(STILL) HERE FOR THE RIGHT REASONS: AN INVESTIGATION INTO PERCEIVED MOTIVATION FOR OVERWORK

by

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(Under the Direction of Malissa A. Clark)

ABSTRACT

The present investigation considers the relationship between perceived motivation for voluntary overwork with raise recommendations and rated performance. Although prior investigations have considered one's own motivation with these outcomes, it is yet to be understood how this relationship in the context of other-rated variables. Results of the present investigation largely follow expected patterns. Broadly, more autonomous (intrinsic, identified) forms of regulation contributed more to explained variance in outcome variables compared to more controlled (inrojected, external) forms of regulation. Supplemental analyses revealed that accounting for individual forms of motivation explain significantly more varience than a comprehensive index of motivation. Supplemental analyses also revealed that considering the direction of introjected regulation (approach, avoidance) may be an important consideration in future investigations.

INDEX WORDS: Motivation, Self Determination Theory, Moralization

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by

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TABLE OF CONTENTS

Page

ACKNOWLEDGEMENTS iv

LIST OF TABLES vi

LIST OF FIGURES vii

CHAPTER

1 INTRODUCTION 1

2 THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT 7

3 METHODS 27

4 RESULTS 35

5 DISCUSSION 58

REFERENCES 65

APPENDICES

A SURVEY 74

LIST OF TABLES

Page

Table 1: Correlation Matrix of Study Variables 45

Table 2: Hierarchical Regression Results for Deservingness of a Raise 46

Table 3: Relative Importance of Perceived Form of Regulation as a Predictor of Perceived Deservingness of a Raise and Rated Performance 47

Table 4: Raise Recommendations Using the MWMS 48

Table 5: Hierarchical Regression Results for Performance as Measured by the MWMS 49

Table 6: Rated Performance using the MWMS 50

Table 7: Hierarchical Regression Results for Deservingness for a Raise as Measured by the C-RAI Omnibus Variable 51

Table 8: Hierarchical Regression Results for a Performance as Measured by the C-RAI Omnibus Variable 52

Table 9: Hierarchical Regression Results for Raise as Measured by the C-RAI Individual Dimensions 53

Table 10: Raise Recommendations using the C-RAI 54

Table 11: Hierarchical Regression Results for Performance as measured by the C-RAI Individual Dimensions 55

Table 12: Rated Performance using the C-RAI 56

LIST OF FIGURES

Page

Figure 1: Spectrum of Motivation.....26

Figure 2: Comparison of Items 34

CHAPTER 1

INTRODUCTION

Organizational psychologists have long been interested in what motivates people to work much longer hours than others (e.g., Buelens & Poelmans, 2004; Snir & Harpaz, 2012; Spruell, 1987). For many employees, this is a function of economic and social pressure. For instance, employees may work excessively to increase income, particularly for hourly employees whose number of hours worked is directly related with pay. Likewise, others may work in an organization where working long hours is an expectation and part of the cultural norm (Snir & Harpaz, 2012). However, even in the absence of these external pressures, some employees engage in *voluntary* overwork, or working hours above and beyond what would be considered necessary or expected without direct compensation.

The concept of voluntary overwork is linked to the idea of the ideal worker norm. Williams (2001) proposed the existence of this norm in which the ideal employee devotes little time to their lives outside of the workplace, works long hours, and is constantly on-call to address work tasks. Although scholars have investigated perceptions of motivation at work generally, very little has been done to investigate how people view voluntary overwork. Perhaps the study that has been the closest to examining such an effect studied the reactions to organizational citizenship behaviors (OCBs; Halbesleben et al., 2010), which are generally workplace behaviors that are considered discretionary and benefit an organization (Organ et al., 2006). Halbesleben et al. (2010) found that supervisors' perceptions of subordinates' motivation

to engage in OCBs impacts their emotional reactions and subsequent appraisal of the subordinates' performance.

It is important to understand how others view those who voluntarily overwork because the research clearly shows people seem to care not only *what* others do, but *why* they do it. For example, when someone goes out of their way to be helpful at work, we care about whether or not we see it as being done simply to impress others (Halbesleben et al., 2010). There are many examples of how our perceptions of others influence important outcomes. For instance, our perception of others' motivation for overwork can impact assumptions of other aspects of their work, such as performance (Fisher, 2003; Pelletier & Vallerand, 1996). More specifically, researchers have found that perceived intrinsic versus extrinsic work motivation of subordinates differently predicts supervisor evaluation of their performance (DeVoe & Iyengar, 2004). Further, a lab study involving a student sample demonstrated people prefer to continue working with others presumed to be intrinsically motivated compared to those presumed to be extrinsically motivated (Pelletier & Vallerand, 1996). Scholars have even investigated how perceptions of someone's intrinsic and extrinsic motivation impact one another— for example, candidates who express interest in job "perks" such as pay and benefits are assumed to be less intrinsically motivated in the job (Derfler-Rozin & Pitesa, 2020).

This study aims to contribute to our understanding of perceptions of why people may engage in voluntary overwork. Drawing from self-determination theory (SDT; Deci & Ryan, 1985), I investigate the relationship between perceived forms of motivation and perception of performance, and perceived deservingness of reward (a pay raise). Deci and Ryan (1985) proposed a spectrum of motivation that falls under a continuum of autonomy (the degree to which they are volitional). These include extrinsic, introjected, identified, and intrinsic

motivations. Within the organizational sciences, we have mostly examined the ways in which people perceive intrinsic and extrinsic motivation. For instance, studies have found people provide higher performance evaluations those who they believe are intrinsically motivated as better performers than those who they believe are extrinsically motivated (DeVoe & Iyengar, 2004; Pelletier & Vallerand, 1996). Additionally, people are more likely to want to work with those perceived as being intrinsically motivated a second time compared to those perceived as extrinsically motivated (Pelletier & Vallerand, 1996).

Despite this progress, intrinsic and extrinsic motivation represent only the two extremes of a continuum of self-directed motivation; that is, motivation that is volitional or autonomous. Prior work outside of organizational sciences shows that people react differently to other perceived motivations within this continuum. For instance, Weinstein et al. (2010) that perceptions that people performing an act of kindness for another predict different thoughts and actions depending on whether people believe they are motivated because they feel obligated or because they care about the individual. In largely overlooking perceptions of motivation outside of the intrinsic/extrinsic divide, organizational sciences are not fully capturing the theory proposed by Deci & Ryan (1985). Capturing the nuance proposed by Deci and Ryan (1985) would allow scholars to more fully test the theory as it pertains to perceptions.

Furthermore, while organizational scholars have examined consequences (e.g., performance, well-being) of these more nuanced forms of regulation for the individual (e.g., Kuykendall et al., 2020; Turban et al., 2007; Van den Broeck et al., 2021), there are relatively few that have examined *perceptions* other people have towards those individuals seen as experiencing these more nuanced forms of motivation. This is critical to understand because research shows perceptions of a person's motivation can affect hiring decisions (Derfler-Rozin &

Pitesa, 2020), management style (Pelletier & Vallerand, 1996), and helping behaviors (Kwon, 2022; Kwon et al., 2023). For example, using student samples, Pelletier and Vallerand (1996) found people who think a subordinate is intrinsically motivated in their work rate that subordinate to have higher performance than those who think a subordinate is extrinsically motivated (even when no objective difference exists). Additionally, in samples of real workers, these effects exist even when considering self-rated motivation (DeVoe & Iyengar, 2004). Said differently, even when accounting for subordinate's self-rated intrinsic and extrinsic motivation, supervisor perceptions of subordinate motivation predicted subsequent performance.

This study offers several practical and theoretical contributions. First, drawing from self-determination theory (Deci & Ryan, 1985), by representing all motivations represented in the original theoretical work, this study provides a more nuanced view of motivation than is typically offered in studies examining perceptions of motivation. This is critical to consider because a continuum of motivation better reflects theoretical work proposed by Deci and Ryan (1985). By representing the full spectrum, we are better able to understand perceptions of motivation as they are representing by SDT, as opposed to only the two ends of the continuum (i.e., extrinsic and intrinsic).

Second, this study explores *perceptions* of motivations. While plentiful studies have examined outcomes of self-rated motivation in the workplace (e.g., Kuykendall et al., 2020; Van den Broeck et al., 2021), relatively little is known about how perceptions of others' motivation to work influences important organizational outcomes, and even less is known about perceptions of overwork, specifically. Qualitative work on the ideal worker norm suggests perceptions of individuals who engage in overwork varies widely across individuals. Specifically, in response to the question, "What do we believe about people who work a lot of hours?" employees responded

with a range of descriptors, such as dedicated, overachiever, trying to impress the boss, and slow at getting work done (Kelly et al., 2010). Thus, perceptions of employees' effectiveness can differ, even as they engage in the same behavior. Given the implications for workplace rewards, it is important to investigate more specific perceptions of others who engage in excessive work. In the present study, I examined a high-stakes outcome—raise recommendations. This work can provide important guidance for reasons supervisors provide different rewards to employees with similar behaviors and objective performance.

Finally, the current investigation extends prior work by integrating moralization theory (Rozin, 1999) and SDT. (Deci & Ryan, 1985). Moralization theory describes the process by which something once considered morally neutral adopts a moral valence (Rozin, 1999). It has been argued by several authors both within psychology (e.g., Celniker et al., 2020; Uhlmann & Sanchez-Burkks, 2014) and in popular press (e.g., Headlee, 2020; Graeber, 2018) that work, and particularly working excessively or beyond what may be necessary, has undergone such a process of moralization in the American workplace; that is to say, working excessively or without an explicit need to do so has adopted a positive moral valence. Indeed, some work suggests that finding one's work intrinsically motivating is viewed as positively— Kwon (2020) discussed that perceived intrinsic motivation of one's teammates predicts perceptions of their morality, particularly for those who themselves find their work intrinsically motivating. Still other work indicates that it is a willingness to put effort into one's work that is moralized (Amos et al., 2019). This effect does not appear to merely be a result of positive moral perceptions of people earning a reward or "pulling themselves up by their bootstraps." Indeed, Celniker et al. (2020) found that effort is moralized, even when those efforts do not lead to any objective value added. This would indicate that morally-laden perceptions could be inherent in other forms of

regulation on the spectrum of self-determined motivation. This study adds to the literature by assessing whether one form of regulation will be seen as more deserving of reward than the other.

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CHAPTER 2

THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

In his foundational book on interpersonal relations, Heider (1958) referred to people as "naïve psychologists" who seek to better understand the factors that influence their own behavior and that of others. And yet, there are certain situations that lead us to ponder others' motivation more than others. Specifically, people are more likely to consider motivations for a behavior when it exists outside of the norm of behavior. Mischel (1977) proposed the concept of "strong" versus "weak" situations. Strong situations are those that tend to produced uniform behavior. For instance, a classroom in which students are taking a standardized test in behavior, it is unlikely that one would be able to observe substantive individual differences because behavior is strictly prescribed and deviations from that behavior are punished. Behavioral expectations are clearly given and deviations from these norms are viewed as unacceptable. In contrast, "weak" situations include those in which behavior is not strictly prescribed and behaviors are able to vary as a function of individual differences. For instance, one may observe more individual differences in behavior when observing students in a free period of school. While some may be diligently working with the same degree of concentration as if they were taking a standardized test, others may be socializing.

