{(65)} = 488.9$ ,  $p < .001$ ; CFI = .70; RMSEA = .17). These results suggest that the two-factor model provides the best fit to the data.

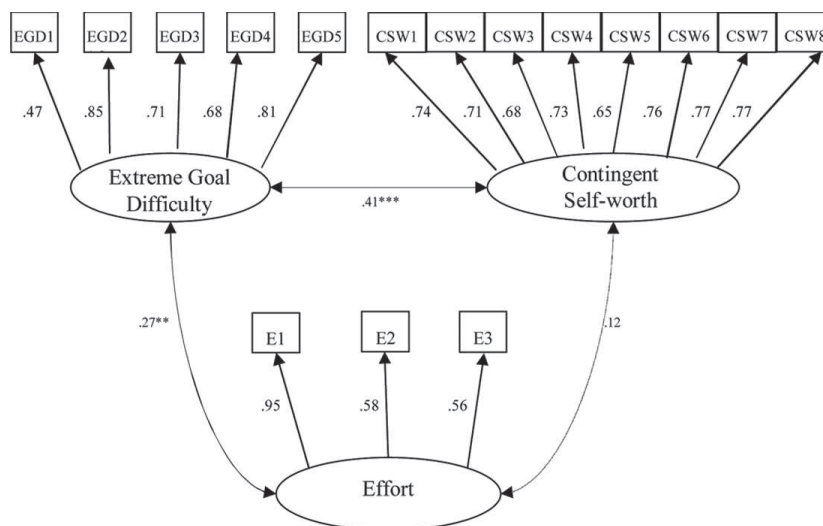
It is noteworthy that although research in the realm of perfectionism suggests three distinct facets, to our knowledge the current study was the first to assess all three within the same sample. As indicated, findings revealed a great deal of overlap between two facets—concern over mistakes and contingent self-worth. These findings were fairly robust, as they were replicated across both of our studies (see below). In retrospect, these findings are not surprising, as the concern over mistakes scale assesses self-worth that is contingent on precise goal attainment. More specifically, both facets reflect a self-critical tendency that is based on perceived performance, such that if people are high on concern over mistakes then they are also likely to be high on contingent self-worth. Based on this rationale and the present empirical findings, the concern over mistakes and contingent self-worth scales were unit-weighted and combined into one scale. Given that the combined scale reflects contingent self-evaluations, the contingent self-worth label was retained. The subsequent analyses are based on this combined scale.

### Hypothesis Testing

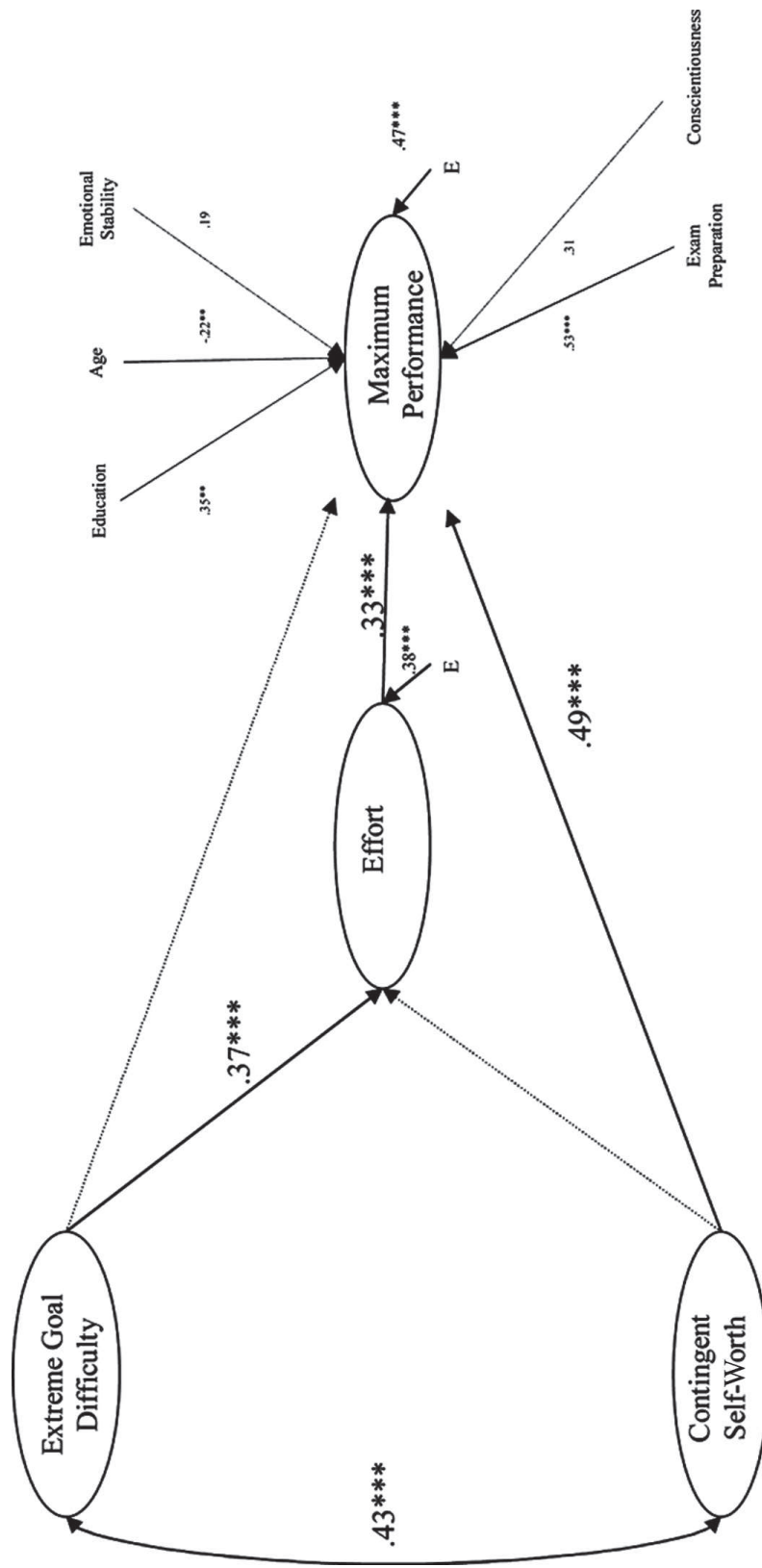
The hypotheses were tested using AMOS 18.0 (Arbuckle 2009) software, with maximum likelihood estimation procedures. Based on tables provided by MacCallum, Browne, and Sugawara (1996), the power of these analyses to detect a close fit was above .96.

