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The effect of intrinsic and extrinsic goals on work performance

Effect of
intrinsic and
extrinsic goals

Prospective and empirical studies on goal content theory

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Abstract

Purpose – Based on the goal content theory (GCT), the purpose of this paper is to focus on the essence of goals and examine the associations between different work goal contents (intrinsic and extrinsic goals) and work performance.

Design/methodology/approach – The data were collected from 279 employees and their immediate supervisors, and the theoretical hypotheses were tested by correlation and hierarchical regression analyses.

Findings – The results of the analyses showed that intrinsic goal content positively predicted task performance, dedicative performance, interpersonal performance, and adaptive performance and that extrinsic goal content positively predicted the task performance and adaptive performance; intrinsic goals were also found to enhance the relationship between extrinsic goals and task performance.

Originality/value – The contribution of the current study is that it explores whether both extrinsic goals and intrinsic goals can contribute to predicting work performance. Moreover, different from previous studies that focus on discussing the separate effects of intrinsic and extrinsic goals on outcomes, the authors aim to study the interaction effect between these goals, which enriches GCT.

Keywords Quantitative, Work performance, Interaction effect, Extrinsic goals, Goal content theory, Intrinsic goals

Paper type Research paper

Introduction

Individuals' goals represent different life aspirations and vary in importance, which may serve as a guiding principle in their lives (Vansteenkiste, Soenens and Duriez, 2008; Vansteenkiste, Timmermans, Lens, Soenens and Van den Broeck, 2008; Sheldon and Krieger, 2014). Exploring the goals' effect of employees can help us understand why employees perform well in their jobs, which is an important and recurring question in organizational science (Kasser, 2016). Various researchers have developed multidimensional models and theories to study this issue. Specifically, the goal setting theory (Locke and Latham, 1990), which focuses on exploring the relationship between goal representation and task performance, suggested that clear, challenging goal rather than simple and vague goals may facilitate improvements in task performance. Achievement goal theory suggests that employees' job performance depends on their goal orientations (Yperen and Janssen, 2002), suggesting that a mastery orientation rather than a performance orientation can positively predict job performance (Janssen and Van Yperen, 2004; Van Yperen *et al.*, 2015). However, these theories and studies have been unable to explain why different goal content can lead to different behavioral outcomes (Sheldon *et al.*, 2004). For example, some employees view

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their jobs as opportunities to develop their competences and make meaningful contributions to society, which is associated with greater well-being, whereas others primarily focus on obtaining contingent approval or external signs of worth and occupying a prestigious position at work; the latter are less likely to experience a strong sense of well-being and may even feel diminished well-being (Unanue *et al.*, 2017). Intrinsic and extrinsic goals are more encompassing and clear, and they cannot be simply be classified as mastery or performance goals. Thus, we aim to address this issue by considering goal content effects.

Kasser and Ryan (1993, 1996) introduced a new theory, goal content theory (GCT), which distinguished between intrinsic goals (e.g. personal growth and community contribution) and extrinsic goals (e.g. money and fame) and argued that intrinsic goal-oriented individuals move toward self-actualization, whereas the pursuit of extrinsic goals may focus on garnering self-worth through external validation (Akhtar, 2000; Malka and Chatman, 2003; Schwartz, 1999). According to GCT, a high valuation of intrinsic goals can predict many positive outcomes, such as learning performance and physical self-worth, while pursuing extrinsic goals were associated with negative outcomes, such as exercise anxiety, poorer performance and less persistence in physical exercising and academic area (Vansteenkiste *et al.*, 2004; Sebire *et al.*, 2009). Researchers also focused on examining the relationship between employee work goals and turnover intentions, job satisfaction, well-being and job flexibility (Vansteenkiste *et al.*, 2007; Van den Broeck *et al.*, 2010; Unanue *et al.*, 2017). However, to the best of our knowledge, relatively little research has examined the relationship between extrinsic or intrinsic goal orientations and work performance, which has been the core focus of industrial and organizational psychology for many years (Wen *et al.*, 2011).