This idea can be extended to an organizational context and to the concept of voluntary overwork. For instance, people within an organization are not likely to wonder why an employee is working 60 hours a week if everyone else in the company is also working 60 hours a week. Additionally, when there is the presence of a direct extrinsic motivator, such as the direct

and immediate relationship between income and hours worked for hourly employees, this tends to overshadow any other attributions people may make about their motivation. People tend to consider others' motivations more when they participate in voluntary overwork as opposed to times when work is clearly not voluntary (e.g., strong situations in which behavior is strictly prescribed). Voluntary overwork is working hours that would be considered excessive by the standards of the organization, team, or supervisor, and that is not directly compensated (e.g., salaried employees get paid the same regardless of how many hours they work, unlike hourly workers who receive overtime pay). Importantly, voluntary overwork is done without a direct connection to organizational rewards. Said differently, although supervisors may recognize the excessive work in which an employee is engaging and eventually factor that information into promotion and pay raise decisions, this behavior is not directly compensated as it would be for an hourly employee, and engaging in this behavior does not serve as an absolute guarantee of rewards such as eventual raises and promotions. One may, therefore, question why people engage in working excessive hours that are not expected of them and do not serve as a guarantee of organizational rewards.

Self-Determination Theory

Self-determination theory (SDT) offers a few possible explanations for why people participate in voluntary overwork (Deci & Ryan, 1985). While SDT began as a theory seeking to explain the process by which children internalize motivation to engage in behavior to engage in social expectations (Deci & Ryan, 1985), it has since evolved into explaining motivations for behavior in adulthood. The authors (Ryan & Deci, 2000) explain "his process may occur in stages, over time, but we are not suggesting that it is a developmental continuum in the sense that

people must progress through each stage of internalization with respect to a particular regulation" (p. 73).

As shown in Figure 1, at the broadest level SDT proposes two major forms of motivation (excluding their discussion of a third type, amotivation, which is the absence of motivation): intrinsic motivation and extrinsic motivation. Underlying these forms of motivation are more specific forms of regulation that vary in their levels of self-determination. Intrinsic motivation involves doing an activity as an end unto itself; that is, one does the activity because it is enjoyable. Thus, an employee may work longer hours than they are expected simply because they are enjoying the work they are doing. Extrinsic motivation refers to engaging in an activity in order to obtain an outcome. For example, a salaried employee may still be extrinsically motivated if they believe their supervisor will notice their long hours and reward them with a raise.

Moving beyond the broad intrinsic and extrinsic categories, four forms of regulation underlie extrinsic motivation that differ on the degree to which they are self-determined. The least autonomous form of motivation is *external* regulation, in which an individual is motivated in order to avoid punishment or gain a reward. *Introjected* is slightly more autonomous. This involves superficial adoption of a regulation. Although there is not an immediate threat or reward, the individual still experiences motivation because they have a sense that they "ought" to do something. Said differently, this involves "behaviors (that) are performed to avoid guilt or anxiety or to attain ego enhancements such as pride" (Ryan & Deci, 2000, p. 72). *Identification* is still more autonomous. This is "a conscious valuing of a behavioral goal or regulation, such that the action is accepted and owned as personally important" (Ryan & Deci, 2000, p. 72). *Integrated* regulation is the second-most autonomous form of motivation. Here, "people have a

full sense that the behavior is an integral part of who they are, that it emanates from their sense of self and is thus is self-determined" (Gagné & Deci, 2005, p. 335). Integrated regulation is considered the closest to intrinsic regulation. Finally, intrinsic motivation involves intrinsic regulation, which involves doing a task because one enjoys it. As one moves along the spectrum from extrinsic regulation to intrinsic regulation, one is considered to be getting more and more self-determined.

These forms of regulation may be viewed under the context of the workplace. Since voluntary overwork is, by definition, done without pressure or expectation, one example of extrinsic regulation in the context of voluntary overwork is working excessively in order to impress others, such as a supervisor. An example of introjected regulation is a situation in which an individual may work excessively in order to bolster their feelings of worthiness. When discussing identified regulation, Gagné and Deci (2005) provide the example of a nurse volunteering for an unpleasant job of bathing a patient because they value the comfort of the patient and believe it personally important to share in unpleasant tasks rather than having it fall on coworkers. For integrated regulation, in the former example, the nurse would view caring for others as a central to their identity, rather than simply viewing it as personally important (e.g., "Taking care of people is part of who I am as a person" versus "I think taking care of people is important.")

Past work has examined the consequences of these motivations; although fewer studies have examined reactions to perceived motivations. Intrinsic motivation pertains to feeling motivated towards a goal because one finds it interesting or enjoyable (Ryan & Deci, 2000). Devoe and Iyengar (2004) found that across cultures, perceived intrinsic motivation (operationalized in this study as how much the supervisor believes the employee does their job

"for internal reasons (finding job enjoyable and interesting)"). Additionally, employees who are intrinsically motivated are more likely help team members who are intrinsically motivated than those who are not (Kwon, 2022; Kwon et al., 2023).

Identified regulation involves motivation towards a goal or behavior because it is personally important and a reflection of the individual's values (Gagné & Deci, 2005; Ryan & Deci, 2000). Acting in accordance with one's values is viewed as being admirable and virtuous (Kelan & Mah, 2014; Schlenker et al., 2008). In a vignette study, Jachimowicz et al. (2019) found that, compared to the control condition, people were conferred higher status and were more willing to offer support to a coworker who expressed that they wanted their work to be a reflection of what was important to them as an individual.

Introjected regulation involves being motivation towards a goal or behavior in order to avoid guilt and because of a sense it is one "should" do (Gagné & Deci, 2005; Ryan & Deci, 2000). It has been theorized that the ability to practice self-denial and do what one "should" is generally viewed as prosocial and positive, even in the absence of an immediate beneficiary (Mooijman et al. 2020). Given that introjected regulation pertains to conforming to ideas of what one "ought" to do, this should mean introjected regulation is viewed positively. Additionally, the related construct of perfectionism— an inner sense of obligation to unrealistically high levels of achievement and preoccupation with mistakes (Bieling et al., 2004) — is often deemed helpful or even necessary for high levels of success, particularly in competitive fields. In a qualitative study of perfectionists in sports and performing arts, participants perfectionists described their themselves as possessing "an edge" over others because they were "not willing to accept to something less" (Hill et al., 2015).

Moralization Theory

Perhaps a natural question to arise from these findings is why people have such different reactions to perceived motivation, even if the behavior produced by the different motivators is the same. Moralization theory offers an explanation. Moralization is the process by which something that was once considered morally neutral gains a moral valence (Rozin, 1999). In this process, the object/behavior/attitude evolves from a preference into a moral conviction and may happen on a level as small as an individual and as large as a society (Rozin, 1999). On a more macro level, one of the most cited examples is smoking. What was once considered merely a personal preference has taken on a moral connotation (i.e., not merely the belief that smoking is detrimental to health but the belief that is immoral or wrong; Rozin & Singh, 2008).

Traditionally, the process of moralization has been proposed as working through two pathways on an individual level— cognitive and affective (Rozin, 1999). Through the cognitive pathway, one evaluates a new object/behavior attitude in light of previously held moral beliefs. Rozin (1999) provides that example that a vegetarian may have previously viewed eating gelatin as morally neutral, but after learning it is made with animal products they may view eating gelatin as immoral. The affective pathway involves morally-coded emotions, such as disgust (Rozin, 1999). For example, across three studies, Feinberg et al. (2019) found that guilt and disgust acted as a conduit for the moralization of eating meat. Said differently, people infer that eating meat is a morally-laden practice if they experience emotions of disgust or guilt in reaction to eating meat (Feinberg et al., 2019).

The affective route may be observed in the "commonsense" lay theory of job satisfaction and job performance (sometimes called the "happy-productive worker hypothesis"; Fisher, 2003; Staw & Barsade, 1993). Haidt (2001) posited that people infer the morality of a circumstance based on their emotional reaction to it. The pleasant emotions one experiences when doing work

they enjoy may result in morally-coded emotions, such as pride (Rozin, 1999; Rudolph & Tscharaktschiew, 2014; Tangney et al., 2007). Tangney et al. (2007) noted that people experience moral pride when they conform to a socially desirable ideal. Kwon et al. (2023) argued that the accomplishment associated with those who experience intrinsic motivation leads to moral amplification; their own experience of pride in being positively evaluated due to their intrinsic motivation leads them to the conclusion that intrinsic motivation is a moral good. It follows that people come to believe that intrinsic motivation is moral because we associate it with moral emotions.

Beyond the individual level, Rozin (1999) posits that moralization may occur on a socio-cultural level, although the author is less specific about the mechanism through which this happens. At least one organizational scholar (Kwon, 2022) has suggested that intrinsic motivation has undergone societal moralization within the United States. Kwon (2022) argues that American culture values individualism and self-expressionism (Inglehart & Norris, 2003). Thus, intrinsic motivation at work is valued because it involves the employee acting in accordance with their own desires rather than in accordance with cultural expectations. Indeed, companies themselves seem to be active participants in convincing employees that they would be more moral if they not only performed their job but loved doing so. For instance, in the podcast entitled *WeCrashed* (Brown, 2022), former employees of WeWork discussed the way the company would encourage employees to work longer hours by preaching the message that being happy to work long hours was an aspirational goal. For instance, the weekly all employee meeting (held outside of standard business hours on Mondays at 7 PM) was called “Thank God It’s Monday.” Perhaps unsurprisingly, WeWork’s slogan was “Do what you love.” The unwritten part of that statement was “Do what you love, and that should be work.” While one

former employee described this attitude as “cultish”, WeWork is far from an exception in messaging from American workplaces.

This corporate encouragement to not only be willing, but happy, to work long hours may be a progression of the ideal worker norm (Williams, 2001), which states that the ideal worker in the United States is constantly available, takes little or no time away from work, and rarely, if ever, prioritizes nonwork activities over their job. Indeed, sociologist Celeste Headlee (2020) discussed the way in which working long hours has become a sign of virtue in the United States, noting that “when work is what makes someone worthwhile and deserving, those who don’t work as much as possible are seen as undeserving and worthless” (p. 41). However, this could conflict with Western values of self-expressionism and individualism— how are companies to convince people to sacrifice any activities (particularly enjoyable activities) and to act as ideal workers if, societally, people are encouraged to act in their own self- interest? In order to accommodate American expressionism and individualism, it is in companies’ best interest to sell the message that loving one’s work is an aspirational goal. Working excessively, therefore, becomes an act of individualism and self-expression because employees are doing exactly what they love— working.