A two-step approach to model building was employed (Anderson and Gerbing 1998). First, a reflective measurement model was tested by conducting a CFA with all scale items loading on their respective latent factors. A reflective model was selected because our latent constructs exist independent of the actual measures used (Coltman et al. 2008). Following Schumacker and Lomax (2004), three criteria were employed to evaluate the latent model. First, three model fit indices were examined: the chi-square test, the CFI, and the RMSEA. A non-significant chi-square value, a CFI value above .90, and an RMSEA less than .06 is desirable (Hu and Bentler 1999). However, in practice non-significant chi-square values are rarely obtained for models with over 200 cases (Kenny 2008). Second, the significance of the parameter estimates in the model was inspected. Finally, the direction and magnitude of those estimates were evaluated.

The measurement model, shown in Figure 2, provided a good fit to the data with a chi-square of  $207.4_{(100)}$ , a CFI of .94, and an RMSEA of .07 (Hu and Bentler 1999). All items loaded strongly on their respective latent factors. Following the recommendations of Williams and Anderson (1994), a method factor was added to the measurement model to examine whether this model would provide an improvement in fit over the measurement model. To accomplish this objective, a latent method



**Figure 2.** Perfectionism and Maximum Performance Measurement Model (Study 1). *Note:*  $\chi^2_{(100)} = 207.4$ ,  $p < .001$ ; CFI = .94; RMSEA = .07. Numbers represent standardized item loadings and path coefficients. All item loadings are significant at  $p < .001$ . Dotted lines represent non-significant paths. Maximum performance is not shown as it was measured with a single indicator, namely a scaled exam score.  $N = 235$ .



**Figure 3.** Perfectionism and Maximum Performance Structural Model (Study 1). *Note:*  $\chi^2_{(310)} = 528.0, p < .001$ ; CFI = .91; RMSEA = .06. Numbers represent standardized path coefficients. Dotted lines represent non-significant paths.  $N = 235$ .  $^{**}p < .01$ ;  $^{***}p < .001$ .

factor was included in the model that contained direct paths from the indicators of all study variables. The addition of the method factor did not result in a significant improvement in model fit over the measurement model ( $\Delta\chi^2 = 4.1, ns$ ). This provides some evidence that common method bias does not pose a significant threat to the validity of the present findings.

In the second step, the structural model was tested. In order to provide a conservative test of our hypotheses, five control variables (education, age, exam preparation, conscientiousness and emotional stability) were included in this model as predictors of exam performance.<sup>2</sup>

A model with effort as a mediator of the relationship between perfectionism and exam performance provided an acceptable fit to the empirical data ( $\chi^2_{(312)} = 535.5, p < .001$ ; CFI = .91; RMSEA = .06). H3 received partial support because the path from extreme goal difficulty to effort was significant ( $\beta = .37$ ), as was the path from effort to exam performance ( $\beta = .44$ ). However, the path from contingent self-worth to effort was not significant. A second model with direct paths from perfectionism to performance on the promotional exam was tested to examine whether a direct effects model provided an improvement in fit over the mediated model (see Figure 3). An acceptable fit to the empirical data was obtained ( $\chi^2_{(310)} = 528.0, p < .001$ ; CFI = .91; RMSEA = .06). A chi-square difference test showed that the direct effects model resulted in a significant improvement in model fit ( $\Delta\chi^2 = 7.5, p < .001$ ). Moreover, consistent with H1, the direct path from contingent self-worth to exam performance was also significant and positive ( $\beta = .49, p < .001$ ). The path from perceived extreme goal difficulty to performance was not significant. Hence, H1 received partial support.

## DISCUSSION OF STUDY 1

Goal-setting behavior, as manifested by a trait, has been an overlooked phenomenon in the workplace. The present results suggest that employees who are perfectionists can benefit from this trait when maximum performance is required. Their tendency in this study to set goals they perceived to be extremely high was related to an increase in their perceived level of effort that they devoted to the promotional examination. In turn, effort was related to higher performance on the examination. Contingent evaluations of self-worth based on goal attainment were also positively related to promotional exam performance. The latter relationship was not mediated by effort.

In short, perfectionism does not appear to be a “dark side” of employee motivation *when maximum performance is needed*. When a self-set goal is viewed as extremely high, and excessive importance is placed on goal attainment because it is contingent on self-worth, these two dispositions were shown to be beneficial for high maximum performance. Consistent with goal-setting theory, effort was the mediator for the relationship between the dispositional tendency to set goals that are perceived to be extremely high and an employee’s performance. Perceived goal difficulty was positively related to the amount of effort perfectionists said that they devoted to the promotional exam. Effort, in turn, was related to maximum performance. Both social

cognitive theory and goal-setting theory state that people are motivated to overcome the self-dissatisfaction they feel from the discrepancy between their current and desired performance levels. This appears to be true of perfectionists regarding their job promotion, regardless of their level of education, task preparation, conscientiousness, and emotional stability. Contingent self-worth placed on goal attainment was also related to job promotion scores on the examination. Perfectionists likely read the examination questions more carefully, spent more time responding to those questions, and reviewed their answers more so than non-perfectionists. Future research is needed to investigate these possible mediators.

