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Exploring the relative and combined influence of mastery-approach goals and work intrinsic motivation on employee turnover intention

Anders Dysvik and Bård Kuvaas
*Department of Leadership and Organizational Management,
Norwegian School of Management, Oslo, Norway*

Abstract

Purpose – Mastery goals and intrinsic motivation have separately been found to predict employee turnover and turnover intention, respectively. The purpose of the present study was to examine their relative and combined influence on turnover intention in terms of a direct model and a moderated model.

Design/methodology/approach – A cross-sectional survey was conducted among employees representing more than 400 organizations from a wide range of industrial sectors. The theoretical or subject scope of the paper was to integrate motivational antecedents for employee turnover.

Findings – When assessed jointly, intrinsic motivation was the strongest predictor of turnover intention. Mastery-approach goals were positively related to turnover intention, but this relationship was moderated by intrinsic motivation. The relationship between mastery-approach goals and turnover intention was only positive for employees low in intrinsic motivation.

Research limitations/implications – The two most important limitations are the cross-sectional nature of the study and the reliance on self-reported questionnaire data. Consequently, experimental and/or longitudinal studies are needed to examine causality issues.

Practical implications – The results suggest that intrinsic motivation holds a salient role for predicting turnover intention. For managers and organizations, then, emphasis should be placed on facilitating work environments supportive of intrinsic motivation in order to maintain employees' turnover intention at low levels.

Originality/value – The most interesting finding is that intrinsic motivation held a substantially stronger relationship with turnover intention than that of mastery-approach goals. In addition, support for the buffering role of intrinsic motivation was found, as mastery-approach goals were unrelated to turnover intention when intrinsic motivation was high.

Keywords Employee turnover, Employee behaviour, Motivation (psychology)

Paper type Research paper



Employee turnover has been recognized as a major managerial concern in contemporary work organizations (Pfeffer and Sutton, 2006). First, replacing employees may be costly, both in recruiting and training employees to obtain satisfactory levels of performance over time (Collins and Smith, 2006). In addition, high

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levels of employee turnover may impede the quality, consistency and stability of services that organizations provide to clients and customers (Trevor and Nyberg 2008) and in turn increased client dissatisfaction with the services provided by the organization (Lin and Chang 2005).

Given such detrimental consequences, it is hardly surprising that a great deal of research has been conducted aimed at identifying salient predictors of turnover (Holtom *et al.*, 2008). Such findings are of high value for managers and organizations, in working toward reducing voluntary turnover among their employees. Luckily, a vast number of findings from psychology, sociology and economics have provided valuable insights into antecedents for employee turnover, ranging from demographic factors (e.g. age, education level, gender, level of employment and tenure) (e.g. Griffeth *et al.*, 2000), the quality of the employee-organizational relationship (EOR) (e.g. affective commitment, perceived organizational support and justice perceptions) (e.g. Kuvaas, 2008; Meyer *et al.*, 2002; Rhoades and Eisenberger, 2002; Shore *et al.*, 2006), job satisfaction (e.g. Harrison *et al.*, 2006) and work stressors (e.g. Podsakoff *et al.*, 2007). Still, despite the vast amount of studies available, the effect sizes of most antecedents and the direction of their effects vary extensively across situations and populations (e.g. Griffeth *et al.*, 2000), reflecting the complexity of defining and measuring predictors of employee turnover. An implication of such variability implies that further research is needed to unveil additional antecedents of employee turnover.

In response, researchers have recently directed their attention towards employee work motivation as predictors for employee turnover (Richer *et al.*, 2002), as motivational sources have been found to influence employee turnover beyond job satisfaction and organizational commitment (e.g. Mitchell *et al.*, 2001). With particular interest for the present study, previous studies have found employees' goal orientation[1] and intrinsic motivation to predict employee turnover and turnover intention, respectively. With regard to goal orientation or a mental framework for how individuals interpret and respond to achievement situations (Brett and VandeWalle, 1999), Lin and Chang (2005) found, in a longitudinal study of employees in the Taiwanese financial sector, that employees who quit tended to have higher levels of mastery goals than those who remained. With regard to intrinsic motivation, or the motivation to perform an activity for itself in order to experience the pleasure and satisfaction inherent in the activity (Deci *et al.*, 1989), prior research has found a negative relationship between intrinsic motivation and turnover intention across different cultural settings (e.g. Kuvaas, 2006; Richer *et al.*, 2002; Vansteenkiste *et al.*, 2007). Taken together, these studies suggest that both mastery goals and intrinsic motivation serve as antecedents for employee turnover. Still, the relative and combined role of these motivational sources as predictors for employees' turnover intention remains to date unstudied.