Although extrinsic goals were not associated with well-being (Rijavec *et al.*, 2011), they are more likely to be a common goal orientation among employees, which is different from other fields because the basic purpose of work for most employees is to make a living and acquire fair and sufficient pay, which means that the workplace maybe more closely related to money than other spheres of life (Cerasoli *et al.*, 2014). Additionally, managers consider extrinsic rewards to be a core factor in promoting employees' performance because intrinsic goals are more difficult to intervene (Zhang *et al.*, 2016). Thus, extrinsic goals may weigh more in predicting work performance in the workplace. In fact, goals are also a part of motivation, and there are disagreements about the relationship between extrinsic motivation and work performance (Gerhart and Fang, 2015). Zhang *et al.* (2016) suggested that this disagreement can be resolved by distinguishing between different types of work performance. Thus, we use a four-dimensional performance rating scale to explore the relationships among goals and work performance.

Therefore, the purpose of this paper is to profile the detailed relationships between goal orientations (intrinsic vs extrinsic) and performance and to explore the interaction effect between intrinsic and extrinsic goals on performance in the workplace based on GCT. Our first contribution of the present study is to explore whether extrinsic goals can also contribute to predicting work performance. And we attempt to address the conflict between managers' common knowledge (i.e. extrinsic goals are able to predict performance) and the GCT view (i.e. extrinsic goals are more related to some negative work outcomes, such as higher emotional exhaustion and turnover intention). Moreover, different from previous studies that focus on discussing the separate effects of intrinsic and extrinsic goals on outcomes, we also contribute to explore the interaction effect between these two kinds of goals, which enriches GCT.

Theory and hypotheses

Intrinsic and extrinsic goal orientation

GCT is the fifth mini-theory of self-determination theory (SDT) which is a macro-theory of human motivation, emotion, and personality in social contexts that follows the seminal work of Edward Deci and Richard Ryan (Deci and Ryan, 2000; Vansteenkiste *et al.*, 2010).

GCT distinguished individual's goals between intrinsic (such as community contribution, health, personal growth, and affiliation) and extrinsic (such as fame, financial success, and physical appearance; Kasser and Ryan, 1993, 1996). Specifically, the objectives of intrinsic goals reflect individuals' natural growth tendencies and are characterized by an inwardly oriented focus. In contrast, extrinsic goals have an "outward" orientation (Williams *et al.*, 2000) – that is, they focus on obtaining contingent approval or the external manifestations of worth rather than the satisfaction of basic psychological needs. According to GCT, an intrinsic goal orientation reflects individuals' natural desire to develop and grow and is associated with greater well-being because these objectives facilitate the satisfaction of basic psychological needs for autonomy, competence, and relatedness (Niemic *et al.*, 2009). Although the pursuit of extrinsic goals is likely to thwart basic needs and cause individuals to develop need substitutes such as wealth (Unanue *et al.*, 2017), a visible indicator of "worth," the attainment of extrinsic goals may in turn promote feelings of hedonism. However, this feeling is temporary, and the individual's feelings quickly return to the frustration of needs. Thus, the pursuit of external goals creates a sort of hedonic treadmill (Diener *et al.*, 2006), meaning that the happiness that is experienced when achieving extrinsic goals quickly disappears and that the individual will experience the ill-fated consequence of continuing to interfere with the fulfillment of his or her true needs (Deci and Ryan, 2000).