### Theoretical and Practical Significance

Of theoretical significance for goal-setting theory is the finding that the higher the goal, even if perceived to be excessively high by the people who set them, the higher an employee's maximum performance on a job promotion exam. This finding in a field setting corroborates Locke's (1982) one-minute laboratory experiment where impossible-to-attain goals led to the highest performance.

This research also demonstrated the unidimensionality of two measures that are hypothesized to assess different facets of perfectionism (e.g., Cox, Enns, and Clara's brief concern over mistakes scale and Dibartolo et al.'s contingent self-worth scale). In fact, they appear to assess a single dimension, namely contingent evaluations of self-worth based on goal attainment. These findings may be explained by the fact the both measures assess self-critical evaluations based on perceived performance.

The results from this research have implications for selection and placement. Perfectionism should be assessed for selecting and promoting employees for jobs that involve the performance of primarily one or a very limited number of tasks that require a consistent, high level of effort (e.g., ambulance driver, orthodontist, heart surgeon).

### Limitations

An arguable limitation of this study is that there was no objective measure of the level of goal difficulty. We used a subjective measure of perfectionism that was developed for use by clinical psychologists to assess the tendency to set extremely difficult goals. Goal difficulty is arguably a subjective construct. That is, what is perceived to be excessively difficult for one individual may be seen as only challenging by another and relatively easy by someone else. Nevertheless, future research that examines perfectionists' responses to objectively unattainable or excessively difficult, assigned goals would be worthwhile.

Arguably, the more important limitation of this study is that the relationship between perfectionism and *typical* job performance was not examined. Intense and sustained levels of effort exerted by perfectionists are seldom required for most work tasks, including those in the public sector, except in emergencies. Doing so is unlikely to be sustainable across multiple work tasks, let alone over an extended period of time in public service jobs. Hence, perfectionism may lead



to ineffectiveness and a high level of emotional exhaustion with regard to typical performance.

## STUDY 2

To address the above limitation, a second study was conducted assessing the relation between perfectionism and typical job performance. Specifically, H2, H4, H5, and H6 were tested in this study.

### Method

#### *Participants*

The participants were police officers and their supervisors who did not participate in the first study. Police officers ( $n = 1,322$ ) logged on to the survey Web site where the questionnaire items were posted. Of those, 1,158 (88%) completed the survey and 323 (28%) agreed to have their performance rated by their supervisor, with complete data obtained from 242 participants. The majority of participants were male (82%) and Caucasian (84%). The only other ethnic groups to exceed 1% of the sample were native North Americans (6.1%), Blacks (1.6%), Chinese (1.2%), and South East Asians (1.0%). Seventy-nine percent of the respondents had completed some form of post-secondary education. On average, they were 44 years old, had been working for the Force for 20 years, and had been working at their current rank for five years. A variety of job titles, ranging from General Duty Police Officer to Criminal Intelligence Investigator, were held by the participants.

Comparisons were made between the respondent sample and the general population of police officers to examine whether sampling bias posed a threat to the external validity of the study. No significant differences were found between respondents and the general population of officers with respect to age ( $z = .59$ , *ns*), sex ( $z = -.05$ , *ns*), education level (percentage of people who had obtained an undergraduate degree;  $z = 1.15$ , *ns*), and ethnicity ( $z = 1.08$ , *ns*).

Two hundred and forty-two supervisors of the employees also participated in this study. Similar to the officers, the majority of the supervisors were male (93%) and Caucasian (94%), and had completed some form of post-secondary education (79%). The average supervisor in the sample was 49 years old, had been a member of the Force 25 years, and had been working at his or her current rank for five years. These supervisors held a variety of job titles ranging from Officer in Charge of Program Policy to Chief Reviewer of Criminal Operations. Analyses revealed that these respondents were representative of senior officers with respect to age ( $z = 1.12$ , *ns*) and education (percentage who had completed a university undergraduate degree;  $z = -.04$ , *ns*). Female senior officers and senior officers who were members of a visible minority group were slightly overrepresented in this sample compared to the general population of officers ( $z = 6.76$ ,  $p = .00$ , and  $z = 8.16$ ,  $p = .00$ , respectively).

### *Procedure*

Participants were recruited using the Police Department's electronic newsletter that is e-mailed to the officers on a weekly basis. The newsletter stated that the purpose of the study was to obtain feedback on police officer well-being, work attitudes, and job behaviors. It directed officers to a Web site where an information letter was posted. The letter provided information on the study as well as a link to the survey Web site. Officers were informed that participation in the study was voluntary, and that it involved completing a Web-based survey as well as having their job performance rated by their supervisor. They were assured that (a) only the researchers would have access to their responses and (b) to the performance assessment made by their respective supervisor, and that (c) any information communicated to their organization would appear in aggregate form.

Officers who visited the Web site were presented with an informed consent page, followed by questionnaire items assessing perfectionism, goal disengagement, emotional exhaustion, demographic characteristics, and control variables. In addition, they were asked to provide contact information for their supervisor so that this individual could assess the officer's job performance.

Supervisors of the officers were subsequently e-mailed a letter asking them to rate their subordinate's performance. They too were informed that only the researchers would view their evaluations and that those evaluations would only be used for research purposes. Supervisors who consented to participate in this study were asked to complete a Web-based questionnaire assessing the target participant's job performance, the quality of their relationship with the target participant, and their own demographic characteristics.