Our study adds to previous research entailing mastery goals, intrinsic motivation and employee turnover in three distinct ways. First, we explore beyond a direct relationship between mastery-approach goals and turnover intention or intrinsic motivation and turnover intention separately, and investigate the relative and combined influence of these motivational sources on turnover intention. In general, a surprisingly limited number of studies have investigated effects from multiple motivational sources (Callahan *et al.*, 2003). This is an unfortunate oversight, given the likelihood that employees are subject to differing motivational responsive effects in

work settings. We therefore aim at a more elaborate and specified description of the motivational mechanisms behind employee turnover in line with calls made for such research (Maertz and Griffeth, 2004). Furthermore, as goal orientation and intrinsic motivation theories both emphasize the role of autonomy and competence (Deci and Ryan, 2000; Elliot, 2005), we need to learn more about how the unique and combined effects of these motivational sources influence employee outcomes, including turnover intention. Second, our study should add to the study of both Lin and Chang (2005) and Vansteenkiste *et al.* (2007) with respect to sample and generalizability issues. As noted by Van Yperen (2003a), studies relating motivational sources to more distal outcomes in work settings should observe caution in attempting to generalize the findings when based on a limited number of organizations, owing to alternative influences, such as a particular leadership style, promotion policy or a specific compensation system. Addressing this limitation directly, we examine a randomly selected sample drawn from 4,325 employees representing more than 400 different organizations in a different cultural setting. Finally, Lin and Chang (2005) suggested that opportunities for workplace learning and development might play an important role in determining the relationship between goal orientation and turnover, but made no empirical test of whether developmental opportunities were actually provided for the participants in their study. In contrast, the respondents in our study were employees participating in workplace training and development offered by their employer.

The intended contribution of this study is twofold. First, we seek to add additional insight into turnover research by investigating the relative influence of mastery-approach goal orientation and intrinsic motivation on employee turnover intention. Second, by empirically testing a model with intrinsic motivation as a moderator, we hope to contribute to a better understanding of how different motivational sources interact in predicting employee turnover intention.

Theory and hypotheses

A direct model of mastery-approach goals, intrinsic motivation and turnover intention

The ongoing changes in modern work organizations imply increased pressure on employees to adapt their behaviour to new organizational realities, while simultaneously maintaining high levels of performance (Kanfer and Ackerman, 2005). This raises the question of why some employees tend to strive towards goals of continuous improvement and throw themselves into challenging tasks, whereas others aim at the goal of avoiding challenging situations and fiercely resist opportunities to develop their own levels of competence (DeShon and Gillespie, 2005). According to goal orientation theory, such variations may be attributable to employees' goal orientation, as it provides a general framework for how individuals react in achievement settings (Elliot, 2005). While goal orientation has been the subject of a large number of studies in educational and experimental settings, recent theoretical and empirical reviews suggest that the goal orientation literature would benefit from studies in work settings and entailing more distal outcomes (DeShon and Gillespie, 2005; Elliot, 2005; Kanfer and Ackerman, 2005; Payne *et al.*, 2007). With regard to turnover intention in particular, the recent study by Lin and Chang (2005) is to our knowledge the only study, to date, to address the relationship between goal orientation and employee turnover issues, which warrants further research attention.

Goal orientation theory delineates between mastery and performance goals. Mastery-approach goals[2] represent a mind-set in which an employee is concerned with developing his or her competence or mastering a task (Elliot, 2005). In contrast, a performance goal represents a mind-set in which an employee is concerned with demonstrating his or her competence relative to that of others (Button *et al.*, 1996). As Lin and Chang (2005) found only mastery goals to relate significantly to employee turnover, and the performance dimension is less relevant for turnover (in being less concerned with learning and development but more on performance relative to that of others) we limit our focus in the present study to the relationship between mastery-approach goals and turnover intention. Previous research suggests that employees with high levels of mastery-approach goals in general direct individual efforts towards personal improvement and skill development with internal loci of perceived control and causality towards a range of positive outcomes (Van Yperen, 2003b). Such employees also generally regard their skills as being more liable for development, and exhibit effort not only to achieve current tasks but also the ability to master future tasks, which should facilitate consequent performance (Porath and Bateman 2006).

