

PERFECTIONISM AND GOAL PURSUIT AT WORK

Perfectionism, Goal Pursuit, and Work-Related Outcomes: A Self-Determination Theory

Perspective

by

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Abstract

Adopting a self-determination theory perspective, the present study sought to investigate how two forms of perfectionism at work, personal standards and self-critical perfectionism, differentially impact goal pursuit, motivation, and various work-related outcomes among employees. One hundred and eighty-one working adults participated, and two time points were used in my analyses. Results show that perfectionism does not predict goal progress for work-related goals. Personal standards perfectionism was associated with increased subjective well-being, whereas self-critical perfectionism was related to increased burnout and workaholism, and decreased subjective well-being over time. Results show that these relationships are not reciprocal in nature, thus perfectionism can be viewed as an antecedent to these work outcomes. Moreover, work motivation was shown to mediate the relationship between both forms of perfectionism and job satisfaction, and the relationship between self-critical perfectionism and subjective well-being. Implications of these findings are discussed in the context of organizations and work adjustment programs.

Keywords: perfectionism, goal pursuit, work outcomes, self-determination

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Table of Contents

Abstract	ii
Acknowledgements	iii
Table of Contents	iv
List of Tables	vii
List of Illustrations	viii
List of Appendices	ix
Introduction	1
<i>Perfectionism</i>	1
<i>Perfectionism at Work</i>	5
<i>Goal Progress and Perfectionism</i>	8
<i>Autonomous/Controlled Motivation</i>	10
<i>Work Related-Outcomes</i>	17
<i>Burnout</i>	17
<i>Workaholism</i>	21
<i>Subjective Well-Being</i>	24
<i>Job Satisfaction</i>	27
<i>Work Motivation</i>	28
<i>Perfectionism and Work Motivation</i>	32
<i>Work Motivation and Work-Related Outcomes</i>	36
<i>Burnout</i>	36
<i>Workaholism</i>	39
<i>Subjective Well-Being</i>	41
<i>Job Satisfaction</i>	42

<i>Potential Confounds</i>	42
Present Study	44
Methods	47
<i>Design and Procedure</i>	47
<i>Participants</i>	50
<i>Measures</i>	52
<i>Analytic Plan</i>	58
Results	68
<i>Attrition Analysis</i>	68
<i>Preliminary Analysis</i>	69
<i>Regression Analysis</i>	73
<i>Path Analyses</i>	73
<i>Perfectionism, goal motivation and goal progress</i>	74
<i>Perfectionism, work motivation and goal progress</i>	78
<i>Parallel mediation: Goal and work motivation</i>	81
<i>Perfectionism and work outcomes</i>	85
<i>Perfectionism, work motivation and work outcomes</i>	93
<i>Robustness Check</i>	103
Discussion	105
<i>Perfectionism and Goal Progress</i>	106
<i>Perfectionism, Motivation and Goal Progress</i>	107
<i>Perfectionism and Work Outcomes</i>	112
<i>Perfectionism, Work Motivation and Work Outcomes</i>	118
<i>Work Status</i>	122
<i>Limitations</i>	123

<i>Future Directions</i>	128
<i>Implications</i>	130
<i>Conclusion</i>	132
References	133

List of Tables

Table 1: <i>Descriptive Statistics and Bivariate Correlations</i>	70
Table 2: <i>Bivariate Correlations with Control Variables (H1, H2, H3)</i>	71
Table 3: <i>Bivariate Correlations between Work and Control Variables (H4, H5)</i>	72
Table 4: <i>Standardized Indirect Effects of Perfectionism on Goal Progress via Goal Motivation</i>	76
Table 5: <i>Standardized Indirect Effects of Perfectionism on Goal Progress via Work Motivation</i>	80
Table 6: <i>Parameter Estimates of Parallel Mediation Model</i>	83
Table 6b: <i>Contrasting the Strength of Goal and Work Motivation and Indirect Effects in Parallel Mediation Model</i>	84
Table 7: <i>Parameter Estimates of Perfectionism on Work Outcomes Model</i>	86
Table 8: <i>Parameter Estimates of Work Outcomes on Perfectionism Model</i>	88
Table 9: <i>Multiple Groups Analysis Comparing Full-Time and Part-Time Workers for Perfectionism on Work Outcomes Model Without Constraints</i>	91
Table 10: <i>Parameter Estimates of Perfectionism, Work Motivation, and Work Outcomes</i>	94
Table 11: <i>Multiple Groups Analysis Comparing Full-Time and Part-Time Workers for Perfectionism, Work Motivation, & Work Outcomes Model Without Constraints</i>	99

List of Illustrations

Figure 1: <i>Self-Determination Theory's Multidimensional View on Motivation</i>	12
Figure 2: <i>Proposed Path Model to Test for Hypothesis 2</i>	61
Figure 3: <i>Proposed Path Model to Test for Hypothesis 3</i>	62
Figure 4: <i>Proposed Path Model for Parallel Mediation Model</i>	64
Figure 5: <i>Proposed Path Model to Test for Hypothesis 4</i>	65
Figure 6: <i>Proposed Path Model to Test Reciprocal Relationships between Work Variables and Perfectionism</i>	66
Figure 7: <i>Proposed Path Model to Test for Hypothesis 5</i>	68
Figure 8: <i>Model Results for Perfectionism, Goal Motivation, and Goal Progress</i>	75
Figure 9: <i>Model Results for Gender Multiple Groups Analysis (H2)</i>	78
Figure 10: <i>Model Results for Perfectionism, Work Motivation, and Goal Progress</i>	79

List of Appendices

Appendix A: <i>Perfectionism Scales</i>	159
Appendix B: <i>Work-Related Goal</i>	162
Appendix C: <i>Goal Motivation Scale</i>	163
Appendix D: <i>Goal Progress Scale</i>	164
Appendix E: <i>Work Motivation Scale</i>	165
Appendix F: <i>Burnout Scale</i>	167
Appendix G: <i>Workaholism Scale</i>	168
Appendix H: <i>Subjective Well-being Scales</i>	169
Appendix I: <i>Job Satisfaction Scale</i>	171
Appendix J: <i>Control Variable Scales and Demographic Questionnaire</i>	172
Appendix K: <i>Recruitment, Consent and Debrief Forms for Organizations</i>	175
Appendix L: <i>Recruitment and Consent Forms for Social Media Participants</i>	186
Appendix M: <i>Recruitment and Consent Forms for Prolific Participants</i>	189

Perfectionism, Goal Pursuit, and Work-Related Outcomes: A Self-Determination Theory Perspective

Out of all domains of life, people are found to be most perfectionistic in the work domain (Stoeber & Stoeber, 2009). Yet, research on perfectionism in the workplace is lacking when compared to the amount of research done in other domains of life, as most perfectionism research has focused on clinical and educational settings (Stoeber & Damian, 2016). Although two forms of perfectionism, personal standards and self-critical perfectionism, are shown to differentially impact goal pursuit for personal goals (Moore et al., 2018), more research is needed to explore how it impacts motivation and goal pursuit for work-related goals. In addition, burnout, workaholism, subjective well-being and job satisfaction are variables of key interest in the domain of work (Paoli & Merllie, 2001; Stephens & Joubert, 2001; Danna & Griffin, 1999), however, more research is needed to examine how perfectionism impacts these work outcomes over time and explore the directionality of these relationships.

Perfectionism

Perfectionism is defined as a personality disposition that involves setting very high standards for goals, aiming for flawlessness, and making harsh critical evaluations of one's performance (Flett & Hewitt, 2002). Researchers originally thought of perfectionism as a unidimensional personality characteristic accompanied by only negative outcomes and psychopathology (e.g., Burns, 1980), until Hamachek (1978) proposed that perfectionism can be viewed as two-dimensional construct. He stated that two forms of perfectionism exist, the first being '*normal perfectionism*', which is considered to be a positive form where individuals enjoy their involvement in

perfectionist strivings and are often satisfied with their achievements. The second form, '*neurotic perfectionism*', is considered to be a negative form whereby individuals harshly criticise their performance, have feelings of guilt and shame, and often doubt their capabilities.

More recent research has supported this multidimensional view of perfectionism. For instance, Stoeber and Otto (2006) reviewed 35 studies and differentiated two dimensions of perfectionism. The first dimension is *perfectionistic strivings*, which is often associated with positive outcomes such as positive affect, higher life satisfaction, better coping styles, and academic success (Stoeber & Otto, 2006). It is also related to lower levels of negative outcomes such as depression, self-blame, and negative affect (Hill et al., 2004; Dunkley et al., 2003). This dimension captures the core characteristic of perfectionism of striving for flawlessness and setting very high standards (Stoeber, 2012). The second dimension is *perfectionistic concerns*, which is associated with negative outcomes; such as negative affect, neuroticism, maladaptive coping, psychological maladjustment, and depression (Stoeber, 2012). This dimension captures the characteristics of perfectionism related to worrying about making mistakes, being scared of other's negative thoughts and evaluations, and having negative feelings regarding the discrepancies between expectations and performance (Stoeber, 2012).

There are many different labels used in the literature on perfectionism, but researchers recognize that there are at least two forms of perfectionism, and that differentiating these two facets is of central importance in gaining a better understanding of this disposition. For the purpose of this paper, the labels defined by Dunkley et al. (2003) will be applied. *Personal standards perfectionism* is characterized by high levels

of perfectionistic strivings and low levels perfectionistic concerns. This form involves setting high standards for performance, and using active problem solving. *Self-critical perfectionism* is characterized by high levels of both perfectionistic strivings and concerns. This form involves individuals making harsh criticisms about their performance and self-evaluations, being unable to gain satisfaction from success, worrying about others' expectations and how others' view their performance, and relying on maladaptive coping styles.

Both forms have been shown to be associated with different outcomes. Personal standards perfectionists strive for perfection due to internal standards, meaning that perfection is something that they want for themselves. This form has been shown to be positively associated with academic achievement (Flett & Hewitt, 2014; Stoeber & Otto, 2006), higher levels of life satisfaction and well-being, along with lower levels of maladaptive coping and psychopathology (Stoeber & Otto, 2006). The prevalence of personal standards perfectionism is approximately 43.65% among adolescent populations (Chan, 2009; Rice et al., 2011). Chan (2009) classified personal standards perfectionists based on participants' scores on five FMPS (Frost Multidimensional Perfectionism Scale) constructs. Specifically, participants who scored high on personal standard, parental expectations, and organization but low on parental criticism and concern over mistakes were classified as personal standards perfectionists.

On the other hand, self-critical perfectionists strive for perfection due to external standards, meaning that they feel pressured by others to be perfect. It has been associated with various forms of psychopathology, such as anxiety (Bieling et al., 2004), depression (Lasota & Kearney, 2017), obsessive compulsive thoughts (Moretz & McKay, 2009),

eating disorders (Dakanalis et al., 2014), and suicidal ideation (Chang et al., 2004; Enns et al., 2001). Furthermore, it has been shown to negatively impact positive affect and life satisfaction (Chang et al., 2004). The prevalence of self-critical perfectionism is approximately 27.2% among adolescent populations (Chan, 2009; Rice et al., 2011). Chan (2009) classified self-critical perfectionists as those who scored high on all five constructs in the FMPS (Frost Multidimensional Perfectionism Scale). Researchers generally acknowledge that personal standards perfectionism is more adaptive than self-critical perfectionism, as self-critical perfectionists do not gain much advantage from their disposition and tend to suffer from it instead.

Considerable overlap exists between these two forms of perfectionism, but most studies have followed Stoeber and Otto's (2006) recommendations to control for this overlapping variance when analyzing associations with these forms of perfectionism. It has been reliably shown that there is a suppression effect demonstrating that the negative associations of self-critical perfectionism often suppress the positive associations of personal standards perfectionism, and that this effect is not spurious (Stoeber & Otto, 2006). In other words, this means that often times the associations related with self-critical perfectionism may overpower any associations related with personal standards perfectionism, thus concealing the presence of any positive associations with personal standards perfectionism. Therefore, only after controlling for the overlapping variance between both forms, the positive associations of personal standards perfectionism become evident.

Consequently, when researchers calculate an 'overall perfectionism' score by grouping both forms together, they often find only the negative associations that are

representative of self-critical perfectionism. It is important to note that personal standards perfectionism rarely suppress the negative associations of self-critical perfectionism, due to the fact that the negative associations of self-critical perfectionism are often stronger, and they are shown to be especially strong after controlling for the overlap. Stoeber and Gaudreau (2017) argue that statistically controlling both forms of perfectionism is mutually enhancing and still yields predicible partial correlations.

In addition, Stoeber and Otto (2006) make strong arguments that individuals can be personal standards perfectionists without self-critical tendencies, as they can strive for perfection without making harsh critical self-evaluations if they fail. In conclusion, statistically controlling for the overlap is a valid and predicible method used in perfectionism research (e.g., Moore et al., 2018), and it is important to control for this overlap when examining associations in order to avoid erroneous conclusions, especially when examining associations with personal standards perfectionism as those tend to be suppressed by self-critical perfectionism (Stoeber & Damian, 2016).

Perfectionism at Work

The prevalence of perfectionism is quite high and common, as most individuals are perfectionistic in at least one domain of life (Stoeber & Stoeber, 2009). Moreover, the domain in which perfectionistic tendencies are most prevalent is the work domain, which includes academic and professional work (Slaney & Ashby, 1996; Stoeber & Stoeber, 2009). For instance, a study demonstrated that across 22 domains of life, 58% of their student working sample and 53% of their internet working sample expressed that they were perfectionistic in their work-life domain (Stoeber & Stoeber, 2009). In addition, perfectionism in the workplace can impact various work-related outcomes. For instance,

due to setting extremely high standards for themselves, it is difficult for a perfectionist to feel that their work is ever good enough. This has been shown to be related with increased quality of work, but at the cost of decreased productivity and efficiency (Sherry et al., 2010; Stoeber & Eysenck, 2008). Despite the prevalence of this disposition in the work domain, research on perfectionism in the workplace is lacking when compared to the amount of research done in other domains of life, as most perfectionism research has focused on clinical and educational settings (Stoeber & Damian, 2016). As Stoeber (2018) recently highlights in his book reviewing perfectionism research, few studies have examined perfectionism at work among employees using longitudinal designs and even fewer have examined how perfectionism may relate with important work-related factors that are of key concern in the organizational literature, such as workaholism and job burnout (e.g., Stoeber et al., 2013; Childs & Stoeber, 2010). He suggests that more longitudinal research is needed to determine underlying processes that could explain the relationships between perfectionism and various outcomes in the workplace.

A recent meta-analysis further demonstrates the importance of adopting a multidimensional view of this disposition in the work domain (Harari et al., 2018). Focusing on existing correlational perfectionism research in the workplace, the authors showed that across 95 samples, both forms of perfectionism were differently related with various work-related outcomes, demonstrating that self-critical perfectionism had stronger positive associations with negative work outcomes such as workaholism, burnout, and stress, whereas personal standards perfectionism had much weaker positive associations or nongeneralizable relations. Harari and colleagues highlight the importance of measuring both dimensions of perfectionism to better understand the consequences

and benefits of this personality disposition in the workplace. Furthermore, the authors acknowledge that there is still a lack of understanding of the impact that perfectionism has in the workplace and call for more research, specifically longitudinal research, but overall conclude that perfectionism may seem to have more consequences than benefits at work.

A notable shortcoming of perfectionism research in the workplace is that present studies cannot address causation concerning the link between perfectionism and various work-related outcomes, as these studies mainly use cross-sectional research designs (which only measure variables of interest at a single point in time; Harari et al., 2018). Stoeber (2018) also recognized this shortcoming as the majority of perfectionism research uses cross-sectional research designs, and as a consequence, these studies cannot determine the directionality of these relationships, for instance, whether perfectionism is an antecedent or consequence of various variables, or whether these associations are solely correlated. Stoeber suggests that future research should utilize longitudinal research designs with three or more time points. Such a design would allow researchers to determine if perfectionism predicts changes in work-related outcomes over time and allow to properly test mediation effects, both of which would advance our understanding of perfectionism in the workplace.

The present study sought to extend perfectionism research by examining how both forms of perfectionism in the workplace differentially impact goal pursuit, motivation, and various work-related outcomes among employees. Previous research has suggested that both forms of perfectionism are differentially related with goal progress for personal goals, indicating that personal standards perfectionists make better progress

than self-critical perfectionists, and motivation has been shown to mediate these relations (Moore et al., 2018). These findings have yet to be replicated in work-settings and investigate the role of work motivation specifically, which could further our understanding of how this personality disposition can influence goal pursuit at work. In addition, organizational research has shown that burnout, workaholism, negative affect, and low levels of job satisfaction are costly issues that organizations are faced with (e.g., Paoli & Merllie, 2001; Stephens & Joubert, 2001; Danna & Griffin, 1999), and more research is needed to further understand the antecedents of these negative work-related outcomes and the mechanisms behind them. The present study will utilize a 2-wave longitudinal research design to address directionality.

Goal Progress and Perfectionism

As previously mentioned, perfectionism can negatively impact productivity and efficiency at work due to the tendency of setting extremely high standards of performance. Although setting difficult goals have been shown to lead to better performance (Locke & Latham, 1990), as Harari and colleagues (2018) speculate, perfectionists tend to spend all their resources and time on one specific task with the goal to make it perfect, leading to decreased quality and progress on other tasks at work (Bergeron, 2007). However, little research has been conducted that examines how perfectionism may influence goal pursuit and goal progress in the workplace, and specifically for work-related goals.

In terms of personal goals, both forms of perfectionism have been reliably shown to have differential effects on goal progress. Personal standards perfectionism has been consistently associated with positive goal progress, whereas self-critical perfectionism

has been associated with negative goal progress when controlling for the overlapping variance (Powers et al., 2011; Powers et al., 2012).

Powers and colleagues (2011) demonstrate these relations between perfectionism and goal progress among five distinct samples and across different types of personal goals. For instance, these researchers recruited female college students who had set weight management goals, musicians pursuing music performance goals, and college students who had set academic goals. They measured goal progress by simply asking participants to rate their progress on their personal goals over time. Goal progress was measured one week later for the weight management and music performance goals, and one month later for the academic goals. The results from these three samples demonstrated that personal standards perfectionism was positively related with goal progress, whereas self-critical perfectionism was negatively related with goal progress.

Furthermore, Powers and colleagues (2011) measured peer-reported goal progress in a fourth sample by recruiting female college students and their close friend. They obtained the participants' self-reported goal progress, and the participant's friend was asked to rate the participant's progress on their personal academic goals. These results were consistent with previous findings, showing that personal standards perfectionism was associated with better goal progress, whereas self-critical perfectionism was associated with worse goal progress. In addition, this study demonstrated that self-reported and peer-reported goal progress obtained the same results. Moreover, these researchers went a step further with their fifth sample, in which they measured goal progress in an objective manner instead of utilizing self or peer reported measures. They recruited a sample of overweight individuals pursuing weight-loss goals, and used

observed weight-loss over a six-month period as an indication of goal progress. The findings from this last study were also consistent with previous findings, demonstrating that personal standards perfectionism was associated with better goal progress, and self-critical perfectionism was associated with worse goal progress. It is interesting to note that across all five studies, the strength of these associations were different. The negative association between self-critical perfectionism and goal progress was twice as strong compared to the positive association between personal standards perfectionism and goal progress. This is expected, as previous research has demonstrated similar patterns of associations between both types of perfectionism (Stoeber & Otto, 2006; Stoeber & Gaudreau, 2017). In addition, Powers et al. (2012) further supported these findings by replicating these associations among undergraduate students while controlling for the overlapping variance between both forms of perfectionism.

In sum, personal standards perfectionism has been reliably shown to have a positive impact on goal progress, whereas self-critical perfectionism has been shown to have a negative impact on goal progress. While these findings are compelling, it is only pertinent for personal goals, and whether these findings are relevant in the work domain for work-related goals remains unknown (I further discuss how work goals are different from personal goals at the end of the next section).

Autonomous/Controlled Motivation

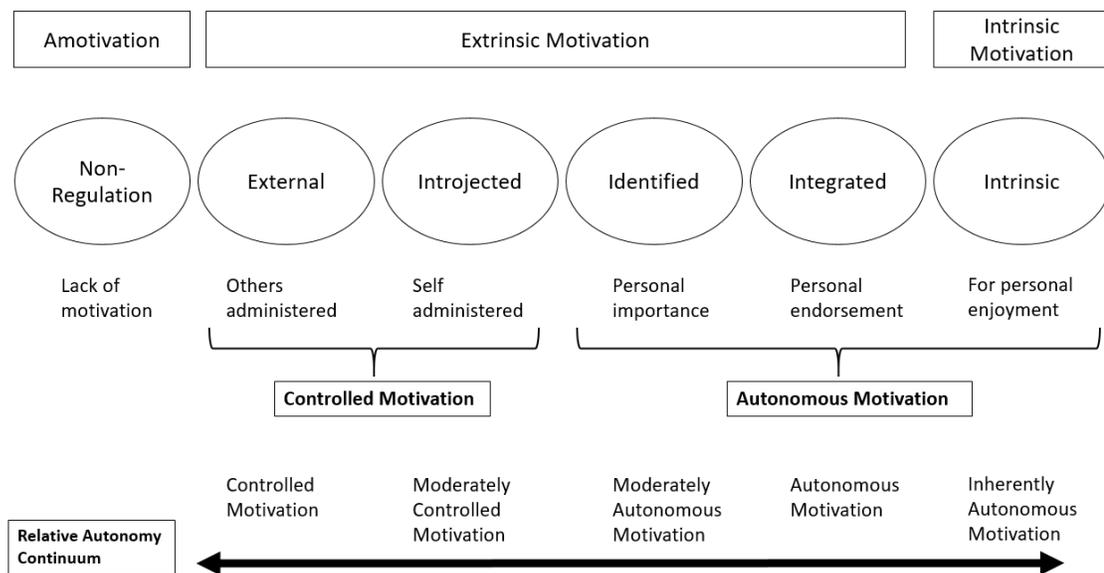
Researchers have sought to explore possible mechanisms that could explain the relation between both forms of perfectionism and their differential impact on goal progress (e.g., Powers et al., 2012). Recent research has found a promising mechanism grounded in self-determination theory. Self-determination theory (SDT) is a theoretical

framework for understanding human motivation (Ryan & Deci, 1991; Ryan & Deci, 2017). Within SDT, there is a major distinction between two types of motivational orientations: autonomous and controlled forms of motivation. *Autonomous* motivation involves feeling volitional in regard to one's actions and decisions, and involves self-endorsed behaviors that are consistent with authentic interests and values. The opposite is *controlled* motivation, which involves behaving in a particular way based on external factors or pressures which are not consistent with authentic values. Thus, controlled forms of motivation are in a sense pushing an individual to behave in certain ways. Both autonomous and controlled forms of motivation have distinct underlying regulatory processes, and SDT proposes that behaviors can be described as either autonomous or controlled. SDT places these two types of motivation on a continuum from controlled to autonomous motivation. Within this continuum, both types of motivation can be broken down into more specific forms of motivational regulations, each of which are inherently more autonomous or controlled in nature. External and introjected regulation fall on the controlled motivation side of the continuum, while identified and integrated regulation fall on the autonomous side of the continuum (Ryan & Deci, 2017). *External regulation* is directly controlled by other people and external forces, such as rewards and punishments. *Introjected regulation* is self-administered but not fully accepted and is mainly driven by guilt and shame, making this motivation "internally controlling". On the other end of the continuum (the autonomous side), *identified regulation* involves identification with the values and meaning of the activity/behavior, accepting it as their own and finding personal importance in the activity. *Integrated regulation* involves personal endorsement, meaning that the value of the activity becomes part of the

individual’s sense of self. All four types of motivation described are considered to be a form of *extrinsic* motivation, meaning that these behaviors are instrumental and are done for external rewards, pressures, or valued outcomes. On the far end of the autonomous side of the continuum lies *intrinsic* motivation, which are behaviors performed out of pure interest and enjoyment for the activity. In addition, one last form of motivation is *amotivation*, which is a lack of motivation and it is neither considered to be autonomous or controlled (see Figure 1).

Figure 1

Self-Determination Theory’s Multidimensional View on Motivation



Note. Adapted from Deci & Ryan (2008).

There are several ways that researchers view these motivational constructs and operationalize them. SDT postulates that motivation can be viewed as a continuum (autonomous-controlled) that is characterized by the different forms of regulatory

behaviors (intrinsic, integrated, identified, introjected, external); or they can be grouped into two factors: autonomous versus controlled motivation types. For the purposes of the present study, I will be discussing motivation based on the two separate dimension types of autonomous motivation, which includes intrinsic motivation, integrated and identified regulation, and controlled motivation, which includes introjected and external regulation. Grouping motivation into these two dimensions is commonly done in the field (e.g., Mouratidis & Michou, 2011; Madigan et al., 2016; Koestner et al., 2008). Moreover, Gagne and colleagues (2015) were able to show that clustering autonomous and controlled forms into two dimensions yielded reliable results. Specifically, they were able to show that autonomous forms of work motivation predicted different work-related outcomes when compared to controlled forms of work motivation. Therefore, examining motivation, especially work motivation, by using a two-factor model is recommended in the work domain. It is important to note that each of the five forms of motivation vary in their degree of autonomy or control (thus falling somewhere on the continuum), but they are still considered to be either autonomously driven, or controlled driven, thus the only difference between each form is in their degree of autonomy or control (Ryan & Connell, 1989). Therefore, by grouping motivation together based on whether they are considered to be autonomous forms or controlled forms simplifies and differentiates the core differences between all forms, as previously mentioned, autonomous and controlled motivation have distinct underlying regulatory processes (e.g., Sheldon, 2014; Ryan & Deci, 2017). In addition, Deci et al. (2017) support this conceptualization of motivation in the workplace stating that it has been shown to predict organizational outcomes and the

general expectation from this theory is that these two forms of motivation have different implications.

In terms of goal pursuit, SDT offers a perspective on the ways in which goals may be pursued and proposes that individuals can be motivated to pursue their goals for the different reasons described above, which I will refer to as goal motivation. Goal motivation encompasses both dimensions of motivation: autonomous goal motivation and controlled goal motivation. The theory suggests that when an individual feels autonomous about their goal, meaning that they feel wholehearted about their goal, they will make more goal progress, leading to increases in well-being (Sheldon, 2014). The main difference between autonomous and controlled forms of goal motivation lies in how an individual is motivated to pursue them. If they set goals based on their values, are self-endorsed, and are freely chosen, then the goal is considered to be autonomously driven. In contrast, if an individual sets a goal that they feel obligated to pursue or feel an external or internal pressure to pursue, then the goal pursuit is controlled (Koestner et al., 2008). Both forms of motivation have been shown to differentially relate with goal progress. Specifically, some research shows that controlled forms of motivation are unrelated with goal progress, while autonomous forms of motivation have been reliably shown to predict better goal progress (Harvey et al., 2015; Powers et al., 2007; Koestner et al., 2008; Sheldon & Elliot, 1998; Shahar et al., 2006; Judge et al., 2005).

In regards to perfectionism, it has been consistently shown that personal standards perfectionism is related with autonomous goal motivation, whereas self-critical perfectionism is related with controlled goal motivation. For instance, Harvey et al. (2015) measured university students' perfectionism and their motivation towards their

academic goals. They found that personal standards perfectionism was positively related with autonomous motivation and was not significantly associated with controlled motivation, whereas self-critical perfectionism was positively related with controlled motivation, and was negatively related with autonomous motivation. Researchers have speculated that this may be due to the fact that personal standards perfectionists strive for perfection due to their internal standards, and that they may also pursue goals that are concordant with these internal standards and values. For the case of self-critical perfectionists, they strive for perfection due to external standards, which may influence them to pursue goals based on external factors, which inevitably make them feel controlled (Powers, 2007; Shahar et al., 2003; Harvey et al., 2015).

Recent research also demonstrates that the associations between perfectionism and goal progress is mediated by goal motivation. Moore and colleagues (2018) recruited a sample of undergraduate students, and asked them to set personal goals that they intended to pursue over the next seven months, and measured their goal motivation and perfectionism. Their findings suggest that autonomous goal motivation mediated the relationship between perfectionism and goal progress for personal goals, revealing that successful goal progress for personal standards perfectionists was mediated by increased levels of autonomous motivation, whereas decreased levels of autonomous goal motivation mediated the relationship between self-critical perfectionism and negative goal progress.

While these findings suggest a potential mechanism explaining the relations between both forms of perfectionism and goal pursuit, it cannot be generalized to other types of goals, such as work-related goals, as past research has focused on personal goals

among undergraduate students. Although work and personal goals may have their similarities, they still have their distinct differences. Work-related goals are set by self-imposed intentions and may depend on the demands of the job which have to be met within the work environment (Pomaki et al., 2004; Pomaki & Maes, 2002). Therefore, work goals are domain-specific as they relate to the work domain. For instance, a study sought to explore which types of personal work goals managers set for themselves, and identified seven different categories of personal work goals: competence-related (30.5%; e.g., job performance), progression (23.7%; e.g., promotions), well-being (15.2%; e.g., work satisfaction, work-life balance), job change (13.7%; e.g., career or position change), job security (7.4%; e.g., permanent contract), organization (5.6%; e.g., success of the organization), and finance (3.9%; e.g., bonuses; Hyvönen et al., 2009). In contrast, personal goals could extend beyond these seven categories, as it is not domain-specific in nature. Personal goals can be applied to many different areas of life, including work, school, health, family, friends, travel, and more, just to name a few.

In addition, the motivation behind goal-setting could vary between these two types of goals. An individual's level of motivation for setting a personal goal could be different compared to the motivation related to a work goal. This is due to the fact that levels of motivation vary across different contexts and situations in an individual's life, thus motivation can be context specific (Vallerand, 1997; the Hierarchical Model of Intrinsic & Extrinsic Motivation is further discussed in later sections). Therefore, an individual may have high levels of autonomous motivation for a personal goal, but that same individual may also have low levels of autonomous work motivation, which may influence their progress on their work-related goals.

These differences set work goals apart from personal goals, and in order to improve goal success among employees, it is important to explore perfectionism and goal pursuit specifically within the work environment by examining work-related goals and work motivation.

Work-Related Outcomes

In addition to goal progress, both forms of perfectionism seem to differentially relate to specific work-related outcomes that are of key interest to organizations, such as burnout, workaholism, subjective well-being, and job satisfaction (e.g., Harari et al., 2018). Currently, more research is needed to fully understand these relations among workers, and mechanisms that influence these outcomes in the workplace.

Burnout

Burnout is shown to be a negative work-related mental state that is persistent and develops over time as a consequence of long-term stress in an individual's work environment (Schaufeli & Enzmann, 1998). Burnout has been shown to negatively impact employee well-being and their work-life balance (Schaufeli et al., 2008). Burnout can be viewed as a vicious cycle, in which high demands lead to emotional exhaustion, which contribute to depersonalization, which is a feeling of disconnect. This in turn leads to diminished personal accomplishment, creating further emotional exhaustion (Maslach et al., 2001). Burnout can be conceptualized into three dimensions: emotional exhaustion, cynicism, and inefficacy (Maslach & Jackson, 1981; Maslach et al., 2001). Emotional exhaustion is the core dimension of burnout that can be characterized by a depletion of emotional resources (Gorter et al., 1999; Piko, 2006; Schaufeli & van Dierendonck,

1993), and has been shown to have severe health consequences (Ahola et al., 2010). In addition, it is shown to be a significant predictor of other work outcomes, such as job performance, turnover intentions, and absenteeism (Babakus et al., 1999; Cropanzano et al., 2003; Wright & Cropanzano, 1998; Deery et al., 2002; Richer, Blanchard, & Vallerand, 2002; Firth & Britton, 1989; Singh et al., 1994), which are costly issues for organizations (Harter et al., 2003; Harter et al., 2002; Lee & Ashforth, 1996). Consequently, researchers have attempted to understand and identify factors and personality dispositions that may contribute to the development of burnout in the workplace.