### **Measures**

#### *Perfectionism*

The subscales that were used to assess perfectionism in Study 1 were used to measure an officer's perfectionism in this second study.

#### *Emotional Exhaustion*

Emotional exhaustion was assessed using the five-item subscale of the Maslach Burnout Inventory–General Survey (Schaufeli et al. 1996). Cronbach's alpha estimates for this scale range from  $\alpha = .83$  to  $\alpha = .87$  (Langballe et al. 2006). Using a seven-point Likert-type scale (0 = *never*, 6 = *daily*), respondents are asked to rate the extent to which they have experienced various thoughts about their job (e.g., "I feel used up at the end of the work day").

#### **Goal Disengagement**

Goal disengagement was assessed by the four-item Goal Disengagement scale developed by Wrosch, Scheier, Miller, et al. (2003). They obtained an acceptable

internal consistency reliability estimate for this scale ( $\alpha = .83$ ). Using a five-point Likert-type scale (1 = *almost never true*, 5 = *almost always true*), respondents are asked to rate the ease with which they are able to relinquish effort and commitment from goals that become unattainable (e.g., “It’s easy for me to reduce my effort towards the goal”; “It’s easy for me to stop thinking about the goal and let it go”).

### **Job Performance**

Job performance was assessed using a 20-item scale based on police officer job competencies that were identified by the organization through a job analysis. Using a five-point Likert-type scale (1 = *strongly agree*, 5 = *strongly disagree*), supervisors were asked to rate their agreement with a set of statements about the extent to which their employee displayed a given job competency (e.g., “This person independently produces consistent, high quality results”; “This person identifies, creates, and implements effective solutions to problems”).

### **Control Variables**

#### *Education Level*

Education level was assessed and treated as a control variable.

#### *Job Tenure*

Job tenure was assessed as a control variable. Individuals who have been working in their current occupation longer are often better performers (Hunter and Hunter 1984), because they may benefit from increased practice at doing their jobs, along with exposure to formal and informal job-based learning opportunities.<sup>3</sup>

#### *Conscientiousness and Emotional Stability*

For the reasons noted in Study 1, measures of conscientiousness and emotional stability were used as control variables. Due to the low reliability of the conscientiousness scale in Study 1, the full 10-item versions of the conscientiousness and emotional stability scales (Goldberg 1999) were used.

#### *Leader Member Exchange*

Leader Member Exchange (LMX) is the quality of a supervisor–subordinate relationship. There is evidence that it correlates positively with supervisory ratings of job performance (Gerstner and Day 1997). Hence, LMX was controlled for in the analyses.

The LMX7 scale for leaders (Graen and Uhl-Bien 1995) was used to measure LMX. Supervisors were asked to assess their respective employees on seven items

pertaining to the quality of their relationship with a subordinate (e.g., “How would you characterize your working relationship with this employee?”). Ratings were made on a five-point Likert-type scale.

## RESULTS

### Descriptive Statistics

The means, standard deviations, and zero-order correlations are presented in Table 2. As indicated in the table, acceptable internal consistency scale reliability estimates were obtained for all study scales ( $\alpha = .79$ , extreme goal difficulty;  $\alpha = .91$ , contingent self-worth;  $\alpha = .94$ , emotional exhaustion;  $\alpha = .75$ , goal disengagement;  $\alpha = .95$  job performance;  $\alpha = .75$ , conscientiousness;  $\alpha = .88$ , emotional stability;  $\alpha = .80$ , LMX). As was the case in Study 1, the perfectionism subscales were significantly intercorrelated. Range restriction was observed for the supervisory ratings of job performance. Specifically, most supervisors gave high ratings to their subordinates (i.e., 3 to 5).

### Factor Analysis

Consistent with Study 1, the concerns over mistakes and contingent self-worth scales were highly intercorrelated ( $r = .83$ ), and they displayed a similar pattern of relationships with the other study variables. A CFA was therefore conducted on the perfectionism items to confirm the two-factor structure obtained in Study 1. Once again, a two-factor model, with concern over mistakes and contingent self-worth loading on to a single factor, was found to provide a better fit to the data ( $\chi^2_{(65)} = 479.4$ ,  $p < .001$ ; CFI = .93; RMSEA = .07) than a three-factor model with items for each subscale loading on to separate factors ( $\chi^2_{(65)} = 1633.9$ ,  $p < .001$ ; CFI = .73; RMSEA = .14) and a one-factor model with all items loading on a single scale ( $\chi^2_{(65)} = 1454.0$ ,  $p < .001$ ; CFI = .76; RMSEA = .14).