The overview of work performance

Individual work performance has been a critical issue in the field of organizational management, and numerous researchers have focused on this topic. However, despite its importance, there is no comprehensive definition or conceptual framework of individual work performance (Koopmans, 2014). A widely endorsed definition of work performance is that of Campbell: "behaviors or actions that are relevant to the goals of the organization" (Campbell, 1990). With regard to the work performance structure, Wen (2005) constructed a performance rating scale, examined the dimensions of work performance, and concluded that there are four dimensions of work performance in the Chinese context: task performance, dedicative performance, interpersonal performance, and adaptive performance. The term "task performance" refers to the behavior that traditional personnel selection focuses on that contributes to the organization's technical core, which includes job knowledge, work quality and work skills (Dalal, 2005). Interpersonal performance and dedicative performance have been confirmed as independent components of work performance (Hesketh and Allworth, 1997). This result is in contrast to that of the research of Borman and Motowidlo (1993), who argued that interpersonal performance and dedicative performance both belong to contextual performance. The term "interpersonal performance" includes interpersonal facilitation and interpersonal collaboration, and "dedicative performance" includes work commitment and difficulty management. Wen (2005) concluded that these two independent components are clearer and more certain than contextual performance and, as criteria, are easy to operationalize and can explain the research results. The last term, "adaptive performance," includes, for example, innovation, autonomous learning, and work adjustment (Allworth and Hesketh, 1999). Thus, compared with the alternative performance structure, Wen's four dimensions of work performance are a positive rupture and an extension (Wen *et al.*, 2011); they provide richer and more detailed dimensions of work performance.

Intrinsic vs extrinsic goals and work performance

Most studies on intrinsic and extrinsic goals are focused on the areas of academics and sport. The results of these studies suggested that intrinsic goal orientation is positively related to well-being and adjustment (Rijavec *et al.*, 2011). According to the GCT, having a

strong focus on intrinsic goals reflects employees' inward orientation toward work and can satisfy their basic psychological needs; thus, intrinsic goals are associated with positive work outcomes, including work performance (Van den Broeck *et al.*, 2010).

The pursuit of intrinsic goals is considered a manifestation of a natural growth orientation, and these goals are considered intrinsic because they are satisfying in their own right and directly satisfy basic psychological needs (Deci and Ryan, 2000; Vansteenkiste *et al.*, 2006). Employees who have intrinsic goal orientations consider their growth and development as the most valuable aspects of work (Unanue *et al.*, 2017), and they tend to be more responsible for their jobs and strive to improve the quality and quantity of tasks which are important indicators of task performance, thus intrinsic goal orientation could be more likely positively related to task performance. Additionally, intrinsically oriented employees are typically concerned with developing their talent and potential (Vansteenkiste *et al.*, 2007) and are motivated by their intrinsic interest in the work; thus, they tend to use their best effort to perform well, thus facilitating dedicative performance. Third, intrinsic goal orientations are believed to reflect employees' intrinsic need to build meaningful and satisfying relationships with their colleagues (i.e. affiliation) and to help people in need (i.e. community contribution); thus, they are helpful in promoting interpersonal performance (Vansteenkiste *et al.*, 2007). Finally, intrinsically oriented employees tend to seek challenging tasks that allow them to develop new skills (Amabile *et al.*, 1994) and test new methods of solving problems (Vansteenkiste *et al.*, 2007), thereby improving their adaptive performance. Thus, the following is hypothesized:

H1a. The pursuit of intrinsic goals is positively related to task performance, dedicative performance, interpersonal performance, and adaptive performance.

Researchers suggest that extrinsic goals are associated with more negative outcomes (higher emotional exhaustion levels, more short-lived satisfaction) (Sebire *et al.*, 2009). However, in the workplace, pursuing extrinsic goals (money and fame) is somewhat ubiquitous among employees (Zhang *et al.*, 2016). Extrinsic goals promote an "outward" orientation, in which people are momentarily able to achieve their extrinsic ambitions, but the benefits associated with extrinsic goals appear to be relatively short-lived (Vansteenkiste *et al.*, 2007). As a result, new extrinsic goals are likely to be set quickly, leading extrinsic goal-oriented people to become trapped in a "hedonic treadmill" (Vansteenkiste, Soenens and Duriez, 2008; Vansteenkiste, Timmermans, Lens, Soenens and Van den Broeck, 2008). In the workplace, work performance is an important factor in determining employees' pay, and thus, the treadmill continuously encourages individuals to increase their work performance to obtain more pay (extrinsic goals).