Perfectionism can affect work in many ways, and its impact on burnout is no exception. As perfectionists tend to worry and ruminate over their work more than non-perfectionists, this makes it challenging for them to detach from work in order to have a healthy work-life balance (Flaxman et al., 2012; Mitchelson, 2009) which could inevitably put them at risk for burnout and workaholism. Importantly, both forms of perfectionism have been shown to differentially impact burnout and this is especially evident after controlling for the overlapping variance.

Stoeber and Damian (2016) reviewed the literature concerning the link between perfectionistic strivings (a core component of personal standards perfectionism) and perfectionistic concerns (a core component of self-critical perfectionism) on burnout among employees in a variety of different work settings. A number of studies demonstrated that self-critical perfectionism was related with higher levels of burnout, while personal standards perfectionism was not related with burnout (Mitchelson & Burns, 1998; Fairlie and Flett, 2003, Van Yperen et al., 2011; Kazemi & Ziaaddini,

2014). However, while the relation between self-critical perfectionism and burnout consistently demonstrate positive associations, the link between personal standards perfectionism and burnout is less clear, as other studies demonstrate mixed findings. For example, some studies found a negative correlation between personal standards perfectionism and components of burnout, specifically with inefficacy (e.g., Li et al., 2014; Caliskan et al., 2014), while others demonstrate a positive correlation between personal standards perfectionism and burnout (e.g., Hrabluik et al., 2012; Taris et al., 2010). However, the researchers highlight that these studies did not control for the overlap between both dimensions of perfectionism when examining the relation between personal standards perfectionism and burnout, which could lead to mixed findings. Only a handful of studies controlled for the overlapping variance and found interesting results. Specifically, these studies found no significant correlation between personal standards perfectionism and burnout, however, after employing multiple regression analyses, these studies found negative regression coefficients between personal standards perfectionism and burnout (Stoeber & Rennert, 2008; Childs & Stoeber, 2010).

Overall, Stoeber and Damian (2016) conclude that self-critical perfectionism reliably shows a positive relation with burnout and symptoms of burnout. On the other hand, even though some studies demonstrate mixed findings in regards to the relation between personal standards perfectionism and burnout, Stoeber and Damian (2016) conclude that personal standards perfectionism most likely reveals a negative relationship with burnout when the overlapping variance is controlled for. The authors of the literature review speculate that self-critical perfectionism could be regarded as a risk factor for

experiencing burnout symptoms at work, while personal standards perfectionism would not be regarded as a protective factor.

Moreover, a meta-analysis conducted by Hill and Curran (2016) also reveal the importance of controlling for the overlapping variance between both forms of perfectionism when examining their relations with burnout. Using random-effects modelling, these researchers were able to show that personal standards perfectionism had either a small negative or non-significant relation with burnout or symptoms of burnout, while self-critical perfectionism demonstrated a medium-to-large positive relation with burnout and symptoms of burnout. Moreover, after controlling for the overlapping variance, a negative relation between personal standards perfectionism and burnout appeared. This is interesting because these findings suggest that the relationship between personal standards perfectionism and burnout may be influenced by self-critical perfectionism when the overlap is not controlled for. Hill and Curran (2016) suggest that future research should identify possible explanatory factors, and utilize longitudinal research designs to properly test mediation and causal influences, and to investigate how these relationships might unfold overtime.

Childs and Stoeber (2012) conducted two longitudinal studies among UK employees to explore the effects of self-critical perfectionism on burnout and stress over time. Results revealed that self-critical perfectionism predicted increases in burnout over time. This study is one of the few that explored these relations with a longitudinal design, and further provides evidence that self-critical perfectionism has negative effects on burnout among employees, however, this study did not examine personal standards perfectionism.

A more recent meta-analysis concluded that overall perfectionism showed a positive relation with burnout, but the relation was stronger for self-critical perfectionism, while personal standards perfectionism had a non-generalizable relationship (Harari et al., 2018). Altogether, current research examining the relationship between both forms of perfectionism and burnout among employees provides evidence to believe that self-critical perfectionism may have a negative impact on burnout symptoms when compared to personal standards perfectionism, but more research is needed, especially longitudinal research, to explore directionality and potential mechanisms that could explain these associations.

Workaholism

Another pervasive work-related problem is workaholism, which can be defined as a constant and uncontrollable need to work intensely and compulsively (Schaufeli et al., 2008). Workaholism has been identified to have two core dimensions, both of which are present in workaholics: working excessively (WE), and working compulsively (WC; Schaufeli et al., 2009). Research has shown that workaholics experience negative consequences that are both physical and psychological (Falco et al., 2013; Shimazu et al., 2010). For instance, workaholism has been associated with high levels of burnout and low levels of life satisfaction outside of work (Clark et al., 2016). Moreover, due to workaholics not getting enough rest, exercise, or time for leisure activities, it has been shown to lead to psychosomatic symptoms and health complaints (Burke, 2000; Ng et al., 2007; Robinson, 2000; Snir & Harpaz, 2006). By contrast, work engagement is not considered to be the same as workaholism, even though both involve a heavy investment in their work. Work engagement is defined as a work-related state of mind in which

individuals acquire fulfillment, absorption, and dedication with their work (Schaufeli et al., 2002). In addition, research has shown that work engagement is associated with positive outcomes when compared to workaholism (e.g., Shimazu et al., 2015), and it has been suggested that engaged employees and workaholics are driven by different motivational states. Employees who are fully engaged in their work are mainly driven by their intrinsic motivation to work vigorously (due to their own will and interest in the activity), whereas workaholics are mainly driven by extrinsic motivation (to avoid negative emotions, and to preserve their self-esteem; e.g., van Beek et al., 2012). Therefore, workaholism is considered to be an unhealthy characteristic associated with various health consequences, and accompanied with negative consequences for organizations as well (e.g., absenteeism, diminished job performance; Falco et al., 2013), which are costly issues (e.g., Harter et al., 2003). For this reason, it is important to understand the antecedents and mechanisms that could influence workaholism.

The relationship between both forms of perfectionism and workaholism have been examined in order to further understand how this personality disposition may impact workaholism among employees. Only a handful of studies have sought to explore this relationship, and results have been mixed. For instance, Stoeber and Damian (2016) reviewed five studies that examined these associations, and explained that although findings are mixed, the studies that controlled for the overlapping variance between both forms of perfectionism may provide a better picture of the relationship between perfectionism and workaholism. They conclude that both personal standards perfectionism and self-critical perfectionism illustrate a positive relation with workaholism. For example, a study which examined workaholism and perfectionism

among employees and students working part-time controlled for the overlapping variance between both forms of perfectionism and found that self-critical perfectionism was unrelated with workaholism, however, personal standards perfectionism showed a positive relationship with workaholism (Stoeber et al., 2013). However, Clark and colleagues (2010) also examined these constructs within a student working sample, and found that after controlling for the overlapping variance, both forms of perfectionism positively predicted workaholism. In addition, another study conducted with employees found that after controlling for the overlapping variance, among other factors such as job demands and job control, found that only self-critical perfectionism was positively associated with workaholism (Taris et al., 2010). These studies suggest that the relationship between perfectionism and workaholism is more complex, and perhaps depends on the sample of working adults.

A more recent study used a managerial sample to examine the relation between perfectionism and workaholism (Girardi et al., 2018). These researchers' findings are inline with Stoeber and Damian's (2016) conclusion regarding the relationships between both forms of perfectionism and workaholism. After controlling for the overlapping variance between both forms of perfectionism, both personal standards and self-critical perfectionism were found to be positively related with workaholism. In addition to these findings, a meta-analysis concluded that both forms of perfectionism are positively related with workaholism, however, self-critical perfectionism demonstrated a stronger positive relationship, whereas personal standards perfectionism had a much weaker relationship with workaholism (Harari et al., 2018). In sum, based on current research examining the relationships between both forms of perfectionism and workaholism, there

is reason to believe that workaholism may be positively influenced by both personal standards perfectionism and self-critical perfectionism, but perhaps not with the same magnitude, demonstrating that perfectionism may only have detrimental affects in regards to this work-related outcome. However, there is a lack of longitudinal research examining these links, and the present study will utilize a longitudinal research design to explore these constructs over time, address directionality, and explore potential underlying mechanisms.

Subjective Well-Being

As previously mentioned, self-critical perfectionism has been shown to be associated with many different forms of psychopathology (Bieling et al., 2004; Lasota & Kearney, 2017; Moretz & McKay, 2009; Dakanalis et al., 2014; Chang et al., 2004; Enns et al., 2001), and it has been shown to have negative effects on positive affect and life satisfaction (Chang et al., 2004; Dunkley et al., 2006). On the other hand, personal standards perfectionism has been associated with higher levels of life satisfaction and well-being, along with lower levels of maladaptive coping and psychopathology (Stoeber & Otto, 2006). These differing effects on well-being were found among employees as well. Harari and colleagues' (2018) meta-analysis examined the associations between perfectionism and mental well-being variables among adult working samples. Their findings showed that overall perfectionism had a positive relation with stress, anxiety, and depression. However, personal standards perfectionism had a weak relation, whereas self-critical perfectionism had consistently strong relations with these mental well-being variables. Therefore, in regards to well-being, evidence suggests that both forms of perfectionism may impact well-being differently.

In the present study, I will focus on subjective well-being. Subjective well-being is defined as an individual's evaluation of their life as a whole, which involves cognitive evaluations of fulfillment and affective forms of evaluation (Diener et al., 2002). Typically, subjective well-being is comprised of three components: positive affect, negative affect, and life satisfaction (e.g., Mackinnon & Sherry, 2012). This single composite model of subjective well-being, as opposed to a separate component model (i.e., all components viewed as orthogonal constructs), has been used in recent research because intercorrelations between the components are high, and factor analyses provide support for a single composite model (Linley et al., 2009). Thus, an individual who scores high on subjective well-being is characterized as having low levels of negative affect, high levels of positive affect, and high levels life satisfaction (Diener et al., 2002). Subjective well-being is a factor of interest in the organizational literature, as it has been associated with many positive outcomes among employees such as increased job performance and job retention (Wright et al., 2007; Wright & Bonett, 1992). Therefore, understanding how perfectionism relates with employee's subjective well-being and understanding its impact would advance our knowledge and help organizations determine ways to maintain higher levels of well-being among employees.

The literature is limited in regards with the relation between both forms of perfectionism and subjective well-being among working adults, however, research with student samples may provide guidance on the topic. Mackinnon and Sherry (2012) conducted a 3-wave longitudinal study to examine the relations between both forms of perfectionism and subjective well-being among young adults transitioning to university. Using a single composite measure of subjective well-being, results showed that self-

presentation mediated a negative relationship between self-critical perfectionism and subjective well-being. On the other hand, personal standards perfectionism was not significantly related with subjective well-being, and did not predict changes over time.

Another study conducted with students found that personal standards perfectionism was positively related with life satisfaction and positive affect, whereas self-critical perfectionism was positively related with negative affect (Chan, 2007). Moreover, a longitudinal study conducted by Moore and colleagues (2018) demonstrated that personal standards perfectionism was only negatively related with negative affect at baseline, whereas self-critical perfectionism showed consistent positive relations with negative affect at all time points, and a negative association with positive affect among university students. These longitudinal studies, along with others, suggest that self-critical perfectionism can be regarded as a vulnerability factor for decreased levels of subjective well-being (Chang, 2000; Graham et al., 2010; Rice & Aldea, 2006). Furthermore, personal standards perfectionism is inconsistently related with subjective well-being, especially after controlling for self-critical perfectionism (Graham et al., 2010; Hill et al., 2010). Moreover, these studies consisted of student samples, therefore these findings have yet to be replicated among a sample of working adults. However, these trends could be expected to generalize within the work domain, as subjective well-being is not necessarily domain-specific.

As previously mentioned, perfectionists tend to worry and ruminate more about work than non-perfectionists, making it difficult for perfectionists to switch off and relax after work, and this may negatively impact their work-life balance, health, and well-being (Flaxman et al., 2012; Mitchelson, 2009). Therefore, it is important to examine how

subjective well-being in general can be influenced by perfectionistic tendencies, as this can cause their overall satisfaction with life and affect to suffer in the process. More research is needed to examine the relationships between both forms of perfectionism at work and subjective well-being over time among employees to further understand how both forms can impact an individual's general sense of well-being.

Job Satisfaction

Job satisfaction is another important work-related factor as it is associated with variables of interest in organizations. It is defined as positive feelings, attitudes, and judgements towards one's work in terms of their tasks, experiences, and appraisals (Weiss, 2002; Locke, 1976). It is important for companies to maintain high levels of job satisfaction among their employees because it has been shown to be related with increased productivity and performance (Judge et al., 2001), as well as organizational commitment and intentions to stay (Cantarelli et al., 2015), while job dissatisfaction can have negative implications. For instance, job dissatisfaction can have detrimental effects on organizational effectiveness. Evidence shows that, along with burnout, job dissatisfaction is a costly issue for organizations, as it can decrease employee performance and increase absenteeism as well as turnover (Harter et al., 2003; Harter et al., 2002; Lee & Ashforth, 1996; Keaveney & Nelson, 1993; Richer et al., 2002). Therefore, it is important to investigate how personality dispositions, such as both forms of perfectionism, may influence job satisfaction in order to better understand the mechanisms behind employee satisfaction at work.

Little research has investigated how both forms of perfectionism influence job satisfaction, however, current evidence seems to suggest that self-critical perfectionism

may have a negative association with job satisfaction. A study conducted among 279 Canadian employees investigated how perfectionism was associated with various work-related factors, including job satisfaction, which was composed of a global job satisfaction measure, along with five facets of job satisfaction (satisfaction with work, pay, promotion, supervision, and co-workers; Fairlie & Flett, 2003). Results showed that self-critical perfectionism negatively predicted global job satisfaction but personal standards perfectionism showed no significant relation with job satisfaction.

Other studies also provide evidence suggesting that self-critical perfectionism is negatively related with job satisfaction among teachers (Flett et al., 1995), and among mental health workers (Wittenberg & Norcross, 2001). More recently, a study conducted with a sample of part-time millennial workers in the hospitality industry did not find significant relations between perfectionism and job satisfaction (Hammond et al., 2019). Their results showed that self-critical perfectionism was not significantly correlated with job satisfaction, and neither was personal standards perfectionism. However, this study measured perfectionism with the Almost Perfect scale (APS) which confined their conceptualization of these perfectionism types into two subscales: standards and discrepancy, thus not capturing the constructs entirely. Altogether, evidence suggests that self-critical perfectionism may have a detrimental effect on job satisfaction, while personal standards perfectionism might not influence job satisfaction. But more research is needed to further explore these associations over time, and to explore potential underlying mechanisms behind them.

Work Motivation

It is important to understand potential underlying mechanisms that could explain the differential relationships that both forms of perfectionism show with these various work-related outcomes, as well as goal progress. A potential factor that could be influencing these relationships in the workplace is work motivation, which is domain-specific.

In most contexts, motivation refers to the ‘quantity’ of motivation (i.e., how motivated an individual is to a particular job), whereas self-determination theory focuses on the ‘quality’ of the motivation and the reasons behind it (Ryan & Deci, 2017). Work motivation in the present study is based on the autonomous-controlled motivation continuum from the SDT framework previously discussed. As this level of motivation is specific to the work domain for a particular job, as opposed to general motivation or situation-specific motivation, it represents the work-related behavioral regulations that lead to different motivational orientations for a particular job.

According to the Hierarchical Model of Intrinsic and Extrinsic Motivation developed by Vallerand (1997), there are three hierarchical levels of motivation which include global (general), contextual (domain-specific), and situational (task-specific) motivational levels. Considering these different levels when examining motivation can allow researchers to make more precise predictions and to refine their theories and conclusions.

Domain-specific motivation refers to an individual’s motivational orientation within a specific context of their life (e.g., school, work, sports, or interpersonal relationships); whereas global motivation encompasses all contexts and can be found at the top-level of the hierarchy. By contrast, situational motivation is considered a lower

level motivation that is defined as the motivational orientation towards a specific activity (which could fall within a specific domain of life). Specifically, work motivation falls under the domain-specific level of the motivation hierarchy (the middle-level), whereas goal motivation can be found at the situational level (the lower-level) because motivation for a specific goal, even though it could be for a work-related goal, will still be considered motivation for a specific activity or task as it does not represent an entire context. Situational forms of motivation have been shown to be more variable and flexible over time when compared to domain-specific forms of motivation, providing evidence that these two forms of motivation are unique from each other. And according to Vallerand's theory, each level of motivation is seen as important and distinct. This was demonstrated in a study conducted by Vallerand and Guay (as cited in Vallerand, 1997, p. 294), where they had a sample of college students and asked them to complete measures of motivation at all three levels of the motivation hierarchy. Their findings provide evidence to support the hierarchical model of motivation by showing that all three levels of motivation are empirically distinct from one another.

Even though these different levels of motivation are distinct, they can still be influenced by one another to a certain degree. Vallerand (1997) explains that a lower-level motivation can be influenced by higher-level motivations in the hierarchy, as there is evidence of a top-down effect. For instance, an individual's global motivation may impact their domain-specific motivation which can then influence their situational motivation, however, there is not a direct effect of global motivation on situational motivation. In addition, it is also possible that lower-level motivations in the hierarchy can influence higher-level motivations, but only when they are prolonged over time. That

is to say that an employee who experiences low levels of autonomous motivation towards their work tasks (i.e. situational level motivation), it can eventually impact their level of autonomous motivation towards work (i.e. domain level motivation) only if that situational level motivation is experienced on a regular basis. In conclusion, as much as these motivational levels in the hierarchy are unique, they can still be influenced by one another to some degree and by certain social factors found at their respective levels.

Vallerand (1997) explains various benefits for examining motivation at the domain level. First, an individual's motivational orientation may be extremely different from one domain to the next, and general measures of motivation will not be able to capture those differences. For instance, Susan could display high levels of controlled motivation towards school, while experiencing high levels of autonomous motivation towards her hobby for painting. Research has shown evidence of this by demonstrating how levels of autonomous and controlled motivation can vary greatly as a function of context. In particular, a study found that individuals generally report higher levels of controlled motivation towards work and household chores, but on the other hand, report higher levels of autonomous motivation towards socializing and enjoying meals (Graef et al., 1983). Thus, domain-specific measures of motivation will capture unique motivation for a particular context.

A second benefit to examine motivation at the domain level is that motivation is more variable at this level when compared to general level motivation, given that it is context dependent. Moreover, domain level motivation will be more useful and practical for predicting changes across various outcomes that are found in specific contexts. For example, work motivation specifically would be better at predicting burnout and

workaholism among employees than a general measure of motivation, as these outcomes will be more sensitive to work motivation. In addition, Milyavskaya and Koestner (2011) provide evidence that across multiple domains, domain-specific motivations relate to various outcomes found in that particular domain of life (such as need satisfaction and subjective well-being). This is inline with Vallerand's (1997) argument that contextual motivation will be more influential in regards to outcomes at the corresponding level. Furthermore, some research specifically examined the relation between work motivation and work-related outcomes that further provides evidence that domain-specific motivation can strongly predict respective domain level outcomes. For example, studies have demonstrated that employees who have higher levels of autonomous work motivation, specifically intrinsic and identified regulation, have higher levels of job satisfaction and higher levels of job retention (e.g., Blais et al., 1993).

Lastly, domain-specific motivation can be used in field research which can provide insightful applied benefits. Thus, examining domain-specific motivation may be better at predicting various outcomes and advance current knowledge regarding the underlying mechanisms and processes within specific domains, such as in the workplace setting.

Given these points regarding the added value of examining motivation at the contextual level, the present study will examine how work motivation can influence the relationships between both forms of perfectionism, work-related goal progress, and various outcomes in the workplace.

Perfectionism and Work Motivation

As previously discussed, research suggests that both forms of perfectionism may differentially relate with various work-related outcomes, such as burnout, subjective well-being, and job satisfaction, on the contrary, perfectionism may not differentially relate to workaholism. As these factors are important for organizations, there is a need to further explore potential underlying mechanisms that influence the relationship between perfectionism and these work-related factors. Accordingly, these outcomes can be regarded as domain-specific, therefore, it would be appropriate to examine how work motivation mediates the relationship between perfectionism at work and these work-related outcomes.

Evidence suggests that personal standards and self-critical perfectionism are differentially related with work motivation. A study conducted among 131 employees used the Work Extrinsic and Intrinsic Motivation Scale (WEIMS) to examine how perfectionism, workaholism, and work motivation are related (Stoeber et al., 2013). They found that personal standards perfectionism was positively correlated with intrinsic motivation, integrated, identified, and introjected regulation and negatively correlated with amotivation. On the other hand, self-critical perfectionism was positively correlated with introjected and external regulation, and amotivation. These correlations between both forms of perfectionism and work motivation are interesting, because this suggests that personal standards perfectionism is mostly related with autonomous forms of work motivation, whereas self-critical perfectionism is related with only controlled forms of work motivation, and amotivation. Moreover, Stoeber and Damain (2016) also make similar conclusions regarding these findings, as they point out that personal standards perfectionism show positive correlations will all forms of autonomous motivation.

However, there are notable limitations with Stoeber et al., 2013's study. First, their sample consisted mainly of females (84%). Secondly, the scale they used to measure work motivation demonstrated reliability issues. The WEIMS in their study was shown to have very low reliability for external regulation ($\alpha = .58$). This was due to an issue with an item which led the researchers to delete that item. In addition, they used a cross-sectional design, therefore they could not address directionality. Future research should consider using a more reliable measure of work motivation and utilize longitudinal designs.

To date, there is a lack of research examining perfectionism and work motivation specifically. However, evidence based on motivation more generally could provide some insight on this topic. A chapter written by Stoeber and colleagues (2017) reviews studies that examine both forms of perfectionism and motivation from a self-determination theory perspective. They explain that generally, studies show that personal standards perfectionism is mostly associated with autonomous forms of motivation, and that self-critical perfectionism is mostly associated with controlled forms of motivation. And although some studies may find that personal standards perfectionism is positively related with some controlled forms of motivation, the researchers point out that studies which controlled for the overlapping variance between the two forms of perfectionism provide a clearer picture. Specifically, personal standards perfectionism shows unique positive associations with autonomous forms of motivation, and no relationship with controlled forms of motivation, and on the other hand, self-critical perfectionism shows unique positive associations with controlled forms of motivation, and none with autonomous motivation when controlling for the overlap. For example, a study conducted among

athletes examined perfectionism and sport motivation (i.e. contextual-level motivation) found that personal standards perfectionism was positively correlated with autonomous motivation and negatively correlated with amotivation, whereas self-critical perfectionism was negatively correlated with autonomous motivation and positively correlated with controlled motivation and amotivation (Barcza-Renner et al., 2016).

The researchers highlight a few key points. First, they point out that half of the studies they reviewed were conducted in the sports domain, thus examining sport motivation specifically. They encourage future studies to explore whether these findings hold true in other domains and among other samples, such as in the work domain, but they suspect that these finds will generalize across different domains. Secondly, the majority of these studies used cross-sectional research designs which cannot address the direction of these relationships (e.g., whether perfectionism affects motivation, or if motivation affects perfectionism). The authors speculate that based on very limited evidence, perfectionism seems to be the antecedent of motivational orientations. For instance, a longitudinal study found that perfectionism predicted motivational orientations across time, but the researchers call for more studies using longitudinal designs to further explore their causal relationships (Madigan et al., 2016). In conclusion, the researchers highlight the importance of examining perfectionism from a motivational perspective to understand how this personality disposition is related with various outcomes, as both forms of perfectionism are suggested to have two unique “motivational footprints”.

In addition, studies that have examined situational level motivation could provide additional insight on the relationship between perfectionism and motivation, especially

since they generally line-up with findings from other studies using different motivational levels. Moore et al. (2018) showed that both forms of perfectionism are differentially related with situational level motivation, specifically goal motivation. As previously discussed, they demonstrated that personal standards perfectionism was related with increased levels of autonomous goal motivation, whereas self-critical perfectionism was related with decreased levels of autonomous goal motivation. Another study that examined perfectionism and goal motivation also found similar findings, specifically, personal standards perfectionism was positively correlated with autonomous goal motivation, and self-critical perfectionism was negatively correlated with autonomous goal motivation, and positively correlated with controlled goal motivation (Harvey et al., 2015).

Although these studies demonstrate that personal standards perfectionism is related with autonomous forms of motivation, and self-critical perfectionism is related with controlled forms of motivation, more research is needed to examine these associations among working adults and use a domain-specific measure of motivation, in this case work motivation (Stoeber & Damain, 2016), as only one study to my knowledge has examined perfectionism and work motivation specifically. In addition, more longitudinal research is needed to explore directionality.

Work Motivation and Work-Related Outcomes

Burnout

In addition to perfectionism, the literature does provide some evidence to suggest that work motivation is also linked with various work-related outcomes of interest in the

present study. In regards to burnout, as previously mentioned, Stoeber and Damian (2016) reviewed the literature regarding the relationship between both forms of perfectionism and burnout. In their conclusion, they speculate that these associations could be mediated by autonomous and controlled forms motivation, as previous research suggests a link.

Research conducted among athletes provides some evidence to suggest that self-determined motivation could mediate the relationship between both forms of perfectionism and burnout. Jowett and colleagues (2013) conducted a study among junior athletes examining perfectionism, burnout, and sport motivation. Their findings demonstrated that personal standards perfectionism was positively related with autonomous and controlled forms of motivation, whereas self-critical perfectionism was only positively correlated with controlled motivation. It is interesting to note that the relation between personal standards perfectionism and controlled motivation was found to be non-significant after controlling for self-critical perfectionism. Moreover, these researchers demonstrated that autonomous motivation was negatively correlated with burnout, whereas controlled motivation was positively correlated with burnout. After implementing a mediation analysis, they provided evidence that motivation does mediate the relationship between both forms of perfectionism and burnout. Specifically, they demonstrated that autonomous motivation mediated the negative relationship between personal standards perfectionism and burnout, whereas controlled motivation mediated the positive relationship between self-critical perfectionism and burnout. Although this study was conducted in the area of sports psychology, it provides evidence that contextual motivational orientation could be a potential mechanism at play in regards to

the relationship between perfectionism and burnout. However, more research is needed to examine these pathways among employees, and with work motivation specifically, as Jowett et al. (2013) measured motivation at the domain level of sports. In addition, that study used a cross-sectional design which does not allow for a proper mediation analysis, and the researchers suggest that future studies utilize longitudinal designs.

A more recent study conducted longitudinally among junior athletes confirms Jowett et al.'s (2013) findings, by providing evidence that motivation mediates the relationship between perfectionism and burnout over time. Madigan and colleagues (2016) measured sport motivation, perfectionism, and athletic burnout over the course of six months, using three time points (with three-month time intervals). After employing a multilevel mediation analysis, the researchers found that autonomous motivation mediated the negative relationship between personal standards perfectionism and athlete burnout, and controlled motivation mediated the positive relationship between self-critical perfectionism and burnout at the between-person level, after controlling for the overlapping variance between both forms of perfectionism. This study provides the first piece of evidence that motivation does mediate the perfectionism and burnout relationship using a longitudinal design. However, as the researchers suggest, more research is needed to be done across different domains.

Some evidence exists among samples of employees that suggests these findings will hold true in the work domain as well. Stoeber et al. (2013) showed that personal standards perfectionism was positively related with autonomous work motivation, and self-critical perfectionism was positively related with controlled work motivation among a sample of working adults. Therefore, there is reason to believe that the mediation model

will hold true in the workplace as well, and Stoeber and Damian (2016) recommend that future research should also utilize longitudinal designs to examine these pathways over time and establish causal links to further provide evidence that perfectionism is a key personality disposition among various work outcomes.

Lastly, research has provided evidence that work motivation has a direct influence on emotional exhaustion, which is the core component of burnout. For instance, Richer et al. (2002) demonstrated that autonomous forms of work motivation was negatively related with emotional exhaustion. This is in line with previous research, demonstrating that autonomous motivation prevents employees from experiencing emotional exhaustion (Blais et al., 1993; Pedrabissi & Santinello, 1991). In conclusion, there is reason to believe that work motivation may mediate the relationship between perfectionism and burnout among employees.

Workaholism

In regards to workaholism, as previously mentioned, Stoeber et al. (2013)'s study examined how both forms of perfectionism was related with workaholism, and whether work motivation mediated the relationship between perfectionism and workaholism. Using a mediation analysis, the researchers found that work motivation mediated the relationship between personal standards perfectionism and workaholism, but not for self-critical perfectionism, which was as expected because self-critical perfectionism was found to be unrelated to workaholism in their study. Specifically, they found two mediational pathways: personal standards perfectionism was positively related with identified work motivation which lead to increases in workaholism; and personal standards perfectionism was positively related with introjected work motivation which

lead to increases in workaholism. These findings are interesting because this demonstrates that both autonomous and controlled forms of work motivation are shown to be a mechanism influencing the relationship between personal standards perfectionism and workaholism. The authors point out that both these forms of motivation are found mid-way on the autonomous-controlled continuum, which means it is driven mainly by the self and ego. However, a limitation of the study was that it used a cross-sectional design. The authors point out that in order to properly test for mediation pathways, there is a need for longitudinal research designs with three time points to replicate and further support their findings. And as previously mentioned, their measure of work motivation was not found to be very reliable, and they had to adjust the items accordingly, therefore, future research should examine these relations using a more reliable measure of work motivation.

Similar results were found in another study that examined the correlations between work motivation, workaholism and other work variables. After controlling for job demands and resources among two samples of working adults, the researchers revealed that workaholism was positively associated with introjected regulation and identified regulation, thus demonstrating that workaholism is associated with both autonomous and controlled forms of work motivation (van Beek et al., 2012).

Lastly, a study sought to explore the relationship between autonomous and controlled work motivation and workaholism among a sample of 370 workers (Van den Broeck et al., 2011). Interestingly, their findings revealed that both forms of motivation were positively related with different facets of workaholism. Specifically, autonomous work motivation was positively related with the excessive work component of

workaholism, whereas controlled work motivation was positively related with the compulsive work component. It is important to note that the relation with autonomous motivation was much weaker compared to the relation with controlled motivation. The authors conclude that workaholics may be highly motivated in general. In addition, they speculate the component of excessive work may have beneficial effects on well-being, as it was related with increased vigor in their study. In contrast, the compulsive work component was related with increased exhaustion in their study, suggesting that it can have detrimental effects on employee well-being.

Subjective Well-Being

The relation between work motivation specifically and subjective well-being is limited, but previous research has examined the link between general motivation and subjective well-being, which could provide guidance on the topic of work motivation. Studies provide evidence demonstrating that autonomous motivation positively predicts subjective well-being (e.g., Olesen et al., 2015). A study conducted by Milyavskaya and Koestner (2011) examined domain-specific need satisfaction, motivation, and subjective well-being in a sample of 203 adults. The researchers asked participants to list important life domains that they were involved in and measured motivation and subjective well-being in each of those domains. This resulted in 826 domains, and 146 (roughly 18%) of those domains fell in the category of work. Their results showed that autonomous motivation was significantly positively related with subjective well-being, and that this finding applied across all domains of life. Therefore, this study provides evidence to suggest that autonomous work motivation is positively associated with subjective well-being at work. However, research is limited regarding the relationship between work

motivation and general subjective well-being, and whether work motivation mediates the relationship between perfectionism and subjective well-being remains unknown.