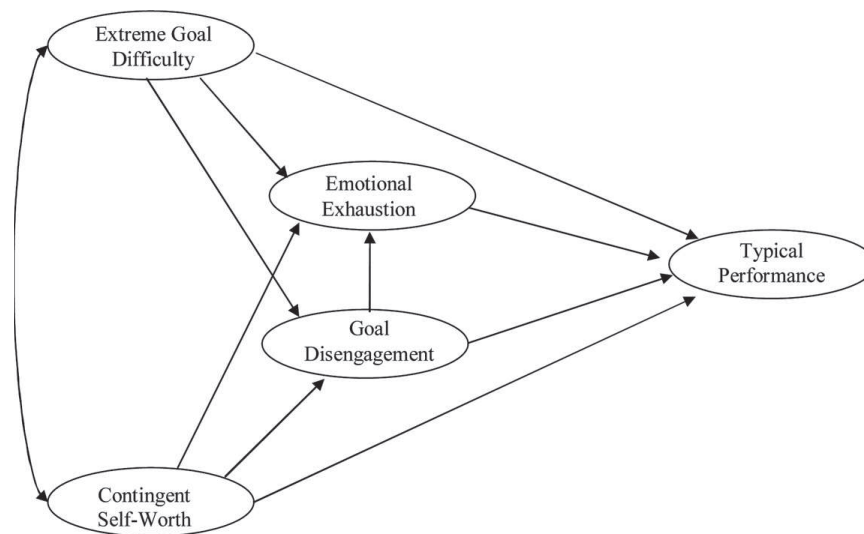
### Hypothesis Testing

As in Study 1, the hypotheses for this second study were tested using 18.0 (Arbuckle 2009) software, with maximum likelihood estimation procedures (see Figure 4 for the theoretical model). The power of these analyses was again above .96 (MacCallum, Browne, and Sugawara 1996). As a first step, a CFA with all scale items loading onto their respective latent factors was conducted to assess the reflective measurement model. The same three criteria used in Study 1 were used to evaluate the models in this study.

The analyses revealed that the measurement model provided a good fit to the data with a chi-square of 1519.4<sub>(850)</sub>, a CFI of .89, and an RMSEA of .06 (Hu and Bentler 1999). Further, all items loaded strongly and significantly onto their respective latent factors. The measurement model with the factor loadings is presented in Figure 5.

**TABLE 2**  
Means, Standard Deviations, and Correlations (Study 2)

<i>Variable</i>	M	SD	1	2	3	4	5	6	7	8	9	10
1. Education <sup>a</sup>	3.50	1.97	—									
2. Job tenure	3.53	3.21	-.09*	—								
3. Leader member exchange	4.24	0.52	-.02	-.02	.80							
4. Conscientiousness	3.84	0.48	.02	.03	-.00	.75						
5. Emotional stability	3.68	0.65	.10**	-.01	.18**	.26**	.88					
6. Extreme goal difficulty	3.29	0.76	-.02	.01	-.01	.33**	-.24**	.79				
7. Contingent self-worth <sup>b</sup>	2.07	0.70	-.01	.04	-.11	-.07*	-.52**	.37**	.91			
8. Emotional exhaustion	3.33	1.67	-.03	.04	-.04	-.02	-.46**	.27*	.35**	.94		
9. Goal disengagement	2.73	0.72	-.02	-.03	-.01	-.05	.26**	-.30**	-.20**	-.16**	.75	
10. Job performance	4.26	0.50	.05	.10	.55**	-.03	.16*	.10	-.12	-.14*	.05	.95



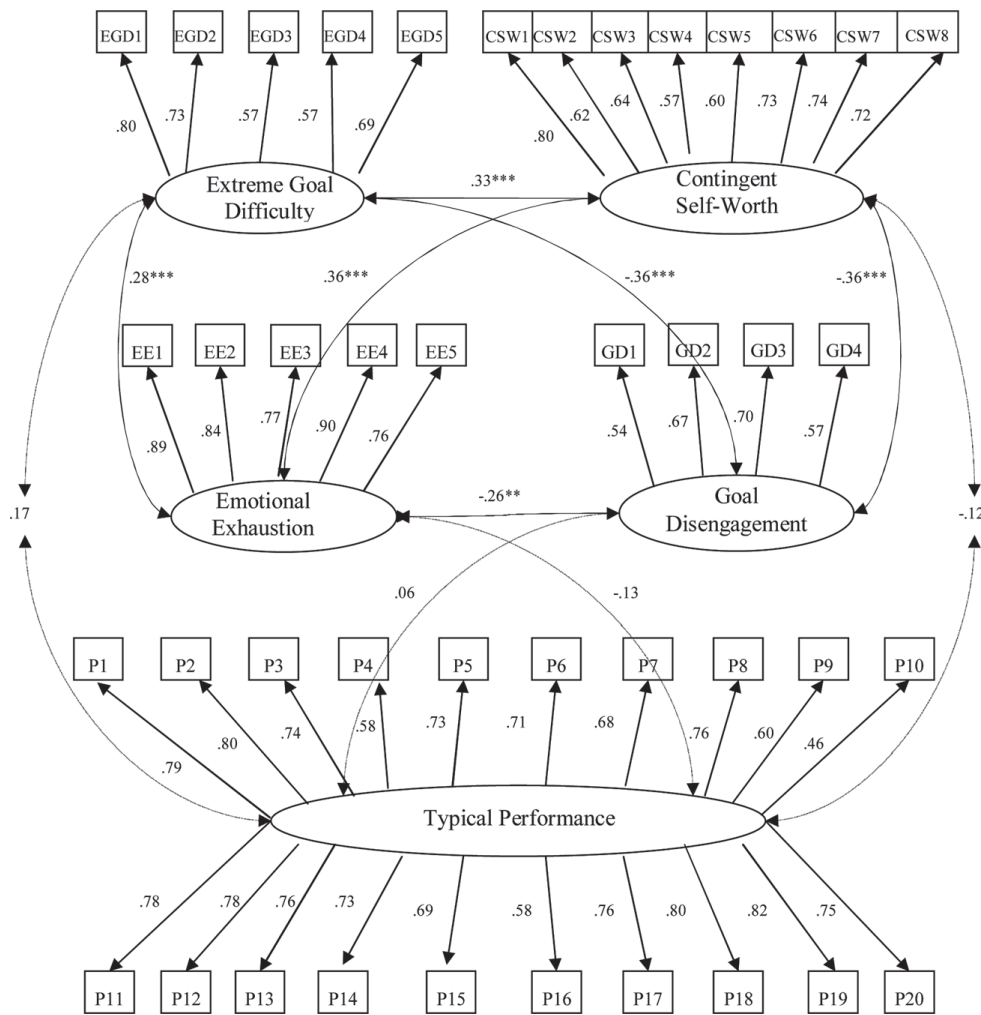
**Figure 4.** Perfectionism and Typical Performance Theoretical Model (Study 2).