However, we hypothesize that extrinsic goal orientations are only positively related to task performance. Vansteenkiste *et al.* (2006) showed that extrinsic goals can result in better rote learning because this type of learning activity embodies a more rigid and narrow-minded type of functioning. In the workplace, task performance has a closer relationship to payment because both the quality and quantity of tasks are linked to individuals' salaries (Zhang *et al.*, 2015). Thus, extrinsically oriented employees tend to strive to improve their task performance to obtain more money. Thus, we hypothesize the following:

H1b. The pursuit of extrinsic goals is positively related to task performance.

Zhang *et al.* (2016) show that the internalization of extrinsic motivations can have a positive effect on work performance, which suggests that job performance is more closely related to extrinsic motivation than to intrinsic motivation in workplace. Thus, we believe that extrinsic goals may also have some different effects in the workplace. Current research suggested that regardless of employees' level of income, extrinsic goals are negatively related to job satisfaction and well-being and are positively related to emotional exhaustion,

work-family conflicts, and turnover intentions (Vansteenkiste *et al.*, 2007). However, as we know, people do work not only to pursue one goal, and they may have both intrinsic and extrinsic goals simultaneously or alternate between these two goal states. Thus, we hypothesize that the relationship between extrinsic goals and work performance is strengthened by strong intrinsic goal orientations because a strong intrinsic goal orientation shifts employees focus on both external job aspects (e.g. money and fame) and their involvement or interest in work, which moderates the positive consequences of an extrinsic goal orientation. Thus, we derive the following hypothesis:

- H2.* Intrinsic goal orientation will strengthen the positive relationship between extrinsic goal orientation and work performance such that the relationship will be more positive for individuals with high intrinsic goal orientations.

Method

Participants and procedure

The participants for this study were 319 employees and their managers from several different types of companies in China. The employees completed the questionnaires to obtain their demographic information and work goal content. The corresponding managers completed the questionnaires to assess their subordinates' work performance. There were 279 effective matching responses, and the response rate was 87.4 percent. The participant group was 56.0 percent male and 43.0 percent female; 67.0 percent were less than 30 years old, 28.7 percent were between 30 and 40 years old, and 4.3 percent were more than 40 years old.

Measures

Work goal content. This is based on the Aspiration Index of Kasser and Ryan (1996) and aligned with the goal content (or the goals to which individuals are oriented) facet of SDT (Deci and Ryan, 2000). The Aspiration Index is a 35-item measure that assesses the importance that people place on four intrinsic and three extrinsic life goals, each of which is indexed by five items. In this study, we used the work context to replace the previous life situation in the Aspiration Index. We also cut out the "appealing appearance" item because the description of this item is "look attractive in terms of body, clothing and fashion" which is not easily related to in the work context. There are six dimensions of the scale: 20 items assess employees' four intrinsic goals (health, self-acceptance, affiliation and community feelings), and ten items assess two extrinsic goals (financial success and social recognition). A sample item for extrinsic goal includes "I will have many expensive possessions (financial success)" and a sample item for intrinsic goal includes "Helping colleagues in need (community feelings)." The responses were based on a seven-point scale ranging from 1 (completely disagree) to 7 (completely agree). The Cronbach's α for the present study was 0.898.

Work performance. A 29-item work performance questionnaire, developed by Wen (2005), assessed the employees' work performance according to their managers. The scale, consisting of four subscales, concerns the degree of employees' work performance in each dimension: task performance (seven items), dedicative performance (six items), interpersonal performance (six items), and adaptive performance (ten items). The managers assessed the performance of their subordinates on five-point Likert-type scales ranging from 1 (completely disagree) to 5 (completely agree). Because dedicative performance and interpersonal performance are somewhat different constructs, we list all the items of these two scales and just provide sample items of the other two scales. A sample item for task performance includes "This worker always completes the duties specified in his/her job description on time." A sample item for adaptive performance includes "This worker could