Headlee (2020) proposed that, even as religiosity has waned in the United States, the Protestant Work Ethic has remained, such that working is viewed as moral and idleness and non-work activities are viewed as immoral. Relatedly, Celniker et al. (2020) proposed that American culture has moralized *effort*, even absent of any positive outcome. In this case, exerting effort itself is viewed as moral, even if such efforts do not benefit others or even oneself. While effortful work does not preclude intrinsic motivation— indeed a task must have some form of challenge in order to remain interesting— tasks that are unenjoyable certainly require effort (in

the form of a regulation style that in part extrinsic) in order to complete them. However, Americans seem to particularly value effortful work when it does not immediately seem to be fun, interesting, or enjoyable. For instance, Amos et al. (2019) utilized a vignette design in order to examine assumptions people have about those who are hardworking and found that those described as being hardworking are assumed to be more honest, detail-oriented, and less likely to cheat than those described as indolent. In the "hardworking" vignette, a worker is described as working "48 h without sleep to get the job completed on time." In this study, effort that is neither intrinsic nor extrinsic in nature is moralized. Thus, while American work culture values the self-expression inherent in intrinsically motivating work, it also seems to place particular value on work that in some way involves sacrifice or unpleasantness. This may be seen in both identified and introjected regulation- one may work beyond the point of unpleasantness because their work is personally important to them (identified), part of their identity (integrated), or because their self-worth is entangled in working and they feel an inner obligation to work (introjected).

Beyond favorable views of willingness to work even if the task is not inherently enjoyable or met with some external reward, there is evidence the more intermediate forms of regulation are also viewed favorably. With regards to identified regulation, acting in accordance with one's values is viewed as being morally commendable (Kelan & Mah, 2014; Schlenker et al., 2008). People show more admiration and willingness to help those who express that it is important that their job is an expression of their values compared to those who do not (Jachmowics et al., 2019). While studies examining perceptions introjected regulation specifically are rare, scholars have proposed that the ability to practice self-denial and do what one "should" is generally viewed as prosocial and positive, even in the absence of an immediate beneficiary (Mooijman et al. 2020). Cultural positive views of perfectionism— feeling obligation

to achieve unrealistically high standards and being highly concerned with mistakes with mistakes (Bieling et al. 2004) — is often deemed helpful or even necessary for high levels of success, particularly in competitive fields.

Hypothesis Development

The current study investigates the perceptions of these different forms of motivation. Specifically, this study investigates the relationship between perceptions of identified, introjected, intrinsic, and external regulation as they related to perceived deservingness of a raise. Additionally, this study investigates the relationship between perceptions of these forms of regulation and other-rated performance.

Theoretical and empirical work suggest that perceptions of intrinsic, identified, and introjected regulation should be positively associated with reward recommendations because individuals inherently want to reward those they perceive as acting morally. Kwon (2022) provides rationale behind the societal moralization of intrinsic motivation and found that people provide more help to those who they see as being intrinsically motivated (particularly those who are intrinsically motivated themselves; Kwon, 2022). Likewise, for identified regulation, evidence suggest that behavior motivated by acting in accordance with one's own values is viewed as virtuous and admirable, and therefore more worthy of reward (Jachimowicz et al., 2019; Kelan & Mah, 2014; Schlenker et al., 2008). Finally, favorable views of those who practice self-denial in making themselves do what they "should" would also suggest a positive relationship between perceived introjected regulation and reward recommendations.

The current investigation considers the relationship between perceived intrinsic, identified, introjected, and extrinsic regulation with raise recommendations. Due to the difficulty of statistically distinguishing integrated regulation from intrinsic and integrated regulation, even

on an intrapersonal level, integrated regulation is not included (Mallett et al., 2007; Vallerand et al., 1992). In the current investigation, deservingness of a raise is the only reward under consideration in order to more closely tie it with rewarding moral behavior and avoid interference stemming from beliefs of how competent an employee would be if given a promotion. Therefore, I hypothesize:

Hypothesis 1: Perceived a) intrinsic, b) identified, and c) introjected regulation will be positively related to deservingness of a raise.

Some forms of motivation are deemed more moral than others, though comparative examinations of reactions to forms of regulation have mostly focused comparing reactions to perceived intrinsic and extrinsic motivation. At least in North American samples, perceived subordinate intrinsic motivation predicts more favorable performance evaluations than extrinsic motivation (though both are positively associated with performance evaluation; DeVoe & Iyengar, 2004). This effect appears to exist even when objective performance is the same (Pelletier & Vallerand, 1996). Beyond this, people tend want to work with people who we view as intrinsically motivated again compared to those perceived as extrinsically motivated (Pelletier & Vallerand, 1996).

Though the forms of regulation may not be explicitly mentioned, there is evidence from organizational sciences that suggest identified and introjected evaluation are viewed more favorably that extrinsic regulation. Expression of extrinsic motivation is positively correlated with perceptions of greed and has been suggested to elicit negative reactions from potential employers (Derfler-Rozin & Pitesa, 2020), Additionally, supervisors respond more positively to subordinates they believe act out of concern for coworkers and the company compared to those perceived as acting out of impression management motives (e.g., Halbesleben et al., 2010).

Supervisors react with anger when they believe an employee's helpful behavior is motivated by impression management motives (Halbesleben et al., 2010). Likewise, coworkers believe it is fairer for an employee to be rewarded for discretionary work that helps the company if they believe the employee is not motivated by self-serving motives compared to if they believe they are motivated by self-serving motives (Farrell & Finkelstein, 2011).Because prosocial and organizational concern are not intrinsic motivation (e.g., their actions do not come purely out of enjoyment), nor totally external (e.g., they are not simply trying to get a raise), this study touches on a form a regulation more central in the spectrum (whereas most prior work has focused on the two extremes of the spectrum). Finally, people view those who work without any obvious extrinsic motivation positively. For instance, as rated on a scale of 1 (*very good)* to 7 (*very bad*), people rate those described as continuing to work after hitting the lottery as better people compared to those who did not (Poehlman, 2007).

Because people view extrinsic regulation as less moral than the other forms of regulation, I predict that the other forms of regulation will be stronger predictors of ratings of deservingness of a raise. Thus, those who are motivated by non-extrinsic regulation—those who are viewed as more moral— should be viewed as more deserving of rewards. Said differently, past literature would suggest that people will want to reward other forms of perceived regulation more than extrinsic regulation. Therefore, I hypothesize:

Hypothesis 2: In relative importance analyses, perceived a) intrinsic, b) identified, and c) introjected regulation will be stronger and more positive predictors of deservingness of a raise than perceived external regulation for those described as engaging in voluntary overwork.

Amongst intrinsic, identified, and introjected regulation, current theory is yet unclear which of these forms of regulation would prove the strongest predictor of deservingness of a

raise. For instance, there is support for the moralization of being motivated because one finds the work inherently interesting or enjoyable (intrinsic motivation; Kwon, 2022; Kwon et al., 2023). However, there is also evidence that there is moralization of being motivated to do work that is effortful or unpleasant, even in the absence of extrinsic rewards (Celniker et al., 2020), implying one of the other regulatory styles on the spectrum. Indeed, self-control, which involves forcing oneself to do unpleasant tasks, and the ability deny oneself enjoyment in the absence of and external motivator, has been proposed to be moralized in American life. Once again, perceived deservingness of a raise is under investigation in order to more closely tie it to rewarding a form of regulation without interference of perceived competence. Therefore, I offer the following as a Research Question:

Research Question 1: What is the relative contribution of perceived intrinsic, identified, and introjected regulation in predicting perceived deservingness of a raise?

Beyond perceptions of morality, people tend to conflate intrinsic motivation and performance. The existence of the "commonsense theory" of the lay perception strong correlation between satisfaction and performance seems to come at least in part from an assumption of a positive association between intrinsic motivation and performance. Fisher (2003) found support for the idea that this belief in a strong relationship between satisfaction and performance spawns from their own personal experiences of momentary task satisfaction and perceived task performance. Said differently, in their own daily work experiences, people report that they perform better at the tasks that they enjoy. As a result, they assume that this experience is true across people— they believe that others perform better when they enjoy the work, as compared to those who do not enjoy the work.

Additionally, scholars have compared people's association between intrinsic motivation and rated performance with their association between extrinsic motivation and rated performance. Using lab experiments involving graduate/ high school student dyads, Pelletier and Vallerand (1996) investigated the effects of supervisor beliefs about a subordinate's motivation, randomly assigning supervisors into a group in which they were told the subordinate was intrinsically motivated, extrinsically motivated, or told nothing about the motivation (control group). They found that supervisors in the intrinsic subordinate group provided higher performance evaluations than supervisors in the extrinsic subordinate group, although there were not significant differences in objective performance between the groups. Additionally, supervisors in the extrinsic subordinate group showed less interest in working with their subordinate in the future than supervisors in the intrinsic subordinate group. Beyond this, these beliefs impacted how much autonomy they gave their subordinate, with those in the intrinsic subordinate group giving more autonomy than supervisors in the extrinsic subordinate group. The researchers also demonstrated that the increased autonomy provided to subordinates in the intrinsic condition then created a behavioral confirmation process in which students who were believed to be extrinsically motivated actually felt less intrinsic motivation. Said differently, students began to actually experience the form of motivation they were believed to have.

Other work has provided support for stronger perceptions of relationships between intrinsic motivation and performance compared to perceptions of relationships between extrinsic motivation and performance in working adults, at least in Western samples. For instance, in a North American sample, perceptions of intrinsic motivation were a stronger predictor of performance evaluation ratings than perceived extrinsic motivation, although both forms of

motivation had a positive relationship with performance evaluation ratings (DeVoe & Iyengar, 2005).

Fisher (2003) found evidence that people extrapolate their own workplace experiences to generalities about other employees in the context of workplace beliefs of enjoyment and performance (e.g., an employee's belief may be "I think I do better work on tasks I enjoy than those I do not enjoy, so those who like their work must perform better than those who do not like their work."). Beyond this, Derfler-Rozin and Pitesa (2020) theorized and found evidence for a motivation purity bias, such that intrinsic and extrinsic motivation, such that those who express extrinsic motivation in a job are assumed to not be intrinsically interested. Given that people link performance evaluations and intrinsic motivation (Pelletier & Vallerand, 1996) and view intrinsic and extrinsic motivation as incompatible, it would follow that perceived intrinsic regulation will be a stronger positive predictor of rated performance than perceived external regulation. Therefore, given the lay "commonsense theory" of the positive relationship between satisfaction and performance, as well from the relevant empirical work, I hypothesize:

Hypothesis 3: In relative importance analyses, perceived intrinsic regulation will be a stronger and more positive predictor of other-rated performance than perceived external regulation.

Despite advancement in the understanding the two extremes of the spectrum of self-directed motivation (i.e., intrinsic and extrinsic motivation), organizational scholars have paid relatively little attention to perceptions of different forms of regulation along the continuum (i.e., introjected and identified) Perhaps this is due to the belief that people would not think much about others' motivations beyond the simple intrinsic extrinsic divide— indeed, people do tend

to be overly simplistic in their conceptualization of others' motivation (Derfler-Rozin & Pitesa, 2020).