As in Study 1, a method factor was added to the measurement model to test for common method bias. The addition of the method factor did not afford a significant improvement in fit over the measurement model ( $\Delta\chi^2 = -92.3, p < .001$ ).

The hypothesized structural model was then tested. The five control variables (education, job tenure, conscientiousness, emotional stability, and LMX) were included in this model as predictors of typical job performance.<sup>4</sup> A model with emotional exhaustion and goal disengagement as mediators of the perfectionism–typical performance relationship, and goal disengagement as a mediator of the emotional exhaustion–performance relationship, provided an acceptable fit to the empirical data ( $\chi^2_{(924)} = 1391.10, p < .01$ ; CFI = .92; RMSEA = .05). The path from extreme goal difficulty to emotional exhaustion was significant ( $\beta = .16$ ), as was the path from contingent self-worth to emotional exhaustion ( $\beta = .31$ ). In turn, the path from emotional exhaustion to job performance was significant and negative ( $\beta = -.12$ ). Hence, H4 was supported.

The paths between both dimensions of perfectionism and goal disengagement were also significant (extreme goal difficulty  $\beta = -.26$ ; contingent self-worth  $\beta = -.28$ ); however, the path between goal disengagement and typical job performance was not significant ( $\beta = .00$ ). Therefore, H5 was rejected. Goal disengagement was related to job performance through emotional exhaustion. Although the standardized path coefficient from goal disengagement to emotional exhaustion was small in magnitude ( $\beta = -.10, p < .05$ ), the zero-order correlation between the two variables was higher ( $r = -.16, p < .001$ ). This provides support for H6.

To examine whether a direct effects model would provide a superior fit to the observed data, a second model with direct paths from the two perfectionism scales to typical performance was also analyzed. An acceptable fit to the data was obtained ( $\chi^2_{(922)} = 1376.7, p < .01$ ; CFI = .92; RMSEA = .05). The chi-square difference test revealed that a statistically significant improvement in model fit was obtained from the direct effects model over the original model ( $\Delta\chi^2 = 14.4, p < .001$ ). Moreover, the

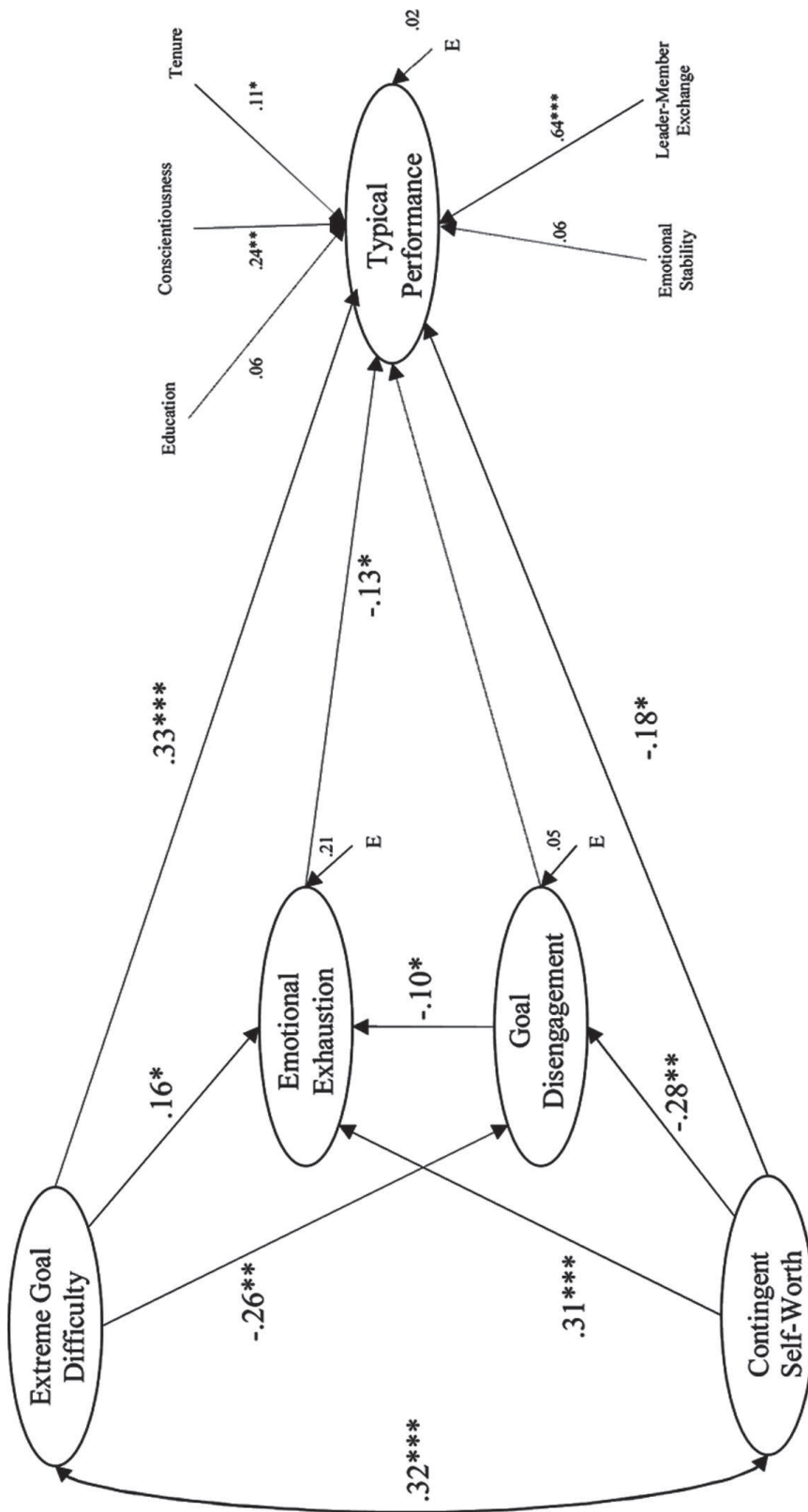


**Figure 5.** Perfectionism and Typical Performance Measurement Model (Study 2). *Note:*  $\chi^2_{(850)} = 1519.4, p < .001$ ; CFI = .89; RMSEA = .06. Numbers represent standardized item loadings and path coefficients. All item loadings are significant at  $p < .001$ .  $N = 242$ .