Job Satisfaction

Lastly, many researchers have sought to examine how work motivation predicts job satisfaction among employees. An abundance of studies provide evidence to suggest that work motivation at the domain level does in fact relate with job satisfaction. Specifically, research shows that autonomous work motivation is positively related with job satisfaction (Richer et al., 2002; Lam & Gurland, 2008; Harigopal & Kumar, 1982; Keaveney & Nelson, 1993). As previously mentioned, Blais et al. (1993) demonstrated that employees who had higher levels of autonomous work motivation was positively associated with job satisfaction and lower turnover intentions. Later studies have also confirmed these findings, for instance, Gillet et al. (2013) examined both global and domain specific motivation, turnover intentions, and work satisfaction among 735 employees. Results revealed that autonomous work motivation was positively related with job satisfaction, and controlled work motivation was negatively related with job satisfaction. The authors highlight the importance to further explore the mechanism of work motivation with work-related outcomes.

Potential Confounds

Lastly, it is important to consider possible confounding variables that might influence goal pursuit, work motivation, and work-related outcomes in the present study. Controlling for these variables in my analyses will eliminate any potential influences they might bring.

Goal-setting theories in the organizational literature have consistently found that goals are more successful when workers show high levels of goal-related self-efficacy, commitment to their goals, and when goal difficulty is high (Locke & Latham, 2006; Locke & Latham, 1990; Locke & Latham, 2002; Koestner et al., 2006). Some of the research that examines goal pursuit outside of the organizational literature has also taken these variables (labelled here as goal cognitions) into account when measuring goal progress (e.g., Powers et al., 2005; Austin & Vancouver, 1996; Sheldon & Kasser, 1998). As these goal cognitions have been shown to influence goal progress, I decided to control for these as they might be potential confounds when examining goal progress in the present study.

In a similar respect, work self-efficacy may also influence the variables of interest in the present study, such as motivation as well as goal progress. Work self-efficacy reflects an individual's confidence and belief in their abilities to accomplish a task at work (e.g., Bandura, 1986). Previous research has shown that higher levels of self-efficacy was related with positive outcomes, such as job satisfaction and performance (Judge & Bono, 2001), physical and mental well-being (Bandura, 1997), and academic performance (Bandura, 1997, Robbins et al., 2004). A meta-analysis has also demonstrated that self-efficacy can impact work-related performance and organizational pursuits (Cherian & Jacob, 2013). Moreover, research shows that individuals who have high self-efficacy are more likely to set challenging goals which also leads to goal attainment (Bandura & Locke, 2003; Stajkovic, 2006). Given that an individual's level of self-efficacy at work may impede on the relationships examined in the present study, I decided to control for work self-efficacy.

Present Study

The present study sought to extend perfectionism research by examining how both forms of perfectionism differentially impact work-related goal pursuit, motivation, and various work-related outcomes among employees. Specifically, the present study investigated the relation between both forms of perfectionism and work-related goal progress and adopted a self-determination theory perspective to examine the mediating effects of motivation. In addition, the present study investigated how work motivation mediates the relationship between both forms of perfectionism and various work-related outcomes, including burnout, workaholism, subjective well-being, and job satisfaction. This study consisted of a sample of employees and utilized a two-wave longitudinal research design in order to assess the following research questions: 1) Is there an association between perfectionism and goal progress for work-related goals? 2) Does goal motivation (autonomous/controlled) for work-related goals mediate the relation between perfectionism and goal progress? 3) Does work motivation (autonomous/controlled) mediate the relation between perfectionism and goal progress for work-related goals? 4) How is perfectionism associated with work-related outcomes (burnout, workaholism, subjective well-being, & job satisfaction)? 5) How does work motivation (autonomous/controlled) mediate the relation between perfectionism and work-related outcomes?

Decades of research have reliably shown that self-determination theory can be used to predict behaviors across domains of life (Vallerand, 1997), and empirical investigations have also provided sufficient evidence to support its importance in the field of organizational psychology (Deci et al., 1989; Ilardi, et al., 1993). In order to improve

productivity and goal progress among employees, it is important to explore perfectionism and goal pursuits specifically within the work environment and to explore the mechanisms influencing this relation by adopting a self-determination theory perspective. In addition, it is also important to know what individual differences and underlying mechanisms contribute to problematic work outcomes, such as burnout, workaholism, decreased well-being, and job dissatisfaction, as these factors are costly issues for organizations (e.g., Paoli & Merllie, 2001; Stephens & Joubert, 2001; Danna & Griffin, 1999). Gaining a better understanding of these individual differences and underlying processes can help identify employees at high risk of negative work outcomes and help in the implementation of programs in the work domain aimed to adjust employee's perfectionistic tendencies and motivation in order to improve goal progress and prevent negative work outcomes.

Based on previous research outlined above, five sets of hypotheses were offered:

1.a) Personal standards perfectionism will be associated with positive goal progress for work-related goals. 1.b) Self-critical perfectionism will be associated with negative goal progress for work-related goals. 2.a) Autonomous goal motivation will mediate the positive relationship between personal standards perfectionism and goal progress. 2.b) Controlled goal motivation will mediate the negative relationship between self-critical perfectionism and goal progress. 3.a) Autonomous work motivation will mediate the positive relationship between personal standards perfectionism and goal progress. 3.b) Controlled work motivation will mediate the negative relationship between self-critical perfectionism and goal progress. 4.a) Personal standards perfectionism will be negatively associated with burnout. 4.b) Personal standards perfectionism will be positively

associated with workaholism. 4.c) Personal standards perfectionism will be positively associated with subjective well-being. 4.d) Personal standards perfectionism will be unrelated with job satisfaction. 4.e) Self-critical perfectionism will be positively associated with burnout. 4.f) Self-critical perfectionism will be positively associated with workaholism. 4.g) Self-critical perfectionism will be negatively associated with subjective well-being. 4.h) Self-critical perfectionism will be negatively associated with job satisfaction. 5.a) Autonomous work motivation will mediate the negative relationship between personal standards perfectionism and burnout. 5.b) Autonomous work motivation will mediate the positive relationship between personal standards perfectionism and workaholism. 5.c) Autonomous work motivation will mediate the positive relationship between personal standards perfectionism and subjective well-being. 5.d) Autonomous work motivation will mediate a positive relationship between personal standards perfectionism and job satisfaction. 5.e) Controlled work motivation will mediate the positive relationship between self-critical perfectionism and burnout. 5.f) Controlled work motivation will mediate the positive relationship between self-critical perfectionism and workaholism. 5.g) Controlled work motivation will mediate the negative relationship between self-critical perfectionism and subjective well-being. And 5.h) Controlled work motivation will mediate the negative relationship between self-critical perfectionism and job satisfaction. My research questions, hypotheses¹, measures, and analytic plan were pre-registered on Open Science Framework (OSF; to view, visit https://osf.io/tbq9g/?view_only=79922d5140424174b89f22a39d9f29ba)

¹ All hypotheses were specified in the pre-registration, except for the fourth set of hypotheses, however, they were presented at the prospectus defence, thus were made before analyses.

Methods

Design and Procedure

A prospective, longitudinal study was conducted over the course of a 3-month period and consisted of three time points: baseline, 6-week follow-up², and 3-month follow-up. Previous research suggests to use three time points (e.g. Stoeber et al., 2013; Cole & Maxwell, 2003), especially in perfectionism research to properly test for mediation (Stoeber, 2018). However, due to time constraints and the slow recruitment resulting from the COVID-19 pandemic (see below for more details), only two time points were used for this thesis. All constructs of interest were measured using online self-report questionnaires.

A sample of working adults were recruited by three means. First, I contacted various organizations in located in Canada via personal contacts and provided a letter of invitation to participate in a research study on personality, goal pursuit, and well-being in the workplace (see appendix K to view letter of invitation). Organizations that were interested to be apart of the research study contacted me to further discuss the research. Once they had agreed to participate, I obtained signed consent from the organization. When the study was ready to distribute, I provided a recruitment notice to the organization, which contained information about the study and the online survey link, in which the organization distributed the notice internally for their employees to participate (see appendix K to view recruitment notice, consent form and debrief materials).

² A small portion of participants (N = 19) received the first follow-up 8-weeks later.

As compensation, all participants were invited to attend a workshop provided by the researchers for having participated in the study (even if they did not complete all three surveys). This workshop was aimed to help employees learn ways to improve their goal pursuits, along with a segment on how to manage self-critical tendencies. In addition, participants that completed all three surveys were entered in a draw for a chance to win one out of two \$100 CAD Amazon gift cards. To incentivize organizations to participate, the researchers offered to provide an aggregate report of the research findings to the executive and human resource teams. This aggregated report would include a summary and brief interpretation of the organization's stance on various outcomes including the following information: prevalence rates of both forms of perfectionism, burnout, and workaholism; employee perception on how well they are progressing on their work-related goals; average subjective well-being and job satisfaction scores; and a break down of the employee's level of work motivation. The organization was also made aware of a caveat for receiving this aggregate report. In order to provide sufficient coverage, employers will only be provided an aggregated report if they meet a specified cut-off for the participation rate, which was dependent on the size of their organization in order to protect participant's identity. At the end of the study, an aggregated report was not provided, as all organizations did not meet the cut-off for the participation rate.

A total of five organizations signed-up for the research study, and the collection of the baseline data began during the first week of March 2020. Unfortunately, as recruitment was underway, the COVID-19 pandemic interfered with recruitment³ in mid-

³ Note: 14 participants completed baseline before interference of the pandemic, while 6 participants completed baseline after the pandemic began.

March of 2020. The organizations that signed-up had to lay-off many employees and had a drastic change in priorities and work structure which led them to drop-out of the research study or post-pone. Due to these changes, the recruitment method for the present study was adapted to include recruiting methods via social media outlets and via an online crowdsourcing platform, Prolific.

In order to recruit participants via social media, I shared a recruitment notice (which included the survey link), on Facebook, Instagram, LinkedIn, Reddit, and Twitter (see appendix L to view social media recruitment notice and consent form). Participants that were interested in participating would sign-up by following the link provided to complete the first survey. The collection of baseline data began in April 2020, which was still during the early stages of the pandemic. Compensation remained unchanged for participants recruited via social media. To be eligible for the present study, all participants had to be currently working for a salaried wage (part-time, full-time, or self-employed).

Lastly, the third method of recruitment was via the crowdsourcing platform, Prolific⁴ (<https://www.prolific.co/>). Prolific has been shown to provide high quality data and has been demonstrated to be a great alternative to other crowdsourcing platforms (Peer et al., 2017; Palan & Schitter, 2017). In addition, researchers can easily acquire participants with specific eligibility criteria, as Prolific monitors their participant pool with sophisticated checks to ensure quality data. Prolific operates by presenting the recruitment notice to eligible participants, and those interested could complete the survey

⁴ Prolific is hosted in the United Kingdom

(see appendix M to view Prolific recruitment notice and consent form). As compensation, Prolific participants were offered \$2.11 USD (£ 1.68 GBP) to complete the baseline survey, and \$1.05 USD (£ 0.84 GBP) for completing the first follow-up. For completing the last follow-up survey, participants were invited to the Goal Pursuit Workshop, and were entered into the draw to win one out of two \$100 CAD Amazon gift cards. To be eligible for the present study, all participants had to be currently working for a salaried wage (part-time, full-time, or self-employed). Collection of baseline data began early June 2020, which was at later stages of the pandemic.

Participants

A total of 225 participants were recruited for the present study. Of these participants, 44 were removed from analyses for several reasons. Specifically, participants were removed from analyses if they missed both attention checks. In the baseline survey, six participants were removed for failing both attention checks. In addition, if participants completed the baseline survey in less than five minutes, their data was removed (only one participant was removed for this reason). Nine participants were removed because they did not meet the eligibility criteria of being currently employed. Those who completed less than 50% of the survey were removed from analyses (28 participants were removed from the baseline survey, and three were removed from the follow-up survey for this reason). For the follow-up survey, four participants' data was removed because they were no longer employed.

The final sample size used in present study was $N = 181$ (44.2% men; 55.2% women). Of these, 20 participants were recruited from organizations (during the first week of March 2020), 63 were recruited from social media (in early April 2020), and 98

were recruited from Prolific (in early June 2020). Participants were aged between 18 and 59 years old ($M = 31.42$), with the majority being 30 years old or younger (60%). The majority of participants were single (52.5%), and 42.5% were married or common law, while 5% were separated, divorced, or remarried. The majority of participants had some form of post-secondary education, as 38.7% obtained a Bachelors degree, 33.7% obtained a Masters, PhD, or a professional degree, while 27.1% obtained a high school degree, some college, or a college degree. The majority of participants were Caucasian (80.1%), while 9.9% were Hispanic or Latino, and 10% were of other ethnic backgrounds. Majority of participants reside in Canada (42.5%), while 32% live in Europe, 13.3% in the UK, 7.2% in South America, 3.3% in the United States, and 0.6% in Africa. Participants' house-hold yearly income varied, as 17.7% made less than or equal to \$20,000 CAD, 15.5% made between \$20,000 and \$31,000 CAD, and 15.5% made between \$100,000-\$200,000 CAD, while the average falls between the \$40,000 and \$50,000 CAD range.

In regards to work-related demographics, the majority of participants were working full-time (30 hours or more per week) for a salaried wage (70.2%), while only 16% were working part-time (less than 30 hours per week) for a salaried wage, and 9.9% were self-employed. Participants worked in various industries, the most common being in Education (9.4%), Finance/ Insurance (9.4%), Service Industry (8.3%), Software Services/ Electronics (7.7%) and Heath Care/ Pharmaceuticals (7.7%). Job duration for participants ranged between one month and 30 years, with the average being 40.8 months or 3.4 years (the average excludes 63 responses, as three participants did not respond, and 60 participants did not specify whether their job duration was in months or years). And

the majority of participants had positions below management (50.8%; e.g., operations, administration, consulting), while 17.1% had management positions (e.g., regional manager, team leader), and only 5% were in executive positions. The remaining participants considered themselves to be seasonal staff (7.2%), self-employed (7.2%), or other (12.7%).

Measures

Participants completed online questionnaires measuring the constructs of interest. At baseline I assessed the following: both forms of perfectionism, a work-related goal, goal motivation, work motivation, and all work-related outcomes, along with demographic variables (e.g., education, income, gender; see Appendix J) and other control variables (work self-efficacy, goal difficulty, goal commitment and goal self-efficacy). At each follow-up, goal progress, goal motivation, both forms of perfectionism, work motivation, and all work-related outcomes were assessed.

Self-critical perfectionism. A modified combination of the Depressive Experiences Questionnaire (DEQ; Blatt et al., 1979), the Frost Multidimensional Perfectionism Scale (FMPS; Frost et al., 1990), and the Revised Almost Perfect Scale (R-APS; Slaney et al., 2001) was used to measure self-critical perfectionism. These scales in combination have been used in previous research, and have been shown to have high loadings (i.e., standardized betas $\geq .56$) onto the factor of self-critical perfectionism (Dunkley et al., 2006; Levine, 2018; Levine, et al., 2020). In addition, all scales were adapted to measure perfectionism at work specifically. In the DEQ, participants were asked to rate six items that measured self-criticism on a 7-point Likert scale ranging from 1= strongly disagree, to 7= strongly agree. Sample items include “I tend to be very

critical of myself at work” and “there is a considerable difference between how I am now and how I would like to be at work”. In the FMPS participants were asked to rate five items which measured self-criticism on a 7-point Likert scale ranging from 1= strongly disagree, to 7= strongly agree. A sample item includes “If I fail at work, I am a failure as a person”. In the R-APS participants were asked to rate four items that measured self-criticism on a 7-point Likert scale ranging from 1= strongly disagree, to 7= strongly agree. A sample item includes “I am hardly ever satisfied with my performance at work”. A self-critical perfectionism score was calculated by taking an average across all 15 items. The internal reliability was found to be good in the current study ($\alpha = .89$).

Personal standards perfectionism. A modified combination of the Frost Multidimensional Perfectionism Scale (FMPS; Frost et al., 1990) and the Revised Almost Perfect Scale (R-APS; Slaney et al., 2001) was used to measure personal standards perfectionism. These scales in combination have been used in previous research, and have been shown to have high loadings (i.e., standardized betas $\geq .56$) onto the factor of personal standards perfectionism (Dunkley et al., 2006; Levine, 2018; Levine et al., 2020). In addition, all scales were adapted to measure perfectionism at work specifically. In the FMPS, participants were asked to rate five items that measured perfectionistic strivings on a 7-point Likert scale ranging from 1= strongly disagree, to 7= strongly agree. A sample item includes “I set higher goals at work than most people”. In the R-APS, participants were asked to rate four items which measured perfectionistic strivings on a 7-point Likert scale ranging from 1= strongly disagree, to 7= strongly agree. A sample item includes “I expect the best from myself at work”. A personal standards

perfectionism score was calculated by taking an average across all nine items. The internal reliability was found to be good in the current study ($\alpha = .89$).

Work-related goal. Participants were asked to list a work-related goal that they would like to pursue over the course of the next 3-months⁵.

Goal motivation. Goal motivation was measured using the methods employed by Sheldon and Kasser (1998). Participants were asked to rate their motivation for their work-related goal that they listed using five items that assessed external, introjected, identified, integrated, and intrinsic reasons for pursuing that goal. Participants were asked to rate each statement on a 7-point Likert scale ranging from 1= not at all for this reason, to 7= completely for this reason. Sample items include “because of the fun and enjoyment which the goal will provide you – the primary reason is simply your interest in the experience itself” for intrinsic motivation and “because somebody else wants you to, or because you’ll get something from someone if you do” for external regulation. As done in previous research, an autonomous goal motivation score was calculated by averaging intrinsic, integrated, and identified ratings, and a controlled goal motivation score was calculated by averaging external and introjected regulation ratings (Koestner et al., 2008).

Goal progress. Participants were asked to rate their progress for their work-related goal that they had listed at Time 1 (participants were reminded of their goal at each follow-up) using three items: “I have made a lot of progress toward my goal”, “I

⁵ A portion of participants were asked to set a goal they planned to pursue over a 4-month period at baseline, however, this was adjusted to 3-months for their follow-ups. This also deviates from our pre-registration which refers to 4-months.

feel like I am on track with my goal plan”, and “I feel like I have achieved my goal”. They were asked to rate each statement on a 7-point Likert scale ranging from 1= strongly disagree, to 7= strongly agree (Moore et al., 2017; Koestner et al., 2002). A goal progress score was calculated by taking an average across these three items. In addition, after measuring their goal progress at each follow-up, participants were also given the opportunity to set a new goal if their previous goal was accomplished, or was no longer applicable/relevant. At the last follow-up (Time 3), goal progress was measured for their new goal if they had changed their goal at Time 2.

Work motivation. The Multidimensional Work Motivation Scale (MWMS; Gagne et al., 2015) was used to measure work motivation. Participants were asked to rate why they put efforts into their current job using 19 items that assessed extrinsic regulation (social and material), introjected regulation, identified regulation, intrinsic motivation, and amotivation. They were asked to rate each statement on a 7-point Likert Scale ranging from 1= not all all, to 7= completely. Sample items include “because others reward me financially only if I put enough effort in my job” for extrinsic regulation (material), and “because I personally consider it important to put efforts in this job” for identified regulation. An autonomous work motivation score was calculated by averaging identified regulation and intrinsic motivation ratings, whereas a score of controlled motivation was calculated by averaging extrinsic regulation (social and material) and introjected regulation ratings. The internal reliability was found to be adequate in the current study ($\alpha = .75$).

Burnout. To assess burnout at work, the Copenhagen Burnout Inventory’s (Kristensen et al., 2005) work-related burnout subscale was used. This subscale is

comprised of seven items that measure the degree of fatigue and emotional exhaustion at work. As opposed to using the original 5-point Likert scale, participants were asked to rate each item on a 7-point Likert scale ranging from 1= never, to 7= always, regarding how they feel at their current job. Previous research has also adapted the Likert scale to a 7-point scale with this measure of burnout (e.g., Ferreira et al., 2019). Sample items include “Do you feel burnt out because of your work?” and “Do you feel that every working hour is tiring for you?”. A burnout score was calculated by taking an average of these seven items. The internal reliability was found to be good in the current study ($\alpha = .87$).

Workaholism. The 10 item version of the Dutch Workaholism Scale (DUWAS; Schaufeli et al., 2009) was used to measure workaholism. This measure captures the two components of workaholism: working excessively (five items) and working compulsively (five items). As opposed to using the original 4-point Likert scale, I adapted it to a 7-point Likert scale ranging from 1= totally disagree, to 7= totally agree. Previous research has also used a 7-point Likert scale with this measure of workaholism (e.g., Sandrin et al., 2019). Sample items include “I find myself continuing to work after my coworkers have called it quits” for working excessively, and “I feel that there is something inside me that drives me to work hard” for working compulsively. To measure overall workaholism, an average was calculated using both subscales (a total of 10 items). The internal reliability was found to be good in the current study ($\alpha = .80$).

Subjective Well-Being. A combination of The Satisfaction with Life Scale (SWLS; Diener et al., 1985) and the Positive and Negative Affect Schedule (PANAS; Watson et al., 1988) was used to measure subjective well-being. The SWLS consists of

five items which asked participants to rate their agreement on a 7-point Likert scale, ranging from 1= strongly disagree, to 7= strongly agree. Sample items include “I am satisfied with my life” and “In most ways my life is close to my ideal”. An average of all five items were taken to compute a satisfaction with life score. The PANAS consisted of 20 items that represent emotional experiences and assessed the extent to which respondents experienced each emotion that week. As opposed to using the original 5-point Likert scale, I adapted the Likert scale by asking participants to rate each item on a 7-point Likert Scale ranging from 1= very slightly or not at all, to 7= extremely. Positive affect and negative affect was computed by taking an average of their respective items, thus creating a positive affect score and a negative affect score. In order to calculate an overall subjective well-being score, I computed an average from the positive affect score, life satisfaction score, and reversed negative affect score, as this is commonly done in subjective well-being research (e.g., Reis et al., 2018). Thus, a low subjective well-being score indicates low levels of subjective well-being. The internal reliability of the SWLS and PANAS was found to be adequate in the current study ($\alpha = .91$, $\alpha = .74$, respectively).

Job Satisfaction. The Satisfaction with Work Scale (SWWS; Bérubé et al., 2007) was used to measure job satisfaction. This measure was adapted from The Satisfaction with Life Scale in order to measure satisfaction with work specifically. This measure includes five items in which respondents are asked to rate the extent to which each statement relates to them on a 7-point Likert scale ranging from 1= strongly disagree, to 7= strongly agree. Some items include “In general, the type of work I do corresponds closely to what I want in life” and “I am satisfied with the type of work I do”. A job

satisfaction score was calculated by taking an average of all five items. The internal reliability was found to be good in the current study ($\alpha = .84$).

Work Self-Efficacy. The New General Self-Efficacy scale (NGSE; Chen et al., 2001) was adapted to measure general self-efficacy at work. This measure includes eight items in which respondents are asked to rate the extent to which each statement corresponds to their feelings/self-evaluations at their current job on a 7-point Likert scale ranging from 1= not at all true, to 7= completely true. Some sample items include “When facing difficult tasks at work, I am certain that I will accomplish them” and “I believe I can succeed at most work endeavor to which I set my mind”. A work self-efficacy score was computed by averaging all eight items. The internal reliability was found to be good in the current study ($\alpha = .90$).

Goal Cognitions. All goal cognitions were measured in relation to the goal that participants set at baseline. To measure goal self-efficacy, participants were asked to rate the following item on a 7-point Likert scale ranging from 1=strongly disagree to 7=strongly agree: “I feel that I have the skills and resources necessary to attain this goal”. To measure goal commitment, participants were asked to rate the following item on a 7-point Likert scale ranging from 1=strongly disagree to 7=strongly agree: “I feel committed towards this goal”. To measure goal difficulty, participants were asked to rate the following item on a 7-point Likert scale ranging from 1=strongly disagree to 7=strongly agree: “It will be difficult to reach this goal”. Previous research has measured goal cognitions in this manner (Sheldon & Kasser, 1998; Koestner et al., 2002).

Analytic Plan

The following analyses were pre-registered on OSF. To test for the first set of hypotheses, a linear regression analysis was performed to examine whether both forms of perfectionism predict goal progress, after controlling for work self-efficacy, education, income⁶, gender, and goal cognitions (goal difficulty, goal commitment, and goal self-efficacy). Personal standards perfectionism and self-critical perfectionism were entered as the independent variables, and goal progress was entered as the dependent variable.

To test for the remaining set of hypotheses, path analyses were performed using SEM software, specifically R Studio with the lavaan package installed (Rosseel, 2012) to test direct and indirect pathways. All parameter estimates were obtained by using the “standardizedsolution” function in lavaan, which also provides simple symmetric confidence intervals. The indirect effects were calculated as the product of the path from the predictor to the mediator and from the mediator to the outcome (Preacher & Hayes, 2008).

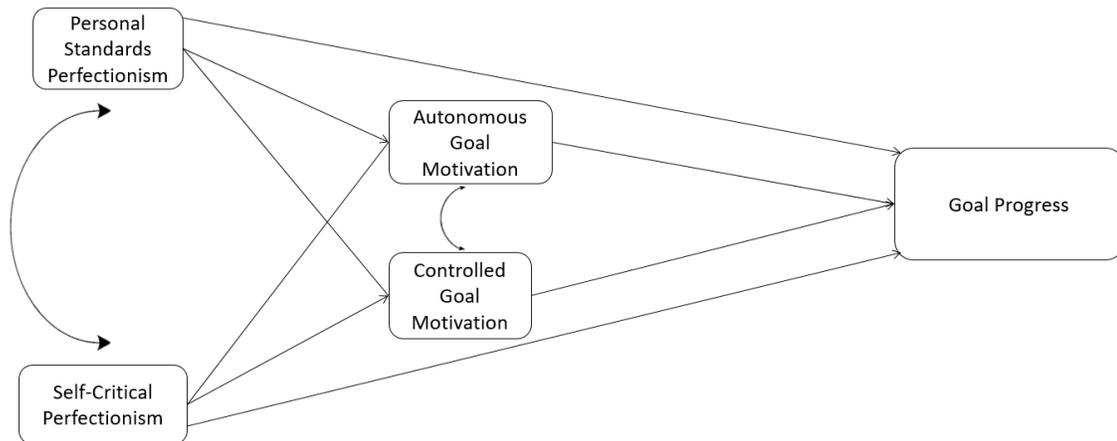
In addition, for each set of hypotheses, two multiple groups analyses were performed to examine differences between full-time and part-time workers (work status)⁷, as well as differences between males and females (gender). These multiple group analyses were not pre-registered on OSF. Specifically, for each multiple groups analysis, a model with constraints and a model without constraints were compared using a chi-square difference test. If the chi-square difference test was found to be non-significant, this indicated that there was no significant decrease to model fit by constraining the

⁶ Although education and income were measured as ordinal, for the purpose of the analyses they were treated as continuous.

⁷ Participants that were identified as self-employed were excluded from the multiple groups analyses, as they did not identify as full-time or part-time workers.

parameters, which meant that the compared groups produced similar model results. However, if the chi-square difference test was found to be significant, and if the model without constraints was shown to be a better fit (by having a smaller chi-square value), this indicated that there were significant differences in model results between the compared groups. Further investigation involved fixing each parameter one at a time to be equal across groups in the model without constraints, and then performing another chi-square differences test to compare each new model with the fixed parameter to the original model without constraints. This allowed us to identify the parameters in the model that showed significant differences between the compared groups.

For the second set of hypotheses, both forms of goal motivation were regressed on both forms of perfectionism, and goal progress was regressed on both forms of goal motivation and both forms of perfectionism. Covariances between personal standards perfectionism and self-critical perfectionism were estimated, as well as the covariance between autonomous and controlled goal motivation (proposed model is depicted in Figure 2). The following control variables were included as predictors of goal progress in the model, and as covariates with both forms of perfectionism and with each other (not included in the figure): work self-efficacy, education, income, gender, goal difficulty, goal commitment, and goal self-efficacy. In addition, the following indirect effects were examined: (a) Personal standards perfectionism → autonomous/controlled goal motivation → goal progress; (b) Self-critical perfectionism → autonomous/controlled goal motivation → goal progress (total of four indirect effects).

Figure 2*Proposed Path Model to Test Hypothesis 2*

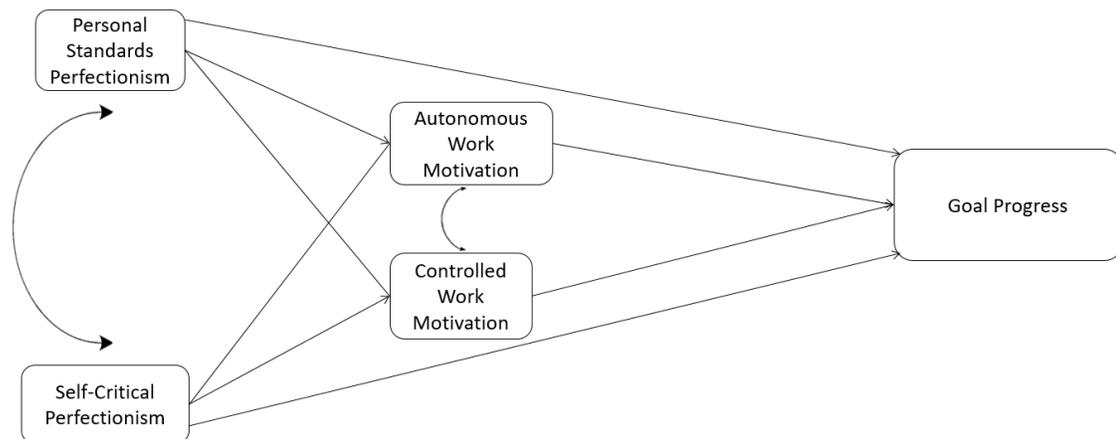
Note. The following control variables are not illustrated but were included in the model: gender, education, income, work self-efficacy, goal self-efficacy, goal commitment & goal difficulty.

To test for the third set of hypotheses, autonomous and controlled work motivation were regressed on both forms of perfectionism, and goal progress was regressed on both forms of work motivation and both forms of perfectionism. Covariances between personal standards perfectionism and self-critical perfectionism were estimated, as well as the covariance between autonomous and controlled work motivation (proposed model is depicted in Figure 3). The following control variables were included as predictors of goal progress, and as covariates with both forms of perfectionism and with each other (not included in the figure): work self-efficacy, education, income, gender, goal difficulty, goal commitment, and goal self-efficacy. In addition, the following indirect effects were examined: (a) Personal standards

perfectionism → autonomous/controlled work motivation → goal progress; (b) Self-critical perfectionism → autonomous/controlled work motivation → goal progress (total of four indirect effects).

