

Voluntary or mandatory enrollment in training and the motivation to transfer training

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The purpose of this study is to examine the motivation to transfer training in a multidimensional way. It investigates autonomous and controlled motivation and explores the difference in motivation to transfer according to whether the employee is enrolled in training on a voluntary or mandatory basis. This is a cross-sectional hypotheses-testing study. Data were collected at a large insurance company involving employees who had participated in training programs in the previous 6 months. Findings show that when considering autonomous motivation to transfer, results support the argument that being voluntarily enrolled in the training program shows a higher impact on motivation to transfer than being mandatorily enrolled. When considering controlled motivation to transfer, results do not support such an argument, probably because of the nature of controlled motivation to transfer that in practice reduces the difference in results between the two types of enrollment.

Introduction

Organizations continue to establish training programs disregarding the key process of transferring acquired knowledge and competences to the performance of the job. As transfer may be considered an output of training, it is critical for organizations to

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discover how to maximize it (Grossman & Salas, 2011). Several factors may affect the transfer of knowledge acquired in training to the workplace, among which we find motivational factors (Egan, 2008; Gegenfurtner *et al.*, 2009; Holton, 1996; Holton *et al.*, 2000). In addition, the willingness or obligation to participate in training is crucial for motivation and for the subsequent transfer of knowledge, skills and attitudes. Both voluntary and mandatory training environments have special considerations. Organizations often do not have the choice to make training either voluntary or mandatory, as they are legally compelled to provide mandatory training to their employees. Voluntary training in such cases is not an option (Baldwin *et al.*, 1991). This study addresses both cases, voluntary and mandatory training programs. The objective is to test the effect of three motivational factors (job satisfaction, job involvement and organizational commitment) on motivation to transfer in its double dimensionality (autonomous and controlled); the paper offers an original contribution by assessing the difference in motivation to transfer depending on the employee's willingness to attend the training program (voluntary vs. mandatory) (Yardley, 2003), and thus exploring a way to maximize the return on the training.

The transfer of training

Workplace learning is often described as acquiring, using and critically reflecting knowledge to achieve organizational goals (Elkjaer, 2004). This learning occurs as a process of individuals developing propositional (knowledge about), procedural (knowledge of how) and dispositional (development of values and attitudes) knowledge through their workplace experiences (Hutchins *et al.*, 2010). Following Baldwin and Ford (1988), transfer of training is 'the degree to which trainees effectively apply the knowledge, skills, and attitudes gained in training context and subsequent maintenance of them over a certain period of time'. Still, what is learned in a formative context may not fit the job description of the trainee; hence, the transfer cannot be completed (Kozlowski & Salas, 1997). Working habits and routines often overcome the novelty of the newly learned ways in which to perform on the job (Yamnill & McLean, 2001) and then impact over firm outputs, as transfer of training is positively related to firm performance (Saks & Burke-Smalley, 2014). Baldwin and Ford (1988) propose that individual characteristics (such as ability, personality and motivation), the training design (principles of learning, sequence and training content) and the working environment (support and the opportunity to use the learned skills) affect the process of transfer. Working environment variables reflect organizational conditions that affect training like transfer climate (Burke & Baldwin, 1999; Grossman & Salas, 2011), supervisor support (Chiaburu *et al.*, 2010; Velada *et al.*, 2007) or organizational support (Grossman & Salas, 2011; Ma & Chang, 2013). According to Robertson and Downs (1979), skills acquired by the trainees explain 16 per cent of the variation in the effectiveness of training (Cheng & Ho, 2001), whereas Noe and Schmitt (1986) subsequently postulate that the motivation of the trainees and the working environment may explain approximately 15 per cent to 20 per cent of the same variation. Ford and Weissbein (1997) identify four limitations to the criteria in the process of transfer defined by the previous authors: firstly, the manner in which training transfer is defined and rendered operational, and when it should be measured; secondly, the low complexity of learned tasks used to examine the generality of results of studies in the elaboration of training; thirdly, the lack of models that guide the choice of which characteristics of training are to be measured to understand the impacts on transfer; and, finally, the lack of attempts made to conceptualize and run the work-environment factors that influence training transfer. Progress has been made following Ford and Weissbein's work (1997), giving rise to new and better founded theories as well as ways in which to overcome limitations. Cheng and Ho (2001) consider that when addressing efficiency of training, it is necessary to identify and measure the individual and organizational impacts on the results of training, including learning and transfer. The authors identify four stages to the process of transfer, namely: (1) pre-training motivation, identified as an effort to understand the contents of training; (2) the learning process during training; (3) the