direct paths from the perfectionism constructs to typical performance were significant. Consistent with H2, contingent self-worth was a negative predictor of typical performance. However, the relationship between extreme goal difficulty and typical performance was positive. Hence, H2 received partial support. The final model with the path coefficients is presented in Figure 6.

### Control Variables

These findings were independent of employees' levels of conscientiousness and emotional stability, as well as their education level, age, job tenure, and LMX. That perfectionism predicted typical performance even after controlling for LMX is noteworthy because this variable was a strong predictor of typical job performance ( $\beta = .64, p < .001$ ).



**Figure 6.** Perfectionism and Typical Performance Structural Model (Study 2). *Note:*  $\chi^2_{(922)} = 1376.7, p < .001$ ; CFI = .92; RMSEA = .05. Numbers represent standardized path coefficients. Dotted lines represent non-significant paths.  $N = 242$ .  $^* p < .05$ ;  $^{**} p < .01$ ;  $^{***} p < .001$ .



## DISCUSSION OF STUDY 2

Perfectionism displayed a complex relationship with typical job performance. Goals perceived to be extremely difficult were both facilitative and debilitating. On the one hand, consistent with Locke and Latham's (1990; 2002) goal-setting theory, high goals, even if perceived to be excessively high, predicted typical day-to-day job performance. On the other hand, these same goals predicted low goal disengagement and an increase in emotional exhaustion. Exhaustion, in turn, predicted a decrease in job performance, and goal disengagement was negatively related to emotional exhaustion. The tendency to base evaluations of self-worth on goal attainment appears to be debilitating in that it was a negative predictor of typical job performance. It also predicted emotional exhaustion and low goal disengagement.

## GENERAL DISCUSSION

Perfectionism, although widely studied by clinical psychologists, has been an overlooked phenomenon by organizational psychologists. The current research is an initial step to closing this gap in the HRM/industrial-organizational psychology, organizational behavior literature. Perfectionism was examined with regard to its relationship with both maximum and typical job performance. In doing so, the present research has advanced understanding of the conditions under which perfectionism predicts an individual's performance in the workplace. Results from this research have also illuminated the differential mechanisms through which perfectionism is related to maximum versus an employee's typical performance on the job.

Findings from the first study revealed that perfectionism is not necessarily a "dark side" of employee motivation when maximum performance is required. When a self-set goal is perceived to be at an extreme level, and excessive importance is placed on goal attainment because self-worth is contingent on it, these two predispositions appear to be beneficial to a perfectionist obtaining a job promotion. Consistent with goal-setting theory, the mediator for the relationship between a goal perceived to be excessively high and maximum performance was effort. Specifically, perceived goal difficulty level was positively related to the amount of effort perfectionists said that they devoted to their promotional exam. Effort, in turn, was related to performance on the exam. This occurred regardless of a perfectionist's level of education, task preparation, conscientiousness, and emotional stability. Contingent self-worth placed on goal attainment was also related to performance on the exam. Perfectionists likely read the examination questions more carefully, spent more time responding to those questions, and reviewed their answers more so than non-perfectionists.

Findings from the second study revealed that perfectionism appears to be a "darker side" of goal setting when typical performance is required. Setting goals perceived by an individual to be extremely high, and making self-evaluations contingent on the attainment of those goals, were positively related to emotional exhaustion and negatively related to goal disengagement. This finding adds to, and is consistent with, the small body of research on perfectionism and on feelings of burnout (e.g., Fry 1994; Stoeber and Rennert 2008). Emotional exhaustion, in turn, was a negative

predictor of typical job performance. This finding is consistent with the COR model, and with previous research on emotional exhaustion and typical job performance (e.g., Cropanzano, Rupp, and Byrne 2003; Halbesleben and Bowler 2007; Wright and Cropanzano 1998).

Perfectionism was also negatively related to goal disengagement. Specifically, perfectionists reported being unwilling to relinquish their commitment to and effort expended toward their unattainable goals. Although goal disengagement did not predict an employee's typical performance, it was negatively related to emotional exhaustion. This is consistent with previous research in clinical psychology. An inability to abandon unattainable goals is a predictor of psychological difficulties (e.g., Wrosch and Heckhausen 1999; Wrosch, Scheier, Miller, et al. 2003). Findings from the present study add to this body of research by suggesting that goal disengagement is a distal predictor of typical job performance. Consistent with the conservation of resources model (Hobfoll and Freedy 1993), it would appear that perfectionists' inability to choose to disengage from a goal they see as excessively high depletes their energy resources, thus the negative relationship with typical job performance.

### **Theoretical Significance**

The present research revealed the unidimensionality of two measures that are hypothesized to assess different facets of perfectionism (e.g., Cox, Enns, and Clara's brief concern over mistakes scale and Dibartolo et al.'s contingent self-worth scale). The two scales appear to assess a single dimension, namely contingent evaluations of self-worth based on goal attainment.