Figure 3

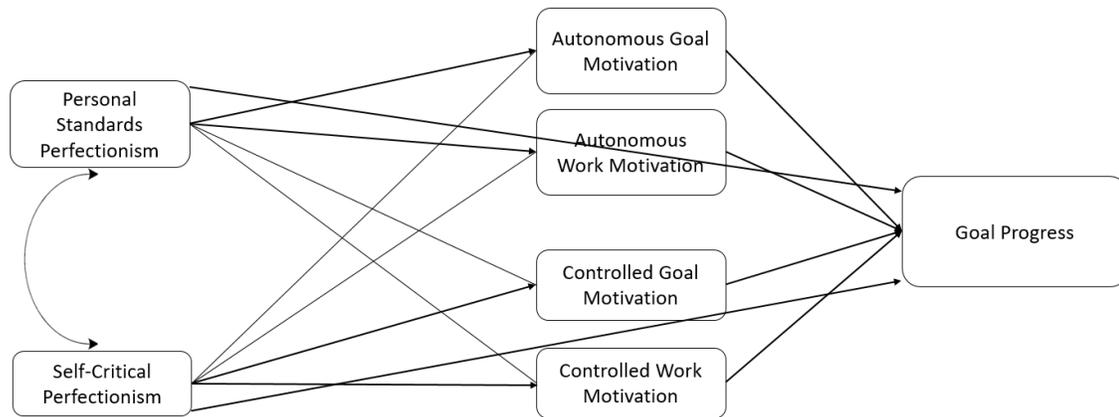
Proposed Path Model to Test Hypothesis 3



Note. The following control variables are not illustrated but were included in the model: gender, education, income, work self-efficacy, goal self-efficacy, goal commitment & goal difficulty.

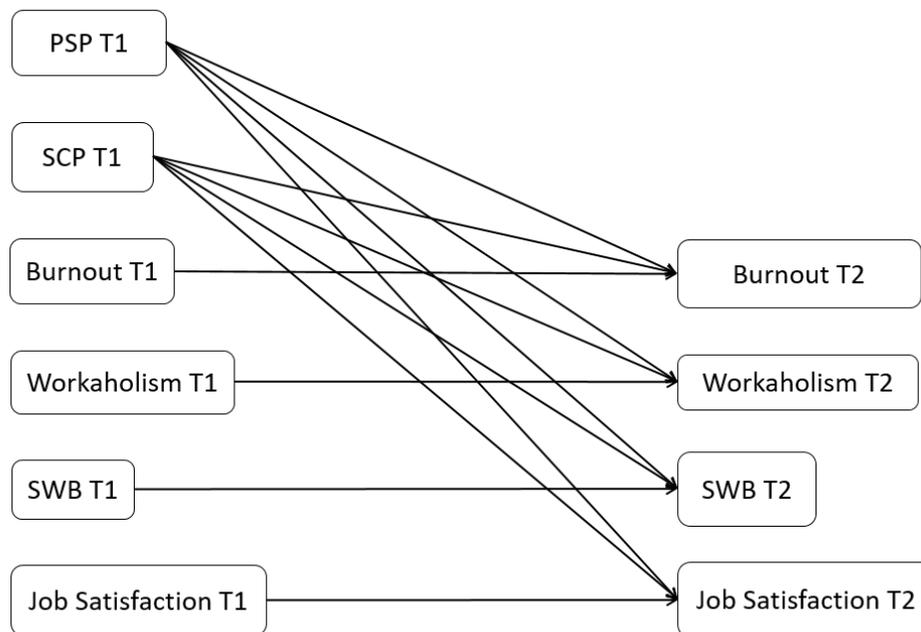
I expect goal motivation and work motivation to be significantly correlated yet still distinct. However, in the event that goal motivation and work motivation are significantly correlated more than $r = .70$, I will combine both into a single construct, creating two motivational constructs of autonomous and controlled motivation to test for mediation regarding hypothesis 2 and 3 together. However, in the event that work motivation and goal motivation are not correlated more than or equal to $r = .70$, in addition to my planned analyses for hypotheses 2 and 3, I will be testing a parallel

mediation to compare work motivation and goal motivation in predicting goal progress (see Figure 4 for proposed parallel mediation model). Both forms of perfectionism are expected to covary, and all forms of motivation are expected to covary as well. The following control variables were included as predictors of goal progress in the model, and as covariates with both forms of perfectionism and with each other: work self-efficacy, education, income, gender, goal difficulty, goal commitment, and goal self-efficacy. The separate indirect effects were tested between both forms of perfectionism \rightarrow autonomous/controlled goal/work motivation \rightarrow goal progress (a total of eight indirect effects). I expected that goal motivation would be a stronger predictor of goal progress than work motivation, as goal motivation and goal progress are situational-level constructs (Vallerand, 1997; the Hierarchical Model of Intrinsic & Extrinsic Motivation). In order to compare the strength of goal and work motivation as a mediator between perfectionism and goal progress, I compared their respective indirect effects by subtracting one from the other. For example, to compare the strength of autonomous goal and work motivation for personal standards perfectionism, I have subtracted both indirect effects from each other (PSP \rightarrow autonomous goal motivation \rightarrow goal progress – PSP \rightarrow autonomous work motivation \rightarrow goal progress). This new parameter is then compared to zero. If it is significant, the two indirect effects differ (meaning that one is stronger than the other). I have also implemented the same analysis to compare the strength of each pathway between perfectionism and motivation (e.g., subtracting the pathway from PSP \rightarrow autonomous goal motivation from the pathway PSP \rightarrow autonomous work motivation).

Figure 4*Proposed Path Model for Parallel Mediation Model*

Note. Covariances between all forms of motivation will be estimated, but not shown here for simplicity; the following control variables are not illustrated but were included in the model: gender, education, income, work self-efficacy, goal self-efficacy, goal commitment & goal difficulty.

To test for my fourth set of hypotheses, both forms of perfectionism at Time 1 were set as predictors of all work variables (burnout, workaholism, subjective well-being, and job satisfaction) at Time 2. In addition, autoregressive paths were specified for each work variable (between Time 1 and Time 2). Covariances were estimated among all Time 1 variables, and covariances were estimated between all Time 2 variables (proposed model is depicted in Figure 5). The following control variables were included as predictors of all Time 2 work variables in the model, and as covariates between all Time 1 variables (not included in the figure): work self-efficacy, education, income and gender.

Figure 5*Proposed Path Model to Test Hypothesis 4*

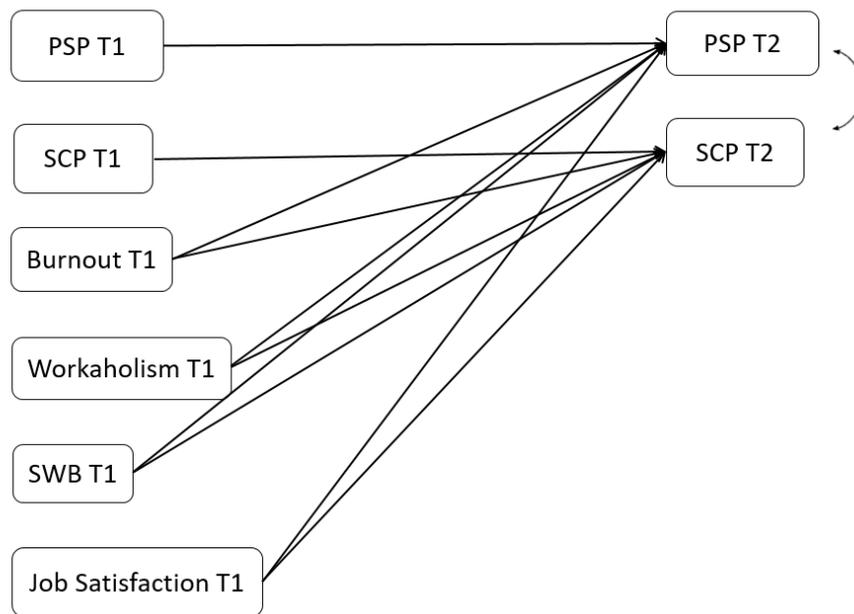
Note. Covariances between all Time 1 variables and covariances between all Time 2 variables will be estimated, but not shown here for simplicity; the following control variables are not illustrated but were included in the model: gender, education, income, work self-efficacy; PSP = personal standards perfectionism; SCP = self-critical perfectionism; SWB = subjective well-being

As a secondary analysis (not included in the pre-registration), I wanted to test for reciprocal relationships to examine whether work-related outcomes may also predict perfectionism. In the second model, all work variables at Time 1 were set as predictors of both forms of perfectionism at Time 2. Both forms of perfectionism at Time 1 were included as predictors of their respective form of perfectionism at Time 2. Covariances were estimated among all Time 1 variables, and the covariance between both forms of

perfectionism at Time 2 were estimated (see Figure 6 for proposed model). The following control variables were included as predictors of both forms of perfectionism at Time 2, and as covariates with all Time 1 variables: work self-efficacy, education, income and gender.

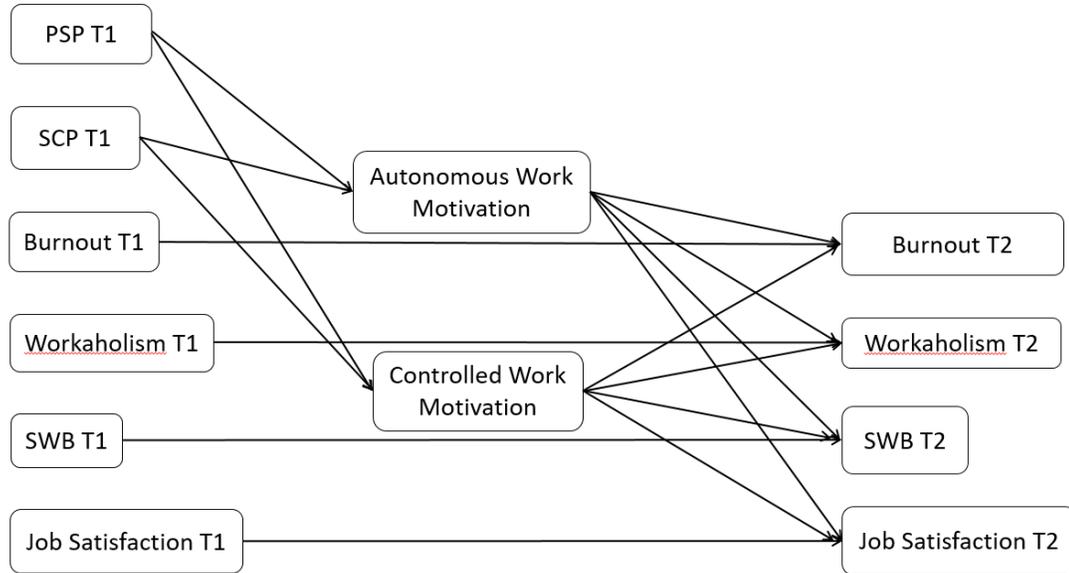
Figure 6

Proposed Path Model to Test Reciprocal Relationships between Work Variables and Perfectionism



Note. Covariances between all Time 1 variables will be estimated, but not shown here for simplicity; the following control variables are not illustrated but were included in the model: gender, education, income, work self-efficacy; PSP = personal standards perfectionism; SCP = self-critical perfectionism; SWB = subjective well-being.

Lastly, to test for my fifth set of hypotheses, personal standards perfectionism and self-critical perfectionism at Time 1 were set as predictors of autonomous and controlled work motivation as well as predictors of all work variables at Time 2. Both forms of work motivation were set as predictors of burnout, workaholism, subjective well-being and job satisfaction at Time 2. In addition, autoregressive paths were specified for each work variable (between Time 1 and Time 2). Covariances were estimated among all Time 1 variables, and covariances were estimated between all Time 2 variables (see Figure 7 for proposed model). The following control variables were included as predictors of all Time 2 work variables in the model, and as covariates with all Time 1 variables: work self-efficacy, education, income and gender (not included in the figure). The following indirect effects were examined: (a) personal standards perfectionism → autonomous/controlled work motivation → each work variable; (b) self-critical perfectionism → autonomous/controlled work motivation → each work variable (total of 16 indirect effects).

Figure 7*Proposed Path Model to Test for Hypothesis 5*

Note. Direct effects between perfectionism at Time 1 and work variables at Time 2 are estimated, but not presented in figure for simplicity; Covariances between all Time 1 variables will be estimated, as well as covariances between all Time 2 variables but are not shown here for simplicity; the following control variables are not illustrated but were included in the model: gender, education, income, work self-efficacy; PSP = personal standards perfectionism; SCP = self-critical perfectionism; SWB = subjective well-being.

Results

Attrition Analysis

Attrition is very common in longitudinal research, however, the majority of participants that completed Time 1 also completed Time 2 in the current study (66.30%). Therefore, the attrition rate was not much greater than the average rate among samples of

working adults in other studies (e.g., Childs & Stoeber, 2012; Taris et al., 2020; Amano et al., 2020; Lisbona, 2018). A greater concern is whether or not the attrition rate was systematic. For example, was it the case that participants who were experiencing elevated levels of burnout were more likely to skip their Time 2 survey? An attrition analysis was conducted to determine whether missingness was not at random by creating dichotomous indicator variables of missingness and regressing this indicator on all variables in a logistic regression. In the analysis, income was shown to be related to missingness ($t = 2.27, p = .024$), specifically, those who had a higher income were more likely to skip Time 2. However, this is not expected to influence the results of the present study, as income was entered as a control variable for all analyses. There were no other significant associations found with the missingness indicator, which suggests that besides income, missing data in the present study was at random.

Preliminary Analyses

All descriptive statistics were calculated using SPSS Statistics 27. Table 1 presents the means, standard deviations and bivariate correlations among all study variables, and Table 2 and 3 present the bivariate correlations between study variables and control variables. Bivariate correlations indicate that personal standards perfectionism at Time 1 was weakly correlated with self-critical perfectionism at Time 1 ($r = .16, p = .031$), however, they were not correlated at Time 2 ($r = .11, p = .221$). This seems unusual, as perfectionism research typically finds large-sized positive correlations (more than $r = .50$; Cohen, 1992) between both forms of perfectionism, as most individuals who have perfectionistic strivings are usually high on perfectionistic concerns (Stoeber & Otto, 2006). Positive correlations are also found among adult working

samples, ranging between $r = .20$ and $r = .48$ (e.g., Stoeber et al., 2013; Girardi et al., 2018; Childs & Stoeber, 2012). Importantly, autonomous goal motivation showed a positive correlation with autonomous work motivation ($r = .58, p < .001$), and controlled goal motivation showed a moderately positive correlation with controlled work motivation ($r = .41, p < .001$). Since goal and work motivation are not highly correlated more than or equal to $r = .70$, I can safely assume that the situational-level motivation (i.e. goal motivation) is conceptually different from the domain-level motivation (i.e. work motivation) in the present study, thus they measure motivation at different motivational levels (e.g., Vallerand, 1997; the Hierarchical Model of Intrinsic & Extrinsic Motivation).

Table 1
Descriptive Statistics and Bivariate Correlations

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Mean (SD)
1. PSP T1	1																	5.44 (0.98)
2. PSP T2	.80	1																5.25 (1.05)
3. SCP T1	.16	.12	1															3.65 (1.08)
4. SCP T2	.01	.11	.79	1														3.64 (1.15)
5. Aut Goal T1	.38	.35	-.14 ^a	-.02	1													5.03 (1.20)
6. Aut Work T1	.42	.35	-.26	-.17 ^a	.58	1												5.23 (1.30)
7. Cont Goal T1	.09	.01	.25	.24	.16	.04	1											3.05 (1.53)
8. Cont Work T1	.14 ^a	.11	.34	.29	.24	.03	.41	1										3.95 (1.11)
9. Goal Progress T2	.21	.20	.04	-.07	.27	.20	.14	.20	1									4.26 (1.55)
10. Burnout T1	-.13 ^a	-.06	.44	.34	-.27	-.47	.17	.19 ^a	.07	1								3.57 (1.25)
11. Burnout T2	-.13	-.09	.56	.61	-.25	-.41	.13	.17 ^a	-.08	.75	1							3.55 (1.20)
12. Workaholism T1	.37	.35	.40	.39	.05	.11	.16	.18	.14	.36	.40	1						4.41 (1.04)
13. Workaholism T2	.38	.46	.50	.51	.04	.15	.14	.23	.12	.30	.46	.76	1					4.28 (1.09)
14. SWB T1	.36	.30	-.46	-.44	.44	.60	-.10	-.08	.19	-.62	-.66	-.16	-.17^a	1				4.79 (0.86)
15. SWB T2	.31	.32	-.50	-.54	.25	.49	-.19	-.26	.26	-.44	-.68	-.16^a	-.25	.77	1			4.74 (0.99)
16. Job Sat T1	.26	.20	-.33	-.35	.38	.64	.14	-.05	.17 ^a	-.52	-.56	-.11	-.14	.66	.58	1		4.66 (1.29)
17. Job Sat T2	.28	.27	-.32	-.33	.34	.59	-.06	-.07	.18 ^a	-.49	-.60	-.08	-.11	.64	.66	.80	1	4.63 (1.26)

Note. Bolded correlations indicate $p < .001$; bolded and italicised correlations indicate $p < .05$; ^a $p < .10$; non-bolded correlations indicate $p > .05$; PSP = personal standards perfectionism; SCP = self-critical perfectionism; Aut Goal = autonomous goal motivation; Aut Work = autonomous work motivation; Cont Goal = controlled goal motivation; Cont Work = controlled work motivation; SWB = subjective well-being; Job Sat = job satisfaction

Table 2*Bivariate Correlations with Control Variables (H1, H2, H3)*

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. PSP T1	1													
2. SCP T1	.16	1												
3. Aut Goal T1	.38	-.14 ^a	1											
4. Aut Work T1	.42	-.26	.58	1										
5. Cont Goal T1	.09	.25	.16	.04	1									
6. Cont Work T1	.14 ^a	.34	.24	.03	.41	1								
7. Goal Progress T2	.21	.04	.27	.20	.14	.20	1							
8. Gender	.19	.05	-.02	.03	-.09	.01	.07	1						
9. Education	.07	-.01	.05	.11	.02	-.07	.05	.01	1					
10. Income	.28	-.09	.05	.21	-.20	-.15	.01	.16	.29	1				
11. Work self-efficacy	.49	-.30	.38	.44	-.12 ^a	.08	.24	.08	.13 ^a	.31	1			
12. Goal self-efficacy	.15	-.24	.19	.22	-.19	-.05	-.04	.09	.08	.15	.23	1		
13. Goal commitment	.20	-.18	.21	.26	-.06	-.05	.04	.10	.13 ^a	.18	.27	.89	1	
14. Goal difficulty	.15	.00	.13 ^a	.18	.01	.09	-.11	-.03	.15	.20	.40	.63	.69	1

Note. Bolded correlations indicate $p \leq .001$; bolded and italicised correlations indicate $p < .05$; ^a $p < .10$; non-bolded correlations indicate $p > .05$; PSP = personal standards perfectionism; SCP = self-critical perfectionism; Aut Goal = autonomous goal motivation; Aut Work = autonomous work motivation; Cont Goal = controlled goal motivation; Cont Work = controlled work motivation

Table 3*Bivariate Correlations between Work and Control Variables (H4, H5)*

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Burnout T1	1											
2. Burnout T2	.75	1										
3. Workaholism T1	.36	.40	1									
4. Workaholism T2	.30	.46	.76	1								
5. SWB T1	-.62	-.66	-.16	<i>-.17^a</i>	1							
6. SWB T2	-.44	-.68	<i>-.16^a</i>	-.25	.77	1						
7. Job Sat T1	-.52	-.56	<i>-.11</i>	<i>-.14</i>	.66	.58	1					
8. Job Sat T2	-.49	-.60	<i>-.08</i>	<i>-.11</i>	.64	.66	.80	1				
9. Work self-efficacy	-.33	-.45	<i>.00</i>	<i>-.04</i>	.61	.55	.46	.42	1			
10. Gender	<i>.05</i>	<i>.02</i>	<i>.01</i>	.21	<i>.04</i>	<i>.10</i>	<i>.02</i>	<i>.07</i>	<i>.08</i>	1		
11. Income	-.16	-.19	<i>.08</i>	<i>.04</i>	.28	.33	.31	.24	.31	.16	1	
12. Education	<i>-.04</i>	<i>.01</i>	<i>-.04</i>	<i>-.03</i>	.16	<i>.08</i>	<i>.13^a</i>	<i>.04</i>	<i>.13^a</i>	<i>.04</i>	.29	1

Note. Bolded correlations indicate $p < .001$; bolded and italicised correlations indicate $p < .05$; ^a $p < .10$; non-bolded correlations indicate $p > .05$; SWB = subjective well-being; Job Sat = job satisfaction

Regression Analysis⁸

In order to investigate my first research question, a linear regression was performed to examine whether both forms of perfectionism predict goal progress, after controlling for work self-efficacy, education, income, gender, and goal cognitions (goal difficulty, goal commitment, and goal self-efficacy). The results from the linear regression indicate that the model was a significant predictor of goal progress, $F(9,109) = 1.98, p = .048, R^2_{change} = .02$, with the full model explaining 14.1% of the variance, however, perfectionism only explains 2% of the variance. Personal standards perfectionism ($\beta = .24, p = .193, CI_{95\%} [-.12, .59]$) and self-critical perfectionism ($\beta = .05, p = .753, CI_{95\%} [-.27, .58]$) were not significant predictors of goal progress.⁹

As a follow-up (non-pre-registered) analysis, a second linear regression was performed to examine whether both forms of perfectionism predict goal progress without controlling for any variables. The results from the linear regression indicate that the model was not a significant predictor of goal progress, $F(2, 117) = 2.72, p = .070$, and only explains 4.4% of the variance. However, personal standards perfectionism ($\beta = .32, p = .024, CI_{95\%} [.04, .59]$) was a significant predictor of goal progress, whereas self-critical perfectionism ($\beta = -.01, p = .940, CI_{95\%} [-.28, .26]$) was not a significant predictor of goal progress.

Path Analyses¹⁰

⁸ To view SPSS output, refer to Supplementary Materials – SPSS Output on OSF (https://osf.io/xehqf/?view_only=8efa519146a4416f8e89e9a2fce057bb)

⁹ Regression results were the same when ran in a path analysis in R with the lavaan package accounting for missing data.

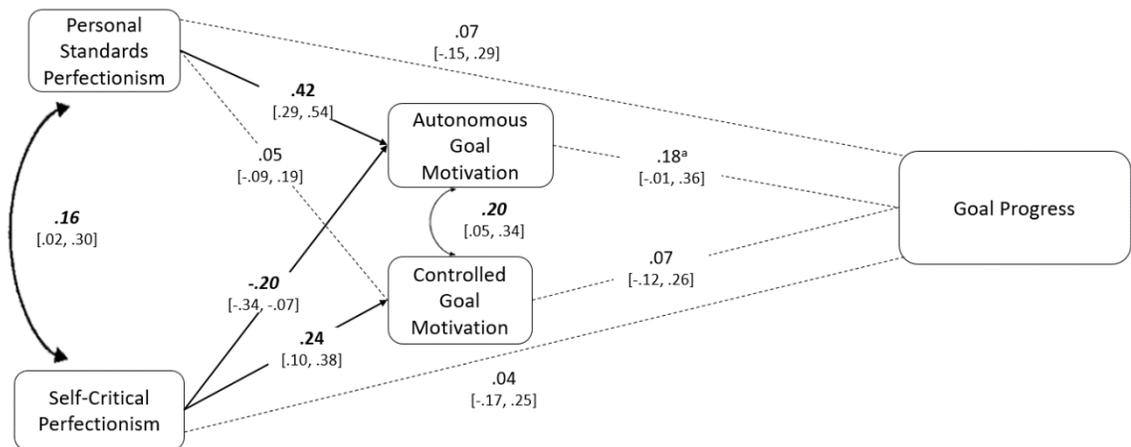
¹⁰ To view R output from path analyses, see Supplementary Materials – R Output on OSF (https://osf.io/xehqf/?view_only=8efa519146a4416f8e89e9a2fce057bb)

Perfectionism, Goal Motivation, and Goal Progress

To address the second research question, I examined the relationships between perfectionism, goal motivation and goal progress over time, as well as the indirect effects of goal motivation by conducting a path analysis (refer to Figure 2 for proposed path analysis).¹¹

As predicted, results indicate that personal standards perfectionism is positively related to autonomous goal motivation, but unrelated to controlled goal motivation. In other words, personal standards perfectionism is related to increased autonomous goal motivation for work-related goals, and unrelated to controlled goal motivation. Moreover, self-critical perfectionism is negatively related with autonomous goal motivation and positively related to controlled goal motivation. In other words, self-critical perfectionism is related with increased controlled goal motivation, and related to decreased autonomous goal motivation. Surprisingly, both forms of goal motivation and both forms of perfectionism were found to be unrelated to goal progress (see Figure 8 for model results). In regards to the indirect effects, results demonstrate that goal motivation does not mediate the relationship between perfectionism and goal progress (see Table 4 for indirect effects). However, the indirect effect between personal standards perfectionism → autonomous goal motivation → goal progress is marginally significant ($\beta = .07, p = .072$).

¹¹ Model fit was found to be adequate for all path models, however, it is not a main concern in the present study as these pathways were based on theoretical grounds and our main focus is on the pathways themselves (West et al., 2012; Fan & Sivo, 2005; Marsh et al., 2004); see Supplemental Materials – Tables and Figures to view model fit results (https://osf.io/xehqf/?view_only=8efa519146a4416f8e89e9a2fce057bb)

Figure 8*Model Results for Perfectionism, Goal Motivation, and Goal Progress*

Note. All pathways are standardized, Dash line = ns; Bolded coefficient = $p \leq .001$; Bolded and italicised coefficient = $p < .05$; ^a $p < .10$, Bracket values represent 95% CI, Control variables: goal cognitions, work self-efficacy, education, income, & gender

Table 4*Standardized Indirect Effects of Perfectionism on Goal Progress via Goal Motivation*

Pathways	Indirect Effect	SE	95% CI
PSP – AutGoal – Goal Progress	.07 ^a	.04	[-.01, .15]
PSP – ContGoal – Goal Progress	.00	.01	[-.01, .02]
SCP – AutGoal – Goal Progress	-.04	.02	[-.08, .01]
SCP – ContGoal – Goal Progress	.02	.02	[-.03, .06]

Note. ** $p < .001$; * $p < .05$; ^a $p < .10$; PSP = personal standards perfectionism; SCP = self-critical perfectionism; AutGoal = autonomous goal motivation; ContGoal = controlled goal motivation

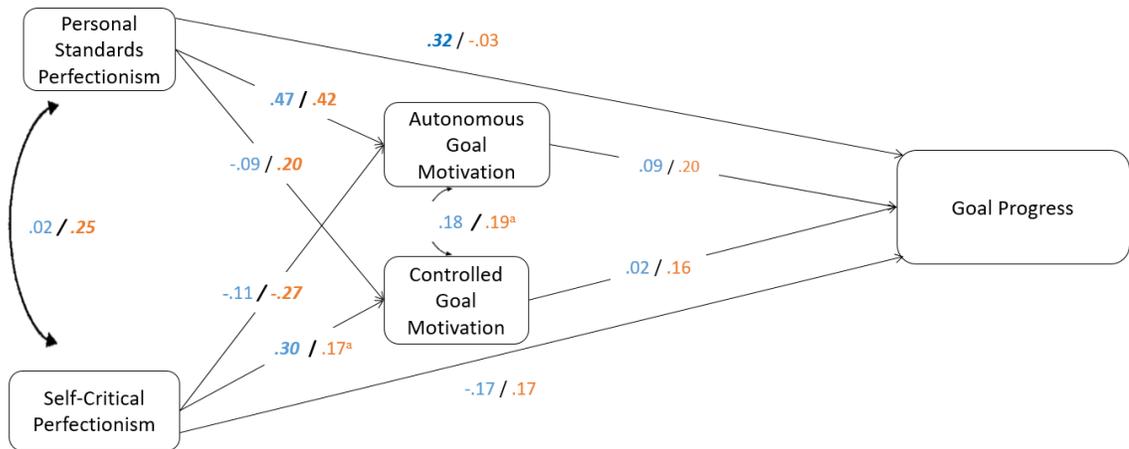
As a secondary exploratory (non-pre-registered) analysis, I removed certain control variables thought to influence the relationship, specifically goal cognitions and work self-efficacy, as they are shown to be significantly correlated with perfectionism, autonomous motivation and goal progress (see Table 2). However, the model results stayed relatively the same, with the exception of the path between autonomous goal motivation and goal progress, which becomes significant, but the parameter estimate is relatively the same (see Supplementary Materials – Tables and Figures on OSF to view model results; https://osf.io/xehqf/?view_only=8efa519146a4416f8e89e9a2fce057bb).

Work Status. In order to compare results between full-time workers and part-time workers, a multiple groups analysis was conducted and a chi-square difference test was performed to compare the model with and without constraints. Chi-square difference test demonstrated that there was no significant improvement in model fit between both models, indicating that results are similar for full-time works and part-time workers ($\Delta\chi^2 = 11.93, p = .217$).

Gender. To compare results between males and females, a multiple groups analysis was conducted and a chi-square difference test was performed to compare the model with

and without constraints. Chi-square difference test demonstrated that there was a significant improvement in model fit ($\Delta\chi^2 = 18.19, p = .020$), indicating that the model without constraints is a better fitting model ($\chi^2 = 48.07$). These results demonstrate that there are significant differences in model results between males and females.

After further investigation, I have identified one parameter that showed significant differences between males and females by fixing each parameter to be equal across groups in the model without constraints, and then performing another chi-square differences test to compare each new model to the original model without constraints. Specifically, males showed a weak non-significant relationship between personal standards perfectionism and controlled goal motivation ($\beta = -.09, p = .397$), whereas females showed a positive significant relationship ($\beta = .20, p = .042$). In other words, these results demonstrate that personal standards perfectionism was related to increased controlled goal motivation among females, but unrelated among males (see Figure 9 for model results comparing gender).

Figure 9*Model Results for Gender Multiple Groups Analysis (H2)*

Note. All pathways are standardized, Bolded coefficient indicates $p < .001$; Bolded and italicised coefficient indicates $p < .05$; ^a $p < .10$; Males = Blue; Female = Orange; Control variables: goal cognitions, work self-efficacy, education, income, & gender.

Perfectionism, Work Motivation, and Goal Progress

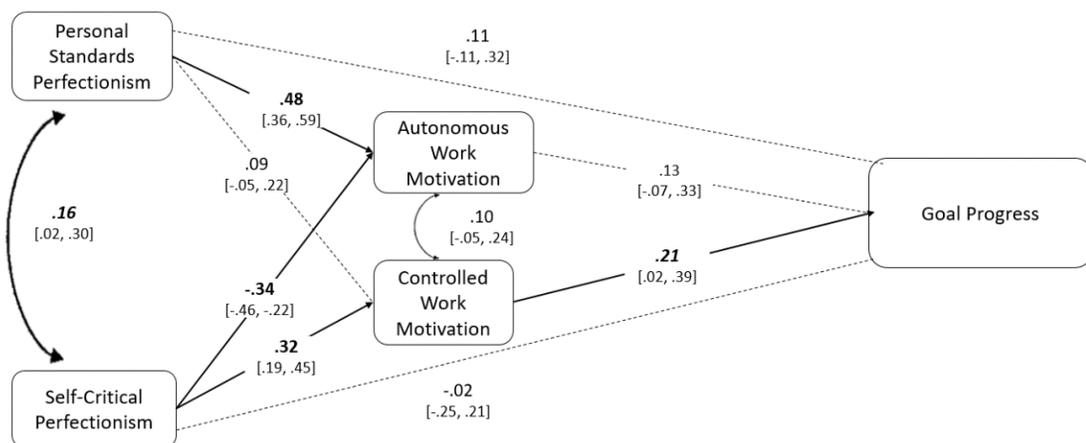
To address the third research question, I examined the relationships between perfectionism, work motivation and goal progress over time, as well as the indirect effects of work motivation by conducting a path analysis (refer to Figure 3 for proposed path analysis).