learn and master new skills and knowledge easily and quickly.” The items for dedicative performance scale include “the employee ‘could take on extra responsibilities and extra work,’ ‘was able to follow work regulations and the job design,’ ‘took on protecting the interest and image of my organization,’ ‘had a strong sense of pride in his work and his organization,’ ‘kept doing his work when facing some setbacks,’ and ‘kept following work regulations and the job design when facing some setbacks.’” The items for interpersonal performance scale include “the employee ‘could be friendly in providing customers/clients/patients with good services,’ ‘maintained good relationships with colleagues,’ ‘maintained good relationships with colleagues from other departments,’ ‘collaborated with others well,’ ‘provided extra help to colleagues,’ and ‘actively participated in work activities.’” The Cronbach’s α for the total scale was 0.911. For the task performance, dedicative performance, interpersonal performance, and adaptive performance subscales, the α ’s were 0.799, 0.875, 0.889, and 0.852, respectively.

Control variables. To reduce the likelihood that other variables that may influence work performance would confound the relationship examined in this research, we followed other researchers (Jian *et al.*, 2012; Griffin *et al.*, 2007) and controlled for several variables, including age, gender, education, and position level.

Result

We first calculated correlations among all of the variables in Table I. As predicted, when the four types of work performance are considered separately, results show that intrinsic goal orientation was significantly correlated with task performance ($\beta = 0.296$, $p < 0.01$), interpersonal performance ($\beta = 0.321$, $p < 0.01$), dedicative performance ($\beta = 0.404$, $p < 0.01$), and adaptive performance ($\beta = 0.251$, $p < 0.01$) and that extrinsic goal orientation was significantly correlated with task performance ($\beta = 0.285$, $p < 0.01$), interpersonal performance ($\beta = 0.149$, $p < 0.05$), dedicative performance ($\beta = 0.250$, $p < 0.05$), and adaptive performance ($\beta = 0.224$, $p < 0.01$).

We conducted a hierarchical multiple regression analysis in which we sought to clarify which regulation types weighted more in terms of the effect on performance types. In the first step of the regression, we entered gender and age as control variables. In Step 2, we entered both extrinsic and intrinsic goals as independent variables and the four performance types as dependent variables. As Table II shows, when the two goal orientations were all entered into the regression equation, the intrinsic goal content significantly predicted task performance ($\beta = 0.098$, $p < 0.05$), interpersonal performance ($\beta = 0.217$, $p < 0.01$), dedicative performance ($\beta = 0.264$, $p < 0.01$), and adaptive performance ($\beta = 0.127$, $p < 0.05$). The extrinsic goal content scores significantly predicted task performance ($\beta = 0.152$, $p < 0.01$) and adaptive performance ($\beta = 0.124$, $p < 0.05$). Thus, *H1a* and *H1b* are supported.

The modest correlation between intrinsic and extrinsic goal orientations ($\beta = 0.461$, $p < 0.01$) indicates that intrinsic goals are not necessarily inconsistent with striving to

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Extrinsic goal	4.442	0.864	(0.735)					
2. Intrinsic goal	5.120	0.815	0.461**	(0.899)				
3. Task performance	3.561	0.612	0.285*	0.296**	(0.799)			
4. Interpersonal performance	3.724	0.706	0.149*	0.321**	0.756**	(0.875)		
5. Dedicative performance	3.623	0.692	0.250*	0.404**	0.733**	0.755**	(0.889)	
6. Adaptive performance	3.399	0.671	0.224*	0.251**	0.652**	0.668**	0.749**	(0.852)

Notes: $n = 279$. * $p < 0.05$; ** $p < 0.01$

Table I.
Correlations among the motivational and work performance types

Effect of
intrinsic and
extrinsic goals

	Task performance		Interpersonal performance		Dedicative performance		Adaptive performance	
	β	p	β	p	β	p	β	p
<i>Control variables</i>								
Gender	0.168*	0.018	0.071	0.369	0.040	0.597	-0.014	0.863
Age	0.001	0.996	-0.019*	0.014	-0.021*	0.004	-0.005	0.541
Education	0.237**	0.000	0.188*	0.022	0.136*	0.016	0.042	0.476
Position level	-0.156	0.082	-0.186*	0.043	-0.171*	0.050	-0.178	0.053
<i>Independent variables</i>								
Extrinsic	0.152**	0.001	0.031	0.553	0.094	0.055	0.124*	0.016
Intrinsic	0.098*	0.037	0.217**	0.000	0.264**	0.000	0.127*	0.021
F	10.358		9.917		7.398		4.644	
Sig.	0.000		0.000		0.000		0.000	
Adjusted R^2	0.169		0.162		0.217		0.073	