While these employees are valued highly among employers in terms of higher levels of both in-role performance (Payne *et al.*, 2007) and contextual performance (e.g. Chiaburu *et al.*, 2007), they may also hold higher levels of turnover intention. As these employees are more likely in general to seek out new challenges, they may also be more likely to leave their present jobs, as found in the study by Lin and Chang (2005). Such employees may be extraordinarily sensitive to work environments that fail to provide them with work assignments that allow them to continuously explore and broaden their knowledge and skills, or do not meet high standards in developmental opportunities. Accordingly, given the general and dispositional drive for continuous development among employees with high levels of mastery-approach goals, such employees may more easily perceive their work as monotonous and/or routine. In turn, these employees may be more prone to be driven towards a state of resignation and loss of enthusiasm, which, in turn, may increase their turnover intention:

H1. There is a positive relationship between mastery-approach goals and turnover intention.

The second motivational theory of interest for the present study is intrinsic motivation. Among intrinsic motivation theories, self-determination theory (SDT) (Deci and Ryan, 2000; Vallerand, 1997) is emerging as a salient framework for understanding the relationship between employees' perception of his or her work environment and consequent outcomes (Gagné and Deci, 2005). SDT delineates between autonomous and controlled motivation (Deci and Ryan, 2000). The former describes acting based on perceived volition and choice, whereas the latter describes acting based on perceived pressure and having to engage in actions. In SDT, intrinsic motivation represents autonomous motivation in its purest form (Gagné and Deci, 2005). Individuals who are intrinsically motivated work on tasks because they find them enjoyable and interesting, and find that participation is its own reward, reflecting an inherent tendency to seek out novelty and challenges, to extend and exercise one's capacities and to explore and to learn (Ryan and Deci, 2000). SDT proposes that, in order for intrinsic motivation to emerge, this requires the fulfilment of three innate,

psychological needs; the need for autonomy, competence and relatedness. These needs serve the purpose of predicting the influence of social contextual factors on individual growth-oriented processes and well being, based on the extent to which individuals perceive that they are able to satisfy their needs within social environments (Deci and Ryan, 2000). Thus, and in contrast to goal orientation theory (focusing on a more general and dispositional motivational component), SDT propose that intrinsic motivation may emerge or be sustained among all individuals, depending on perceptions of need fulfilment in a particular context.

The first of the innate psychological needs is the need for competence, or feeling effective in one's ongoing interactions with the social environment and experiencing opportunities to exercise and express one's capacities (Ryan and Deci, 2002, p. 7). The need for competence may lead individuals to seek challenges optimal for their capacities and persistently to attempt maintenance of skills. Second, the need for relatedness or feeling connected to others, for caring for and being cared for by those others and for having a sense of belongingness both with other individuals and with one's community (Ryan and Deci, 2002, p. 7) may have an important role in the internalization of work-related rules and regulations. Employees who feel part of a team and feel free to express their work-related and personal troubles seem more likely to have their need for relatedness fulfilled in terms of being connected to others and to be effective social supports, which may support their tendency to internalize values ambient in the work-related environment. Finally, the need for autonomy, or being the perceived origin or source of one's own behaviours (Ryan and Deci, 2002, p. 8) may be fulfilled when employees perceive that they have the opportunity to make personal choices, but in addition when fully endorsing an externally induced request. In sum, SDT proposes that, when these needs are being met in a specific environment, individuals will be more likely to engage in activities for reasons of personal enjoyment rather than because of feeling coerced into them (Ryan and Deci, 2006). The review by Gagné and Deci (2005) convincingly demonstrate how intrinsically motivated employees are more involved in their jobs, and demonstrate greater effort and goal attainment than those less intrinsically motivated. Within the framework of turnover research, prior studies show that intrinsic motivation and need satisfaction are strongly negatively related to turnover intention (Kuvaas, 2006; Vansteenkiste *et al.*, 2007), as employees should be less prone to leave work settings that contribute to need fulfilment. Expecting to replicate these findings, we hypothesize:

H2. There is a negative relationship between intrinsic motivation and turnover intention.