As predicted, results demonstrate that personal standards perfectionism is positively related to autonomous work motivation, but unrelated to controlled work motivation. In other words, personal standards perfectionism is related to increased autonomous work motivation, and unrelated to controlled work motivation. Moreover, self-critical perfectionism is negatively related with autonomous work motivation and positively

related to controlled work motivation. In other words, self-critical perfectionism is related with increased controlled work motivation, and related to decreased autonomous work motivation. Interestingly, autonomous work motivation was unrelated to goal progress, however, controlled work motivation had a weak positive relationship with goal progress. This demonstrates that controlled work motivation is associated with increased goal progress. Both forms of perfectionism were unrelated to goal progress (see Figure 10 for model results).

Figure 10

Model Results for Perfectionism, Work Motivation, and Goal Progress



Note. All pathways are standardized, Dash line = ns; Bolded coefficient = $p \leq .001$; Bolded and italicised coefficient = $p < .05$; ^a $p < .10$, Bracket values represent 95% CI, Control variables: goal cognitions, work self-efficacy, education, income, & gender.

In regards to the indirect effects, results demonstrate that work motivation mediates the relationship between self-critical perfectionism and goal progress ($\beta = .07$, $p = .047$). Specifically, self-critical perfectionism at Time 1 positively relates with

controlled work motivation, which then leads to increased goal progress at Time 2.

However, no other indirect effects were found to be significant (see Table 5 for indirect effects).

Table 5

Standardized Indirect Effects of Perfectionism on Goal Progress via Work Motivation

Pathways	Indirect Effect	SE	95% CI
PSP – AutWork – Goal Progress	.06	.05	[-.03, .16]
PSP – ContWork – Goal Progress	.02	.02	[-.02, .05]
SCP – AutWork – Goal Progress	-.05	.04	[-.11, .02]
SCP – ContWork – Goal Progress	.07*	.03	[.00, .13]

Note. ** $p < .001$; * $p < .05$; ^a $p < .10$; PSP = personal standards perfectionism; SCP = self-critical perfectionism; AutWork = autonomous work motivation; ContWork = controlled work motivation

As a secondary (non-pre-registered) analysis, I removed certain control variables thought to influence the relationship, specifically goal cognitions and work self-efficacy in order to see whether results would change. However, the model results stayed relatively the same, with the exception between controlled work motivation and goal progress, which becomes non-significant (see Supplementary Materials – Tables and Figures to view model results;

https://osf.io/xehqf/?view_only=8efa519146a4416f8e89e9a2fce057bb).

Work Status. In order to compare results between full-time workers and part-time workers, a multiple groups analysis was conducted and a chi-square difference test was performed to compare the model with and without constraints. Chi-square difference test demonstrated that there was no significant improvement in model fit between both models, indicating that results are similar for full-time works and part-time workers ($\Delta\chi^2 = 10.17, p = .337$).

Gender. To compare results between males and females, a multiple groups analysis was conducted and a chi-square difference test was performed to compare the model with and without constraints. Chi-square difference test demonstrated that there was not a significant improvement in model fit between both models ($\Delta\chi^2 = 13.38, p = .099$), indicating that results are similar for males and for females.

Parallel Mediation: Goal and Work Motivation

In order to compare the strength of the relationships that goal and work motivation have with perfectionism and goal progress, a parallel mediation was performed, as the correlation between goal motivation and work motivation was below $r = .70$, suggesting that both forms of motivation are conceptually different constructs (see Figure 4 illustrating the proposed parallel mediation model).

Model results demonstrate that personal standards perfectionism was positively related to autonomous goal and work motivation, while showing no relation with controlled goal and work motivation. On the other hand, self-critical perfectionism showed negative relations with both autonomous goal and work motivation, and showed positive relations with both controlled goal and work motivation (see Table 6 for model results). However, after contrasting the pathways between perfectionism and goal/work motivation in order to compare their strength, only one path emerged as significantly different (see Table 6b). Specifically, the pathway between self-critical perfectionism and autonomous goal motivation is significantly different from the pathway between self-critical perfectionism and autonomous work motivation ($\beta_{\text{difference}} = .13, p = .045$). Therefore, the model results suggest that autonomous work motivation is more strongly

related to self-critical perfectionism ($\beta = -.34, p < .001$) when compared to autonomous goal motivation ($\beta = -.20, p = .002$).

Table 6*Parameter Estimates of Parallel Mediation Model*

		Std β	SE	95% CIs
a path ($x \rightarrow m$)				
Personal standards perfectionism	Autonomous goal motivation	.42**	.06	[.29, .54]
	Controlled goal motivation	.05	.07	[-.09, .19]
	Autonomous work motivation	.48**	.06	[.36, .59]
	Controlled work motivation	.09	.07	[-.05, .22]
Self-critical perfectionism	Autonomous goal motivation	-.20*	.07	[-.34, -.07]
	Controlled goal motivation	.24**	.07	[.10, .38]
	Autonomous work motivation	-.34**	.06	[-.46, -.22]
	Controlled work motivation	.32**	.07	[.19, .45]
Goal Progress				
b path ($m \rightarrow y$)				
	Autonomous goal motivation	.10	.10	[-.10, .31]
	Controlled goal motivation	.02	.10	[-.18, .21]
	Autonomous work motivation	.09	.11	[-.13, .31]
	Controlled work motivation	.17	.11	[-.04, .38]
Direct effect ($x \rightarrow y$)				
	Personal standards perfectionism	.08	.11	[-.14, .31]
	Self-critical perfectionism	-.01	.12	[-.24, .22]
Indirect effect ($x \rightarrow m \rightarrow y$)				
	PSP \rightarrow Autonomous goal motivation	.04	.04	[-.04, .13]
	PSP \rightarrow Controlled goal motivation	.00	.01	[-.01, .01]
	PSP \rightarrow Autonomous work motivation	.04	.05	[-.06, .15]
	PSP \rightarrow Controlled work motivation	.02	.02	[-.02, .04]
	SCP \rightarrow Autonomous goal motivation	-.02	.02	[-.07, .02]
	SCP \rightarrow Controlled goal motivation	.00	.02	[-.04, .05]
	SCP \rightarrow Autonomous work motivation	-.03	.04	[-.10, .05]
	SCP \rightarrow Controlled work motivation	.06	.04	[-.02, .13]
Covariances				
	PSP - SCP	.16*	.07	[.02, .30]
	AutGoal - AutWork	.46**	.06	[.34, .57]
	AutGoal - ContWork	.30**	.07	[.16, .43]
	AutGoal - ContGoal	.20*	.07	[.05, .34]
	ContWork - ContGoal	.36**	.07	[.23, .48]
	AutWork - ContWork	.10	.07	[-.05, .24]
	AutWork - ContGoal	.09	.07	[-.05, .24]

Note. ** $p \leq .001$; * $p < .05$; ^a $p < .10$; PSP = personal standards perfectionism; SCP = self-critical perfectionism; AutGoal = autonomous goal motivation; AutWork = autonomous work motivation; ContGoal = controlled goal motivation; ContWork = controlled work motivation

Table 6b

Contrasting the Strength of Goal and Work Motivation and Indirect Effects in Parallel Mediation Model

Comparisons		Std β	SE	95% CI
<i>Pathway comparisons for PSP and motivation</i>				
Autonomous goal motivation	Autonomous work motivation	-.06	.06	[-.18, .06]
Controlled goal motivation	Controlled work motivation	-.04	.08	[-.20, .12]
<i>Pathways comparisons for SCP and motivation</i>				
Autonomous goal motivation	Autonomous work motivation	.13*	.07	[.00, .26]
Controlled goal motivation	Controlled work motivation	-.08	.08	[-.23, .07]
<i>Indirect effects</i>				
PSP → AutGoal → Goal progress	PSP → AutWork → Goal progress	.00	.08	[-.16, .16]
PSP → ContGoal → Goal progress	PSP → ContWork → Goal progress	-.01	.02	[-.05, .02]
SCP → AutGoal → Goal progress	SCP → AutWork → Goal progress	.01	.05	[-.09, .11]
SCP → ContGoal → Goal progress	SCP → ContWork → Goal progress	-.05	.05	[-.15, .05]

Note. ** $p < .001$; * $p < .05$; ^a $p < .10$; PSP = personal standards perfectionism; SCP = self-critical perfectionism; AutWork = autonomous work motivation; ContWork = controlled work motivation; AutGoal = autonomous goal motivation; ContGoal = controlled goal motivation

Model results also show that all forms of motivation were found to be unrelated to goal progress, and both forms of perfectionism were also unrelated to goal progress. Furthermore, results indicate that goal and work motivation do not play a mediating role between perfectionism and goal progress, as all indirect effects were non-significant. Moreover, results demonstrate that as a mediator between perfectionism and goal progress, both goal and work motivation are not significantly different from each other after contrasting their respective indirect effects (see Table 6b).

Work Status. To compare results between full-time workers and part-time workers, a multiple groups analysis was conducted and a chi-square difference test was performed to compare the model with and without constraints. Chi-square difference test demonstrated

that there was no significant improvement in model fit between both models, indicating that results are similar for full-time works and part-time workers ($\Delta\chi^2 = 11.67, p = .233$).

Gender. To compare results between males and females, a multiple groups analysis was conducted and a chi-square difference test was performed to compare the model with and without constraints. Chi-square difference test demonstrated that there was not a significant improvement in model fit between both models ($\Delta\chi^2 = 13.17, p = .106$), indicating that results are similar for males and for females.

Perfectionism and Work Outcomes

To address the fourth research question, I examined how both forms of perfectionism predict burnout, workaholism, subjective well-being, and job satisfaction over time by conducting a path analysis (refer to Figure 5 for proposed path model).

Results show that personal standards perfectionism only predicts increased subjective well-being at Time 2, whereas self-critical perfectionism predicts increased burnout and workaholism at Time 2, and negatively predicts subjective well-being at Time 2 (see Table 7 for model results).

Table 7
Parameter Estimates of Perfectionism on Work Outcomes Model

		Std β	SE	95% CIs
<i>Paths (Time 1 \rightarrow Time 2)</i>				
Personal standards perfectionism T1	Burnout T2	-.10	.06	[-.22, .03]
	Workaholism T2	.05	.07	[-.09, .20]
	Subjective well-being T2	.16*	.07	[.02, .31]
	Job satisfaction T2	.10	.07	[-.04, .24]
Self-critical perfectionism T1	Burnout T2	.27**	.07	[.14, .40]
	Workaholism T2	.20*	.07	[.06, .34]
	Subjective well-being T2	-.32**	.07	[-.51, -.17]
	Job satisfaction T2	-.08	.07	[-.22, .06]
Burnout T1	Burnout T2	.59**	.05	[.49, .70]
Workaholism T1	Workaholism T2	.61**	.06	[.50, .73]
Subjective well-being T1	Subjective well-being T2	.47**	.07	[.33, .60]
Job satisfaction T1	Job satisfaction T2	.75**	.05	[.65, .84]
<i>Covariances Time 1</i>		Std β	SE	95% CIs
PSP – SCP		.23**	.07	[.09, .37]
PSP – Burnout		-.03	.07	[-.17, .12]
PSP – Workaholism		.40**	.06	[.28, .52]
PSP – Subjective well-being		.25**	.07	[.11, .38]
PSP – Job satisfaction		.03	.08	[-.12, .17]
SCP – Burnout		.41**	.06	[.29, .54]
SCP – Workaholism		.41**	.06	[.29, .53]
SCP – Subjective well-being		-.43**	.06	[-.55, -.32]
SCP – Job satisfaction		-.26**	.08	[-.41, -.10]
Burnout – Workaholism		.38**	.06	[.26, .51]
Burnout – Subjective well-being		-.58**	.05	[-.67, -.49]
Burnout – Job satisfaction		-.48**	.07	[-.60, -.35]
Workaholism – Subjective well-being		-.19*	.07	[-.32, -.06]
Workaholism – Job satisfaction		-.16*	.08	[-.32, -.00]
Subjective well-being – Job satisfaction		.53**	.06	[.41, .64]
<i>Covariances Time 2</i>				
Burnout – Workaholism		.33**	.08	[.16, .49]
Burnout – Subjective well-being		-.43**	.08	[-.57, -.28]
Burnout – Job satisfaction		-.24*	.09	[-.42, -.07]
Workaholism – Subjective well-being		-.25*	.09	[-.42, -.09]
Workaholism – Job satisfaction		-.05	.09	[-.23, .13]
Subjective well-being – Job satisfaction		.33**	.08	[.16, .49]

Note. ** $p \leq .001$; * $p < .05$; ^a $p < .10$; PSP = personal standards perfectionism; SCP = self-critical perfectionism

As a secondary (non-pre-registered) analysis, work outcomes at Time 1 were set as predictors of perfectionism at Time 2 to test the possibility that burnout, workaholism, subjective well-being and job satisfaction predict changes in perfectionism over time (refer to Figure 6 for proposed path analysis). Not surprisingly, none of the work variables at Time 1 predict perfectionism at Time 2 (see Table 8 for model results). These results suggest that there are no reciprocal relationships between perfectionism and these work-related variables.

Table 8
Parameter Estimates of Work Outcomes on Perfectionism Model

		Std β	SE	95% CIs
Paths (Time 1 \rightarrow Time 2)				
Personal standards perfectionism T1	Personal standards perfectionism T2	.73**	.05	[.63, .83]
Burnout T1		.01	.08	[-.14, .15]
Workaholism T1		.02	.06	[-.11, .14]
Subjective well-being T1		.03	.08	[-.13, .18]
Job satisfaction T1		-.06	.08	[-.20, .09]
Self-critical perfectionism T1	Self-critical perfectionism T2	.79**	.05	[.69, .88]
Burnout T1		-.13 ^a	.08	[-.28, .02]
Workaholism T1		.04	.06	[-.08, .16]
Subjective well-being T1		-.06	.08	[-.22, .09]
Job satisfaction T1		-.03	.08	[-.18, .12]
Covariances Time 1		Std β	SE	95% CIs
PSP – SCP		.23**	.07	[.09, .37]
PSP – Burnout		-.03	.07	[-.17, .12]
PSP – Workaholism		.40**	.06	[.28, .52]
PSP – Subjective well-being		.25**	.07	[.11, .38]
PSP – Job satisfaction		.03	.08	[-.12, .17]
SCP – Burnout		.41**	.06	[.29, .54]
SCP – Workaholism		.41**	.06	[.29, .53]
SCP – Subjective well-being		-.43**	.06	[-.54, -.32]
SCP – Job satisfaction		-.26**	.08	[-.41, -.10]
Burnout – Workaholism		.38**	.06	[.26, .51]
Burnout – Subjective well-being		-.58**	.05	[-.67, -.49]
Burnout – Job satisfaction		-.48**	.07	[-.60, -.35]
Workaholism – Subjective well-being		-.19*	.07	[-.32, -.06]
Workaholism – Job satisfaction		-.16*	.08	[-.32, .00]
Subjective well-being – Job satisfaction		.53**	.06	[.41, .64]
Covariances Time 2				
PSP – SCP		.47**	.07	[.33, .62]

Note. ** $p \leq .001$; * $p < .05$; ^a $p < .10$; PSP = personal standards perfectionism; SCP = self-critical perfectionism

Work Status. To compare results between full-time workers and part-time workers, a multiple groups analysis was conducted and a chi-square difference test was performed to compare the model with and without constraints. Chi-square difference test demonstrated that there was a significant improvement in model fit ($\Delta\chi^2 = 60.52, p < .001$), indicating that the model without constraints is a better fitting model ($\chi^2 = 161.30$). These results

demonstrate that there are significant differences in model results between full-time workers and part-time workers.

After further investigation, I have identified six parameters that showed significant differences between full-time workers and part-time workers by fixing each parameter to be equal across groups in the model without constraints, and then performing another chi-square differences test to compare each new model to the original model without constraints. Specifically, full-time workers had a significant positive relationship between job satisfaction at Time 1 and Time 2 ($\beta = .86, p < .001$), whereas part-time workers had a weak non-significant relationship ($\beta = -.04, p = .770$). In other words, these results indicate that job satisfaction at Time 1 was related to greater job satisfaction at Time 2 among full-time workers, but not among part-time workers. Moreover, full-time workers had a positive relationship between subjective well-being at Time 1 and Time 2 ($\beta = .65, p < .001$), whereas part-time workers had a negative relationship ($\beta = -.41, p = .044$). In other words, these results indicate that greater subjective well-being at Time 1 was related to greater subjective well-being at Time 2 among full-time workers, but lower subjective well-being at Time 2 among part-time workers. In addition, the relation between self-critical perfectionism at Time 1 and job satisfaction at Time 2 was non-significant for full-time workers ($\beta = .01, p = .836$), however, the relationship was negative among part-time workers ($\beta = -.61, p = .003$). In other words, self-critical perfectionism was related to decreased job satisfaction at Time 2 among part-time workers, but not among full-time workers. Moreover, full-time workers had a stronger positive relationship between burnout at Time 1 and Time 2 ($\beta = .63, p < .001$), whereas part-time workers had a weaker positive relationship ($\beta = .48, p < .001$).

In other words, these results indicate that burnout at Time 1 was related to greater burnout at Time 2 among full-time and part-time workers, however, it was higher among full-time workers. In addition, full-time workers had a weaker positive relationship between self-critical perfectionism at Time 1 and burnout at Time 2 ($\beta = .24, p = .005$), when compared to the stronger positive relationship among part-time workers ($\beta = .48, p < .001$). In other words, these results show that self-critical perfectionism was related to increased burnout at Time 2 among full-time and part-time workers, however, the increase was higher among part-time workers. Lastly, the relationship between workaholism at Time 1 and Time 2 was positive among full-time workers ($\beta = .53, p < .001$), however, the relationship was stronger among part-time workers ($\beta = .74, p < .001$). In other words, these results show that workaholism at Time 1 was related to greater workaholism at Time 2 among full-time and part-time workers, however, it was higher among part-time workers (see Table 9 for full-time and part-time model results).

Table 9

Multiple Groups Analysis Comparing Full-Time and Part-Time Workers for Perfectionism on Work Outcomes Model Without Constraints

Group		Full-Time Workers			Part-Time Workers		
		Std β	SE	95% CIs	Std β	SE	95% CIs
<i>Paths (Time 1 \rightarrow Time 2)</i>							
Personal standards perfectionism T1	Burnout T2	-.15 ^a	.08	[-.31, .01]	-.02	.08	[-.17, .13]
	Workaholism T2	.10	.09	[-.07, .27]	-.09	.12	[-.33, .15]
	Subjective well-being T2	.17*	.08	[.01, .33]	.25	.15	[-.06, .55]
	Job satisfaction T2	.08	.07	[-.06, .22]	.28	.17	[-.06, .61]
Self-critical perfectionism T1	Burnout T2	.24*	.08	[.07, .40]	.48**	.09	[.31, .66]
	Workaholism T2	.28*	.09	[.10, .45]	.26 ^a	.14	[-.02, .53]
	Subjective well-being T2	-.21*	.09	[-.37, -.04]	-.44*	.17	[-.77, -.11]
	Job satisfaction T2	.01	.07	[-.12, .15]	-.61**	.18	[-.96, -.26]
Burnout T1	Burnout T2	.63**	.06	[.50, .75]	.48**	.09	[.31, .66]
Workaholism T1	Workaholism T2	.53**	.08	[.38, .68]	.74**	.11	[.53, .94]
Subjective well-being T1	Subjective well-being T2	.65**	.07	[.52, .78]	-.41*	.18	[-.76, -.05]
Job satisfaction T1	Job satisfaction T2	.86**	.04	[.78, .93]	-.04	.15	[-.34, .25]
<i>Covariances Time 1</i>		Std β	SE	95% CIs	Std β	SE	95% CIs
PSP – SCP		.34**	.08	[.19, .49]	-.04	.18	[-.40, .32]
PSP – Burnout		.03	.09	[-.14, .20]	-.28	.17	[-.62, .06]
PSP – Workaholism		.41**	.07	[.27, .55]	.33*	.16	[.01, .64]
PSP – Subjective well-being		.19*	.08	[.03, .35]	.62**	.11	[.41, .82]
PSP – Job satisfaction		.05	.09	[-.12, .23]	.08	.17	[-.25, .42]
SCP – Burnout		.40**	.08	[.25, .54]	.48**	.15	[.18, .77]
SCP – Workaholism		.44**	.07	[.30, .58]	.50**	.14	[.22, .78]
SCP – Subjective well-being		-.42**	.07	[-.56, -.28]	-.44**	.13	[-.70, -.17]

	Std β	SE	95% CIs	Std β	SE	95% CIs
<i>Covariances Time 1 cont'd</i>						
SCP – Subjective well-being	-.42**	.07	[-.56, -.28]	-.44**	.13	[-.70, -.17]
SCP – Job satisfaction	-.27*	.09	[-.45, -.09]	-.37*	.16	[-.68, -.07]
Burnout – Workaholism	.42**	.07	[.28, .56]	.44*	.16	[.13, .75]
Burnout – Subjective well-being	-.57**	.06	[-.68, -.45]	-.53**	.12	[-.77, -.29]
Burnout – Job satisfaction	-.44**	.08	[-.60, -.28]	-.71**	.09	[-.89, -.53]
Workaholism – Subjective well-being	-.24*	.08	[-.39, -.08]	-.18	.16	[-.49, .13]
Workaholism – Job satisfaction	-.13	.10	[-.32, .06]	-.55**	.13	[-.81, -.29]
Subjective well-being – Job satisfaction	.59**	.06	[.46, .71]	.42**	.13	[.16, .67]
<i>Covariances Time 2</i>						
Burnout – Workaholism	.38**	.10	[.19, .57]	.28	.21	[-.12, .68]
Burnout – Subjective well-being	-.38**	.10	[-.57, -.19]	-.70**	.12	[-.93, -.47]
Burnout – Job satisfaction	-.17	.12	[-.39, .06]	-.44*	.19	[-.80, -.07]
Workaholism – Subjective well-being	-.23*	.11	[-.44, -.03]	.15	.23	[-.30, .60]
Workaholism – Job satisfaction	-.10	.11	[-.31, .12]	-.41*	.18	[-.77, -.05]
Subjective well-being – Job satisfaction	.35**	.10	[.16, .54]	.49*	.17	[.15, .83]

Note. ** $p \leq .001$; * $p < .05$; ^a $p < .10$; bolded parameters represent significant differences between groups; PSP = personal standards perfectionism; SCP = self-critical perfectionism

Gender. To compare results between males and females, a multiple groups analysis was conducted and a chi-square difference test was performed to compare the model with and without constraints. Chi-square difference test demonstrated that there was not a significant improvement in model fit between both models ($\Delta\chi^2 = 29.05, p = .218$), indicating that results are similar for males and for females.

Perfectionism, Work Motivation, and Work Outcomes

To address the last research question, I examined the relationships between perfectionism, work motivation and work outcomes over time, as well as the indirect effects of work motivation by conducting a path analysis (refer to Figure 7 for proposed path analysis).

As previously seen, results indicate that personal standards perfectionism is positively related with autonomous work motivation, and is unrelated to controlled work motivation, whereas self-critical perfectionism is negatively related to autonomous work motivation but positively related to controlled work motivation. In other words, personal standards perfectionism is related to greater autonomous work motivation, whereas self-critical perfectionism is related to lower autonomous work motivation and greater controlled work motivation. Interestingly, autonomous work motivation is only positively related to job satisfaction, and unrelated to burnout, workaholism and subjective well-being. However, controlled work motivation is negatively related with subjective well-being, and unrelated to burnout, workaholism, and job satisfaction (see Table 10 for model results). These results indicate that autonomous work motivation is related to increased job satisfaction, while controlled work motivation is related to decreased subjective well-being.

Table 10*Parameter Estimates of Perfectionism, Work Motivation, and Work Outcomes*

		Std β	SE	95% CIs
a path ($x \rightarrow m$)				
Personal standards perfectionism	Autonomous work motivation	.47**	.06	[.36, .59]
	Controlled work motivation	.08	.07	[-.05, .22]
Self-critical perfectionism	Autonomous work motivation	-.34**	.06	[-.46, -.22]
	Controlled work motivation	.32**	.07	[.19, .45]
b path ($m \rightarrow y$)				
Autonomous work motivation	Burnout T2	-.02	.07	[-.15, .11]
	Workaholism T2	.10	.07	[-.04, .23]
	Subjective well-being T2	.11	.08	[-.04, .26]
	Job satisfaction T2	.20*	.08	[.04, .36]
Controlled work motivation	Burnout T2	.00	.06	[-.12, .12]
	Workaholism T2	.09	.07	[-.04, .22]
	Subjective well-being T2	-.17*	.07	[-.31, -.04]
	Job satisfaction T2	-.03	.07	[-.16, .10]
Direct effect ($x \rightarrow y$)				
Personal standards perfectionism	Burnout T2	-.09	.07	[-.22, .05]
	Workaholism T2	.02	.08	[-.13, .17]
	Subjective well-being T2	.13 ^a	.08	[-.02, .28]
	Job satisfaction T2	.04	.08	[-.11, .19]
Self-critical perfectionism	Burnout T2	.27**	.07	[.13, .41]
	Workaholism T2	.19*	.08	[.02, .35]
	Subjective well-being T2	-.24*	.08	[-.40, -.08]
	Job satisfaction T2	-.05	.08	[-.21, .11]
Indirect effect ($x \rightarrow m \rightarrow y$)				
PSP \rightarrow Autonomous work motivation \rightarrow Burnout T2		-.01	.03	[-.07, .05]
PSP \rightarrow Controlled work motivation \rightarrow Burnout T2		.00	.01	[-.01, .01]
PSP \rightarrow Autonomous work motivation \rightarrow Workaholism T2		.05	.03	[-.02, .11]
PSP \rightarrow Controlled work motivation \rightarrow Workaholism T2		.01	.01	[-.01, .02]
PSP \rightarrow Autonomous work motivation \rightarrow Subjective well-being T2		.05	.04	[-.02, .12]
PSP \rightarrow Controlled work motivation \rightarrow Subjective well-being T2		-.01	.01	[-.04, .01]
PSP \rightarrow Autonomous work motivation \rightarrow Job satisfaction T2		.10*	.04	[.02, .17]
PSP \rightarrow Controlled work motivation \rightarrow Job satisfaction T2		.00	.01	[-.01, .01]
SCP \rightarrow Autonomous work motivation \rightarrow Burnout T2		.01	.02	[-.04, .05]
SCP \rightarrow Controlled work motivation \rightarrow Burnout T2		.00	.02	[-.04, .04]
SCP \rightarrow Autonomous work motivation \rightarrow Workaholism T2		-.03	.02	[-.08, .02]
SCP \rightarrow Controlled work motivation \rightarrow Workaholism T2		.03	.02	[-.01, .07]
SCP \rightarrow Autonomous work motivation \rightarrow Subjective well-being T2		-.04	.03	[-.09, .02]
SCP \rightarrow Controlled work motivation \rightarrow Subjective well-being T2		-.06*	.02	[-.10, -.01]
SCP \rightarrow Autonomous work motivation \rightarrow Job satisfaction T2		-.07*	.03	[-.13, -.01]
SCP \rightarrow Controlled work motivation \rightarrow Job satisfaction T2		-.01	.02	[-.05, .03]
Paths (Time 1 \rightarrow Time 2)				
Burnout T1	Burnout T2	.59**	.05	[.49, .70]
Workaholism T1	Workaholism T2	.61**	.06	[.49, .72]
Subjective well-being T1	Subjective well-being T2	.43**	.08	[.28, .57]
Job satisfaction T1	Job satisfaction T2	.69**	.06	[.57, .81]

<i>Covariances Time 1</i>	Std β	SE	95% CIs
Autonomous work motivation – Controlled work motivation	.10	.07	[-.05, .24]
PSP – SCP	.23**	.07	[.09, .37]
PSP – Burnout	-.03	.07	[-.17, .12]
PSP – Workaholism	.40**	.06	[.28, .52]
PSP – Subjective well-being	.25**	.07	[.11, .38]
PSP – Job satisfaction	.03	.08	[-.12, .17]
SCP – Burnout	.41**	.06	[.29, .54]
SCP – Workaholism	.41**	.06	[.29, .53]
SCP – Subjective well-being	-.43**	.06	[-.55, -.32]
SCP – Job satisfaction	-.26**	.08	[-.41, -.10]
Burnout – Workaholism	.38**	.06	[.26, .51]
Burnout – Subjective well-being	-.58**	.05	[-.67, -.49]
Burnout – Job satisfaction	-.48**	.07	[-.60, -.35]
Workaholism – Subjective well-being	-.19*	.07	[-.32, -.06]
Workaholism – Job satisfaction	-.16*	.08	[-.32, -.00]
Subjective well-being – Job satisfaction	.53**	.06	[.41, .64]
<i>Covariances Time 2</i>			
Burnout – Workaholism	.34**	.08	[.18, .50]
Burnout – Subjective well-being	-.44**	.08	[-.59, -.30]
Burnout – Job satisfaction	-.26*	.09	[-.44, -.09]
Workaholism – Subjective well-being	-.25*	.09	[-.42, -.08]
Workaholism – Job satisfaction	-.09	.09	[-.27, .09]
Subjective well-being – Job satisfaction	.33**	.08	[.17, .50]

Note. ** $p \leq .001$; * $p < .05$; ^a $p < .10$; PSP = personal standards perfectionism; SCP = self-critical perfectionism

In regards to direct effects, contrary to what was found in the previous model, personal standards perfectionism is unrelated to all work variables, and became marginally significant¹² with subjective well-being. Self-critical perfectionism remained positively associated with burnout and workaholism, and negatively associated with subjective well-being.

In regards to the indirect effects, results demonstrate that autonomous work motivation mediates the relationship between personal standards perfectionism and job satisfaction ($\beta = .10, p = .018$), as well as the relationship between self-critical perfectionism and job satisfaction ($\beta = -.07, p = .024$). Specifically, results show that personal standards perfectionism at Time 1 positively relates with autonomous work motivation, which then leads to increased job satisfaction at Time 2. In contrast, self-critical perfectionism at Time 1 negatively relates with autonomous work motivation, which then leads to decreased job satisfaction at Time 2. Moreover, controlled work motivation also mediates the relationship between self-critical perfectionism and subjective well-being ($\beta = -.06, p = .024$). Specifically, self-critical perfectionism positively relates with controlled work motivation, which then leads to decreased subjective well-being at Time 2.

Work Status. To compare results between full-time workers and part-time workers, a multiple groups analysis was conducted and a chi-square difference test was performed to compare the model with and without constraints. The chi-square difference test

¹² Marginally significant results did not meet the threshold for significance, but had p values below .10

demonstrated that there was a significant improvement in model fit ($\Delta\chi^2 = 69.59, p < .001$), indicating that the model without constraints is a better fitting model ($\chi^2 = 275.48$). These results show that there are significant differences in the model results between full-time workers and part-time workers.