performance during the learning process and what the trainee acquires through training; and (4) the transfer outcomes that refer to what the trainee can achieve when applying these knowledge and techniques in the working context to benefit both workers and organization. Authors such as Holton (1996) and Kirkpatrick (1987) propose other methods of evaluating training transfer. Holton's (1996) model aims to understand what influences motivation to transfer: motivation to transfer, the transfer design and the transfer climate. Nevertheless, Yamnill and McLean (2001) name some limitations related to the fact that the model lacks the theoretical and conceptual underpinning to explain the desire of people to change their performance after attending training, what type of training design leads to the successful transfer of new capacities and what kind of organizational environment supports their workers in the transfer of capacities acquired through training. Cheng and Ho (2001) offer a synthesis of literature review organized in three factors that affect training transfer: (1) the individual factors (in which included are locus of control of the trainee over the results; self-efficacy of the trainee in organizing executing and fulfilling certain tasks); (2) the environment factors (the organization's support as to participation in training; a continuous learning culture; and task constraints); and (3) the motivational factors (career and job attitudes; the organizational commitment; the opportunity to take part into the training decision; and finally, the post-training interventions). Literature (Bhatti & Kaur, 2010; Jaidev & Chirayath, 2012; Knyphausen-Aufseß *et al.*, 2009; Saks & Belcourt, 2006) has already addressed individual, environmental and motivational factors; following such research, this study adds the trainee's willingness to participate in the training program and its impact over the training transfer.

Motivation and training transfer

Motivation to learn and motivation to transfer

Motivation and training transfer are related, as motivation to transfer is the desire of the trainee to use in the workplace the skills, knowledge and capabilities acquired and learned through training (Noe, 1986). Training transfer is a function of the extent to which individuals are motivated to take advantage of the opportunities to apply that learning to the transfer context (Weissbein *et al.*, 2011). There is a difference between the motivation to learn and the motivation to transfer that learning to the workplace. The motivation to learn is the intention of the learner to absorb knowledge enabling them to perform skills or retain knowledge, whereas motivation to transfer is the intention of the learner to use the skills on the job (Baldwin & Magjuka, 1991). Training motivation does impact on training transfer and subsequently on job performance (Ma & Chang, 2013). Trainees perceive that improving performance may be reached by the use of newly acquired skills, recognizing that the knowledge and capabilities developed through training programs are useful in resolving problems related to work routines. Such belief is in reality the motivation key in action. So, when addressing training transfer, it is important to comprehend the willingness of individuals to transfer knowledge. Expectations, equity and the definition of objectives influence personal motivation for transfer; as a consequence, the motivation for learning and transferring may influence the expectation and definition of objectives for transfer (Lim & Morris, 2006), following contributions from Vroom (1974), Porter and Lawler (1968), Yamnill and McLean (2001), Noe (1986), Persico and McLean (1994), and Gist *et al.*, (1990).

Intrinsic, extrinsic, autonomous and controlled motivation

Inspired by the above theories, but not satisfied with them, Gegenfurtner *et al.* (2009, 2010) assess motivation to transfer at a multidimensional level for better understanding of the different influences on motivation to transfer based upon motivational theories. Considering self-determination theory (Ryan & Deci, 2000), motivation may assume two forms: intrinsic, as a result of the behavioral involvement due to interest or inherent satisfaction, whereas extrinsic motivation relates to behavioral involvement for reasons associated with external factors such as prizes, promotions or avoidance of sanctions. In the same sense, Locke and Latham (2004) define motivation as being

dependent on factors that inspire action (internal) and factors that stimulate action (external). Gagné and Deci (2005) propose that depending on how the process takes form, extrinsic reasons may gain personalization as attributes, values or forms of regulation (Gegenfurtner, 2013; Gegenfurtner *et al.*, 2009); consequently, extrinsic motivation may be either autonomous or controlled. Hence, and in order to reach the intended multidimensionality, Gegenfurtner *et al.* (2009) and Gegenfurtner (2013) suggest a two-folded motivation composition, associating controlled motivation (presuming an external, identified and internalized regulation with an external *locus* of causality) and autonomous motivation (presuming an identified, integrated and intrinsic regulation with an internal *locus* of causality) to define the main dimensions of motivation of trainees to transfer training to the working place. Autonomous motivation to transfer (AMT) represents an internal desire to transfer training, initiated and governed internally by the individual in identification or integration with internal values (Gegenfurtner *et al.*, 2009). Controlled motivation to transfer (CMT) corresponds to an intention to transfer training that is initiated or governed by something external such as prizes, rewards or sanctions (Gegenfurtner *et al.*, 2009).

The motivation to transfer training

Transfer motivation is the direction, intensity and persistence of effort toward utilizing in a work setting skills and knowledge learned (Holton *et al.*, 2000). Motivation to transfer is positively related to training transfer (Bhatti *et al.*, 2013; Blume *et al.*, 2010; Grohmann *et al.*, 2014), being that short-term transfer or long-term transfer (Axtell *et al.*, 1997) and even compensates for job dissatisfaction (Jodlbauer *et al.*, 2011). According to Cheng and Ho (2001), literature suggests motivational factors involve several components, including (1) career and job attitude, (2) organizational commitment and (3) the opportunity to take part in the training decision.