However, working under the assumption that people do not make more nuanced attributions about others may force scholars to ignore relationships that truly exist. Indeed, as alluded to earlier, Heider (1958) famously referred to people as "naïve psychologists" who desire to make sense of our own behavior as well as others. Beyond this, the limited work that has examined reactions to different forms of regulation has yielded different results depending on perceived behavior (Weinstein et al., 2010). Additionally, supervisors provide higher performance motivations when they believe subordinates as going above and beyond because they are concerned about others or the organization compared to when they believe the subordinate is trying to engage in impression management (Halbesleben et al., 2010). Said differently, people provide different performance appraisals if they believe the subordinate is extrinsically motivated (impression management) or other non-intrinsic forms of regulation. Being motivated because one wants to be helpful is distinct from being motivated because the tasks itself is interesting and is reflective of the other forms of regulation that involve believing one should (introjected) or believing the task is important (identified). Thus, it is also important to consider differences of other forms of regulation. Therefore, I offer the following as research questions:

Research Question 2: What is the relative contribution of each in perceived a) intrinsic, b) identified, c) introjected and d) extrinsic regulation in predicting other-rated performance?

Supplemental Research Questions Examining the Relative Autonomy Continuum

Conceptualization and corresponding measurement of regulation described by SDT has been a subject of controversy and scholarly discussion. Ryan and Connell (1989) argued that the forms of regulation are best described as falling along a relative autonomy continuum (RAC), with intrinsic representing the most autonomous form and extrinsic representing the least autonomous. Building on work from Guttman (1954), they argue there is a single underlying factor motivation, and therefore, self-determined motivation is best determined by calculating a single score that describes where an individual falls along the spectrum of autonomy, often referred to Relative Autonomy Index (RAI). Proponents of this method argue this is a concise representation of a variety of motivational theories (Sheldon et al. 2017).

Methods for computing a relative autonomy index, however, are not universal. For instance, Sheldon and colleagues (2017) posed the question of whether extreme ends of the spectrum should be differently weighted, such that more central forms of regulation—such as identified— are weighted less heavily than extremes on the continuum—such as intrinsic— but ultimately found aggregate unweighted scores to be the least biased and the most efficient. The Comprehensive Relative Autonomy Index (C-RAI; Sheldon et al., 2017) was developed and a way to standardize the measures of SDT across disciplines and settings (although it should be noted all of the participants in the development of the scale were students). Sheldon and colleagues (2017) include five forms of regulation: external, negative introjection, positive introjection, identification, and intrinsic. The scale does not use integrated regulation due to methodological difficulties differentiating it from its neighboring forms of regulation. Importantly, the C-RAI also divides introjection into positive and negative introjection. This addition was based on work by Assor et al. (2009), who utilized research on approach and avoidance motivation (Carver & Scheier, 1999; Carver, 2006) to posit that introjected regulation

incudes two dimensions: positive introjection (motivation for gaining or "approaching" self-worth) and negative introjection (motivation for avoiding low self-worth). For example, positive introjection may involve feeling motivated to overwork in order to feel good about oneself; negative introjection may involve feeling motivated to overwork in order to avoid feelings of shame (Sheldon et al., 2017). The addition of this nuance is helpful because there is evidence that negative introjection falls further on the "controlled" side of the relative autonomy continuum than positive introjection (Assor et al., 2009; Sheldon et al., 2017), as well as exhibiting a more negative pattern of correlations with performance and affective outcomes compared to positive introjection (Assor et al., 2009). Thus, Sheldon et al. (2017) describes an individual's RAI score is calculated by using the following formula: intrinsic + identified + positive introjection – negative introjection – external – amotivation.

Despite the popularity of using RAIs, opinions of its conceptual and methodological appropriateness have been debated. In the past, several SDT scholars unequivocally opposed used of RAIs (e.g., Chemolli & Gagné, 2014). Since research by Sheldon (2017) demonstrated evidence of a single underlying factor, even formerly staunch critics have conceded that use of RAIs is generally acceptable, but not necessarily recommended (Howard et al., 2020, Howard, 2023). Howard (2023) pointed out two remaining issues in the use of RAIs. Firstly, the RAI represents a difference score, which been demonstrated to be a problematic from a methodological standpoint (Edwards, 2001). Secondly, though the RAI is consistent with SDT in that SDT does describe a continuum of motivation, it contradicts SDT's position that each form is qualitatively distinct. While not a "definitive condemnation" of RAIs (Howard, 2023, p. 443), SDT scholars caution their use and encourage scholars to be aware of their limitations (Howard

et al., 2020; Howard, 2023). Best practice in measurement and scoring in SDT remains a rapidly developing topic of scholarly discussion (Howard et al., 2020; Bureau et al., 2023).

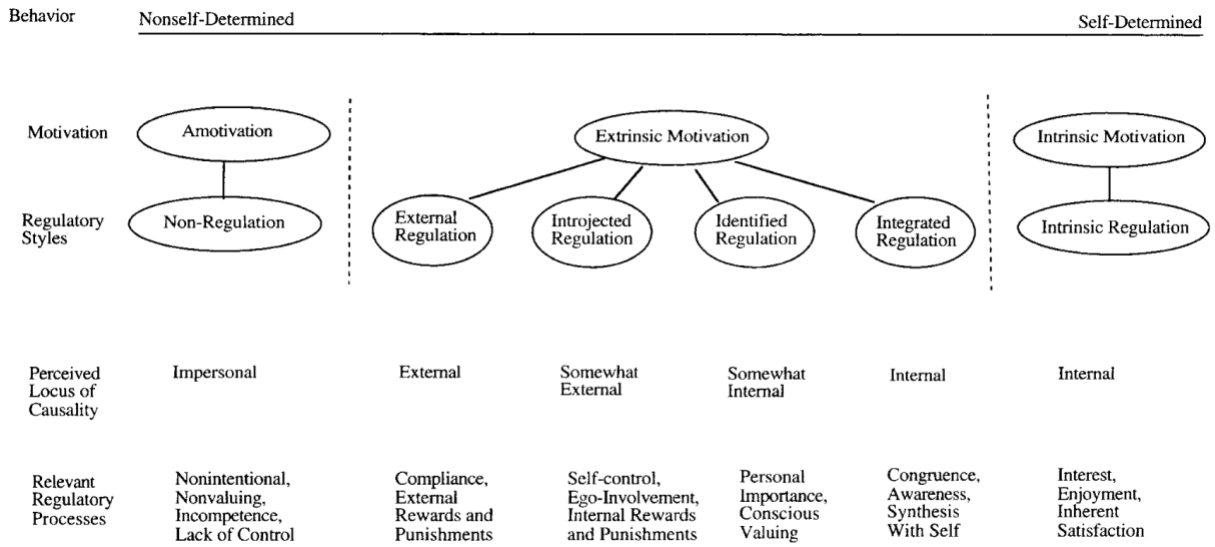
Given it is recommended to consider research questions when selecting measurement method (Howard et al., 2020) and forms of regulation are of theoretical interest in this investigation, relative contribution of each form was most relevant for the current investigation. It cannot necessarily be concluded that people would have a uniformly more positive association between autonomous regulation and performance and deservingness of a raise in others. For instance, given cultural positive valuations of self-control (Mooijman et al., 2021), it is possible that those who are seen as making themselves do something they unpleasant will be seen more positively than those who are seen as enjoying their work. However, in keeping with the popularity of relative autonomy as a single measure, I offer the following research questions:

Research Question 3: Will perceived deservingness of a raise differ as a function of relative autonomy?

Research Question 4: Will rated performance differ as a function of relative autonomy?

Figure 1

Spectrum of Motivation.



Note. Reprinted from "Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being", by Ryan, R. and Deci, E., 2000, *American Psychologist, 55(*1), p. 72.

CHAPTER 3

METHODS

Participants

Participants were recruited via snowball sampling through social media and personal networks, as well as Cloud Research. To qualify, participants were required to be at least 18 years old, live and work in the United States, and have a job in which they interact with coworkers. Additionally, participants were required to be salaried and have a salaried coworker who overworks even when it would not be considered necessary or expected. Analyses involving comparison of importance of predictors require similar sample sizes to other tests (Tonidandel & LeBreton, 2011; Tonidandel et al., 2009).

This sample consisted of 259 participants (54.83 male%, 44.40% female, .77% nonbinary or other; M_{age} = 37.97, SD_{age} = 9.85). With regards to race, 58.30% of participants identified as white, 13.90% identified as African-American or Black, 11.97% identified as Hispanic or Latinx, 11.58% identified as Asian American or Pacific Islander, 3.86% identified as multiracial, and, .39% identified as another race. Participants worked 42.41 hours (*SD* = 5.83) a week on average, and 52.51% were managers. The most commonly represented industries were education (14.67%), technology (12.74%), information technology (11.97%), finance, banking, and accounting (7.72%), healthcare (7.33%), service and hospitality (6.95%), and manufacturing and production (5.79%). With regards to highest education level achieved, 3.86% completed high school, 5.79% completed some college, 3.47% completed technical school or had achieved an

associate's degree, 52.90% had a bachelor's degree, 1.26% had completed some graduate school, and 32.82% had a graduate degree.

On average, coworkers were estimated to be 40.05 (*SD* = 10.64) years of age. Coworkers were described as being 66.41% white, 12.74% Asian American or Pacific Islander, 10.42% African-American or Black, 5.79% Hispanic or Latinx, 2.70% multiracial, 1.16% other, and .77% were not sure of the coworker's race. coworkers were described as being 55.60% female, 43.63% male, and .77% nonbinary. Coworkers were estimated to work 54.03 hours (*SD* = 10.00) on average. 60.23% of participants reported interacting with the coworker daily or almost daily; 30.89% reported interacting with them a few days a week; 7.72% reported interacting with them a few times a month, and 1.16% reported interacting with them less than once a month.

For the estimated age of the coworker, there were several participants (*n* = 4) who provided an estimated range for the coworker's age. For these participants, the average of the range was used (e.g., if participants estimated the coworker to be 45 to 47, then 46 was used as the estimated age). Similarly, for the estimate of the number of hours a coworker works, in cases (*n* = 2) where a range was provided, the average of the range was used (e.g., if the estimate was 50-60 hours, 55 was used as the estimated number of hours the coworker worked in an average week). In cases (*n* = 2) where participants provided a minimum estimate (e.g. 50+) the provided number (50) was used. One participant estimated the coworker worked 7 hours despite meeting inclusion criteria (salaried, full-time coworker) and describing them as working like they are "on steroid[s]" in one of their qualitative responses. This was presumed to be a data entry error and the participant was maintained in the analyses, but their average number of hours was dropped from the estimated number of hours worked.

Design and Procedure

Participants were asked to think about a salaried employe with whom they work who works longer hours than are expected or necessary by company or supervisor standards. In order to prevent participant fatigue and frustration in inclusion of a second measure of motivation, items that were redundant were collapsed and items that represented the same construct were presented in the same matrix table on Qualtrics. Table 11 presents the original scales, how they were collapsed, and the adaptation.

Measures

Motivation

MWMS. Types of motivation were measured using an adapted version of Multidimensional Work Motivation Scale (MWMS; Gagné et al., 2015). The original scale contains 19 items. The amotivation subscale was excluded from this study. Additionally, two items from external regulation which referred to job security were excluded. These items were not relevant to the current investigation, as a consequence of job loss would be a direct contradiction to not being considered necessary or expected. All external regulation items that included a negative social consequence were retained, as the item included non-supervisor or employer in the list of possible people reacting negatively, e.g., "To avoid being criticized by others (e.g., supervisor, colleagues, family, client)". Thus, the adapted scale contained 15 items.