After further investigation, I have identified nine parameters that showed significant differences between full-time workers and part-time workers by fixing each parameter to be equal across groups in the model without constraints one at a time, and then performing another chi-square differences test to compare each new model to the original model without constraints (see Table 11 for full-time and part-time model results). Specifically, full-time workers had a significant positive relationship between job satisfaction at Time 1 and Time 2 ($\beta = .82, p < .001$), whereas part-time workers had a negative non-significant relationship ($\beta = -.20, p = .142$). In other words, these results indicate that job satisfaction at Time 1 was related to greater job satisfaction at Time 2 among full-time workers, but not among part-time workers. Moreover, full-time workers had a positive relationship between subjective well-being at Time 1 and Time 2 ($\beta = .61, p < .001$), whereas part-time workers had a negative relationship ($\beta = -.44, p = .003$). In other words, these results indicate that subjective well-being at Time 1 was related to greater subjective well-being at Time 2 among full-time workers, but was related to lower subjective well-being at Time 2 among part-time workers. Moreover, the relationship between burnout at Time 1 and Time 2 was positive among part-time workers ($\beta = .48, p < .001$), however, the relationship was stronger among full-time workers ($\beta = .61, p < .001$). In other words, these results show that burnout at Time 1 was related to greater burnout at Time 2 among full-time and part-time workers, however, it was higher among

full-time workers. In addition, the relationship between workaholism at Time 1 and Time 2 was positive among full-time workers ($\beta = .51, p < .001$), however, the relationship was stronger among part-time workers ($\beta = .73, p < .001$). In other words, these results show that workaholism at Time 1 was related to greater workaholism at Time 2 among full-time and part-time workers, however, it was higher among part-time workers.

Table 11*Multiple Groups Analysis Comparing Full-Time and Part-Time Workers for Perfectionism, Work**Motivation, & Work Outcomes Model Without Constraints*

Group		Full-Time			Part-Time		
		Std β	SE	95% CIs	Std β	SE	95% CIs
a path ($x \rightarrow m$)							
Personal standards perfectionism	Autonomous work motivation	.49**	.07	[.35, .63]	.68**	.10	[.49, .88]
	Controlled work motivation	.06	.08	[-.10, .22]	.18	.15	[-.11, .47]
Self-critical perfectionism	Autonomous work motivation	-.29**	.08	[-.44, -.13]	-.27*	.13	[-.52, -.02]
	Controlled work motivation	.30**	.08	[.14, .46]	.50**	.14	[.23, .77]
b path ($m \rightarrow y$)							
Autonomous work motivation	Burnout T2	-.06	.08	[-.22, .10]	.04	.09	[-.14, .21]
	Workaholism T2	.11	.08	[-.05, .26]	.02	.15	[-.27, .31]
	Subjective well-being T2	.09	.08	[-.07, .26]	-.06	.16	[-.37, .24]
	Job satisfaction T2	.16*	.08	[.01, .31]	.23	.19	[-.14, .61]
Controlled work motivation	Burnout T2	-.04	.07	[-.18, .11]	-.12	.08	[-.28, .04]
	Workaholism T2	.04	.08	[-.11, .19]	-.04	.14	[-.32, .24]
	Subjective well-being T2	-.14 ^a	.07	[-.28, .00]	.40*	.15	[.12, .69]
	Job satisfaction T2	-.02	.06	[-.14, .11]	.39*	.16	[.06, .71]
Direct effect ($x \rightarrow y$)							
Personal standards perfectionism	Burnout T2	-.13	.09	[-.30, .04]	-.02	.09	[-.20, .16]
	Workaholism T2	.07	.09	[-.11, .25]	-.10	.18	[-.45, .25]
	Subjective well-being T2	.15 ^a	.09	[-.02, .32]	.22	.18	[-.12, .57]
	Job satisfaction T2	.05	.07	[-.10, .19]	.03	.20	[-.36, .43]
Self-critical perfectionism	Burnout T2	.25*	.09	[.08, .42]	.55**	.10	[.35, .75]
	Workaholism T2	.29*	.10	[.10, .49]	.29 ^a	.17	[-.05, .63]
	Subjective well-being T2	-.16 ^a	.09	[-.33, .02]	-.67**	.17	[-1.01, -.34]
	Job satisfaction T2	.03	.08	[-.12, .18]	-.76**	.18	[-1.12, -.40]
Indirect effect ($x \rightarrow m \rightarrow y$)							
PSP \rightarrow Autonomous work motivation \rightarrow Burnout T2		-.03	.04	[-.12, .05]	.03	.06	[-.09, .14]

Indirect effect ($x \rightarrow m \rightarrow y$) <i>cont'd</i>	Full-Time			Part-Time					
	Std β	SE	95% CIs	Std β	SE	95% CIs			
PSP \rightarrow Controlled work motivation \rightarrow Burnout T2	.00	.01	[-.01, .01]	-.02	.02	[-.07, .02]			
PSP \rightarrow Autonomous work motivation \rightarrow Workaholism T2	.05	.04	[-.03, .13]	.01	.10	[-.19, .21]			
PSP \rightarrow Controlled work motivation \rightarrow Workaholism T2	.00	.01	[-.01, .01]	-.01	.03	[-.06, .04]			
PSP \rightarrow Autonomous work motivation \rightarrow Subjective well-being T2	.05	.04	[-.04, .13]	-.04	.11	[-.26, .17]			
PSP \rightarrow Controlled work motivation \rightarrow Subjective well-being T2	-.01	.01	[-.03, .02]	.07	.07	[-.06, .20]			
PSP \rightarrow Autonomous work motivation \rightarrow Job satisfaction T2	.08 ^a	.04	[.00, .16]	.16	.13	[-.10, .42]			
PSP \rightarrow Controlled work motivation \rightarrow Job satisfaction T2	.00	.00	[-.01, .01]	.07	.07	[-.06, .20]			
SCP \rightarrow Autonomous work motivation \rightarrow Burnout T2	.02	.02	[-.03, .06]	-.01	.02	[-.06, .04]			
SCP \rightarrow Controlled work motivation \rightarrow Burnout T2	-.01	.02	[-.06, .03]	-.06	.04	[-.15, .03]			
SCP \rightarrow Autonomous work motivation \rightarrow Workaholism T2	-.03	.02	[-.08, .02]	-.01	.04	[-.08, .07]			
SCP \rightarrow Controlled work motivation \rightarrow Workaholism T2	.01	.02	[-.04, .06]	-.02	.07	[-.16, .12]			
SCP \rightarrow Autonomous work motivation \rightarrow Subjective well-being T2	-.03	.03	[-.08, .02]	.02	.04	[-.07, .10]			
SCP \rightarrow Controlled work motivation \rightarrow Subjective well-being T2	-.04 ^a	.03	[-.09, .01]	.20*	.10	[.01, .40]			
SCP \rightarrow Autonomous work motivation \rightarrow Job satisfaction T2	-.05 ^a	.03	[-.10, .01]	-.06	.06	[-.18, .05]			
SCP \rightarrow Controlled work motivation \rightarrow Job satisfaction T2	.01	.02	[-.04, .03]	.20 ^a	.11	[-.01, .40]			
Paths (Time 1 \rightarrow Time 2)									
Burnout T1			Burnout T2	.61**	.07	[.48, .74]	.48**	.09	[.30, .65]
Workaholism T1			Workaholism T2	.51**	.08	[.36, .67]	.73**	.10	[.53, .94]
Subjective well-being T1			Subjective well-being T2	.61**	.08	[.45, .76]	-.44*	.15	[-.73, -.15]
Job satisfaction T1			Job satisfaction T2	.82**	.05	[.73, .91]	-.20	.13	[-.46, .07]
Covariances Time 1									
Autonomous – Controlled work motivation	.10	.09	[-.08, .27]	.23	.18	[-.11, .58]			
PSP – SCP	.34**	.08	[.19, .49]	-.04	.18	[-.40, .32]			
PSP – Burnout	.03	.09	[-.14, .20]	-.28	.17	[-.62, .06]			
PSP – Workaholism	.41**	.07	[.27, .55]	.33*	.16	[.01, .64]			
PSP – Subjective well-being	.19*	.08	[.03, .35]	.62**	.10	[.41, .82]			
PSP – Job satisfaction	.05	.09	[-.12, .23]	.08	.17	[-.25, .42]			
SCP – Burnout	.40**	.08	[.25, .54]	.48**	.15	[.18, .77]			
SCP – Workaholism	.44**	.07	[.30, .58]	.50**	.14	[.22, .78]			
SCP – Subjective well-being	-.42**	.07	[-.56, -.28]	-.44**	.13	[-.70, -.17]			
SCP – Job satisfaction	-.27*	.09	[-.45, -.09]	-.37*	.16	[-.68, -.06]			
Burnout – Workaholism	.42**	.07	[.28, .56]	.44*	.16	[.13, .75]			

	Full-Time			Part-Time		
	Std β	SE	95% CIs	Std β	SE	95% CIs
<i>Covariances Time 1 cont'd</i>						
Burnout – Subjective well-being	-.57**	.06	[-.68, -.45]	-.53**	.12	[-.77, -.29]
Burnout – Job satisfaction	-.44**	.08	[-.60, -.28]	-.71**	.09	[-.89, -.53]
Workaholism – Subjective well-being	-.24*	.08	[-.39, -.08]	-.18	.16	[-.49, .13]
Workaholism – Job satisfaction	-.13	.10	[-.32, .06]	-.55**	.13	[-.81, -.29]
Subjective well-being – Job satisfaction	.59**	.06	[.46, .71]	.42**	.13	[.16, .67]
<i>Covariances Time 2</i>						
Burnout – Workaholism	.41**	.09	[.22, .59]	.28	.20	[-.12, .67]
Burnout – Subjective well-being	-.41**	.09	[-.59, -.22]	-.67**	.13	[-.91, -.42]
Burnout – Job satisfaction	-.19 ^a	.11	[-.41, .04]	-.45*	.19	[-.81, -.09]
Workaholism – Subjective well-being	-.25*	.11	[-.46, -.05]	.21	.21	[-.21, .63]
Workaholism – Job satisfaction	-.13	.11	[-.35, .08]	-.44*	.18	[-.78, -.10]
Subjective well-being – Job satisfaction	.34**	.10	[.15, .54]	.46*	.18	[.12, .81]

Note. ** $p \leq .001$; * $p < .05$; ^a $p < .10$; PSP = personal standards perfectionism; SCP = self-critical perfectionism

Furthermore, various differences were found for the relationships between self-critical perfectionism and three work variables. Specifically, the relationship between self-critical perfectionism and burnout was positive among full-time workers ($\beta = .25, p = .004$), however, the relationship was stronger among part-time workers ($\beta = .55, p < .001$). In other words, these results show that self-critical perfectionism was related to increased burnout at Time 2 among full-time and part-time workers, however, the increase was higher among part-time workers. In addition, the relationship between self-critical perfectionism and subjective well-being was negative for part-time workers ($\beta = -.67, p < .001$), and was only marginally significant for full-time workers ($\beta = -.16, p = .081$). In other words, these results demonstrate that self-critical perfectionism is related to decreased subjective well-being among part-time workers, and not full-time workers. Moreover, the relationship between self-critical perfectionism and job satisfaction was negative for part-time workers ($\beta = -.76, p < .001$), and was not related for full-time workers ($\beta = .03, p = .726$). In other words, these results demonstrate that self-critical perfectionism is related to decreased job satisfaction among part-time workers, and not full-time workers.

Lastly, differences were also found in the relationships between controlled work motivation, subjective well-being and job satisfaction. Specifically, controlled work motivation was significantly positively associated with subjective well-being for part-time workers ($\beta = .40, p = .005$), and was only marginally negatively significant for full-time workers ($\beta = -.14, p = .052$). In other words, controlled work motivation was related to increased subjective well-being for part-time workers, and was unrelated for full-time workers. Finally, controlled work motivation was positively related to job satisfaction for

part-time workers ($\beta = .39, p = .019$), and was unrelated for full-time workers ($\beta = -.02, p = .807$). Thus, these findings suggest that controlled work motivation is associated with increased job satisfaction for part-time workers only.

Gender. To compare results between males and females, a multiple groups analysis was conducted and a chi-square difference test was performed to compare the model with and without constraints. Chi-square difference test demonstrated that there was not a significant improvement in model fit between both models ($\Delta\chi^2 = 21.56, p = .606$), indicating that results are similar for males and for females.

Robustness Check

Due to the COVID-19 pandemic that began in March 2019, the quality of the data could have been impacted by COVID-19 influences such as changes in physical workplaces, stress related to the pandemic and other changes. Therefore, a robustness check was performed by running the proposed models a second time, with additional control variables to account for the impacts of the COVID-19 pandemic (robustness check was pre-registered). To assess changes in the physical workplace, participants were asked “Has your workplace moved online (e.g., remotely/ work from home) since this pandemic outbreak?” and were given the following options: “yes”, “no” or “partially”. To create a dichotomous variable, the options “yes” and “partially” were merged together. To assess stress related to the pandemic, participants were asked to rate the following item on a 7-point Likert scale ranging from 1= not stressed, to 7= extremely stressed: “Please rate the level of stress you may be experiencing during the COVID-19 pandemic at work using the scale below”. Lastly, to assess changes at work due to the pandemic, participants were asked to rate the following item on a 7-point Likert scale ranging from

1= no changes, to 7= everything changed: “Please rate the amount of change you are experiencing at work due to this recent pandemic”.

For my first set of hypotheses, results from the linear regression indicate that the model was no longer a significant predictor of goal progress, $F(12, 97) = 1.56, p = .118$. However, the regressions of both forms of perfectionism stayed relatively the same. Personal standards perfectionism ($\beta = .24, p = .178, CI95\% [-.11, .60]$) and self-critical perfectionism ($\beta = .07, p = .67, CI95\% [-.25, .40]$) were not significant predictors of goal progress.

For the second set of hypotheses, results from the path analyses demonstrate that all regressions are relatively unchanged. For the third set of hypotheses, results from the path analyses demonstrate that all regressions are relatively unchanged, however, the indirect effect that was originally found (self-critical perfectionism \rightarrow controlled work motivation \rightarrow goal progress) became marginally significant ($\beta = .06, p = .065$), suggesting that COVID-19 influences might have affected this finding.

For my fourth set of hypotheses, results from the path analyses demonstrate that all regressions are relatively unchanged. For my fifth set of hypotheses, results from the path analyses demonstrate that all regressions are relatively unchanged, however, two paths became marginally significant, specifically, the path from autonomous work motivation to subjective well-being, and the indirect effect between personal standards perfectionism \rightarrow autonomous work motivation \rightarrow subjective well-being, however, parameter estimates stayed relatively unchanged.

In sum, I can conclude that results are relatively the same after controlling for COVID-19 influences, with the exception of the indirect effect, self-critical perfectionism → controlled work motivation → goal progress, which is no longer significant (see Supplementary Materials – Robustness Check to view output from robustness checks; https://osf.io/xehqf/?view_only=8efa519146a4416f8e89e9a2fce057bb).

Discussion

The aim of the present research was to investigate how two forms of perfectionism, personal standards perfectionism and self-critical perfectionism, differentially impact goal pursuit, motivation, and various work-related outcomes among a sample of working adults. Previous research has suggested that both forms of perfectionism are differentially related with goal progress for personal goals, and that goal motivation mediates these associations (Moore et al., 2018). However, this remains understudied for work-related goals. In addition, both forms of perfectionism have been shown to be differentially associated with various work-related variables (burnout, workaholism, subjective well-being and job satisfaction), however, there is a lack of longitudinal research examining how perfectionism influences these work variables over time, and how work motivation may mediate these relationships. Therefore, the present research sought to address the following research questions using a longitudinal design:

- 1) Is there an association between perfectionism and goal progress for work-related goals?;
- 2) Does goal motivation (autonomous/controlled) for work-related goals mediate the relation between perfectionism and goal progress?;
- 3) Does work motivation (autonomous/controlled) mediate the relation between perfectionism and goal progress for work-related goals?;
- 4) How is perfectionism associated with work-related outcomes

(burnout, workaholism, subjective well-being, & job satisfaction)?; 5) How does work motivation (autonomous/controlled) mediate the relation between perfectionism and work-related outcomes?

Perfectionism and Goal Progress

Results revealed that both forms of perfectionism did not predict goal progress for work-related goals, thus the first set of hypotheses are not supported. These results are surprising, as previous research has reliably shown that for personal goals, personal standards perfectionism is associated with better goal progress, and self-critical perfectionism is associated with worse goal progress (Powers et al., 2011; Powers et al., 2012). This trend was also shown across various distinct samples, across different types of personal goals, and with different measures of goal progress (e.g., Powers et al., 2011). These puzzling set of results might be due to the possibility that perfectionism only impacts goal progress for personal goals, and perfectionism at work does not have the same effect on work-related goals. As previously mentioned, work-related goals are set by self-imposed intentions in a specific domain, which may depend on the demands of the job and/or environment. By contrast, personal goals extend beyond the work domain, and can encompass various domains of life (including the work domain). Although work-related goals are domain specific, I also measured perfectionism at the work domain. However, it may be the case that work-related goals are personalized to some extent and could be considered as “personal” work-related goals. In which case, perfectionism measured more generally might be a better predictor of goal progress for work-related goals, when compared to perfectionism at work specifically. Future research should consider how perfectionism in general predicts progress for work-related goals.

Unfortunately, the COVID-19 pandemic occurred during data collection, therefore, influences of the pandemic cannot be ignored. Many changes occurred in organizations during the pandemic, such as moving to virtual work environments, changes in work structure and priorities and increased stress and uncertainty, which could have caused interference with employees' goal pursuits at work. Although results did not change after controlling for some COVID-19 related variables (change in physical workplace, stress, and general changes due to the pandemic), it is still possible that disruptions were independent of working from home or stress, but were still present and affecting goal progress.

Perfectionism, Motivation and Goal Progress

Results demonstrate that only controlled work motivation mediates the positive relationship between self-critical perfectionism and goal progress, however, not in the direction I predicted, thus, my second and third sets of hypotheses are not supported. Specifically, I found that self-critical perfectionism is related to increased levels of controlled work motivation, which then leads to better goal progress. This finding is not in line with previous research done with goal motivation, demonstrating that increased levels of autonomous motivation mediated the positive relationship between personal standards perfectionism and goal progress, and decreased levels of autonomous goal motivation mediated the negative relationship between self-critical perfectionism and goal progress (Moore et al., 2018). Although, self-critical perfectionism and controlled work motivation were positively related (as predicted), past research demonstrates that controlled forms of motivation are often unrelated to goal progress (Powers et al., 2007; Koestner et al., 2008; Sheldon & Elliot, 1998; Shahar et al., 2006). Moreover, self-critical

perfectionism has been reliably shown to be associated with decreased goal progress (e.g., Powers et al., 2011). But my findings suggest the opposite when work motivation is taken into account. Moreover, goal and work motivation were not shown to mediate any other relationships, which is also inconsistent with previous research (e.g., Moore et al., 2018). As perfectionism at work was not shown to be directly related to goal progress for work-related goals in the present study (as it often is for personal goals), and goal and work motivation was not related to goal progress (with the exception for controlled work motivation), thus it is not surprising that goal motivation or work motivation do not mediate the relationship for other pathways.

These inconsistent findings may be due to differences between work-related goals and personal goals, as previously discussed. Furthermore, it may be the case that my findings are not entirely valid because of the current COVID-19 pandemic. As mentioned, influences from the pandemic may have disrupted or influenced goal progress, especially for work-related goals, as many work industries faced new challenges and changes. Interestingly, my only significant indirect effect (self-critical perfectionism → controlled work motivation → goal progress) was no longer significant after I controlled for some COVID-19 influences. This provides evidence that the current pandemic might have influenced perfectionism, motivation, or goal progress. In essence, researchers should be cautious when generalizing previous findings for personal goals to work-related goals as it relates to perfectionism, goal motivation and goal progress, and researchers should also be cautious generalizing previous findings to other forms of motivation, such as work motivation.

However, results showed that personal standards perfectionism was associated with higher levels of autonomous goal motivation and work motivation, and was unrelated to controlled goal and work motivation. In addition, self-critical perfectionism was related to decreased levels of autonomous goal and work motivation, and was related to increased levels of controlled goal and work motivation. This finding is in line with previous research for academic goals among university students (Harvey et al., 2015), as it is often the case that personal standards perfectionism is positively related with autonomous motivation, and self-critical perfectionism is negatively related with autonomous motivation and positively related with controlled motivation. Thus, my results suggest that these trends extend to the workplace setting. I speculate (along with Harvey et al., 2015) that workers who are personal standards perfectionists set work-related goals that are consistent with their values because they strive for perfection due to their own internal standards, whereas self-critical perfectionists strive for perfection at work for external reasons or pressures, thus making their work-related goals inherently controlled in nature (Powers, 2007; Shahar et al., 2003).

Moreover, our findings suggest that relationship between perfectionism and goal motivation can also be extended to work motivation. This finding enhances our understanding of the relationships between both forms of perfectionism and work motivation, as there have only been a handful of studies that examined this previously. For example, Stoeber et al., 2013 found similar results, demonstrating that personal standards perfectionism is mostly associated with autonomous forms of work motivation, whereas self-critical perfectionism is associated with only controlled forms of work motivation. However, their measure of work motivation was not as reliable compared to

the updated version used in the current study (Gagne et al., 2015). In addition, these relationships have been shown with general forms of motivation and sport motivation (e.g., Stoeber et al., 2017). These results build on previous research by providing additional evidence on the relationship between perfectionism and motivation at work, and demonstrate that previous trends shown other forms of motivation hold true with work motivation as well.

Often times goal motivation is predictive of goal progress for personal goals (e.g., Moore et al., 2018), but in the present study I found that goal motivation did not predict goal progress for work-related goals. This is especially true for autonomous goal motivation, which has been reliably shown to be related to better goal progress (Powers et al., 2007; Koestner et al., 2008; Sheldon & Elliot, 1998; Shahar et al., 2006), even for work goals (Judge et al., 2005), whereas controlled goal motivation has been shown to be unrelated to goal progress. The contradictory findings may be due to subtle differences in the study design. For example, the present study asked participants to list a work goal that they planned to pursue over the course of a 3-month period. Previous research asked participants to list a goal that they planned to pursue over the course of 7-months. It may be the case that the timeframe for goal pursuits at work were not long enough in the present study for motivation to predict goal progress. Likewise, the present study only examined goal progress at the half-way mark (at the 6-weeks time point), and did not yet include the last measure of goal progress at the 3-month time point. However, a third time point was collected and will be included in future analyses to examine whether goal motivation is predictive of goal progress by the end of participant's goal pursuit. Thus, it is possible that participant's measure of goal progress at the half-way mark would not be

as accurate as their progress would be at the end of the study. Moreover, influences of the COVID-19 pandemic might have disrupted participants' goal pursuits at work, as previously discussed.

In terms of work motivation, results show that autonomous work motivation is not predictive of goal progress, on the other hand, controlled work motivation predicts increased goal progress. These findings are inconsistent with previous research conducted with goal motivation. For instance, controlled forms of goal motivation have been shown to be unrelated with goal progress (Powers et al., 2007; Koestner et al., 2008; Sheldon & Elliot, 1998; Shahar et al., 2006). Moreover, one study that examined how motivation is related to goal progress for work goals among employees also found a non-significant association between controlled forms of goal motivation and progress (Judge et al., 2005) whereas my results show that controlled work motivation is related to increased goal progress. My findings may provide insight into the unique key differences in how goal and work motivation may differ in predicting goal progress for work-related goals. I speculate that these differences may be due to the fact that work motivation is a domain-level motivation, and since goal progress is a task-specific outcome, work motivation might not be the most accurate predictor of goal progress when compared to a task-specific level motivation (i.e., goal motivation).

When comparing goal and work motivation, my results showed that there are no significant differences between goal and work motivation as a mediator on the relationship between perfectionism and goal progress. This finding is not surprising given the fact that neither goal or work motivation was found to mediate these relationships on their own (with the exception of self-critical perfectionism → controlled work motivation

→ goal progress; however, this indirect pathway was no longer significant in the comparison model). Interestingly, self-critical perfectionism was found to be more strongly negatively related to autonomous work motivation when compared to autonomous goal motivation. Based on the Hierarchical Model of Intrinsic and Extrinsic Motivation (Vallerand, 1997), it might be the case that perfectionism at the domain level of work would be a stronger predictor of an outcome found at the same domain level, in this case work motivation, when compared to a task-specific outcome, such as goal motivation. The direction of this relationship remains consistent with previous research demonstrating that self-critical perfectionism is negatively related with autonomous forms of motivation (e.g., Harvey et al., 2015).

Lastly, one gender difference was found demonstrating that personal standards perfectionism was unrelated to controlled goal motivation for males, however, it was associated with increased controlled goal motivation for females, which is inconsistent with previous research, as personal standards perfectionism is usually unrelated with controlled forms of motivation (e.g., Harvey et al., 2015). This gender difference suggests that female workers who have extremely high standards at work might be highly motivated towards their work-related goals in general, regardless of whether it is for autonomous or controlled reasons, as they are shown to have high levels of both forms of goal motivation. This difference was not found for work motivation, thus, this difference only exists for goal motivation. In terms of gender distribution, as my sample was evenly split between males and females, thus I can assume that this finding is representative.

Perfectionism and Work Outcomes

Results demonstrate that personal standards perfectionism is only related to increased subjective well-being, while self-critical perfectionism is related to increased burnout, workaholism, and decreased subjective well-being. Moreover, perfectionism predicted these changes in work outcomes after controlling for them 6-weeks prior. Therefore, my hypotheses are partially supported.

As previous research among samples of university students has demonstrated, personal standards perfectionism has been shown to be associated with higher levels of life satisfaction and well-being (Chan, 2007; Stoeber & Otto, 2006). My findings suggest that this trend extends to working adults, suggesting that having high standards at work, without being self-critical, is related to increased subjective well-being over time. This finding supports my hypothesis, and demonstrates that personal standards perfectionists at work feel satisfied with their life as a whole, and experience more positive affect over time.

Moreover, self-critical perfectionism has been shown in various studies to positively predict burnout or symptoms of burnout (Stoeber & Damian, 2016; Hill & Curran 2016), and one study has also demonstrated this trend longitudinally (Childs & Stoeber, 2012). My findings provide further evidence to suggest that in a workplace setting, self-critical perfectionism is associated with increased feelings of burnout over time and supports my hypothesis. Therefore, being overly self-critical about one's performance at work can increase fatigue and emotional exhaustion at work.

Similarly, my results demonstrate that self-critical perfectionism is associated with increased workaholism over time, which is inline with previous research (Stoeber & Damian, 2016; Clark et al., 2010; Taris et al., 2010; Girardi et al., 2018; Harari et al.,

2018). These finding supports my hypothesis and provides further longitudinal evidence to support the trend that self-critical perfectionism at work can have detrimental effects on employees' level of workaholism over time. Moreover, studies have suggested that perfectionism and workaholism share common qualities (Burke, 1999a; 1999b; Spence & Robbins, 1992; Scott et al., 1997), and my findings suggest that it might only be the case when perfectionists are self-critical with themselves, and does not apply for personal standards perfectionists. I speculate that their fear of negative evaluations and their need for approval (Hewitt & Fleet, 1991) may lead self-critical perfectionists to work excessively and compulsively to avoid failure.

Additionally, self-critical perfectionism has been reliably shown to be associated with various forms of psychopathology (e.g., Bieling et al., 2004), have negative effects on positive affect and life satisfaction (Chang et al., 2004), and other mental well-being variables (Harari et al., 2018). My findings are in line with previous research, as I found that self-critical perfectionists experience decreased subjective well-being over time, which supports my hypothesis. Moreover, these finding provides evidence that this trend extends among working adults, suggesting that self-critical perfectionists at work tend to feel less satisfied with their life in general, and experience more negative affect over time.

In regards to job satisfaction, neither personal standards perfectionism or self-critical perfectionism were found to impact job satisfaction over time, therefore my hypotheses were partially supported, as I expected personal standards perfectionism to be unrelated to job satisfaction, and self-critical perfectionism to be negatively related to job satisfaction. Previous correlational research has suggested that self-critical perfectionism

is negatively associated with job satisfaction among samples of employees, including teachers and mental health workers, and did not find significant associations with personal standards perfectionism (Fairlie & Flett, 2003; Wittenberg & Norcross, 2001). In contrast, one study found that both forms of perfectionism were unrelated to job satisfaction, which is in line with the present findings (Hammond et al., 2019). It may be the case that being perfectionistic at work does not have a strong impact on overall job satisfaction over time, and other factors may be more relevant in predicting future job satisfaction. It is important to note that when examining the covariates at Time 1 in the present study, results show that personal standards perfectionism is not related to job satisfaction, but self-critical perfectionism is negatively associated with job satisfaction. This would suggest that at a given point in time, self-critical perfectionism is associated with lower job satisfaction, but it does not directly predict future job dissatisfaction. As job satisfaction is an affective reaction to one's job and self-critical perfectionists generally experience increased levels of negative affect and dysphoria (Dunkley & Blankstein, 2000; Enns & Cox, 1999; Mongrain & Zuroff, 1995), it is possible that being a self-critical perfectionist may negatively influence one's general sense of satisfaction with their job at a given point in time. And as discussed later in this section, work motivation is suggested to play a mediating role between self-critical perfectionism and future job dissatisfaction. Therefore, this personality disposition may indirectly influence future feelings of job satisfaction as a function of experiencing lower autonomy at work. Altogether, my study provides a clearer picture of how perfectionism impacts job satisfaction over time, and future research should be done to replicate current findings.

In terms of personal standards perfectionism, these findings demonstrate that it is not related to burnout over time or at a given point in time, which does not support my hypothesis, however, this is not all that surprising. While findings are generally mixed in the literature (e.g., Stoeber & Damian, 2016), previous research demonstrates that personal standards perfectionism is not related with burnout (Mitchelson & Burns, 1998; Fairlie and Flett, 2003, Van Yperen et al., 2011; Kazemi & Ziaaddini, 2014). In addition, two meta-analyses revealed that personal standards perfectionism is often weakly negatively related to burnout or unrelated to burnout (Hill & Curran, 2016; Harari et al., 2018). However, Hill and Curran (2016) mention that when the overlapping variance is controlled for between both forms of perfectionism, a negative relation appears. While considering past research, my findings suggest that the relationship between personal standards perfectionism and burnout might be more complex but nonetheless leaning towards a negative relationship, as the parameter estimate was negative. Future research should consider how different work conditions or factors might contribute to these inconsistent findings. It may be the case that having extremely high standards for performance at work may not directly affect feelings of burnout, but may become more clearly linked after considering other factors, such as work-life balance, since perfectionists tend to have a difficult time detaching from work in addition to burnout being linked to decreased work-life balance (Flaxman et al., 2012; Mitchelson, 2009; Shaufeli et al., 2008).

Moreover, my findings reveal that personal standards perfectionism is unrelated with workaholism over time, which does not support my initial hypothesis. Previous research has suggested that personal standards perfectionism may be related to increased

workaholism, especially when controlling for the overlapping variance between both forms of perfectionism (Girardi et al., 2018; Harari et al., 2018; Clark et al., 2010; Stoeber et al., 2013). In contrast, one study found that personal standards perfectionism was unrelated to workaholism among a sample of employees after controlling for job demands and job control (Taris et al., 2010). All things considered, the majority of these studies are correlational in nature, thus they lack the ability to accurately detect whether perfectionism impacts workaholism over time. These findings provide evidence that personal standards perfectionism does not predict future workaholism which suggests that having extremely high standards of performance at work does not necessarily have any negative or positive effects on workaholism among working adults. And as speculated earlier, since personal standards perfectionists do not have the same fear of failure or negative evaluations as do self-critical perfectionists, this may not entice them to work compulsively and excessively to avoid negative emotions and failure. Moreover, as Stoeber and Otto (2006) point out, self-critical perfectionism often suppresses any positive associations that personal standards perfectionism may have with outcome variables. Given that the overlapping variance was controlled for in the present study, if personal standards perfectionism did have any associations with workaholism it would have been evident here. Based on my findings, I can confidently state that personal standards perfectionism is unrelated to workaholism.