A moderated model of goal orientation, intrinsic motivation and turnover intention

Both goal orientation and intrinsic motivation proponents argue that competence and autonomy supportive environments are associated with a range of positive individual outcomes, and that strong emphasis on extrinsic rewards, social comparisons and normatively based goal standards may be detrimental to individual outcomes (Deci and Ryan, 2000; Elliot, 2005). However, despite the emphasis on autonomy and competence in both theories, they have evolved somewhat independently within the motivational literature, which is an unfortunate oversight (Elliot and Dweck, 2005). Among the studies available from educational settings (e.g. Harackiewicz *et al.*, 2002; Rawsthorne and Elliot, 1999), intrinsic motivation has been identified as a proximal

outcome of mastery-approach goals and to mediate the relationship between mastery-approach goals and individual outcomes. In this study, we address intrinsic motivation from a slightly different perspective, and argue that intrinsic motivation moderates the relationship between mastery-approach goals and turnover intention.

Findings from a number of studies in educational settings reviewed by Deci and Ryan (2000) demonstrated that intrinsically motivated students perceived learning content more constructively and were more persistent in acquiring the learning content than students with lower levels of intrinsic motivation. Intrinsically motivated employees have also been found to be more self-driven and more autonomy-oriented than those less intrinsically motivated (e.g. Ryan and Deci, 2000), which suggests that they may be more persistent in challenging situations. Although Lin and Chang (2005) found a positive relationship between mastery goals and turnover, this relationship may vary depending on the level of intrinsic motivation. Lin and Chang (2005) suggested that “employees with a learning (mastery) orientation may remain if the organization is able to continually provide them with tasks that allow them to explore new things or broaden and elevate competence” (p. 337), but did not test for potential moderating influences on the relationship between learning (mastery) goals and turnover in their study. Because high levels of intrinsic motivation indicate that the employee has satisfied his or her needs for autonomy (in being allowed to explore new things) and competence (in terms of broadened and increased competence) in a particular context, employees high in intrinsic motivation may be less prone to develop turnover intentions. Even when generally holding high levels of mastery-approach goals, when their current jobs are perceived as being interesting, challenging, and developing, such perceptions should “buffer” the influence of mastery-approach goals on turnover intention[3]. Thus, even though it may be more difficult to satisfy the need for competence among employees with high levels of mastery-approach goals as they are in special need of perceiving need satisfaction (given their trait-like drive for development and learning in work settings), they should be less prone to develop turnover intentions when being high in intrinsic motivation. In contrast, when employees with high levels of mastery-approach goals perceive lower levels of need satisfaction, they should be more prone to develop turnover intentions based on their inherent and general strive towards exploration and development. Thus, the positive relationship between mastery-approach goals and turnover intention should only be valid for employees low in intrinsic motivation:

- H3.* The relationship between mastery-approach goals and turnover intention is moderated by intrinsic motivation. The lower the intrinsic motivation, the more positive the relationship.

Methodology

Sample and procedure

The respondents were drawn from 4,320 employees participating in training activities offered by a large Norwegian training institution in 2006. These employees represent more than 400 organizations from a number of different industrial sectors. Representatives of the training institution provided the e-mail addresses for 965 randomly drawn employees. A questionnaire was distributed to these employees by use of a web-based tool (Confermit), which resulted in data from 343 employees and a response rate of approximately 36 per cent. Of the respondents, 103 were women and

234 were men (six respondents failed to report their gender). Approximately 29 per cent were baseline operators, 17 per cent performed office functions, 43 per cent held staff positions, and 10 per cent held managerial positions. With regard to education level, approximately 38 per cent had a university degree of three years of study or more. Their average age and tenure were 40 and 11 years, respectively.

Measures

Unless otherwise noted, all items were on a five-point Likert response scale ranging from one (strongly disagree) to five (strongly agree). A description of each item is presented in Table I.

Goal orientation. Goal orientation was measured by the 13-item scale, validated by VandeWalle (1997).

Intrinsic motivation. Intrinsic motivation was measured by six items, based on previous work carried out in a Norwegian setting (Kuvaas and Dysvik, 2009).

Turnover intention. Turnover intention, defined simply as the behavioural intent to leave an organization, was measured by five items, based on previous work, carried out in a Norwegian setting (Kuvaas, 2008).