Consistent with other work in the field (Van den Broek et al., 2021), the subcomponents of external regulation (social and material) were combined in analyses as they are subdimensions of the same variable. The original and adapted items may be found in the Appendix. Due to the difficulty mentioned with statistically disentangling integration with its neighboring dimensions (identified regulation and intrinsic motivation), the MWMS measure does not include integrated

regulation. All items were measured on a Likert-type scale from 1(not at all)-7(completely). Participants were asked to respond to the following stem: “Do you believe (insert name) works excessively …” followed by each of the motivation items. A sample item for extrinsic motivation is, “to get others’ approval (e.g., supervisor, colleagues, family, clients ...).” A sample item for introjected motivation is, “because they have to prove themselves that they can.” A sample item for identified motivation is, “because putting efforts in this job aligns with their personal values.” A sample item for intrinsic motivation is, “because they have fun doing their job.” Cronbach’s alphas for the subscales of extrinsic, introjected, identified, and intrinsic motivation were .74, .83, .90, and .94, respectively.

C-RAI. An adapted version of the C-RAI (Sheldon et al., 2017) was used as an additional measure of motivation. The original scale includes 24 items. The current study includes excludes the 4 amotivation items. Additionally, one external regulation item which reads “because I have no choice but to work” directly contradicted premise of the study and was not included. Social consequence items in this survey do not specify from whom the negative reaction is coming (e.g., “Because if they don’t work excessively, others will be mad”). Thus, similar to the MWMS, negative social consequence items were retained. Looking across the two surveys, excluded items were those that referred to potential job loss or changes in job security (MWMS), or “having no other option” (C-RAI).

After removing these items, the final adapted scale consisted of 19 items. External regulation includes four items. A sample item is “Because important people (i.e., supervisors, clients) will like them better if they work excessively”. Negative introjection includes 4 items. A sample item is “Because they would feel guilty if they didn’t work excessively”. Positive introjection includes 4 items. A sample item is “Because working excessively boosts their self-

esteem". Identification includes 4 items. A sample item is "Because their work is meaningful to them". Intrinsic regulation includes 4 items. A sample item is "Because they enjoy their work". Cronbach's alpha for the subscales of external, negative introjected, positive introjected, identified, and intrinsic were.74, .94, .87, .86, and .96, respectively.

Relative autonomy was calculated using the formula provided by Sheldon et al. (2017), with one exception. Given that amotivation was not applicable, it was not measured. Thus, in this study, an individual's relative autonomy score was calculated using the following formula: intrinsic + identified + positive introjection – negative introjection – external.

Control Variables

Career Salience. Career salience was measured using Lobel and St. Clair's (1992) four item measure. A sample item reads "A major source of satisfaction in my life is my career." Alpha was .88. It was measured on a scale from 1 (strongly disagree) to 5 (strongly agree).

Age. Age was measured using a single item measure asking participants what their age was (M_{age} = 37.97, SD_{age} = 9.85).

Outcome Variables

Deservingness of Raise. Deservingness of a raise was measured using a single item measure developed for this study. Participants were asked to rate the statement "In my opinion, this employee deserves a raise" on a scale from 1 (strongly disagree) to 5 (strongly agree).

Performance. Performance was measured using a single item measure adapted from DeVoe and Iyengar (2005). Participants were asked, "How do you perceive this employee's performance?" on a 7-item scale from 1 (very poor) to 9 (excellent), with a 5 reflecting average performance. The original item read "Overall, how would you rate this employee's performance?"

Analytic Plan

G*Power analysis indicated a linear multiple regression using four predictors (extrinsic, intrinsic, introjected, identified) requires a sample size of at least 268 participants for a .15 effect size. I recruited participants via social media and personal network snowball sampling and

In order to analyze Hypothesis 1, I examined the bivariate correlation between intrinsic, identified, and introjected regulations with deservingness of a raise. In order to analyze the remaining hypotheses and research questions, I ran a multiple regression analysis and examined the relative weights. Relative weights allow one to examine the relative impact of different predictor variables on an outcome variable (Johnson & LeBreton, 2004). In addition to being the best technique to examine my hypotheses and research questions, relative importance analysis offers a range of additional benefits. Indeed, these techniques were initially developed (e.g., Budescu, 1993; Fabbris, 1980) because traditional indices in multiple regression are distorted by high correlation between predictors (Darlington, 1968). I expected my predictor variables to be highly correlated because scale development of a work-based measure of the forms of motivation mentioned under SDT on the intraindividual level indicates high levels of correlation between the factors, particularly amongst adjacent subscales (e.g., intrinsic and identified; Gagné et al., 2015). That being said, this technique does not solve problems surrounding multicollinearity on the theoretical level (Tonidandel et al., 2009; Tonidandel & LeBreton, 2011).

Relative importance analysis is commonly done using one of two methods: (a) relative weights analysis (Fabbris, 1980; Johnson, 2000) or (b) dominance analysis (Budescu, 1993). These techniques tend to produce largely similar results (Tonidandel & LeBreton, 2011). Dominance analysis uses all subsets in its calculations, which creates a cumbersome number of regression equations. Thus, Tonidandel and LeBreton (2011) recommend relative weights

analysis for a large number of predictors. However, it can be used to identify suppressor variables and is well suited to examining patterns of importance. Given that this is not part of the proposed study, relative weights analysis is preferable because it is more computationally efficient (Tonidandel & LeBreton 2011).

Fabbris (1980) and Johnson (2000) describe four steps to calculating relative weights. First, one transforms the predictor variables in order to obtain a set of predictor variables that are orthogonal to one another. Second, one calculates a set of standardized regression coefficients. This is done by regressing the outcome variable on the new set of orthogonal predictors. Third, one regresses the original predictors on the calculated orthogonal predicters. Fourth, one calculates the relative weights by adding the products of the regression coefficients from steps two and three.

Again following Tonidandel and LeBreton's (2011) recommendation, I examined the raw weights and determine if they are statistically significant. Next, I examined confidence intervals for the individual relative importance weights. Tests of hypotheses were conducted using Tonidandel et al.'s (2009) updated guidance of Johnson's (2004) instructions on comparing relative weights within a sample, with the exception of the way in which confidence intervals around the raw weights. Updated guidance by Tonidandel et al. (2009) suggests this should be done by using the bias corrected accelerated method in order to generate bootstrapped confidence intervals. This updated technique allows one to determine if an individual relative weight is significantly different from zero (rather than simply significantly different from one another). This was done using RWA Web (Tonidandel & LeBreton, 20

Figure 2

Comparison of Items

Measure	Item Number	Original Scale Name	Original Item	Final Item
MWMS	1	Extrinsic Regulation — Social	To get others' approval (e.g., supervisor, colleagues, family, clients ...)	To get others' approval (e.g., supervisor, colleagues, family, clients ...)
MWMS	2	Extrinsic Regulation — Social	Because others will respect me more (e.g., supervisor, colleagues, family, clients ...)	Because others will respect them more (e.g., supervisor, colleagues, family, clients ...)
MWMS	3	Extrinsic Regulation — Social	To avoid being criticized by others (e.g., supervisor, colleagues, family, clients …)	To avoid being criticized by others (e.g., supervisor, colleagues, family, clients
MWMS	4	Extrinsic Regulation — Material	Because others will reward me financially only if I put enough effort in my job (e.g., employer, supervisor ...)	Because others will reward them financially only if they put enough effort into their job (e.g., employer, supervisor …)
MWMS	5	Extrinsic Regulation — Material	Because others offer me greater job security if I put enough effort in my job (e.g., employer, supervisor ...)	Excluded Item
MWMS	6	Extrinsic Regulation — Material	Because I risk losing my job if I don't put enough effort in it	Excluded Item
C-RAI	7	External	Because important people (i.e., parents, professors) will like me better if I do X	Because important people (i.e., supervisors, clients) will like them better if they work excessively

CHAPTER 4

RESULTS

Analyses

Descriptive statistics and correlations among all variables are reported in Table 1. First considering the outcome of deservingness of a raise, Hypothesis 2 predicted that perceived intrinsic, identified, and introjected regulation would be a stronger predictor of deservingness of a raise than perceived external regulation for those described as engaging in voluntary overwork. Research Question 1 asked what the relative contribution of perceived intrinsic, identified, and introjected, regulation in predicting perceived deservingness of a raise would be.

To test Hypothesis 1, I examined the bivariate correlation between intrinsic, identified, and introjected regulations with deservingness of a raise. The relationship between intrinsic regulation and deservingness of a raise was significant and positive ($r = .33$, $p < .01$), as was the relationship between identified regulation and deservingness of a raise ($r = .27$, $p < .01$). The relationship between introjected regulation and deservingness of a raise was not significant ($r = .08$, $p = .40$). Thus, Hypothesis 1 received partial support; while identified and introjected regulation were significantly and positively related to recommendations for a raise, the relationship between introjected regulation and raise recommendations was not significant.

To examine each form of regulation as a predictor of raise recommendations, I first conducted a multiple linear regression analysis, the results of which may be viewed in Table 2. Because the addition of control variables (participant age and career salience) did not add

variance, I retained the simpler model (Model 3). External regulation was significantly related to lower raise recommendations (b = -.11, t = -2.36; p = .02) and identified regulation was significantly related to higher raise recommendations (b = .13, t = 2.19; p = .03). Introjected (b = .02, t = .38, p = .70) and intrinsic (b = .09, t = 1.86, p = .06) regulations did not emerge as significant predictors. Thus, while identified regulation emerged as significant and positive, introjected regulations did not.

I next conducted a relative weights analysis with the outcome of raise recommendations. Relative weights analyses revealed identified regulation contributed 42.69% of predicted variance in raise recommendations and intrinsic regulation contributed 38.00% of predicted variance in raise recommendations. Significance testing for these results revealed that the proportion of predicted variance explained by both these predictors was significant: 95% $CI_{intrinsic}$ [.01., .11]) and 95% $CI_{identified}$ [.02, .11]). Relative weights analyses also revealed external regulation contributed 16.07% to predicted variance in raise recommendations and introjected regulation contributed 3.24% of predicted variance in raise recommendations, neither of which was significant: 95% $CI_{external}$ [-.00, .08] and 95% $CI_{introjected}$ [-.01, .02].

Turning to Hypothesis 2, comparison of predictors revealed that neither identified (42.69%) nor intrinsic (38.00%) regulations explained significantly more predicted variance than external (16.07%) regulation: 95% $CI_{identified\ vs.\ external}$ [-.02, .10] and 95% $CI_{intrinsic\ vs.\ external}$ [-.03, .09]. There was not a significant difference in the amount of variance explained by external (16.07%) and introjected (3.24%) regulations: 95% $CI_{external\ vs.\ introjected}$ [-.01, .07].