Notes: $n = 279$. * $p < 0.05$; ** $p < 0.01$

Table II.
Regression of the
motivational
types and work
performance types

outperform others. By implication, an intrinsic and an extrinsic goal orientation may interact in their effects. Therefore, we conducted additional hierarchical regression analyses to detect possible interactions.

Table III summarizes the results of the regression analysis to test $H2$ (extrinsic goal orientation negatively moderates the relationship between intrinsic goal orientation and task performance). We entered the control variables (gender, age) in Step 1, the extrinsic goal content in Step 2, and the interaction term between the intrinsic and extrinsic goal orientation in Step 3 in the regression equation, with task performance as the dependent variable. Model 1 in Table III indicates that extrinsic goal orientation positively predicted task performance ($\beta = 0.165$, $p < 0.01$). In Model 2, we entered intrinsic goal orientation, and the result showed that the predictive power of intrinsic goal orientation in regard to task performance was still significant ($\beta = 0.079$, $p < 0.05$). Model 3 in Table III indicates that the R^2 strength is lower than 0.5, but the R^2 change associated with the addition of the interaction term was significant ($\beta = 0.063$, $p < 0.05$), showing support for $H2$, which states that intrinsic goal orientation moderates the relationship between extrinsic goal orientation and task performance. (In addition, because intrinsic goal orientation and extrinsic goal orientation both have significant effects on adaptive performance, we entered adaptive performance as a dependent variable, but the interaction term was not significant; thus, we do not report it here).

	Model 1		Model 2		Model 3	
	β	p	β	p	β	p
Gender	0.181**	0.008	0.171	0.012	0.182**	0.008
Age	-0.005	0.430	-0.006	0.393	-0.004	0.107
Education	0.198**	0.000	0.179	0.000	0.201**	0.000
Position level	-0.161	0.078	-0.139	0.077	-0.145	0.065
Extrinsic goal	0.165**	0.000	0.130**	0.001	0.109**	0.005
Intrinsic goal			0.079*	0.037	0.088*	0.020
Intrinsic \times Extrinsic					0.063*	0.029
R^2	0.174		0.187		0.201	
ΔR^2			0.013		0.014*	

Notes: $n = 279$. * $p < 0.05$; ** $p < 0.01$

Table III.
Regression of the
interaction effect on
task performance

Figure 1 illustrates that the pattern of the two-way interaction was consistent with *H2* – that is, the relationship between extrinsic goal orientation and task performance was stronger when intrinsic goals were high as opposed to low.

Discussion

This study examines the role that intrinsic and extrinsic goals may play in predicting work performance types. We find that intrinsic goals can positively predict task performance, dedicative performance, interpersonal performance, and adaptive performance. The extrinsic goal orientations significantly predicted task performance and adaptive performance. Specifically, the relationship between extrinsic goals and work performance is greater among employees with high rather than low intrinsic goal orientation levels.

The links between goal orientations and work performance types

The primary contribution of this research is that it extends the current research on GCT to the workplace and uncovers an important contingency for the work performance effect of employees' different goal orientations, thereby empirically supporting and advancing GCT. According to GCT (Kasser and Ryan, 1993, 1996), an intrinsic goal orientation is congruent with the desire for self-development at the workplace, such as focusing on health, career planning, and community contribution; an extrinsic goal orientation reflects a tendency to focus on external material indicators, such as aspiring toward financial success or obtaining social recognition from others at work (Vansteenkiste *et al.*, 2007). Thus, an intrinsic goal-oriented employee is likely to satisfy intrinsic basic needs and thus improve his or her work outcomes (Kasser and Ryan, 1996); additionally, an extrinsic goal-oriented employee is motivated by wealth and possessions, which may also improve some specific work outcomes. The results in the present research, in line with previous studies in work and organizational psychology (Van den Broeck *et al.*, 2010; Vansteenkiste *et al.*, 2007; Unanue *et al.*, 2017), demonstrate that intrinsic goal orientation is positively associated with different work performance types. Although theory and research (Sheldon