Most importantly, my results demonstrate that there is not a reciprocal relationship between perfectionism and these work variables (burnout, workaholism, subjective well-being, and job satisfaction), which provides valuable insight into the directionality of these relationships. As Stoeber (2018) explained in his chapter on future

directions for perfectionism research, more longitudinal research is needed to explore whether this personality disposition is an antecedent or an outcome for variables of interest, and whether there is evidence of a reciprocal relationship. This novel finding provides evidence to suggest that perfectionism predicts changes in various work-related outcomes over time, and can be conceptualized as an antecedent in the workplace as it relates to burnout, workaholism, subjective well-being and job satisfaction. My results also suggest that these work variables do not predict perfectionism over time, therefore, this personality disposition is not impacted by work-related variables. Even though personality dispositions or traits may be regarded as an antecedent because they are relatively stable over time, some perfectionism research done longitudinally has demonstrated that certain variables are predictive of perfectionism (e.g., social anxiety and academic achievement; Gautreau et al., 2015; Damian et al. 2017), therefore, perfectionism may be regarded as an antecedent or consequence depending on the variables of interest. Altogether, perfectionism can be viewed as an antecedent of these work-related outcomes. It is essential that future research continues to explore the directionality between perfectionism and other work variables, and should be cautious generalizing these findings by labeling perfectionism as solely an antecedent for other types of outcomes.

Perfectionism, Work Motivation and Work Outcomes

In regards to my fifth research question, my hypotheses are partially supported. Results show that autonomous motivation mediates the relationship between personal standards perfectionism and job satisfaction, which supports my hypothesis, as well as the relationship between self-critical perfectionism and job satisfaction, which does not

support my hypothesis, as I expected controlled work motivation to mediate. In addition, I found that controlled work motivation mediates the negative relationship between self-critical perfectionism and subjective well-being, which supports my hypothesis.

In terms of job satisfaction, my findings suggest that both forms of perfectionism differentially predict job satisfaction over time indirectly through their relation with autonomous work motivation. As previously discussed and shown, job satisfaction was unrelated to both forms of perfectionism directly. But when work motivation is taken into account, personal standards perfectionism reveals a positive relation with job satisfaction, specifically, through its positive relation with autonomous work motivation. On the other hand, self-critical perfectionism reveals a negative relationship with job satisfaction through its negative relation with autonomous work motivation. Accordingly, this suggests that job satisfaction is mainly influenced by an employee's level of autonomous work motivation, and unrelated to their levels of controlled work motivation. These findings are inline with previous research, which demonstrates that autonomous work motivation is positively associated with job satisfaction (Richer et al., 2002; Blais et al., 1993; Lam & Gurland, 2008; Harigopal & Kumar, 1982; Keaveney & Nelson, 1993). My study further confirms this trend, and extends previous research by demonstrating how higher levels autonomous work motivation mediates the relationship between personal standards perfectionism and job satisfaction, and lower levels of autonomous work motivation mediates the relationship between self-critical perfectionism and job dissatisfaction. As previously speculated, personal standards perfectionists strive for perfection due to their internal standards, so naturally, this might make them feel more autonomous at work and feel more in control, which in turn can make them feel more

satisfied at work. For the case of self-critical perfectionists, they strive for perfection due to external standards, which inevitably makes them feel controlled at work (Powers et al., 2007; Shahar et al., 2003; Harvey et al., 2015). Moreover, self-critical perfectionists generally show concerns over lack of control and lack of recognition, and often have perceptions of helplessness (e.g., Stoeber & Otto, 2006) which has been shown to be related to job dissatisfaction (Loher et al., 1985). Altogether, my findings that autonomous motivation mediates the differential relationships between both forms of perfectionism and job satisfaction is in line with previous research, and sheds light on how perfectionism may indirectly influence job satisfaction among working adults.

Furthermore, self-critical perfectionism was shown to lead to decreased levels of subjective well-being over time directly and indirectly through its positive association with controlled work motivation. Previous research has shown that autonomous forms of motivation are positively related to subjective well-being, and one study also demonstrated this with domain-level motivation (Milyavskaya & Koestner, 2011), however, the present study is the first to provide evidence of the mediating effects of work motivation on this relationship with a sample of working adults. When self-critical perfectionists strive for perfection and are motivated for internal or external pressures to work, it is not surprising this would lead to lower levels of life satisfaction and positive affect, as previous evidence suggests that controlled forms of motivation have detrimental effects on well-being (e.g., Sheldon & Kasser, 1995).

Surprisingly, work motivation was not shown to mediate any of the relationships for burnout and workaholism in the present study, thus my hypotheses are not supported. Previous cross-sectional research in the domain of sports demonstrated that sport

motivation mediated the relationships between perfectionism and burnout (Jowett et al., 2013). One longitudinal study also demonstrated the mediating effects of sport motivation on the relationship between perfectionism and burnout (Madigan et al., 2016). However, these studies were conducted among athletes and examined motivation in the domain of sports. My findings suggest that this trend does not extend to the workplace setting with work motivation. Previous cross-sectional research has also shown that work motivation mediates a positive relationship between personal standards perfectionism and workaholism, but not for self-critical perfectionism (Stoeber et al., 2013), and other studies have also shown how autonomous and controlled forms of work motivation are related with workaholism (van Beek et al., 2012; Van den Broeck et al., 2011). However, my results demonstrate that only self-critical perfectionism is positively associated with workaholism, and neither forms of work motivation are related. These findings are not surprising as both forms of work motivation were unrelated to burnout and workaholism in the present study. Even though these findings suggest that motivation does not mediate the associations between perfectionism and burnout/workaholism in the work domain, more longitudinal research is needed to further explore this among different samples of working adults. Moreover, researchers should be cautious when generalizing findings in other domains (e.g., sports domain) to the work domain, as it relates to perfectionism, work motivation, burnout and workaholism.

Interestingly, personal standards perfectionism no longer showed a significant positive relation with subjective well-being, but showed a marginally significant relation once work motivation was taken into account. This finding suggests that work motivation may explain the majority of the variance between personal standards perfectionism and

subjective well-being. In contrast, self-critical perfectionism was still shown to directly relate to increased burnout and workaholism over time.

Work Status

Lastly, notable differences were found between full-time and part-time workers. When examining the differences in the model with perfectionism and work outcomes, self-critical perfectionism was related to increased burnout at Time 2 among full-time and part-time workers, however, the increase was higher among part-time workers. This suggests that self-critical perfectionists experience more burnout over time when they are working part-time compared to working full-time. Intuitively, one could expect that an employee who is working longer hours would be more at risk of experiencing elevated levels of emotional exhaustion and fatigue, especially for a self-critical perfectionist who worries about failure and how others' view their performance, however, my results suggest the opposite. Nonetheless, both part-time and full-time self-critical perfectionistic workers were shown to have elevated levels of burnout over time. In addition, self-critical perfectionism was related to decreased job satisfaction at Time 2 among part-time workers, but not among full-time workers. It may be the case that part-time workers are not as invested in their current job as they would be compared to a full-time position and they possibly do not make as much money. This could lead to decreased job satisfaction, especially for self-critical perfectionists who already experience increased levels of negative affect and dysphoria (Dunkley & Blankstein, 2000; Enns & Cox, 1999; Mongrain & Zuroff, 1995).

In the model with perfectionism, work motivation, and work outcomes, notable differences were found between part-time and full-time workers as well. For instance,

controlled work motivation was unrelated with subjective well-being and job satisfaction for full-time workers (but had negative parameter estimates), and it was positively related for part-time workers. The relation found for part-time workers is not in line with previous research which suggests that controlled forms of motivation are unrelated to subjective well-being (e.g., Olesen et al., 2015), and negatively related to job satisfaction (Gillet et al., 2013). As seen previously, self-critical perfectionism was related to increased burnout among full-time and part-time workers, however, the increase was higher among part-time workers. Moreover, self-critical perfectionism was related to decreased subjective well-being among full-time and part-time workers, but the decrease was higher among part-time workers. Lastly, self-critical perfectionism was related to decreased job satisfaction only for part-time workers, as previously seen as well. In sum, there seems to be a few key differences between self-critical perfectionism and controlled work motivation as it relates to various work outcomes among full-time and part-time workers. Future research should explore possible mechanisms that might account for these differences in order to further understand how perfectionism and work motivation impacts various work variables among different work statuses.

Moreover, these findings should be interpreted with caution because the majority of participants were working full-time and only 16% were working part-time. Thus, the comparisons of work status might not be representative. Future research should aim to recruit an equal number of full-time and part-time workers when making these types of comparisons.

Limitations

There are several limitations in the present study that should not be overlooked. Firstly, at the beginning of data collection, the COVID-19 pandemic began and could have influenced my findings. Workplaces were significantly impacted and experienced great change in March 2020 because many workers had to adjust to remote-working environments and had to adjust their priorities. In addition, the organizations that participated in the study had to lay off employees, which could result in additional stress and uncertainty for the remaining workers and cause an increase in workload. Although a robustness check was performed on all analyses to control for COVID-19 influences, I cannot account for all potential variables at play. The biggest concern with the COVID-19 pandemic was how participants' work-related goals were impacted. Setting goals during a crisis may have made goal pursuit more difficult, especially when navigating uncertainty and significant change in the workplace environment. Furthermore, certain variables of interest could have been negatively impacted as well, such as subjective well-being, motivation and job satisfaction. Similarly, these drastic changes could have increased emotional exhaustion and workaholism, as managing a healthy work-life balance from their home offices could have posed problems for some individuals, as well as possibly managing changes in workload. More research should be conducted post-pandemic in order to assess how work-related goal pursuit may be influenced by perfectionism and motivation under normal circumstances.

Moreover, baseline data from each method of recruitment was collected at different stages of the pandemic. Specifically, participants who were recruited from organizations completed the baseline survey before the pandemic began, and a few completed it immediately after. The social media participants completed the baseline

survey in April, during early stages of the pandemic, while Prolific participants completed their baseline survey in June, during later stages of the pandemic. This may have impacted the present findings, as circumstances surrounding the pandemic were different across these stages. For instance, pandemic restrictions in Canada were loosened in June, as people were allowed to re-enter their physical workplaces while following public health guidelines and private gatherings were permitted. To that note, not all participants resided in Canada, as only 42.5% lived in Canada. Therefore, participants that lived in other countries may have had a different experience overall.

In addition, working from home due to the pandemic may have been more difficult for participants if they had children staying at home as well. As many schools resorted to online forms of learning, many parents may have struggled to manage their work from home while having the responsibility to care and help their children with remote school work. However, the present study did not assess parental status, thus it was not taken into account in any analyses. In sum, considering the current pandemic overall, the administration of surveys at different stages of the pandemic, participants residing in different countries, and not taking parental status into account, my findings should be interpreted with caution.

Secondly, my sample size might not have been large enough for some of models. For instance, according to Kline (2016), it is recommended to have at least N of 10 per parameter estimate; in my most complex model, I estimated 98 parameters (including direct effects, variances, and covariances), which would have required 980 participants.

Thirdly, my measurement of burnout in the current study assess fatigue and emotional exhaustion at work. Although emotional exhaustion is the core component of

burnout (Gorter et al., 1999; Schaufeli & van Dierendonck, 1993), it does not take into account the other two components of burnout: cynicism and inefficacy. As the majority of burnout research use the Maslach Burnout Inventory (Schaufeli et al., 1996), future research should consider utilizing the same scale in order to have a complete measure of burnout. Furthermore, some of my non-significant findings between personal standards perfectionism and burnout may be due to the measure of burnout, as previous research found that this form of perfectionism is negatively related with certain facets of burnout, specifically inefficacy (Li et al., 2014; Caliskan et al., 2014). Therefore, including a more complete measure of burnout in future longitudinal studies is needed.

Moreover, both forms of perfectionism were found to be weakly positively correlated at Time 1 ($r = .16, p = .031$), and not significantly correlated at Time 2 ($r = .11, p = .221$). As mentioned, this is not typical in perfectionism research, as most individuals who have perfectionistic strivings, also score high on perfectionistic concerns (Stoeber & Otto, 2006). Moreover, moderate to high correlations are found among adult working samples, ranging between $r = .20$ and $r = .48$ (e.g., Stoeber et al., 2013; Girardi et al., 2018; Childs & Stoeber, 2012). Another study that used the same measure personal standards perfectionism and self-critical perfectionism as the present study found a correlation of $r = .28$ (Levine et al., 2020). Due to the fact that both forms of perfectionism at work are weakly correlated with each other in the present study, especially when compared to other working adult samples and similar measures of perfectionism, my results might not be representative and more longitude research is needed to confirm these findings.

In terms of goal pursuit, I measured goal progress in a subjective manner. Using an objective measure of goal progress (e.g., Powers et al., 2011) might have yielded different findings. Future research should consider possible ways to measure goal progress other than using subjective measures. In addition, it would be interesting to explore how my findings may differ from other types of work goals, such as standardized targets set by management.

Moreover, the present study did not examine whether perfectionism affects motivation, or if motivation affects perfectionism, as I did not include motivation at Time 2 as a dependent variable in my analyses (only motivation at Time 1 was used in all analyses). Based on limited evidence, perfectionism seems to be the antecedent of motivational orientations (Madigan et al., 2016), but future research is needed to further explore the directionality of these relationships, and whether perfectionism and motivation may have a reciprocal relationship.

In addition, we assessed full-time employment status as 30 hours or more a week, and part-time as less than 30 hours a week. This decision was based on the Canadian government guidelines (Statistics Canada, 2015). Typically, the organizational literature conceptualizes part-time employment as less than 35 hours a week (e.g., Stamper & Dyne, 2001; Deutermann & Brown, 1978; Nardone, 1986). Therefore, the present findings related to work status are not directly comparable to other studies in the organizational literature.

Furthermore, factor analyses were not performed on the key variables of interest in the present study, therefore, whether each item has high loadings on a factor/construct remains untested. This may be problematic, as there is a chance that some of the items

might not represent the construct of interest if they have low factor loadings, thus they may be measuring something different. However, the internal reliability (alpha coefficient) of all variables were deemed good or adequate. This suggests that our composite measures of all variables in the present study have items that are closely related as a group, meaning that they all represent/ measuring the same construct.

Future Directions

In terms of goal pursuit, a prominent theory in the organizational literature is the goal-setting theory (Locke & Latham, 1990; 2002), which states that goal setting affects performance on tasks, especially as it relates to work-related tasks. Moreover, this theory derived a framework known as the High Performance Cycle (HPC) for understanding motivation and performance as it relates to goal setting theory (Latham, 2007). This framework proposes that goal concepts can moderate goal setting, as not all goals will influence performance in the same way. For instance, goal self-efficacy, goal commitment, feedback, task complexity, constraints, and situational factors (e.g., resources) affects the goals that individuals set.

The present study did not examine how these goal concepts may influence the relationships between perfectionism and goal progress, as goal self-efficacy, goal commitment and goal difficulty were only regarded as control variables. The null findings found between perfectionism, motivation, and goal progress may be because aspects from the goal-setting literature were not taken into account other than as control variables. For instance, it may be possible that goal commitment may interact with goal motivation. I suspect that individuals who set autonomous goals are more likely to feel committed to them which may lead to better goal progress, whereas individuals who set

goals for controlled reasons may experience lower commitment towards their goals, which may lead to decreased goal progress. Future research should consider integrating a goal-setting theory perspective by incorporating these goal concepts as potential moderators for work-related goals. Moreover, it may be the case that self-critical perfectionists set their work-related goals differently than personal standards perfectionists, so further exploring this may provide another layer of understanding of goal pursuit in the workplace.

In the organizational literature, personality traits/dispositions are not often regarded as the independent variable in goal setting, but are regarded as moderators (e.g., Donovan & Williams, 2003). Future research could consider this perspective as well, and examine perfectionism as a moderator in the work context by including an interaction between perfectionism and motivation. This may provide a better understand as to how perfectionism impacts goal progress for work-related goals.

As the present study only examined four work-related variables (burnout, workaholism, subjective well-being, and job satisfaction), future research should consider how other important work outcomes may be influenced by perfectionism and motivation in the workplace over time. The present work outcomes were chosen because previous research often used cross-sectional designs to examine correlates between perfectionism and these outcomes (e.g., Harari et al., 2018), thus, directionality was not addressed. However, more longitudinal research is needed to explore how perfectionism and other work variables are related and to explore the directionality of these relationships. For instance, the meta analysis conducted by Harari and colleagues (2018) examined how perfectionism was related with job performance and employee engagement, and call for

more work to be done on job commitment, work-family conflict, and turnover intentions. Evidence from the present study suggests that perfectionism can be conceptualized as an antecedent of the present work outcomes, however, this does not necessarily extend to other work outcomes, thus, exploring this further may be a fruitful avenue for future research.

Moreover, future research may also consider exploring how some of the work outcomes in the present study may play a mediating role. For instance, burnout was shown to predict future job dissatisfaction in previous longitudinal research (Wolpin et al., 1991). And as my findings suggest that self-critical perfectionism is directly related to burnout, and indirectly related to job satisfaction, it may be fruitful to explore whether burnout mediates the relationship between self-critical perfectionism and job satisfaction. Moreover, workaholism is often associated with burnout, and one study was able to demonstrate that workaholism mediates the relationship between self-critical perfectionism and burnout (Taris et al., 2010). However, this study used a cross-sectional design, so future research should explore the directionality of these relationships with longitudinal data.

Implications

The present findings have several important implications for organizations and employees. Although I did not find any evidence to suggest that perfectionism and motivation makes a meaningful impact on goal progress for work-related goals after controlling for COVID-19 influences, I did uncover interesting relationships that perfectionism has with work variables and motivation which would be of central interest for organizations. As I have shown, self-critical perfectionism has detrimental effects on

burnout, workaholism, subjective well-being, and job satisfaction, which are costly issues for organizations (e.g., Paoli & Merllie, 2001; Stephens & Joubert, 2001; Danna & Griffin, 1999). Accordingly, it is essential that organizations make an effort to improve their ability to detect self-critical perfectionistic traits that put employees at increased risk of experiencing these negative work-related outcomes. Understanding that self-critical perfectionism is a vulnerability factor in the workplace can help inform human resource teams and improve work adjustment programs to help adjust employee's self-critical perfectionistic tendencies and motivation in order to improve organizational effectiveness. As my findings provide evidence that perfectionism at work is an antecedent for burnout, workaholism, subjective well-being, and job satisfaction, implementing programs at work that detect and improve self-critical tendencies may directly improve employee well-being and reduce feelings of burnout and workaholism.

Furthermore, as my evidence suggests that work motivation directly impacts subjective well-being and job satisfaction, leaders should also make efforts to adjust their work environments to provide their teams with opportunities to feel more autonomous at work. Self-determination theory predicts that when employees have a sense of autonomy at work it can lead to decreased feelings of burnout, exhaustion and improve well-being (Ryan & Deci, 2017). Moreover, it is not necessary for leaders to completely eliminate controlled forms of work motivation in their environments, but providing opportunities to increase feelings of autonomy at work is necessary and essential to improve engagement and performance among employees (Ryan & Deci, 2017), as the absence of autonomous motivation at work can be problematic (e.g., Moran et al., 2012). For instance, organizations can train their leaders to be more autonomy supportive (Hardre & Reeve,

2009; Ryan & Deci, 2017) by helping them to: (1) better understand and acknowledge the feelings and perspectives of employees; (2) provide employees with more choice and allow them to participate in decision-making processes; (3) avoid the use of rewards and sanctions to motivate others; (4) provide more positive and informational feedback; (5) allow for exploration and self-initiation; and (6) improve their communication to reduce the use of controlling language and provide rationale.

Conclusion

The current study provides evidence to suggest that individual differences in perfectionism at work could be a contributing factor to burnout, workaholism, subjective well-being, and job satisfaction in the workplace. Self-critical perfectionism can have detrimental effects on these work outcomes, whereas personal standards perfectionism positively predicts subjective well-being. A novel finding suggests that perfectionism is relatively stable and is not impacted by these work variables, therefore, perfectionism at work can be considered as an antecedent of these work outcomes. Evidence suggests that work motivation plays a mediating role between perfectionism and job satisfaction, and subjective well-being. Altogether, organizations should consider the implementation of programs aimed to adjust self-critical tendencies at work and work motivation among employees in order to improve organizational effectiveness and well-being. Although my research did not find support that perfectionism impacts goal progress for work-related goals after controlling for COVID-19 influences, future research should be done to replicate these findings in the context of other employee populations post-pandemic.

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Appendix A: Perfectionism Scales

Frost Multidimensional Perfectionism Scale (FMPS; Frost et al., 1990)

Listed below are a number of statements concerning personal characteristics and traits at work. Read each item and decide whether you agree or disagree, and to what extent. If you strongly disagree, select 1; if you strongly agree, select 7, if you feel somewhere in between click any one of the options in between. If you feel neutral or undecided, select 4.

	Strongly Disagree							Strongly Agree
	1	2	3	4	5	6	7	
1. It is important to me that I be thoroughly competent in everything I do at work.	1	2	3	4	5	6	7	
2. If I fail at work, I am a failure as a person.	1	2	3	4	5	6	7	
3. I set higher goals than most people at work.	1	2	3	4	5	6	7	
4. If someone does a task at work better than I, then I feel like I failed the whole task.	1	2	3	4	5	6	7	
5. If I fail partly it's as bad as being a complete failure.	1	2	3	4	5	6	7	
6. I have extremely high goals at work.	1	2	3	4	5	6	7	
7. If I do not do as well as other people at work it means I am an inferior human being.	1	2	3	4	5	6	7	
8. Other people seem to accept lower standards for themselves than I do at work.	1	2	3	4	5	6	7	
9. I expect higher performance in my work tasks than most other people do.	1	2	3	4	5	6	7	
10. The fewer mistakes I make at work, the more people will like me.	1	2	3	4	5	6	7	

Frost, R. O., Marten, P., Lahart, C., & Rosenblate, R. (1990). The dimensions of perfectionism. *Cognitive Therapy and Research, 14*, 449-468.

Revised Almost Perfect Scale (R-APS; Slaney, Rice, Mobley, Trippi, & Ashby, 2001)

The following items are designed to measure attitudes people have toward themselves, their performance, and towards others at work. There are no right or wrong answers. Please respond to all of the items. Use your first impression and do not spend too much time on individual items in responding. Respond to each of the items by using the scale below to describe your degree of agreement with each item.

	Strongly Disagree					Strongly Agree	
1. I have high expectations for myself at work.	1	2	3	4	5	6	7
2. Doing my best never seems to be enough at work.	1	2	3	4	5	6	7
3. I set very high expectations for myself at work.	1	2	3	4	5	6	7
4. I expect the best from myself at work.	1	2	3	4	5	6	7
5. My performance rarely measures up to my standards at work.	1	2	3	4	5	6	7
6. I am hardly ever satisfied with my performance at work.	1	2	3	4	5	6	7
7. I have a strong need to strive for excellence at work.	1	2	3	4	5	6	7
8. I often feel disappointed after completing a task at work because I know I could have done better.	1	2	3	4	5	6	7

Slaney, R. B., Rice, K. G., Mobley, M., Trippi, J., & Ashby, J. S. (2001). The Revised Almost Perfect Scale. *Measurement and Evaluation in Counseling and Development*, 34, 130–145.

Depressive Experiences Questionnaire (DEQ; Blatt, Afflitti, & Quinlan, 1979)

Listed below are a number of statements concerning personal characteristics and traits at work. Read each item and decide whether you agree or disagree, and to what extent. If you strongly disagree, select 1; if you strongly agree, select 7, if you feel somewhere in between click any one of the options in between. If you feel neutral or undecided, select 4.

	Strongly Disagree						Strongly Agree
1. I often find that I don't live up to my own standards or ideals at work.	1	2	3	4	5	6	7
2. There is a considerable difference between how I am now and how I would like to be at work.	1	2	3	4	5	6	7
3. I tend not to be satisfied with what I have.	1	2	3	4	5	6	7
4. I have a difficult time accepting weakness in myself.	1	2	3	4	5	6	7
5. I tend to be very critical of myself at work.	1	2	3	4	5	6	7
6. I very frequently compare myself to standards or goals.	1	2	3	4	5	6	7

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Ph.D., 1979

Appendix B: Work-Related Goal

Please list a work-related goal that you would like to pursue over the next 4-months.

Appendix C: Goal Motivation Scale

Think about the reasons that you are pursuing this goal. For each reason given below, give a rating of 1 to 7 on how much you are pursuing your goal for that reason.

	Not at all for this reason						Completely for this reason
	1	2	3	4	5	6	7
1. Because somebody else wants you to, or because you'll get something from someone if you do.	1	2	3	4	5	6	7
2. Because you would feel ashamed, guilty, or anxious if you didn't – you feel that you should try to accomplish this goal.	1	2	3	4	5	6	7
3. Because you really believe that this is an important goal to have.	1	2	3	4	5	6	7
4. Because of the fun and enjoyment which the goal will provide you – the primary reason is simply your interest in the experience itself.	1	2	3	4	5	6	7
5. Because it represents who you are and reflects what you value most in life.	1	2	3	4	5	6	7
6. To avoid negative consequences of not pursuing this goal.	1	2	3	4	5	6	7
7. To get closer to something you want.	1	2	3	4	5	6	7

Sheldon, K. M., & Kasser, T. (1998). Pursuing personal goals: Skills enable progress, but not all progress is beneficial. *Personality and Social Psychology Bulletin*, 24(12), 1319-1331.

Appendix D: Goal Progress Scale

Based on your experience during the past **60 days**, please indicate the extent to which you agree with each statement concerning the following work-related goal that you set:

(Goal will be pipelined here)

	Strongly Disagree						Strongly Agree
1. I have made a lot of progress toward my goal.	1	2	3	4	5	6	7
2. I feel like I am on track with my goal plan.	1	2	3	4	5	6	7
3. I feel like I have achieved my goal.	1	2	3	4	5	6	7

Koestner, R., Lekes, N., Powers, T. A., & Chicoine, E. (2002). Attaining personal goals: self concordance plus implementation intentions equals success. *Journal of Personality and Social Psychology*, 83(1), 231.

Appendix E: Work Motivation Scale

The Multidimensional Work Motivation Scale (MWMS; Gagne et al., 2015)

Why do you or would you put efforts into your current job?

	Not at all						Completely
1. I don't, because I really feel that I'm wasting my time at work.	1	2	3	4	5	6	7
2. I do little because I don't think this work is worth putting efforts into.	1	2	3	4	5	6	7
3. I don't know why I'm doing this job, it's pointless work.	1	2	3	4	5	6	7
4. To get others' approval (e.g., supervisor, colleagues, family, clients ...).	1	2	3	4	5	6	7
5. Because others will respect me more (e.g., supervisor, colleagues, family, clients ...).	1	2	3	4	5	6	7
6. To avoid being criticized by others (e.g., supervisor, colleagues, family, clients ...).	1	2	3	4	5	6	7
7. Because others will reward me financially only if I put enough effort in my job (e.g., employer, supervisor ...).	1	2	3	4	5	6	7
8. Because others offer me greater job security if I put enough effort in my job (e.g., employer, supervisor ...).	1	2	3	4	5	6	7
9. Because I risk losing my job if I don't put enough effort in it.	1	2	3	4	5	6	7
10. Because I have to prove to myself that I can.	1	2	3	4	5	6	7
11. Because it makes me feel proud of myself.	1	2	3	4	5	6	7
12. Because otherwise I will feel ashamed of myself.	1	2	3	4	5	6	7
13. Because otherwise I will feel bad about myself.	1	2	3	4	5	6	7

14. Because I personally consider it important to put efforts in this job.	1	2	3	4	5	6	7
15. Because putting efforts in this job aligns with my personal values.	1	2	3	4	5	6	7
16. Because putting efforts in this job has personal significance to me.	1	2	3	4	5	6	7
17. Because I have fun doing my job.	1	2	3	4	5	6	7
18. Because what I do in my work is exciting.	1	2	3	4	5	6	7
19. Because the work I do is interesting.	1	2	3	4	5	6	7

Gagné, M., Forest, J., Vansteenkiste, M., Crevier-Braud, L., Van den Broeck, A., Aspeli, A. K., ... & Halvari, H. (2015). The Multidimensional Work Motivation Scale: Validation evidence in seven languages and nine countries. *European Journal of Work and Organizational Psychology, 24*(2), 178-196.

Appendix F: Burnout Scale

The Copenhagen Burnout Inventory (Kristensen, Borritz, Villadsen, & Christensen, 2005)

Listed below are a number of statements concerning your feelings at your current job. Read each item and decide whether each statement never occurs or occurs everyday at work and to what extent. If it never occurs, select 1; if it occurs everyday, select 7; if you feel somewhere in between, circle any one of the numbers between 1 and 7. The midpoint, if you are neutral or undecided, is 4.

	Never							Always
1. Do you feel worn out at the end of the working day?	1	2	3	4	5	6	7	
2. Are you exhausted in the morning at the thought of another day at work?	1	2	3	4	5	6	7	
3. Do you feel that every working hour is tiring for you?	1	2	3	4	5	6	7	
4. Do you have enough energy for family and friends during leisure time?	1	2	3	4	5	6	7	
5. Is your work emotionally exhausting?	1	2	3	4	5	6	7	
6. Does your work frustrate you?	1	2	3	4	5	6	7	
7. Do you feel burnt out because of your work?	1	2	3	4	5	6	7	

Kristensen, T. S., Borritz, M., Villadsen, E., & Christensen, K. B. (2005). The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. *Work & Stress, 19*(3), 192-207.

Appendix G: Workaholism Scale

The Dutch Work Addiction Scale (DUWAS)

The following items are meant to capture how you feel about your current work. Please rate each statement on a scale from 1 (totally disagree) to 7 (totally agree):

	Totally Disagree						Totally Agree
	1	2	3	4	5	6	7
1. I seem to be in a hurry and racing against the clock	1	2	3	4	5	6	7
2. I find myself continuing to work after my coworkers have called it quits.	1	2	3	4	5	6	7
3. I stay busy and keep many irons in the fire.	1	2	3	4	5	6	7
4. I spend more time working than on socializing with friends, on hobbies, or on leisure activities.	1	2	3	4	5	6	7
5. I find myself doing two or three things at one time such as eating lunch and writing a memo, while talking on the telephone.	1	2	3	4	5	6	7
6. It is important to me to work hard even when I do not enjoy what I am doing.	1	2	3	4	5	6	7
7. I feel that there is something inside me that drives me to work hard.	1	2	3	4	5	6	7
8. I feel obligated to work hard, even when it is not enjoyable.	1	2	3	4	5	6	7
9. I feel guilty when I take time off work.	1	2	3	4	5	6	7
10. It is hard for me to relax when I am not working.	1	2	3	4	5	6	7

Schaufeli, W. B., Shimazu, A., & Taris, T. W. (2009). Being driven to work excessively hard: The evaluation of a two-factor measure of workaholism in the Netherlands and Japan. *Cross-Cultural Research, 43*(4), 320-348.

Appendix H: Subjective Well-Being Scales

The Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985)

Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by selecting the appropriate number for each question. Please be open and honest in your responding.

	Strongly Disagree						Strongly Agree
1. In most ways my life is close to my ideal.	1	2	3	4	5	6	7
2. The conditions of my life are excellent.	1	2	3	4	5	6	7
3. I am satisfied with my life.	1	2	3	4	5	6	7
4. So far I have gotten the important things I want in life.	1	2	3	4	5	6	7
5. If I could live my life over, I would change almost nothing.	1	2	3	4	5	6	7

Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71-75.