It should be noted here that comparisons of relative weights tests only the degree to which each predictor contributes to predicted variance, but it does not incorporate information about the direction of the relationships. Thus, two predictors can be found to contribute similar

amounts of variance to an outcome, but if one predictor is negatively related to the outcome and the other is positively related to the outcome, there are still clear differences between the two predictors in their relationship with the outcome that must be taken into consideration. In other words, to fully understand how these regulations may differ in their relationships with the outcomes, both the strength of the relative weight and the direction of the relationship need to be taken into account. When examining relationships with raise recommendations, although identified and intrinsic regulations are not significantly different from external regulation in terms of *amount* of predicted variance, both intrinsic and identified regulations are significantly and positively related to raise recommendations (r =.31 and r = .30, respectively), while external regulation is significantly and negatively related to raise recommendations (r = -.24). Also recall that external regulation (16.07%) was found to contribute significantly more to predicted variance than introjected regulation (3.24%): 95% $CI_{\text{external vs. introjected}}$ [-.01, .07]. And finally, identified (42.69%) and intrinsic (38.00%) regulations both explained significantly more variance in raise recommendations than introjected (3.24%) regulation: 95% CI $[.01, .11]_{\text{identified vs. introjected}}$ and $[.01,.11]_{\text{intrinsic vs. introjected}}$. Thus, although intrinsic and identified regulations are not different from external regulation in terms of the size of their (absolute value) relative weights, they *are* significantly different than introjected regulation, and introjected relation in turn is significantly different than external regulation. Therefore, it can be deduced—given the differences in the direction of relationships with raise recommendations—that intrinsic and identified relations clearly demonstrated stronger *positive* relationships with raise recommendations than external regulation. In conclusion, internal and introjected regulation both had stronger and more positive relationships with raise recommendations than external regulations. There were not significant differences in the amount of predicted variance in raise

recommendations between introjected and external regulations, and it is not possible for this variable to ascertain whether or not it was more positive. This provides partial support for Hypothesis 2; while intrinsic and identified regulations had a stronger positive relationship with raise recommendations, it was unclear whether or not introjected regulation did. These results are summarized in Tables 3 and 4.

Research Question 2 asked what the relative contribution of perceived intrinsic, identified, introjected and external regulation in predicting rated performance would be. Turning to the other forms of regulation aside from intrinsic and external, relative weights analysis revealed identified regulation explained 42.24% of the predicted variance in rated performance, and the proportion of predicted variance explained was significant: 95% $CI_{identified}$ [.02, .12] 95% $CI_{intrinsic}$ [.02, 12]). Relative weights analyses also revealed introjected regulation contributed 2.21% of predicted variance in rated performance, which was non-significant 95% $CI_{introjected}$ [-.01, .02].

Turning towards the outcome of performance, I first ran a multiple linear regression analysis, the results of which may be viewed in Table 5. Because control variables of career salience and age were not significant, I retained the model that did not include control variables (model 3). Identified regulation (b = .20, t = 2.09; p = .04) and intrinsic regulation (b = .19, t = 2.45, p = .02) were both significantly and positively related to rated performance. Introjected (b = -.04, t = -1.51, p = .57) and external (b = -.11, t = -1.51, p = .13) regulations did not emerge as significant predictors of rated performance.

Hypothesis 3 predicted that perceived intrinsic regulation will be a stronger positive predictor of rated performance than perceived external regulation. Relative weights analysis revealed intrinsic regulation, which was positively related to rated performance, predicted

47.18% of the variance and external regulation, which was negative related to rated performance, contributed 8.36% to predicted variance in rated performance: 95% $CI_{intrinsic}$ [.02, 12], 95% $CI_{external}$ [-.00, .05]. Comparison of relative weights revealed intrinsic regulation explained significantly more variance in rated performance than external regulation (95% CI [.00, .11]). Thus, Hypothesis 3 was supported.

Research Question 2 asked what the relative contribution of each in perceived intrinsic, identified and introjected and extrinsic regulation in predicting rated performance would be. Turning to the other forms of regulation aside from intrinsic and external, relative weights analysis revealed identified regulation explained 42.24% of the predicted variance in rated performance, and the proportion of predicted variance explained was significant: 95% $CI_{identified}$ [.02, .12] 95% $CI_{intrinsic}$ [.02, 12]). Relative weights analyses also revealed introjected regulation contributed 2.21% of predicted variance in rated performance, which was non-significant 95% $CI_{introjected}$ [-.01, .02].

With regards to differences in strengths among the other variables, identified (42.24%) and intrinsic (47.18%) regulation did not significantly differ in amount of predicted variance they contributed to rated performance (95% CI, [-.05, .06]). Identified regulation (42.24%) explained significantly more variance in rated performance than external regulation (8.36%): 95% $CI_{identified\ vs.\ external}$ [.02, .12],. Intrinsic (42.24%) regulation explained significantly more variance in rated performance than introjected (2.21%) regulation (95% $CI_{intrinsic\ vs.\ introjected}$, [02, .11]) There was not a significant difference in the amount of predicted variance in rated performance explained by introjected (2.21%) and external (8.36%) regulation (95% $CI_{introjected\ vs.\ external}$ [-.05, .01]). Thus, intrinsic and identified regulations both explain significant and similar levels of predicted variance in rated performance. These results are further summarized in Tables 3 and 6.

Supplemental Research Questions Examining the Relative Autonomy Continuum

In keeping with the popular conceptualization of motivation as a composite of a single relative autonomy composite score, I also examined how raise recommendations and rated performance differ as a function of relative autonomy (Sheldon et al., 2017). Research Questions 3 pertained to relative autonomy as it relates to raise recommendations. Research Question 4 pertained to the relative autonomy as it relates to rated performance. In order to examine Research Question 3, I regressed rated performance on relative autonomy. Results indicate that relative autonomy was significantly and positively related to deservingness of a raise (b = .05, t = 3.16, p < .01). Results were not improved by addition of career salience and age, and thus the model without control variables was retained (model 3). The full results may be seen in Table 7. These results indicated that relative autonomy is significantly and positively related to raise recommendations.

Research Question 4 pertained to relative autonomy as it relates to rated performance. In order to examine Research Question 4, I regressed rated performance on relative autonomy. Results indicate that relative autonomy was significantly and positively related to rated performance (b = .10, t = 4.36, p < .01). Results were not improved by addition of career salience and age, and thus the model without control variables was retained (model 3). The full results may be seen in Table 8. These results indicated that relative autonomy is significantly and positively related to rated performance.

Supplemental Analyses Examining the Individual Dimensions Assessed by the C-RAI

While this analysis does provide guidance as to whether the outcome variables of raise recommendations and rated performance differ as a function of a relative autonomy, it is yet unclear whether those results provide an equivalent or better ability in predicting these outcomes

compared to the predictive ability of the individual forms of regulation. However, comparison of results using relative autonomy compared to the individual forms described by the MWMS is not truly meaningful here because it is unclear whether tests are capturing differences in the granularity of a composite versus multidimensional measure or simply differences between the scales. Thus, a better way of understanding results captured by an individual versus multidimensional measure would be a comparison of a relative autonomy versus individual dimensions of the C-RAI measure in their ability to describe the outcomes of raise recommendations and rated performance

Given that relative weights analysis is inherently a measure of compared predicted variance between predictors, it was not possible to run the relative weights analysis with a single relative autonomy score. Thus, I decided to run an additional relative weights analysis using the C-RAI dimensions to further clarify the relationship between the variables. Further examination of relative weights of these individual regulations allow for examination of the degree to which importance of predictors is consistent across measures. An additional advantage of examination of relative weights is that it allows for examination of approach and avoidance subdimensions of introjected regulation described by the C-RAI. Given that the MWMS does not similarly divide these items, this allows us to examine whether or not the positive and negative dimensions display similar patterns of relationships and relative weights with the outcome variables.

Raise Recommendations

To investigate the individual dimensions of the C-RAI, I ran a second series of multiple regression analyses. Beginning with deservingness for a raise, because control variables were not significant, I retained the model that did not include control variables (model 3). This model explained significantly more variance than the omnibus measure ($\Delta R^2 = .14$, F (4, 253) = 1 1.71,

$p < .01$). Intrinsic ($b = .12$, $t = 2.33$; $p = .02$), identified ($b = .25$, $t = 3.54$, $p < .01$), and negative introjected ($b = .12$, $t = 3.08$, $p < .01$) were significantly and positively related to deservingness of a raise. Positive introjected regulation was significantly and negatively related to deservingness of a raise ($b = -.24$, $t = -4.66$, $p < .01$). External regulation was not significantly related to deservingness of a raise ($b = -.01$, $t = -.33$, $p > .05$). These results are summarized in Table 9.

With regards to the amount of predicted variance each dimension contributes, relative weights analyses revealed identified regulation contributed 40.26% of predicted variance in raise recommendations, intrinsic regulation contributed 32.98% of predicted variance, and positive introjected regulation contributed 16.23% in raise recommendations. Significance testing for these results revealed that the proportion of predicted variance explained by all three of these predictors is significant: 95% $CI_{intrinsic}$ [.02, .12], 95% $CI_{identified}$ [.03, .13], and 95% $CI_{positive\ introjected}$ [.02, .12]. Relative weights analyses also revealed external regulation contributed 1.01% to predicted variance in raise recommendations and introjected negative regulation contributed 9.51% of predicted variance in raise recommendations, neither of which was significant: 95% $CI_{external}$ [-.02, .01] and 95% $CI_{negative\ introjected}$ [-.00, .06].

With regard to comparison of predictors in amount of predicted variance in raise recommendations, analyses revealed that identified (40.26%), intrinsic (32.98%), and positive introjected (16.23%) regulations did not explain significantly different amounts of predicted variance in raise recommendations: 95% $CI_{intrinsic\ vs.\ identified}$ [-.07, .04], 95% $CI_{positive\ introjected\ vs.\ identified}$ [-.11, .01], 95% $CI_{intrinsic\ vs.\ positive\ introjected}$ [-.03, .09]. Further analyses revealed that revealed that identified (40.26%), intrinsic (32.98%), and positive introjected (16.23%) all contributed significantly more variance than external regulation (1.01%): % $CI_{identified\ vs.\ external}$

[.03, .14], 95% $CI_{intrinsic\ vs.\ external}$ [.02, .12], 95% $CI_{positive\ introjection\ vs.\ external}$ [.02, .12]. Additionally, while identified (40.26%) regulation explained significantly more predicted variance in raise recommendations than negative introjected regulation (9.52%), intrinsic (32.98%), positive introjection (16.23%) and negative introjected regulations (9.25%) did not explain significantly different levels of predicted variance in raise recommendations: 95% $CI_{identified\ vs.\ negative\ introjected}$ [.00, .12], 95% $CI_{instrinsic\ vs.\ negative\ introjected}$[-.01, .11], 95% $CI_{positive\ introjected\ vs.\ negative\ introjected}$ [-.02, .06]. These results are further summarized in Table 10. Thus, identified, intrinsic, and positive introjected regulations all contributed significantly and of a similar amount to predicted variance in raise recommendations. It should be noted that intrinsic and identified had positive beta weights, while positive introjected regulation had a negative beta weight.

Performance

For the outcome of performance, addition of control variables also did not explain more variance, so the simpler model was retained (model 3). The full results may be found in Table 10. This model explained significantly more variance than the omnibus measure ($\Delta R^2 = .10$, F (4, 253) = 5.46, $p < .01$). Intrinsic ($b = .21$, $t = 2.57$, $p = .01$) and identified ($b = .30$, $t = 2.63$, $p < .01$) regulations were significantly and positively related to rated performance. Positive introjection ($b = -.20$, $t = -2.379$, $p = .01$) was significantly and negatively related to rated performance. Neither negative introjection ($b = .05$, $t = .80$, $p > .05$) nor extrinsic regulation ($b = - .00$, $t = -.06$, $p > .05$) were significantly related to rated performance. These results are summarized in Tables 10 and 11.