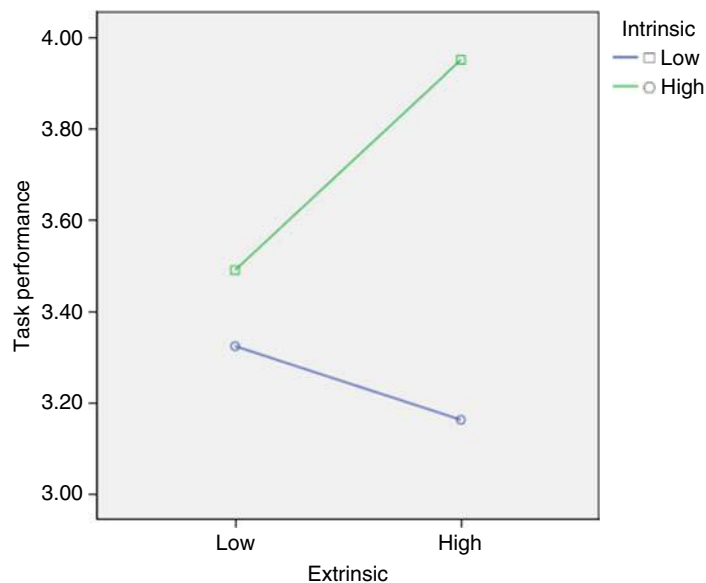


Figure 1.
The moderating effect of intrinsic goal orientation on the extrinsic goal orientation-task performance relationship

and Krieger, 2014; Kasser, 2016; Vansteenkiste *et al.*, 2007) have suggested that extrinsic goals are related to a number of negative outcomes (e.g. short-lived satisfaction, work-family conflict, emotional exhaustion), their effect on task performance varies and adaptive performance are positive.

More specifically, intrinsic goal orientation can positively predict task performance, dedicative performance, interpersonal performance, and adaptive performance. When employees work hard to achieve their intrinsic goals (health, career planning and community contributions), they are likely to work in a healthier and more positive manner to increase their task quality and quantity, thus improving task performance. Intrinsically oriented employees tend to help their colleagues and may therefore relate authentically to other people, which is thus positively associated with interpersonal performance. They also tend to increase their engagement, take the initiative, and acquire knowledge, which is helpful for improving their dedicative and adaptive performance. Thus, intrinsically oriented employees may satisfy their basic needs (Deci and Ryan, 2000; Vansteenkiste *et al.*, 2006), which in turn is related to an increase in work performance (Jian *et al.*, 2012).

A second interpretation suggests that adopting an extrinsic mindset may promote task performance, which is consistent with management practice. Some researchers suggested that rewards for good performance were a key factor in employees' behavior (Winston and Baker, 1985), and increased pay for performance is widespread among Chinese firms (Terry, 2005). Thus, extrinsic goal can possibly have a positive effect on task quality and quantity, which are the components of task performance. Our results suggest that, if considering the various types of performance, extrinsic goal orientation can increase rather than undermine Chinese employees' performance. Researchers suggested that extrinsically oriented employees experience more emotional exhaustion and work-family conflicts (Vansteenkiste *et al.*, 2007; Unanue *et al.*, 2017) because they always felt more exhausted and drained. This phenomenon appears to be an intriguing contradiction: although employees' task performance is likely to be improved when they can obtain more money, their well-being and mental health are simultaneously undermined. Thus, future research should focus more on exploring the effect of extrinsic goals on the balance of work performance and well-being. We also find that extrinsic goals can positively predict adaptive performance, which is labeled autonomous study and creativity. Additionally, some researchers explicitly recognize that extrinsic rewards can have positive consequences for creativity (Zhou and Hoever, 2014). Thus, our study also provides support for the positive relationship between external material and creativity.