Control variables. In line with previous findings (Griffeth *et al.*, 2000), we included a number of control variables. We asked the respondents to report their gender and computed a dichotomous variable where 2 represented “female” and 1 “male”. Formal education, was reported by the respondents, coded from 1 (basic mandatory education) to 6 (higher degree from university or college). The respondents reported their age and work tenure in true years. Staff position was reported by the respondents, ranging from baseline operators (1) to managerial positions (4). Finally, previous studies have suggested that employees participating in training efforts on a voluntary basis may apply more positive attitudes towards their employer than those not choosing to participate on a voluntary basis (Mathieu and Taylor, 2006). In order to reduce the probability that we had obtained a biased sample for our study, we followed recommendations by Noe and Wilk (1993) and asked the respondents to state why they participated in the training events offered by the training institution. A number of explanations were provided, ranging from mandatory, following encouragement from co-workers or managers to voluntariness and own initiative. From these responses, we computed a dichotomous variable coded such that 1 represented “mandatory” and 2 “voluntary”.

Analyses

To test the hypotheses, we used SPSS 15.0 for linear regression modelling (Hair *et al.*, 2005). As a first step, we followed the advice of Medsker *et al.* (1994) and performed an exploratory principal component analysis with varimax rotation on all multiple-scale items to determine item retention. We applied relatively stringent rules-of-thumb and retained only items with a strong loading of 0.50 or higher on the target construct (Nunnally and Bernstein, 2007), a cross-loading of less than 0.35 on other included factors (Kiffin-Petersen and Cordery, 2003) and a differential of 0.20 or more between included factors (Van Dyne *et al.*, 1994).

Hierarchical moderated regression was then used to test the hypotheses (Cohen and Cohen, 1983). Interaction terms often create multicollinearity problems because of their correlations with main effects. Thus, we followed recommendations by Aiken and

Items	IM	MAP	TI	PAV	PAP
IM5: My job is so interesting that it is a motivation in itself	<i>0.88</i>				
IM4: My job is very exciting	<i>0.85</i>				
IM2: The tasks that I do at work are enjoyable	<i>0.84</i>				
IM3: My job is meaningful	<i>0.80</i>				
IM1: The tasks that I do at work are themselves representing a driving power in my job	<i>0.77</i>				
IM6: Sometimes I become so inspired by my job that I almost forget everything else around me	<i>0.73</i>				
MAP3: I enjoy challenging and difficult tasks where I will learn new skills		<i>0.90</i>			
MAP2: I often look for opportunities to develop new skills and knowledge		<i>0.87</i>			
MAP1: I am willing to select a challenging work assignment that I can learn a lot from		<i>0.84</i>			
MAP5: I prefer to work in situations that require a high level of ability and talent		<i>0.82</i>			
MAP4: For me, development of my work abilities is important enough to take risks		<i>0.69</i>			
TI3: I will probably look for a new job in the next year			<i>0.90</i>		
TI2: I may quit my present job during the next 12 months			<i>0.86</i>		
TI5: I will likely actively look for a new job within the next three years			<i>0.84</i>		
TI1: I often think about quitting my present job			<i>0.83</i>		
TI4: I do not see many prospects for the future in this organization	-0.31		<i>0.61</i>		
PAV3: I am concerned about taking on a task at work if my performance would reveal that I had low ability				<i>0.88</i>	
PAV4: I prefer to avoid situations at work where I might perform poorly				<i>0.83</i>	
PAV2: Avoiding a show of low ability is more important to me than learning a new skill				<i>0.80</i>	
PAV1: I would avoid taking on a new task if there was a chance that I would appear rather incompetent to others				<i>0.72</i>	
PAP3: I enjoy it when others at work are aware of how well I am doing					<i>0.84</i>
PAP2: I try to figure out what it takes to prove my ability to others at work					<i>0.82</i>
PAP4: I prefer to work on projects where I can prove my ability to others					<i>0.79</i>
PAP1: I am concerned with showing that I can perform better than my co-workers					<i>0.75</i>
Eigenvalues	6.34	3.92	3.66	1.92	1.40
Per cent of variance	26.44	16.36	15.26	8.01	5.85

Notes: Factor loadings less than 0.30 are not shown; italic loadings included in the final scales; IM = intrinsic motivation; MAP = mastery-approach goal; TI = turnover intention; PAV = performance-avoidance goal; PAP = performance-approach goal

Table I.
Principal component analysis with varimax rotation

West (1991) and computed the interaction term by centring mastery-approach goals and intrinsic motivation before multiplying them with each other. In order to test the direct and relative effect hypotheses, turnover intention was first regressed onto the control variables in the first step, and then on the control variables and both mastery-goal orientation and intrinsic motivation in the second step. In the third step, the interaction term was entered.