Relative weights analysis revealed identified regulation explained 47.96% of the predicted variance in rated performance, and intrinsic regulation explained 44.18% of the predicted variance in rated performance. Significance testing for these results revealed the

proportion of predicted variance explained by both predictors was significant: 95% $CI_{identified}$ [.02, .13], 95% $CI_{intrinsic}$ [.02, 13]) Relative weights analyses also revealed positive introjected regulation contributed 6.51%, negative introjected contributed .88%, and external regulation contributed .47% of predicted variance in rated performance, none of which were significant: 95% $CI_{positive\ introjected}$ [-.01, .02], 95% $CI_{negative\ introjected}$ [-.03, .01], 95% $CI_{external}$ [-.03, .01]. Comparison of relative weights revealed intrinsic regulation explained significantly more variance than external regulation (95% $CI_{intrinsic\ vs.\ external}$ [.02 .13]).

With regards to differences in strengths among the other variables, identified (47.96%) and intrinsic (44.18%) regulations did not significantly differ in amount of predicted variance they contributed to rated performance: 95% $CI_{intrinsic\ vs.\ identified}$ [-.05, .06]). Identified (47.96%) and intrinsic (44.18%) both explained significantly more variance than positive introjected (6.51%) regulation: 95% $CI_{identified\ vs.\ positive\ introjected}$, [01, .11] and 95% $CI_{intrinsic\ vs.\ positive\ introjected}$, [01, .11]. Identified (47.96%) and intrinsic (44.18%) both explained significantly more predicted variance than negative introjected (.88%) regulation: 95% $CI_{identified\ vs.\ negative\ introjected}$, [02, .12] and 95% $CI_{intrinsic\ vs.\ negative\ introjected}$, [02, .13]. Identified (47.96%) and intrinsic (44.18%) both explained significantly more predicted variance than external (.47%) regulation: 95% $CI_{identified\ vs.\ external}$, [02, .12] and 95% $CI_{intrinsic\ vs.\ external}$ [02, .13]. Positive introjected (6.51%) did not explain significantly more variance than negative introjected (.88%) and external (.47%) regulations: 95% $CI_{positive\ introjected\ vs.\ negative\ introjected}$, [-00, .03] and 95% $CI_{positive\ introjected\ vs.\ external}$ [-.00, .03]. Finally, negative introjected (.88%) regulation did not account for a significantly different amount of predicted variance than external (.47%) regulation: 95% $CI_{negative\ introjected\ vs.\ external}$, [-.00, .03]. These results are summarized in Table 12. Thus, using the C-RAI, identified and intrinsic account for a significant amount of predicted variance in rated performance. It should

also be noted that intrinsic and identified were represented by positive beta weights, while positive introjected was represented by a negative beta weight. Similar to the MWMS, intrinsic and identified both had significant positive beta weights and contributed significantly to predicted variance. Additionally, external regulation was a significant negative predictor between both scales. Dissimilar to the MWMS, however, external regulation did not contribute significantly to predicted variance in rated performance when the C-RAI was used

Table 1

Correlation Matrix of Study Variables

Variable	*Mean*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Career Salience	3.09	.98														
2. Age-Self	37.97	9.85	-.06													
3. Intrinsic (MWMS)	4.33	1.44	.33*	.03												
4. Identified (MWMS)	4.94	1.51	.27*	.08	.72*											
5. Introjected (MWMS)	4.23	1.42	.08	-.03	.20*	.34*										
6. External (MWMS)	4.05	1.28	-.03	-.08	.02	.02	.46									
7. Intrinsic (C-RAI)	4.29	1.52	.34*	.03	.97*	.73*	.18*	.00								
8. Identified (C-RAI)	5.20	1.18	.18*	.10	.71*	.91*	.37*	.01	.72*							
9. Positive Introjected (C-RAI)	4.74	1.41	.08	.04	.36*	.49*	.75*	.42*	.35*	.53*						
10. Negative Introjected (C-RAI)	3.84	1.69	.03	-.02	.06	.19*	.88*	.38*	.03	.22*	.55*					
11. External (C-RAI)	3.19	1.40	.02	-.04	-.02	-.02	.40*	.66*	-.03	-.01	.26*	.41*				
12. Relative Autonomy	7.20	3.71	.21*	.09	.74*	.70*	-.07	-.26*	.77*	.72*	.35*	-.32*	-.48*			
13. Performance	7.31	1.44	.04	-.02	.33*	.32*	.02	-.11*	.33*	.32*	.05	.01	-.04	.26*		
14. Raise	3.99	.94	.06	-.06	.30*	.31*	.05	-.14*	.31	.32*	-.01	.09	-.03	.19*	.73*	

Table 2

Hierarchical Regression Results for Deservingness of a Raise

	Model 1			Model 2			Model 3		
Variables	*b*	*SE*	*T*	*b*	*SE*	*T*	*b*	*SE*	*T*
Intercept	4.03**	.30	13.32	3.82**	.37	10.37	3.33**	.27	12.54
Career Salience	.05	.06	.93	-.06	.06	-1.03			.
Age-Self	-.01	.01	-.95	-.01	.01	-1.71			
External				-.12*	.05	-2.51	-.11*	.05	-2.36
Introjected				.02	.05	.36	.02	.05	.38
Identified				.14*	.06	2.38	.13*	.06	2.19
Intrinsic				-.10	.05	1.97	.09	.05	1.86
R^2		-.00			.12			.12	
ΔR^2					.12			.00	

Note. Step 1 included control variables only (age and career salience). Step 2 added the forms of regulation as predictors. Unstandardized coefficients are reported. *SE* = standard error

*$p < .05$

**$p < .01$

Table 3

Relative Importance of Perceived Form of Regulation as a Predictor of Perceived Deservingness of a Raise and Rated Performance

Predictor	Raise			Performance		
	b	RWi	RWiRS	*b*	RWi	RWiRS
External	-.11*	-.02	-16.07	-.12	.01	-8.36
Introjected	.02	.00	3.24	-.04	.00	-2.21
Identified	.13*	.06*	42.69	.21*	.06*	42.24
Intrinsic	.09	.05*	38.00	.21**	.06*	47.18

Note. Significance testing for RW_i is based on 10,000 bootstrap CIs. RW_i notes the raw relative weights. *RWiRS* notes rescaled relative weight. Column names show the variable being used as the reference.

*Confidence intervals do not cross 0

Table 4

Raise Recommendations using the MWMS

Regulation	% Predicted Variance	Sign of Beta
Intrinsic	38.00*[a]	+
Identified	42.69*[a]	+
Introjected	3.24[b]	-
External	16.07*[ab]	-

Note. Superscript letters refers to variables that are not significantly different from one another. For example, a variable with an a is not significantly different from other variables with a superscript of a.

*Confidence intervals do not cross 0

Table 5

Hierarchical Regression Results for Performance as Measured by the MWMS

Variables	Model 1			Model 2			Model 3		
	b	*SE*	*T*	*b*	*SE*	*T*	*b*	*SE*	*T*
Intercept	7.23**	.47	15.37	6.79**	.57	11.92	6.16**	.41	15.04
Career Salience	.06	.09	.62	-.14	.09	-1.48			.
Age-Self	-.00	.01	-.30	-.01	.01	-1.00			
External				-.12	.08	-1.64	-.11	.07	-1.51
Introjected				-.04	.07	-.57	-.04	.07	-.58
Identified				.21*	.09	2.23	.20*	.09	2.09
Intrinsic				.21**	.08	2.66	.19*	.08	2.45
R^2		-.01			.13			.12	
ΔR^2					.14			-.01	

Note. Step 1 included control variables only (age and career salience). Step 2 added the forms of regulation as predictors. Unstandardized coefficients are reported. *SE* = standard error

*$p < .05$

**$p < .01$

Table 6

Rated Performance using the MWMS

Regulation	% Predicted Variance	Sign of Beta
Intrinsic	47.18*[a]	+
Identified	42.24*[a]	+
Introjected	2.21[b]	-
External	8.36[b]	-

Note. Superscript letters refers to variables that are not significantly different from one another. For example, a variable with an a is not significantly different from other variables with a superscript of a.

*Confidence intervals do not cross 0

Table 7

Hierarchical Regression Results for Deservingness for a Raise as Measured by the C-RAI Omnibus Variable

	Model 1			Model 2			Model 3		
Variables	*b*	*SE*	*T*	*b*	*SE*	*T*	*b*	*SE*	*T*
Intercept	4.03**	.30	13.32	3.87**	.30	12.82	3.64**	.12	29.44
Career Salience	.05	.06	.93	.01	.06	.25			
Age-Self	-.01	.01	-.95	-.01	.01	-1.28			
C-RAI				.05**	.02	3.13	.05**	.02	3.16
R^2		-.00			.03			.03	
ΔR^2					.03			.00	

Note. Step 1 included control variables only (age and career salience). Step 2 added the forms of regulation as predictors. Unstandardized coefficients are reported. *SE* = standard error

*$p < .05$

**$p < .01$

Table 8

Hierarchical Regression Results for Performance as Measured by the C-RAI Omnibus Variable

	Model 1			Model 2			Model 3		
Variables	*b*	*SE*	*T*	*b*	*SE*	*T*	*b*	*SE*	*T*
Intercept	7.23**	.47	15.37	6.89**	.46	14.94	6.57	.19	34.85
Career Salience	.06	.09	.62	-.03	.09	-.32			
Age-Self	-.00	.01	-.30	-.01	.01	-.75			
C-RAI				.10**	.02	4.36	.10**	.02	4.36
R^2		-.01			.06			.07	
ΔR^2					.07			.01	

Note. Step 1 included control variables only (age and career salience). Step 2 added the forms of regulation as predictors. Unstandardized coefficients are reported. *SE* = standard error

*$p < .05$

**$p < .01$

Table 9

Hierarchical Regression Results for Raise as Measured by the C-RAI Individual Dimensions

	Model 1			Model 2			Model 3		
Variables	*b*	*SE*	*T*	*b*	*SE*	*T*	*b*	*SE*	*T*
Intercept	4.03**	.30	13.32	3.28**	.36	9.16	2.88**	.27	10.72
Career Salience	.05	.06	.93	-.05	.06	-.88			
Age-Self	-.01	.01	-.95	-.01	.01	-1.51			
External				-.01	.04	-.35	-.01	.04	-.33
Introjected-Negative				.12**	.04	3.05	.12**	.04	3.08
Introjected-Positive				-.24**	.05	-4.67	-.24**	.05	-4.66
Identified				.26**	.07	3.61	.25**	.07	3.54
Intrinsic				.13*	.05	2.39	.12*	.05	2.33
R^2		-.00			.17			.17	
ΔR^2					.17			.00	

Note. Step 1 included control variables only (age and career salience). Step 2 added the forms of regulation as predictors. Unstandardized coefficients are reported. *SE* = standard error

*$p < .05$

**$p < .01$

Table 10

Raise Recommendations using the C-RAI

Regulation	% Predicted Variance	Rank	Sign of Beta
Intrinsic	32.98*[a]	a	+
Identified	40.26*[ab]	ab	+
Positive Introjected	16.23*[ab]	ab	-
Negative Introjected	9.51[bc]	bc	+
External	1.01[c]	c	-

Note. Superscript letters refer to variables that are not significantly different from one another. For example, a variable with an a is not significantly different from other variables with a superscript of a.