The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988)

Please indicate the extent to which you have felt this way over the past week.

	Strongly Disagree						Strongly Agree
	1	2	3	4	5	6	7
1. Interested	1	2	3	4	5	6	7
2. Disinterested	1	2	3	4	5	6	7
3. Excited	1	2	3	4	5	6	7
4. Upset	1	2	3	4	5	6	7
5. Strong	1	2	3	4	5	6	7
6. Guilty	1	2	3	4	5	6	7
7. Scared	1	2	3	4	5	6	7
8. Hostile	1	2	3	4	5	6	7
9. Enthusiastic	1	2	3	4	5	6	7
10. Proud	1	2	3	4	5	6	7
	Strongly Disagree						Strongly Agree
	1	2	3	4	5	6	7
11. Irritable	1	2	3	4	5	6	7
12. Alert	1	2	3	4	5	6	7
13. Ashamed	1	2	3	4	5	6	7
14. Inspired	1	2	3	4	5	6	7
15. Nervous	1	2	3	4	5	6	7
16. Determined	1	2	3	4	5	6	7
17. Attentive	1	2	3	4	5	6	7
18. Jittery	1	2	3	4	5	6	7
19. Active	1	2	3	4	5	6	7
20. Afraid	1	2	3	4	5	6	7

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063.

Appendix I: Job Satisfaction Scale

The Satisfaction with Work Scale (SWWS; Bérubé, Donia, Gagné, Houlfort, & Koestner, 2007)

Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by selecting the appropriate number for each question. Please be open and honest in your responding.

	Strongly Disagree							Strongly Agree
	1	2	3	4	5	6	7	
1. In general, the type of work I do corresponds closely to what I want in life.	1	2	3	4	5	6	7	
2. The conditions under which I do my work are excellent.	1	2	3	4	5	6	7	
3. I am satisfied with the type of work I do.	1	2	3	4	5	6	7	
4. Until now, I have obtained the important things I wanted to get from my work.	1	2	3	4	5	6	7	
5. If I could change anything at work, I would change almost nothing.	1	2	3	4	5	6	7	

Bérubé, N., Donia, M., Gagné, M., Houlfort, N., & Koestner, R. (2007). Validation of the satisfaction with work scale. *Paper presented at the ASAC, Ottawa, Ontario.*

Appendix J: Control Variable Scales and Demographic Questionnaire

General Self-Efficacy at Work

Self-efficacy relates to one's estimate of one's overall ability to perform successfully in a wide variety of achievement situations, or to how *confident* one is that she or he can perform effectively across different tasks and situations. Below, please think about each statement and rate on the following scale the degree to which each statement corresponds to your feelings/self-evaluations at your current job.

1=not true at all 2 3 4 5 6 7= completely true

1. I will be able to achieve most of the goals that I have set for myself at work.
2. When facing difficult tasks at work, I am certain that I will accomplish them.
3. At work, I think that I can obtain outcomes that are important to me.
4. I believe I can succeed at most work endeavor to which I set my mind.
5. I will be able to successfully overcome many challenges at work.
6. I am confident that I can perform effectively on many different tasks at work.
7. Compared to my colleagues, I can do most work tasks very well.
8. Even when things are tough at work, I can perform quite well.

Adapted from: Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a new general self-efficacy scale. *Organizational research methods*, 4(1), 62-83.

Goal Cognitions

For the following questions, think about the following work-related goal that you plan to attain over the next 4-months:

(Goal will be pipelined here)

1=strongly disagree 2 3 4 5 6 7= strongly agree

1. I feel that I have the skills and resources necessary to attain this goal.
2. I feel committed towards this goal.
3. It will be difficult to reach this goal.

Demographic Questionnaire

1. How old are you?
open-ended response
2. What gender do you primarily identify as?
A. Male

- B. Female
 - C. Other
3. What is the highest level of education you have obtained?
- A. Less than a high school diploma
 - B. High school diploma
 - C. Some college/cegep or trade school (no degree)
 - D. College/Cegep or trade/vocational/technical school (2 years)
 - E. University - Bachelors degree (BA)
 - F. Master's degree (e.g., MA)
 - G. Doctorate degree (e.g., PhD)
 - H. Professional Degree (e.g., medical degree, law degree ...)
4. What is your marital status?
- A. Single
 - B. Married or Common Law
 - C. Separated or divorced
 - D. Widowed
 - E. Divorced but remarried or common law
5. What is your house-hold yearly income, approximately (CA\$)?
- A. Less than or equal to \$20,000
 - B. Between \$20,000 and \$31,000
 - C. Between \$31,000 and \$40,000
 - D. Between \$40,000 and \$50,000
 - E. Between \$50,000 and \$60,000
 - F. Between \$60,000 and \$70,000
 - G. Between \$70,000 and \$80,000
 - H. Between \$80,000 and \$100,000
 - I. Between \$100,000 and \$200,000
 - J. More than \$200,000
6. What is your ethnicity? (Check all that apply)
- A. White or Caucasian
 - B. Black or African American
 - C. Hispanic or Latino/a
 - D. Asian/ Pacific Islander
 - E. Aboriginal (e.g., First Nations, Inuit, Metis)
 - F. Middle Eastern (e.g., Arabic)
 - G. Other
7. What is your current employment status?
- A. Employed part-time for a salaried wage (less than 30 hours per week)
 - B. Employed full-time for a salaried wage (30 hours or more per week)
 - C. Self-employed
 - D. Unemployed

E. Other

8. What industry do you currently work in?
open-ended response
9. How many years (or months) have you been at your current job?
open-ended response
10. What is your general position at your current job?
 - A. Executive (e.g., CEO, CFO, COO, vice president...)
 - B. Management (e.g., regional manager, team leader...)
 - C. Position below management (e.g., operations, administration, consultant...)
 - D. Seasonal Staff (e.g., summer intern or student)
 - E. Self-employed
 - F. Other
11. Which country do you currently live in?
open-ended response

Appendix K: Recruitment, Consent and Debrief Forms for Organizations

Invitation Letter for Organizations



Department of Psychology
Goal Pursuit & Self-Regulation Lab
Dr. Milyavskaya

Letter of Invitation

Research Study: Personality and Goal Pursuits

We are inviting your organization to participate in a research study on personality, goal pursuit, and well-being in the workplace. This study will consist of 3 short online surveys (~ 10-20 minutes in length), in which employees at your organization could voluntarily participate and complete at their convenience.

There are numerous benefits from participating in this research:

- 1) *Participants will have the opportunity to attend a free **Goal Pursuit Workshop** based on the latest research on human motivation, and have a chance to **win 1 out of 2 \$100 gift cards**;*
- 2) *Executive and HR teams will obtain an **aggregated report** of the organization's stance on all variables being researched;*
- 3) ***Contribute to scientific research** that may benefit employees and organizations everywhere.*

Who are we and what is this for?

The head researcher, Jessica Cohen, is conducting her Master's thesis research under the supervision of Dr. Marina Milyavskaya, a professor of psychology at Carleton University who specializes in human motivation. The present study will investigate how perfectionism and motivation impacts workplace outcomes, such as goal pursuits, burnout, workaholism, job satisfaction, and well-being among employees. Gaining a better understanding of these processes can help in the implementation of workplace programs aimed to improve productivity, well-being, and overall health of organizations.

What can your employees and organization gain from participating?

As a token of appreciation, study participants will have the opportunity to attend a free **Goal Pursuit workshop** developed and provided by the head researchers. The potential benefits of this workshop are two-fold: **1)** employees will learn how to improve their goal pursuit strategies and motivation, which can lead to more productive and efficient goal pursuits at work; **2)** employees will learn how to be less self-critical with themselves and their work, which can lead to increases in well-being and productivity. In addition to the workshop, participants who complete all three surveys will be entered in a bonus draw to **win one out of two gifts cards worth \$100 each.**

In addition, we will offer the executive and HR teams a **free aggregated report of the research findings**. Specifically, it will include a summary and brief interpretation of the organization's stance on various outcomes, including the following information: Prevalence rates of both forms

of perfectionism (healthy VS unhealthy perfectionism), burnout, and workaholism; employee perception on how well they are progressing on their work-related goals; average subjective well-being and job satisfaction scores; and a break down of the employees' level of work motivation (i.e., intrinsic/extrinsic). Please note that due to ethical considerations, no individual data will be shared with the company or participants themselves.

Please contact Jessica Cohen at jessica.cohen3@carleton.ca (tel: [REDACTED]) if you are interested in allowing the researchers to recruit employees at your organization. Recruitment can begin as soon as ethics approval is obtained. Your organization will remain anonymous in the final research paper. If you have any further questions or would like a detailed summary of the process, please don't hesitate to contact Jessica.

As this study is pending ethics approval, any information presented in this invitation letter is subject to modifications from the Ethics Board.

Thank you for your time,

Jessica Cohen, BA
Department of Psychology
Carleton University
[REDACTED]
Email: Jessica.cohen3@carleton.ca

Dr. Marina Milyavskaya
Department of Psychology
Carleton University
Tel: 613-520-2600 x 7490
Email: marina.milyavskaya@carleton.ca

Recruitment Letter of Invitation for Participants



Department of Psychology
Goal Pursuit & Self-Regulation Lab
Dr. Milyavskaya

Letter of Invitation

Research Study: Personality and Goal Pursuits

Dear Sir or Madam,

Thank you for showing interest in the **Personality and Goal Pursuit Study**. My name is Jessica Cohen and I am a Master's student in the Psychology at Carleton University. I am working on my thesis research project under the supervision of Prof. Milyavskaya.

This study aims to examine how personality affects goal pursuit and various work and well-being outcomes in the workplace. It will involve one **20-minute online survey**, followed by **two 10-minute follow-up surveys**, which will be sent to you after 2-months and 4-months of completing the initial survey. In general, you will be asked to complete questionnaires regarding demographics (e.g., age, gender, etc.), personality, tracking your goal pursuit, and work-related factors. To be eligible, you must be working for a salaried wage.

As a token of appreciation, study participants will have to opportunity to attend a workshop at the end of this study which was developed by the researchers who specialize in human motivation. This **Goal Pursuit workshop** will help you learn ways to improve your goal pursuits and motivation, along with a segment on how to manage self-critical tendencies. This workshop is based on the latest research on the psychology of motivation and has been translated into practical tools that the common layperson can benefit from. The potential benefits of this workshop are two-fold: 1) goal pursuit strategies may be improved which may lead to more efficient and productive goal achievements; 2) you will learn how to be less self-critical with yourself and with your work, which may lead to increases in well-being. In addition to the workshop, participants who complete all three surveys will be entered in a **bonus draw to win one out of two gifts cards worth \$100 each!**

To participate, please set aside 20 minutes of your time to complete the following survey (smartphone friendly link):

[insert link here]

While there are no foreseen psychological risks by participating in the current study, care will be taken to protect your identity. This will be done by keeping all responses confidential and allowing you to request that certain responses not be included in the final project. You may also skip any questions if you prefer not to answer Your personal data

will not be shared with your employer, however, an aggregated report based on the entire company will be shared (i.e., all participants' survey data will be merged together). Your data will be de-identified, therefore, it won't be possible to trace it back to you.

You will have the right to end your participation in the study at any time, for any reason, up until a month of completing the study. If you withdraw, you will still have the opportunity to attend the workshop, but will not be entered in the bonus draw. If you choose to withdraw, all the information you have provided will be destroyed.

Thank you for your time, and if you any questions, please contact me at Jessica.cohen3@carleton.ca

Jessica Cohen, BA
Department of Psychology
Carleton University
Tel: [REDACTED]

Email: Jessica.cohen3@carleton.ca

Dr. Marina Milyavskaya
Department of Psychology
Carleton University
Tel: 613-520-2600 x 7490

Email: marina.milyavskaya@carleton.ca

The ethics protocol for this project was reviewed by the Carleton University Research Ethics Board, which provided clearance to carry out the research. (CUREB-B Clearance # 112074; Clearance expires on: insert date here.) If you have any ethical concerns with the study, please contact the Carleton University Research Ethics Board-B (by phone at 613-520-2600 ext. 4085 or via email at ethics@carleton.ca).

Consent form

Name and Contact Information of Head Researcher:

Jessica Cohen, MA Candidate, Carleton University, Department of Psychology
Email: Jessica.cohen3@carleton.ca

Supervisor and Contact Information:

Marina Milyavskaya, Professor, Carleton University, Department of Psychology
Tel: 613-520-2600 x 7490
Email: marina.milyavskaya@carleton.ca

Project Title

Personality and Goal Pursuit

Carleton University Project Clearance

Clearance #: # 112074

Date of Clearance: February 13th 2020

The purpose of the present study is to examine how personality and motivation affects goal pursuit and work outcomes in the workplace setting. You will be asked to complete questionnaires regarding demographics (e.g., age, gender, etc.), personality, track your goal pursuit, well-being and work-related factors.

We estimate that this survey will take about 20 minutes to complete. After completion of this survey, you will also be sent follow-up surveys in 2-months and in 4-months from now (each is expected to take 10 minutes to complete). Both follow-up surveys will ask similar questions regarding your personality, goal progress, well-being and work-related factors. We expect to survey a total of 300 people.

As compensation, you will be invited to attend a workshop at the end of this study that was developed by the researchers. This **Goal Pursuit workshop** can help you learn ways to improve your goal pursuits and motivation, along with a segment on how to manage self-critical tendencies. In addition to the workshop, participants who complete all three surveys will be entered in a **bonus draw to win one out of two gifts cards worth \$100 each**.

Your participation in this study is voluntary, and you may choose not to take part, or not to answer any of the questions. If you decide to withdraw after you submit the survey, we will remove your responses from survey data if you notify the researcher within a month of completing the study. If you withdraw, you will still have the opportunity to attend the workshop, but will not be entered in the bonus draw.

Anonymity/Confidentiality:

No information that discloses your identity will be released, given to your employer, or be published.

We will treat your personal information as confidential, although absolute privacy cannot be guaranteed. Research records may be accessed by the Carleton University Research Ethics Board in order to ensure continuing ethics compliance. All data will be kept confidential, unless release is required by law (e.g. child abuse, harm to self or others).

In order to maximize the security of your information, we will collect data through the software Qualtrics, which uses servers with multiple layers of security to protect the privacy of your data (e.g., encrypted websites and password protected storage). Your data will be stored and protected by Qualtrics on Toronto-based servers only to be accessed by the researchers, but may be disclosed via a court order or data breach.

When data collection has ended, all identifying information linked to your data will be destroyed and anonymized. We will retain your anonymized data for future research use. The results of this study may be published in scientific journals and may be shared with other researchers or in a public data repository (e.g., <https://osf.io/>), but the data will be presented in aggregate only, so that it will not be possible to identify you.

In addition, your employer will obtain an aggregated report of the research findings of some of the variables of interest (i.e., all participants' survey data will be merged together). This final report given to your employer will not contain any identifying information, as it will be anonymized and aggregated. Your data will be de-identified, therefore, it won't be possible to trace it back to you.

If you would like a copy of the finished research project, you are invited to contact the researcher to request an electronic copy, which will be provided to you, so long as it does not compromise the safety of all participants (including their personal responses).

REB Review and Contact Information:

This project was reviewed and cleared by the Carleton University Research Ethics Board. If you have any ethical concerns with the study, please contact the Carleton University Research Ethics Board by phone at 613-520-2600 ext. 4085 or by email at ethics@carleton.ca.

Debrief Form

Name and Contact Information of Head Researcher:

Jessica Cohen, MA Candidate, Carleton University, Department of Psychology
Email: Jessica.cohen3@carleton.ca

Supervisor and Contact Information:

Marina Milyavskaya, Professor, Carleton University, Department of Psychology
Tel: 613-520-2600 x 7490 Email:
marina.milyavskaya@carleton.ca

Project Title

Personality and Goal Pursuit

Carleton University Project Clearance

Clearance #: # 112074
2020

Date of Clearance: February 13th

What are we trying to learn in this research?

There are at least two forms of perfectionism: *Personal standards perfectionism* is considered to be an adaptive personality disposition, which mainly involves striving for flawlessness, whereas *self-critical perfectionism* also involves these perfectionistic strivings, but is accompanied by self-criticism and hypersensitivity to external scrutiny (Stoeber & Otto, 2006). As perfectionism is extremely prevalent in the work domain, the present study examines how both forms of perfectionism at work influences goal progress for work-related goals, as well as how it relates with important work-related outcomes for organizations (burnout, workaholism, subjective well-being, and job satisfaction). We also examined how work motivation plays role.

The questionnaires you completed assessed perfectionism, motivation, and various work-related outcomes. We also asked you to provide information about a work goal that you planned to pursue over the course of the study, and we tracked your progress on that goal.

We are interested in learning if both forms of perfectionism show differential relationships with goal progress and these important work-related outcomes, and whether goal and work motivation plays a role by influencing these associations.

Why is this important to scientists or the general public?

Previous research suggests that self-critical perfectionism has detrimental effects on well-being, goal progress for personal goals, and work-related outcomes, including depression, anxiety, OCD, anorexia, employee burnout, job dissatisfaction...etc. On the

other hand, personal standards perfectionism is associated with increased well-being, low psychopathology, and increased goal achievement for personal goals. More research is needed to examine perfectionism at work, and how perfectionism impacts goal progress for work-related goals over time. In addition, organizational research has shown that burnout, workaholism, low levels of subjective well-being, and job dissatisfaction are costly issues in the workplace, therefore, it is important to explore how both forms of perfectionism impact these outcomes over time, and how work motivation plays an influential role. Gaining a better understanding of these processes can help in the implementation of programs in the work domain aimed to adjust employees' perfectionistic tendencies and motivation in order to improve productivity and overall health of organizations.

What are our hypotheses and predictions?

We predict that personal standards perfectionism will be associated with better goal progress for work goals, and self-critical perfectionism will be associated with worse goal progress. We expect goal motivation and work motivation to explain these associations. In addition, we predict that personal standards perfectionism will be associated with decreased levels of burnout, but increased levels of workaholism, subjective well-being and job satisfaction, whereas self-critical perfectionism will be associated with increased burnout and workaholism, but decreased levels of subjective well-being and job satisfaction. Lastly, we expect these associations to be explained by the type of work motivation an individual has about their current job (e.g., autonomous VS controlled work motivation). Individuals who feel autonomously motivated at work feel volitional in regard to their actions and decisions, and involves self-endorsed behaviors that are consistent with authentic values and interests. Whereas controlled work motivation involves behaving in a particular way based on external pressures which are not consistent with authentic values, thus they are in a sense pushing an individual to behave in certain ways at work.

Where can I learn more?

To learn more about this project or our research lab, you can find us online at <https://carleton.ca/goallab/>, or contact the researcher, Jessica Cohen, at Jessica.cohen3@carleton.ca.

If you would like a copy of the finished research project, you are invited to contact the researcher to request an electronic copy, which will be provided to you, so long as it does not compromise the safety of all participants (including their personal responses).

Is there anything I can do if I found this experiment to be emotionally upsetting? Yes. If you feel any distress or anxiety after participating in this study, please feel free to contact the following counselling services based out of your city:

Ottawa region: Contact the Distress Centre of Ottawa and Region at 613-238-3311 (<http://www.dcottawa.on.ca>).

Toronto region: Contact the Distress Centre of Toronto and Region at 416-408-4357 (Canadian Mental Health Association of Toronto; <https://toronto.cmha.ca/mental-health/find-help/>)

Montreal region: Contact contact AMI-Quebec (Agir Contre la maladie mentale/ Action on mental illness) for free counselling services at 514-486-1448 (<https://amiquebec.org/sos/>).

And if you do not live in any of the above locations, please contact the head researcher to find out what is available in your region.

What if I have questions later?

If you have any remaining concerns, questions, or comments about the experiment, please feel free to contact Jessica Cohen (Principal Investigator), at: jessica.cohen3@carleton.ca, or Dr. Milyavskaya (Research Supervisor), at: marina.milyavskaya@carleton.ca (613-520-2600 x 7490).

CUREB-B:

If you have any ethical concerns with the study, please contact the Carleton University Research Ethics Board-B (by phone at 613-520-2600 ext. 4085 or via email at ethics@carleton.ca).

Thank you for participating in this research!

Baseline and 1st follow-up Brief Debriefing Form**Name and Contact Information of Head Researcher:**

Jessica Cohen, MA Candidate, Carleton University, Department of Psychology
Email: Jessica.cohen3@carleton.ca

Supervisor and Contact Information:

Marina Milyavskaya, Professor, Carleton University, Department of Psychology
Tel: 613-520-2600 x 7490 Email:
marina.milyavskaya@carleton.ca

Project Title

Personality and Goal Pursuit

Carleton University Project Clearance

Clearance #: # 112074
2020

Date of Clearance: February 13th

The purpose of the present study is to examine how personality and motivation affects goal pursuit and work outcomes in the workplace setting.

Resources

Is there anything I can do if I found this experiment to be emotionally upsetting? Yes. If you feel any distress or anxiety after participating in this study, please feel free to contact the following counselling services based out of your city:

Ottawa region: Contact the Distress Centre of Ottawa and Region at 613-238-3311 (<http://www.dcottawa.on.ca>).

Toronto region: Contact the Distress Centre of Toronto and Region at 416-408-4357 (Canadian Mental Health Association of Toronto; <https://toronto.cmha.ca/mental-health/find-help/>)

Montreal region: Contact contact AMI-Quebec (Agir Contre la maladie mentale/ Action on mental illness) for free counselling services at 514-486-1448 (<https://amiquebec.org/sos/>).

What if I have questions?

If you have any remaining concerns, questions, or comments about the experiment, please feel free to contact Jessica Cohen (Principal Investigator), at: jessica.cohen3@carleton.ca, or Dr. Milyavskaya (Research Supervisor), at: marina.milyavskaya@carleton.ca (613-520-2600 x 7490).

CUREB-B:

If you have any ethical concerns with the study, please contact the Carleton University Research Ethics Board-B (by phone at 613-520-2600 ext. 4085 or via email at ethics@carleton.ca).

Appendix L: Recruitment and Consent Forms for Social Media

Recruitment Notices for Social Media Platforms

[The following posting was shared on the head researcher's Facebook page, LinkedIn page, Instagram page and story, and on Reddit]

Hi everyone!

I am currently conducting my MA Thesis research at Carleton University. I am looking for participants to complete my online surveys for my study entitled "Personality and Goal Pursuit at Work"! Since many of us are working from home for the time being, I am hoping that you can spare some time to complete my study! To be eligible, you must be currently working, either part-time, full-time, or for a salaried wage. As a token of appreciation, you will be invited to an online goal pursuit workshop and have a chance to win 1 out of 2 \$100 (CAD) gift cards!

To learn more and/or to participate, please click on the following link (smartphone friendly):

[INSERT LINK HERE]

Your time is greatly appreciated, and feel free to share this post/link with friends, family, and coworkers! If you have any questions, please contact me directly (or at Jessica.cohen3@carleton.ca), thank you.

This research has been cleared by Carleton University Research Ethics Board-B (CUREB-B Clearance #112074

[The following post will be shared on Twitter]

We are currently conducting an online study on Goal Pursuit in the Workplace and are looking for working adults to complete our online surveys! To learn more and/or to participate, please click on the following link (smartphone friendly): [INSERT LINK HERE]

Consent Form

Name and Contact Information of Head Researcher:

Jessica Cohen, MA Candidate, Carleton University, Department of Psychology
Email: Jessica.cohen3@carleton.ca

Supervisor and Contact Information:

Marina Milyavskaya, Professor, Carleton University, Department of Psychology
Tel: 613-520-2600 x 7490
Email: marina.milyavskaya@carleton.ca

Project Title

Personality and Goal Pursuit

Carleton University Project Clearance

Clearance #: # 112074

Date of Clearance: February 13th 2020

The purpose of the present study is to examine how personality and motivation affects goal pursuit and work outcomes in the workplace setting. You will be asked to complete questionnaires regarding demographics (e.g., age, gender, etc.), personality, track your goal pursuit, well-being and work-related factors. You must be **currently working for a salaried wage** (part-time or full-time) to be eligible for this study.

We estimate that this survey will take about 20 minutes to complete. After completion of this survey, you will also be sent follow-up surveys in 2-months and in 4-months from now (each is expected to take 10 minutes to complete). Both follow-up surveys will ask similar questions regarding your personality, goal progress, well-being and work-related factors. We expect to survey a total of 300 people.

As compensation, you will be invited to attend an online workshop at the end of this study that was developed by the researchers. This **Goal Pursuit workshop** can help you learn ways to improve your goal pursuits and motivation, along with a segment on how to manage self-critical tendencies. In addition to the workshop, participants who complete all three surveys will be entered in a **bonus draw to win one out of two gifts cards worth \$100 (CAD) each**.

Your participation in this study is voluntary, and you may choose not to take part, or not to answer any of the questions. If you decide to withdraw after you submit the survey, we will remove your responses from survey data if you notify the researcher within a month of completing the study. If you withdraw, you will still have the opportunity to attend the workshop, but will not be entered in the bonus draw.

Anonymity/Confidentiality:

No information that discloses your identity will be released or be published.

We will treat your personal information as confidential, although absolute privacy cannot be guaranteed. Research records may be accessed by the Carleton University Research Ethics Board in order to ensure continuing ethics compliance. All data will be kept confidential, unless release is required by law (e.g. child abuse, harm to self or others).

In order to maximize the security of your information, we will collect data through the software Qualtrics, which uses servers with multiple layers of security to protect the privacy of your data (e.g., encrypted websites and password protected storage). Your data will be stored and protected by Qualtrics on Toronto-based servers only to be accessed by the researchers, but may be disclosed via a court order or data breach.

When data collection has ended, all identifying information linked to your data will be destroyed and anonymized. We will retain your anonymized data for future research use. The results of this study may be published in scientific journals and may be shared with other researchers or in a public data repository (e.g., <https://osf.io/>), but the data will be presented in aggregate only, so that it will not be possible to identify you.

If you would like a copy of the finished research project, you are invited to contact the researcher to request an electronic copy, which will be provided to you, so long as it does not compromise the safety of all participants (including their personal responses).

REB Review and Contact Information:

This project was reviewed and cleared by the Carleton University Research Ethics Board. If you have any ethical concerns with the study, please contact the Carleton University Research Ethics Board by phone at 613-520-2600 ext. 4085 or by email at ethics@carleton.ca.

Appendix M: Recruitment and Consent Forms for Prolific

Recruitment Notice

Study Name: Personality and Goal Pursuit at Work

Description: In this study, you will be asked to complete questionnaires regarding demographics (e.g., age, gender, etc.), personality, track your goal pursuit, well-being and work-related factors. You must be **currently working for a salaried wage** (part-time or full-time) to be eligible for this study.

We estimate that this survey will take 20 minutes to complete. After completion of this survey, you will also be sent follow-up surveys in approximately 6 weeks and in 12 weeks from now (each is expected to take 10 minutes to complete).

Upon completion of this 20-minute survey, you will receive \$2.11 USD (£ 1.68 GBP) as compensation for your participation. In addition, if you complete the 2-month follow-up survey (10-minutes long), you will receive \$1.05 USD (£ 0.84 GBP). And if you complete the last 10-minute survey (4-month follow-up), you will be invited to attend an online workshop at the end of this study that was developed by the researchers. This **Goal Pursuit workshop** can help you learn ways to improve your goal pursuits and motivation, along with a segment on how to manage self-critical tendencies. In addition to the workshop, participants who complete all three surveys will be entered in a **bonus draw to win one out of two gifts cards worth \$100 CAD each (or the equivalent in your currency - \$75 USD or £ 60 GBP)**.

There are no risks involved in this study. Your participation, as well as your responses, will be anonymous. No personal information (names or IP addresses) will be linked to any of the data provided. You may choose to withdraw at any point or not answer specific questions and you will not be penalized in anyway.

This study is conducted by Dr. Marina Milyavskaya and has received clearance by the Carleton University Research Ethics Board (CUREB-B Clearance #112074).

Consent Form

Name and Contact Information of Head Researcher:

Jessica Cohen, MA Candidate, Carleton University, Department of Psychology
Email: Jessica.cohen3@carleton.ca

Supervisor and Contact Information:

Marina Milyavskaya, Professor, Carleton University, Department of Psychology
Tel: 613-520-2600 x 7490
Email: marina.milyavskaya@carleton.ca

Project Title

Personality and Goal Pursuit

Carleton University Project Clearance

Clearance #: # 112074

Date of Clearance: February 13th 2020

The purpose of the present study is to examine how personality and motivation affects goal pursuit and work outcomes in the workplace setting. You will be asked to complete questionnaires regarding demographics (e.g., age, gender, etc.), personality, track your goal pursuit, well-being and work-related factors. You must be **currently working for a salaried wage** (part-time or full-time) to be eligible for this study.

We estimate that this survey will take about 20 minutes to complete. After completion of this survey, you will also be sent (through your prolific account) follow-up surveys in approximately 6 weeks and in 12 weeks from now (each is expected to take 10 minutes to complete). Both follow-up surveys will ask similar questions regarding your personality, goal progress, well-being and work-related factors. We expect to survey a total of 200 people.

As compensation, you will receive \$2.11 USD (£ 1.68 GBP) for completing this 20-minute survey. If you complete the 2-month follow-up (10-minutes long), you will receive \$1.05 USD (£ 0.84 GBP). And if you complete the last 10-minute survey (3-month follow-up), you will be invited to attend an online workshop at the end of this study that was developed by the researchers. This **Goal Pursuit workshop** can help you learn ways to improve your goal pursuits and motivation, along with a segment on how to manage self-critical tendencies. In addition to the workshop, participants who complete all three surveys will be entered in a **bonus draw to win one out of two gifts cards worth \$100 CAD each (or the equivalent in your currency - \$75 USD or £ 60 GBP)**.

Your participation in this study is voluntary, and you may choose not to take part, or not to answer any of the questions. If you decide to withdraw after you submit the survey, we will remove your responses from survey data if you notify the researcher within a

month of completing the study. If you withdraw, you will still be awarded your compensation for the survey you started, but you will not be given compensation for future surveys.

Anonymity/Confidentiality:

Your identity is completely anonymous, as we do not have access to your personal information, and we do not ask you to provide any personal information in our online study.

We will treat your data as confidential, although absolute privacy cannot be guaranteed. Research records may be accessed by the Carleton University Research Ethics Board in order to ensure continuing ethics compliance. All data will be kept confidential, unless release is required by law (e.g. child abuse, harm to self or others).

In order to maximize the security of your information, we will collect data through the software Qualtrics, which uses servers with multiple layers of security to protect the privacy of your data (e.g., encrypted websites and password protected storage). Your data will be stored and protected by Qualtrics on Toronto-based servers only to be accessed by the researchers, but may be disclosed via a court order or data breach.

We will retain your anonymized data for future research use after the study is completed. The results of this study may be published in scientific journals and may be shared with other researchers or in a public data repository (e.g., <https://osf.io/>), but the data will be presented in aggregate only, so that it will not be possible to identify you.

If you would like a copy of the finished research project, you are invited to contact the researcher to request an electronic copy, which will be provided to you, so long as it does not compromise the safety of all participants (including their personal responses).

REB Review and Contact Information:

This project was reviewed and cleared by the Carleton University Research Ethics Board. If you have any ethical concerns with the study, please contact the Carleton University Research Ethics Board by phone at 613-520-2600 ext. 4085 or by email at ethics@carleton.ca.