Results

The exploratory factor analysis revealed that all of the items met our cut-off criteria. All the scales demonstrated acceptable reliability estimates, ranging from 0.84 to 0.92. The means, standard deviations, bivariate correlations, number of items in the scales and reliability estimates are reported in Table II.

Pairwise and multiple variable collinearity were inspected by collinearity diagnostics in SPSS prior to analysis. The lowest tolerance value was 0.51, which is well above the commonly accepted threshold value of 0.10 (Hair *et al.*, 2005).

The results from the regression models are presented in Table III.

The second step of the regressions in Table III shows that both mastery-approach goals ($\beta = 0.18, p < 0.01$) and intrinsic motivation ($\beta = -0.40, p < 0.001$) were significantly related to turnover intention. Thus, *H1*, predicting a positive relationship between mastery-approach goals and turnover intention, and *H2*, predicting a negative relationship between intrinsic motivation and turnover intention, were supported. The third step of the regressions in Table III was used to test the moderation hypothesis. The significant interaction term suggest that intrinsic motivation moderates the relationship between mastery-approach goals and turnover intention. The plot displayed in Figure 1, shows that there is a positive relationship between mastery-approach goals and turnover intention only for employees low in intrinsic motivation and that the nature of the interaction is in the hypothesized direction.

Following the recommendations of Aiken and West (1991), simple effects tests were conducted to determine whether the slope differed significantly from zero. The test revealed that the slope for low levels of intrinsic motivation was significantly different from zero ($t = 4.15, p < 0.001$). Finally, the *t*-test between the slopes of high and low intrinsic motivation, respectively, revealed that they were significantly different from each other ($t = 2.21, p < 0.05$). Thus, *H3*, predicting that the relationship between mastery-approach goals and turnover intention is moderated by intrinsic motivation, was supported.

Discussion

The purpose of this study was to explore the relative and combined influence of mastery-approach goals and intrinsic motivation on employee turnover intention. The results showed that both mastery-approach goals and intrinsic motivation were significantly related to turnover intention. In terms of their relative influence, however, our results suggest that the influence of mastery-approach goals on turnover intention is less substantial compared to that of intrinsic motivation. One explanation for this limited exploratory power actually emanates from the scope and definition of goal orientation, namely facets of employee achievement strivings and consequent performance (Elliot, 2005). As turnover intention do not entail

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10
Gender	1.69	0.46	–									
Age	40.05	10.22	0.01	–								
Education level	3.70	1.55	–0.24**	0.09	–							
Tenure	11.17	9.31	0.21**	0.60**	–0.21**	–						
Staff function	2.35	1.00	–0.02	0.41**	0.33**	0.18**	–					
Attendance ^a	1.61	0.93	–0.07	0.09	0.04	0.01	0.05	–				
Mastery-approach goals (5)	4.04	0.69	0.05	0.01	0.11	–0.03	0.15**	0.09	(0.90)			
Performance-approach goals (4)	2.96	0.88	0.01	–0.14**	0.06	–0.08	–0.04	0.00	0.11	(0.84)		
Performance-avoidance goals (4)	1.95	0.83	0.06	–0.05	–0.04	–0.05	–0.16**	–0.04	–0.27**	0.38**	(0.87)	
Intrinsic motivation (6)	3.83	0.79	–0.15**	0.14*	0.20**	–0.03	0.33**	0.01	0.31**	0.11	–0.27**	(0.92)
Turnover intention (5)	2.24	1.07	0.12*	–0.16**	0.14*	–0.05	–0.02	0.07	0.08	0.09	0.16**	–0.33** (0.89)

Notes: Coefficient alphas are displayed on the diagonal; number of items included in the final scales in parentheses; $n = 323$ due to listwise deletion of missing values; ^amandatory or voluntary attendance; voluntary = 2 and mandatory = 1; * $p < 0.05$; ** $p < 0.01$