*Confidence intervals do not cross 0

Table 11

Hierarchical Regression Results for Performance as measured by the C-RAI Individual Dimensions

Variables	Model 1			Model 2			Model 3		
	b	*SE*	*T*	*b*	*SE*	*T*	*b*	*SE*	*T*
Intercept	7.23**	.47	15.37	6.14**	.57	10.75	5.60**	.43	13.10
Career Salience	.06	.09	.62	-.12	.09	-1.30			
Age-Self	-.00	.01	-.30	-.01	.01	-.84			
External				-.00	.07	-.05	-.00	.07	-.06
Introjected-Negative				.05	.06	.82	.05	.06	.80
Introjected-Positive				-20*	.08	-2.42	-.20*	.08	-2.38
Identified				.30*	.11	2.59	.30**	.11	2.63
Intrinsic				.24**	.09	2.78	.21*	.08	2.57
R^2		-.01			.13			.13	
ΔR^2					.14			.00	

Note. Step 1 included control variables only (age and career salience). Step 2 added the forms of regulation as predictors. Unstandardized coefficients are reported. *SE* = standard error

*$p < .05$

**$p < .01$

Table 12.

Rated Performance using the C-RAI

Regulation	% Predicted Variance	Sign of Beta
Intrinsic	44.18*[a]	+
Identified	47.96*[a]	+
Positive Introjected	6.5[b]	-
Negative Introjected	.88[b]	+
External	.46[b]	-

Note. Superscript letters refers to variables that are not significantly different from one another. For example, a variable with an a is not significantly different from other variables with a superscript of a.

*Confidence intervals do not cross 0

CHAPTER 4

DISCUSSION

The goal of this investigation was to gain a better understanding of the ways in which people's perceptions of their coworker's motivation relates to the ways in which they view their performance and raise recommendations. Though some studies from organizational sciences (e.g., Halbesleben et al., 2010) have investigated similar topics in the realm of organizational citizenship behaviors (OCBs), this study contributes further knowledge by describing others' motivation using the forms of regulation described by self-determination theory (Deci & Ryan, 1985).

The results of this study largely followed expected patterns. The results support the notion that perceived intrinsic and identified regulations are stronger positive predictors of raise recommendations compared to perceived extrinsic regulation. Additionally, results suggest that, as hypothesized, perceived intrinsic regulation is also a stronger predictor of perceived performance than external regulation. These results support the idea that individuals are more likely to reward others if they are perceived to be motivated by intrinsic and identified regulations, and less likely to reward others if they are perceived to be motivated by extrinsic reasons.

One surprising finding was that introjected regulation did not emerge as a significant predictor for raise recommendations as hypothesized. One possible explanation for this could be that the effects are obscured by the items describing approach motivation and those describing

avoidance motivation, which have been described as two components of introjected regulation (Assor et al., 2009). Prior work has found support for the notion that positive introjection falls further on the autonomous end of the relative autonomy continuum (Ryan & Connell, 1989) compared to negative introjection (Assor et al., 2009; Sheldon et al., 2017). Indeed, examination of the pattern of results from the C-RAI, which separates the positive and negative subscales, seems to suggest the positive and negative subscales exhibit different relationships with raise recommendation. Specifically, the results suggest the positive subscale of introjected regulation explains a relatively large amount of predicted variance, but it was a negative predictor of raise recommendations. Additionally, the negative subscale was a positive predictor of raise recommendations. This is particularly noteworthy because it works in the opposite direction than would be theorized if positive introjection is considered more autonomous than negative introjection. An additional explanation of these findings could be in the way people perceive others' actions as being motivated by approach or avoidance motivations—motivation to achieve one outcome (approach) versus motivation to evade another outcome (avoidance; Carver & Scheier, 1999; Carver, 2006). Miller and Nelson (2002) found that people generally attribute other people's choices as being motivated by liking a particular option, even when faced with the same options, their own choices were guided by disliking the alternative. Given that, using the C-RAI, positive introjection made a significant contribution to predicted variance in raise recommendations, but negative introjection did not, this seems likely to be at least one contributing factor. It is important to note, however, that despite these significant results, the bivariate correlation of both forms of regulation with both outcomes of performance and raise recommendations were not significant. Results from this singular study should not be overinterpreted, and further research is needed to examine the consistency of these findings.

In additional research questions, I also addressed whether results could capture an equivalent amount of information using a composite relative autonomy index. Results for both raise recommendations and performance ratings indicated significantly more variance was captured by examining dimensions separately. The results from these supplemental research questions supports the value of individual examination of each form of regulation described in SDT.

Contributions

This study makes several contributions to the literature. First, it reflects the full spectrum of autonomy as outlined by self-determination theory. Most other studies using SDT to examine the perceptions of others' motivations have combined forms of regulation or simply investigated the difference between perceived intrinsic and extrinsic motivation (e.g., Weinstein et al., 2010). When specifically interested in differences between the forms of regulation, scholars encourage investigation of the full spectrum of motivation because SDT as a theory proposes each form is qualitatively distinct (Deci & Ryan, 2000; Howard, 2023; Howard et al., 2020) Additionally, past research investigating relationships has tended to combine introjected and external regulations into a single "controlled" dimension, which has been critiqued as "arbitrary" (Trepanier et al., 2023, p. 159) because identified regulation is empirically equidistant between identified and extrinsic regulations (Howard et al., 2017). Investigating the full spectrum of regulation is better aligned with the theory of SDT, which reflects forms of regulation that fall along a continuum, but are nevertheless qualitatively distinct (Deci & Ryan, 2000; Howard, 2023).

Secondly, this study makes several contributions to the growing body of literature on the way people perceive others' motivation and respond to those perceptions (Jachimowicz & Weisman, 2022; Miller & Nelson, 2002; Yan et al., 2024). These results reflect similar findings

of effects in which extrinsic motivation is stigmatized (e.g. Derfler-Rozin & Pitesa, 2020) while intrinsic and identified regulations are rewarded (Kwon, 2022; Kwon et al., 2023; Jachimowicz & Weisman, 2022). This study contributed to the body of literature by the addition of the outcomes of raise recommendations and rated performance. Future investigations should consider additional outcomes, such perceived worthiness of a promotion, that may be related to perceptions of others' motivations.

Perhaps the most interesting result from this study was the finding that forms of introjected regulation were differently related with the outcomes. It has been suggested that those who are able to discipline themselves to conform to what they socially "should" do are viewed positively, even when these actions do not help or harm others and are not personally appealing (Moijmen et al., 2020). Findings from this study indicate a more nuanced view about people's reactions to introjected regulation. These results support the idea the dimensions of introjected regulation are important to consider when the investigation involves the perception of others and that, when considering the forms of autonomy, patterns of reward and stigma may not fall along the relative autonomy continuum in a uniform fashion.

Through the supplemental analyses, these findings contribute to the scholarly conversation around measurement of individual forms of regulation compared to a composite autonomous measure. Over the last ten years, this has been a contentious topic of scholarly debate (Chemolli & Gagné, 2014; Sheldon et al., 2017; Howard et al., 2020; Howard, 2023). Importantly, utilization of individual forms of regulation was found explain more variance compared to a composite measure of relative autonomy. Results suggest that form of introjected regulation is important for both rated performance and raise recommendations. This was true both in the comparison of the MWMS to the composite measure of the C-RAI, as well as a

comparison of the individual forms described by the C-RAI with the composite form. Additionally, had individual forms of regulation not been investigated it is unlikely that it would have been discovered the forms of introjected regulation act in ways that seem to be counter to what SDT would predict. Future investigations should consider conditions under which these patterns continue with regards to other-perceived motivation.

Limitations and Future Directions

There are several limitations to note in this study. First, several items and one subscale (amotivation) were not included in analyses due to the context the current investigation of perceptions from others about those who work excessively without it being necessary or expected. Several items, such as those about possible job loss if they did not work long hours, were not applicable in the current circumstance, but nonetheless represent the full domain of external regulation as described by the MWMS. Those interested in perceptions of others' motivation generally should investigate amotivation and include items related to job security and not feeling as though there is another option in order to more fully capture the spectrum captured by SDT.

Another possible limitation is the high degree of range restriction in the outcome variables. Both variables, particularly rated performance, were positively skewed, with few participants responding that their described worker had performance below average. This is not surprising, as it is unlikely that there are many employees who work excessively who are also seen as having below average performance. Future investigations should prioritize investigating perceptions of employees across the motivational spectrum.

One further limitation pertains to the recent psychometric concerns related to problematic items of the MWMS. Trepanier et al. (2023) recently revisited the MWMS and concluded

intrinsic and identified regulations could be combined into a single dimension and positive introjection items and one identified item displayed inconsistent factor loadings and should therefore be dropped. These recommendations were specific to the MWMS and not necessarily reflective of general recommendations in the measurement of the forms of regulation detailed in SDT. Because relative weights analysis already addressed many of the multicollinearity issues posed by this investigation, these changes were not reflected in the present study. Additionally, the general findings seemed to replicate across different measures of these regulations, as may be seen in the supplemental analyses. Analyses (such as exploratory structural equation modeling and confirmatory factory analysis with relative weights analysis) to examine whether these recommendations should be applied based upon respondent were beyond the scope of the current investigation, but are nonetheless a topic worthy or future consideration. Particularly, it should be considered whether or not positive introjection follows similar problematic factor loadings given people's tendency to overestimate approach motivation and underestimate avoidance motivation in others (Miller & Nelson, 2002)

Beyond addressing limitations of the current project, this project prompts several more future directions. For example, additional research is needed to understand why positive and negative introjection work in the opposite direction than theorized (e.g., Sheldon, 2018). For instance, one possibility is that, when an individual is considering others, pity may work as a mediating mechanism that connects perceived negative introjected regulation and raise recommendations. Said differently, as an individual witnesses coworkers putting themselves under large amounts of pressure on themselves, they feel sorry for them, and thus think the coworker deserves a raise because they feel pity for that coworker. Another future area would be considering individual characteristics of the individual that might strengthen or weaken these

associations. For instance, Kwon and colleagues (2023) found that intrinsic motivation of an individual can act as a moderator between the relationship between perceived intrinsic motivation of a team member and willingness to help the team member. Another possibility would be to use a person-centered approach to consider whether matching motivation profiles influences relationships between perceived regulation of others and outcomes such as rated performance and reward recommendations.

Conclusion

The present investigation considered the way that the forms of motivation described by self-determination theory are perceived by coworkers as they related to raise recommendations and rated performance. This research indicates that intrinsic and identified motivations are viewed more favorably than external motivation. This research adds to the growing body of literature of the ways in which, even when actions are the same, perceived motivation can play a role in favorability of reactions in the workplace.

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