The interaction effect of extrinsic and intrinsic goal orientations

A supplementary analysis of our study shows that when individuals have intrinsic and extrinsic goals in mind simultaneously, some interaction effects are observed. First, the results of the regressions show that extrinsic goal orientation can positively predict task performance and adaptive performance, whereas intrinsic goal orientation can positively predict all performance types. This finding means that intrinsic goal orientation plays a primary role in predicting employees' work performance. This is because intrinsically oriented employees devote more energy to their work (Deci and Ryan, 2000; Vansteenkiste *et al.*, 2006).

Second, the positive relationship between extrinsic goals and task performance is strengthened by a strong intrinsic goal orientation. As shown in Figure 1, the level of task performance is high among employees with high ratings for extrinsic goal orientation only when they have high ratings on the intrinsic goal orientation scale as well, which means that extrinsic goal orientation can predict the increase in task performance. However, when employees are weakly oriented toward intrinsic goals, the increase in extrinsic goals does not have a more dominant effect on the increase in task performance. This finding means that intrinsic goals can strengthen the relationship between extrinsic goals and task

performance. That is, employees' initial goal is to obtain more money, and they also consider the job as reflecting their natural growth tendencies; thus, strong extrinsic orientation can significantly predict the increase in task performance. However, if the main work goal of employees is only to acquire more money and fame, then the pursuit of extrinsic goals may have a negative effect on their performance. Thus, the predictive power of extrinsic goal orientations concerning work performance becomes more positive among people who simultaneously pursue intrinsic goals.

Limitations

Some researchers (Nickerson *et al.*, 2003) have suggested that extrinsic goal orientation does not have a negative effect on individuals' well-being for those with a high income because they predict that attaining materialistic aspirations may yield some satisfaction. However, Vansteenkiste *et al.* (2007) found that regardless of the employees' level of income, a stronger subjective extrinsic orientation goal, relative to intrinsically oriented goals, is associated with some negative work outcomes (e.g. lower job and life satisfaction). Thus, the first limitation of the current study is that we did not consider income levels as a moderating variable, which means that income may moderate the effect of intrinsic and extrinsic goal pursuits on work performance. Second, within SDT, the predicted relationship between goal orientation and behavior outcomes is a direct function of the degree to which goals allow the satisfaction of three basic needs (relatedness, autonomy, and competence) (Vansteenkiste *et al.*, 2010). To the best of our knowledge, previous studies have examined the three basic needs as mechanisms that underlie the relations between employees' extrinsic, relative to intrinsic, goal orientations, and job outcomes (Vansteenkiste *et al.*, 2007). In future research, we aim to examine whether having different goal orientations (intrinsic and extrinsic) is associated with positive or negative job outcomes because they thwart or facilitate the satisfaction of basic needs. Third, the current study suggests that intrinsic goals can strengthen the relationship between extrinsic goals and work performance. In this manner, we suggest that a future study can focus more on exploring whether management interventions can promote the internalization of extrinsic goals, which in turn would facilitate more positive job outcomes.

Conclusions

In summary, initial research using GCT (Kasser and Ryan, 1993) distinguishes between the pursuit of intrinsic goals and extrinsic goals, which can provide a new perspective to explore the relationships between goals and employees' behavior. Thus, there are several practical implications and suggestions for managers and organizations. First, when organizations recruit new employees, they can add the goal content orientation test to select more intrinsically oriented employees. Second, it seems likely that employees' initial goals for work can be to earn money; however, employers should realize that they can provide more appropriate guidance – for example, relevant training activities – to help employees place more importance on intrinsic goals, which would increase both their work performance and their well-being (Vansteenkiste *et al.*, 2007). Hence, to facilitate employees' work performance, managers are advised to encourage an intrinsic mindset while simultaneously de-emphasizing extrinsic work goals.

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