Table II.
Descriptive statistics,
correlations and scale
reliabilities

Step and variable	Turnover intention		
	1	2	3
Gender	0.14*	0.09	0.09
Age	-0.27***	-0.22**	-0.21**
Education level	0.22***	0.22***	0.22***
Tenure	0.12	0.09	0.08
Staff function	0.02	0.10	0.12
Attendance ^a	0.10	0.08	0.09
Performance-approach goal	-0.02	0.04	0.03
Performance-avoidance goal	0.17**	0.11	0.12*
Mastery-approach goal		0.18**	0.15**
Intrinsic motivation		-0.40***	-0.39***
Mastery-approach goal × intrinsic motivation			-0.11*
R ²	0.092	0.216	0.225
ΔR ²		0.124	0.009
F	5.093***	25.795***	9.497***
ΔF		47.678***	4.573*

Table III.

Regression results testing the direct and moderation models

Notes: Standardized regression coefficients are shown; $n = 323$ due to listwise deletion of missing values; ^amandatory or voluntary attendance: voluntary = 2 and mandatory = 1; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

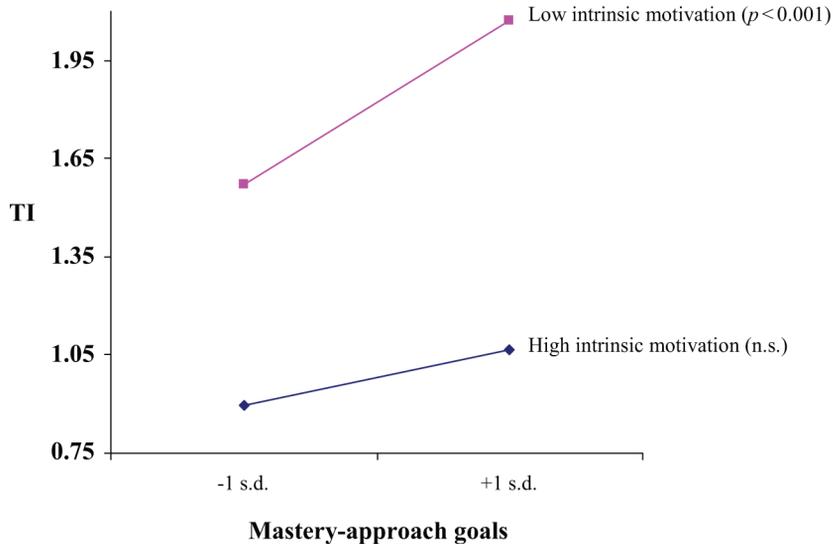


Figure 1.

The moderating role of intrinsic motivation on the relationship between mastery-approach goals and turnover intention

achievement strivings directly, it seems to represent a somewhat peripheral outcome for goal orientation. Thus, it seems future goal orientation research in work settings would benefit more from focusing on employee outcomes in the form of in-role and contextual performance.

Second, and in a related vein, our findings show that, among all the variables included in this study, intrinsic motivation holds the strongest direct negative relationship with turnover intention. This finding aligns well with previous research (e.g. Kuvaas, 2006; Richer *et al.*, 2002; Vansteenkiste *et al.*, 2007) and suggest that individual need fulfilment among employees make them less prone to hold high levels of turnover intentions. Finally, the most novel finding in our study is the “buffering” role of intrinsic motivation on the relationship between mastery-approach goals and turnover intention. Since the interaction term revealed a positive relationship between mastery-approach goals and turnover intention only for employees low in intrinsic motivation, the practical contribution of mastery-approach goals as predicting turnover intention becomes even more marginal. The positive aspect of this finding, however, is that employee turnover intention seems to depend less on general, trait-like dispositions (in terms of mastery-approach goals), and more prone to the contextual influences of individual need fulfilment perception. When managers and organizations actually manage to facilitate fulfilment of the needs for autonomy, competence and relatedness among their employees, intrinsic motivation seems to reduce turnover intention both generally, and “buffer” turnover intention among employees with high levels of mastery-approach goals in particular.

Limitations and research directions

The contributions of this research should be viewed in the light of several limitations. First, we did not have access to demographic information regarding the population as a whole from the training institution, thus no comparison of the representativeness of the sample compared with the population can be estimated. However, since the sample was randomly drawn from the population, the probability of response bias should be low. Also, the data in this study were gathered at one point in time, making it impossible to draw inferences of causality or rule out the possibility of reverse causality. In order to control more effectively for reverse causality arguments, however, experimental or longitudinal studies are needed.