Of further theoretical significance is the finding, consistent with goal-setting theory, that a goal, even if perceived to be excessively high, leads to high typical, as well as high maximum, performance. While there appears to be no "dark side" to goal setting for maximum performance, the dark side for typical job performance includes emotional exhaustion.

### **Practical Significance**

As previously stated, the results from this research have implications for the selection and promotion of individuals with perfectionistic tendencies. Perfectionists perform better on selection tests (e.g., under maximum performance conditions) than they do on the job (e.g., under typical performance conditions). This implies that perfectionism may lead to a Type I error regarding the predictive validity of selection tests designed to predict typical performance. Perfectionistic employees benefit from work environments where choice, effort, and task persistence are relatively constrained. Hence, these employees may be best suited to positions that require maximum levels of performance (e.g., jobs involving performance of a single or limited number of tasks that require consistent, high levels of effort).

Most jobs, however, require some level of typical performance. Therefore, the findings from the current study suggest that managers should, where possible,

attempt to create work environments for perfectionistic employees that mimic maximum performance conditions. For example, managers should attempt to structure assignments and projects in such a way that perfectionists are assigned a single or limited number of relatively short-duration tasks, explicitly told how much effort to devote to those tasks, and told how long they should persist at a given level of effort. This latter objective can be attained through the provision of task completion deadlines. Those measures should help to ensure that perfectionistic employees perform to their potential, and do not experience a high level of stress.

The negative relationship of perfectionism to typical performance suggests the need to find interventions to reduce perfectionistic tendencies. Toward this end, employees who are perfectionistic might, for example, be coached to set realistic goals. In addition, the adaptation of techniques derived from rational-emotive and cognitive therapy to the work setting should prove useful for reducing irrational beliefs with respect to goal importance and goal failure. For example, perfectionists may benefit from the use of self-statement modification techniques targeting irrational self-verbalizations (Kombos, Fournet, and Estes 1989).

In jobs where maximum performance conditions are not required or cannot be simulated, strategies aimed at increasing goal disengagement and reducing emotional exhaustion should prove beneficial for perfectionists. For example, perfectionists could be trained to recognize when goals should be relinquished, or when a point of diminishing returns is reached whereby additional effort devoted to a task or project does not result in a significant improvement in performance. Perfectionists may also benefit from error management training where individuals are taught to expect, accept, and celebrate mistakes as a normal part of the learning process (Keith and Frese 2005). Through this training, a reduction in emotional exhaustion may occur. Finally, they may benefit from self-efficacy training, which may have a beneficial effect on perceived goal difficulty and serve to moderate the relationship between perfectionism and performance.

### Limitations

An arguable limitation of both studies is that there was no objective measure of goal difficulty levels. A second limitation is that both studies involved a relatively homogenous sample, namely Caucasian, male, law enforcement officers. Although these demographics are representative of the target population of Canadian Police officers (Canadian Police Sector Council 2001), future research could examine whether the results of the present study hold for minority group members, as well as for other occupations. A third possible limitation is that cognitive ability was not assessed in either study. This is because the relative influence of ability versus motivation was not the focus of the present research. Examining this in future research would be a worthwhile endeavor.

Finally, most of the data for this research were collected at a single point in time using a cross-sectional research design. Therefore, causal inferences concerning the direction of the observed correlations cannot be made. It is possible, for example, that the inability to effectively perform one's job is a chronic stressor that leads to

emotional exhaustion. However, there was a time lag between the collection of employee responses and supervisory ratings of typical job performance. This provides support for the temporal precedence of emotional exhaustion. Because perfectionism is typically viewed as an individual difference variable that is relatively stable over time (Joiner, Heatherton, and Steel 1997), it is unlikely that performance, emotional exhaustion, or goal disengagement had an influence on this trait in the current study. That said, assessing levels of perfectionism prior to the examination in Study 1, and prior to the assessment of emotional exhaustion and goal disengagement in Study 2, would have allowed for stronger inferences to be made regarding the temporal ordering of the study variables.

### Future Research

The paucity of research on perfectionism in the workplace suggests the need for a host of future studies. The relationship between perfectionism and organizational citizenship, and with counterproductive behaviors, warrants investigation. The pursuit of goals that are viewed as excessively high and on whose attainment self-worth is contingent might prevent employees from going above and beyond their job duties to help colleagues and their institution, and it may even foster unethical work behavior. The extent to which perfectionism is related to feedback-seeking and affects reactions to criticism is not known.

The relationship between perfectionism and the quality of interpersonal relationships in the workplace should be investigated. Do perfectionists encounter difficulties in leadership roles? Anecdotal reports suggest that perfectionists' tendencies to project their unrealistic expectations onto others make them ineffective as leaders (RHR International 2007). Do they have difficulty working in teams with peers who do not share their perfectionistic tendencies? What is the performance outcome when perfectionists work with other perfectionists who have opposing unrealistic goals?

In summary, the findings from this research suggest that perfectionism is not always a dark side of goal setting and associated self-regulatory processes, but that it can be counterproductive in job settings requiring typical rather than maximum job performance because of its adverse relationship with emotional exhaustion and goal disengagement. Hence, when it comes to the day-to-day performance of work tasks, true perfection may indeed be best left to eulogies and obituaries.

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committee, as well as Edwin A. Locke for helpful comments on an earlier version of this manuscript.

## NOTES

1. This distinction is not made in the clinical psychology literature on perfectionism.
2. The marked change in  $df$  across the measurement and structural models is primarily due to the inclusion of these control variables.
3. Although not a focal variable and therefore not tested in this study, there is evidence to suggest the relationship between job tenure and performance is curvilinear (e.g., Sturman 2003).
4. The marked change in  $df$  across the measurement and structural models is primarily due to the inclusion of these control variables.

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