Another limitation is the reliance on self-reported questionnaire data, which raises concerns about possible mono-method bias and percept-percept inflated measures (e.g. Crampton and Wagner, 1994). The principal component analysis, however, generated five factors with eigenvalues of 1 or more, and an explained variance of the factors ranging from 26.4 per cent (factor 1) to 5.9 per cent (factor 5). Although this analysis, the Harman’s one-factor test (Podsakoff and Organ, 1986), is nothing more than a diagnostic technique to assess the extent to which common method variance may be a problem (Podsakoff *et al.*, 2003), it seems to indicate that mono-method variance was not a serious threat in this study. Furthermore, given the modest correlations between the variables in this study, the collinearity diagnostics and the strong criteria used in determining item retention, it is not very likely that common method bias has heavily influenced the observed relationships. In addition, common method variance actually reduces the likelihood of detecting such effects (Harrison *et al.*, 1996; Xie, 1996). Furthermore, since employee turnover intention represented the dependent variable in this study, it seems less likely that data from managers, colleagues or subordinates should be able to provide as accurate descriptions of this variable than those of the respondents. Another limitation of the present study is the lack of control for established predictors of employee turnover intention such as job satisfaction and

organizational commitment. Except from organizational tenure, we were not able to include such variables in our study due to restrictions on the number of questions in the survey from the training institution. Since previous research has found motivational sources to hold incremental validity beyond job satisfaction and commitment in predicting employee turnover (Mitchell *et al.*, 2001), our findings should be replicated in a study including these variables in order to assess the relative impact of motivational sources and job attitudes on employee turnover intention and actual turnover. Also, we were not able to collect data on actual turnover among the respondents in our study, given its cross-sectional design and the fact that the respondents represented a vast number of different organizations. Still, Griffeth *et al.* (2000) found that turnover intention was among the strongest predictors of actual turnover, which suggests that turnover intention represent an acceptable proxy for actual turnover. Future studies should nevertheless include both measures of turnover intention and actual turnover.

Finally, it should be noted that our measure of intrinsic motivation differs from that of SDT, especially as SDT researchers have not yet come up with a measure that covers a broad spectrum of job activities and tasks (the instruments used to assess different levels of autonomous motivation are designed to measure the motivation of more isolated situations, events or activities, and not the motivation of the more multi-faceted nature of work) and that clearly separates and tests the different degrees of autonomous work motivation. With this in mind, we used a measure that we believe taps the core of the relatively general construct definition of intrinsic motivation deliberately used in our study. However, in order to test the more detailed propositions from SDT, future research should also include measures of need satisfaction or perceptions of autonomy, competence and relatedness in terms of investigating the relationships between need satisfaction and intrinsic motivation simultaneously.

Despite its limitations, this study may have important implications for practice. First, it seems that the practical value of mastery-approach goals as predicting employee turnover intention is limited. In contrast, intrinsic motivation seems to be a potent predictor of employee turnover intention. Therefore, in order to keep employees from developing higher levels of turnover intention, attention should be directed towards facilitating work environments in which employees' intrinsic motivation may thrive or be sustained at high levels.

Conclusion

This study has compared the relative influence of two motivational sources: mastery-approach goals and intrinsic motivation on employee turnover intention. Our findings suggest that, intrinsic motivation serves as a potent predictor of turnover intention, both in terms of a direct relationship and as a "buffer" on the relationship between mastery-approach goals and turnover intention. These findings may contribute to turnover research attempting to unveil additional antecedents of employee turnover. In addition, our findings may inform managers of awareness of the facilitation of work environments where intrinsic motivation may emerge and/or be sustained to reduce employee turnover intentions.

Notes

1. Goal orientation is also described in the literature as achievement goals. For consistency purposes, we use the description goal orientation in this article.
2. The term “learning goals” is also frequently used for describing this goal dimension. For consistency purposes, this dimension is labelled “mastery-approach goals” throughout this document.
3. We thank one of the anonymous reviewers for aiding us patiently towards this clarification.

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Corresponding author

Anders Dysvik can be contacted at: anders.dysvik@bi.no

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