The first two components have been addressed in previous extensive literature. Regarding the opportunity to take part in the training decision, a gap in literature provides an invitation to this study. The opportunity to take part in the training decision motivation can be crucial in a participant's decision to undertake a training program and also in his or her behavior during and after that training; it may also affect the way in which training results are obtained and the subsequent transfer of knowledge (Cheng & Ho, 2001). Motivation involves an individual's choice to spend some energy in some behaviors over another (Quinones, 1995; Tsai & Tai, 2003). Tsai and Tai (2003) following previous studies explore the way individuals are registered in training programs (voluntarily or by imposition) influences their motivation for training (Maurer & Tarulli, 1994; Noe & Wilk, 1993). Hicks and Klimoski (1987) report that trainees that were pressured by their superiors to attend training present lower motivation. On the other hand, Ryman and Biersner's work (1975) illustrates that when participants were given no choice, the motivation to participate in the training diminished; and in the end, those who were forced were more likely to give up than those who went in voluntarily. Employees who attend training programs on a mandatory basis present higher motivation for training, compared with those who were volunteers. It seems that organizations that force their employees to attend training programs clearly want to show them that such training is important and, as a result, expect employees' training motivation to increase (Tsai & Tai, 2003), but that may not be the case. Latham and Wexley (1981) address the importance of the choice of training contents and not only the choice of participating to raise the motivation to engage and participate in training and the subsequent reproduction of the knowledge acquired (Baldwin *et al.*, 1991). However, more recent studies have come to offer a different perspective. Mathieu *et al.* (1993) find no correlation between the motivation for training and the choice to attend the training program. They do however conclude that the trainee's understanding of the objectives of the training has a strong effect on the decision to participate in it and consequently in the effects of motivation in that participation. Individuals having some power over training decisions consider it as something useful, resulting in high motivation to training, better learning processes during training (Baldwin *et al.*, 1991) and subsequently to a better performance (Mathieu *et al.*, 1992). Participants heading for high career development

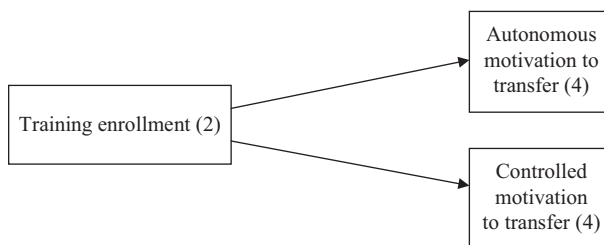
objectives do not feel motivated to participate in training programs designed to develop competencies for their current functions. However, results indicate that by sharing a positive image of the training program by supervisors, the organization may increase the participant's motivation to achieve greater development through training programs. Cohen (1990) and Clark *et al.* (1993) mention evidence supporting that when trainees know that the imposed training is beneficial and necessary, they present greater motivation to participate. They also report that when training programs are related to the trainees' functions or careers, the impact on motivation is greater. Baldwin *et al.* (1991) make an overstated argument rooted in theoretical verifications regarding the benefits of voluntary training, as trainees who volunteered are, often, those who are in least need of training. Their study points out that some trainees upon whom the training was imposed show greater motivation than the volunteers, as they understood that their supervisors valued their development through specific positive training programs, aiming at the organization's development and chose them as a valuable asset to achieve that. The understanding by trainees of training benefits may improve their results obtained from participating in training activities (Noe & Wilk, 1993; Tsai & Tai, 2003), given that if trainees understand the importance of training, their motivation will rise. Tharenou (2001) finds that motivation and the will to learn explain training participation and subsequently training transfer. In addition, supervisor support is paramount in order for training participation to lead to trainee development. Mandatory vs. voluntary enrollment in training programs literature is scarce and not unanimous. Although the probability of participating in voluntary training varies according to gender and managerial status (Renaud *et al.*, 2006), the attitudes and job outcomes of employees are more positive for individuals attending voluntary training and those called for mandatory programs (Yardley, 2003). Mathieu *et al.* (1993) conclude that the influence of training enrollment, imposed or voluntary, in trainee motivation depends upon the message transmitted by supervisors regarding the importance of training, and at the same time, the decision to participate in training plays a relevant role in motivation. Pelozo and Hassay (2006) suggest the need for future research related to employees' volunteerism. They suggest research is needed across a number of different contexts, such as different types and levels of employee involvement and volunteerism. Thus, regarding the opportunity to take part in the training decision, two hypotheses emerge (Figure 1) regarding the two motivation dimensions considered in the study – autonomous and controlled – thus:

H1: AMT of participants who undergo training by voluntary enrollment is superior to that of those who undergo training as a result of imposed enrollment.

H2: CMT of participants who undergo training by imposed enrollment is superior to that of those who undergo training by voluntary enrollment.

Methods

The sample for this study was collected in a large Portuguese insurance company involving employees who had participated in training programs in the previous 6



*Figure 1: Influence of training enrollment in motivation to transfer.
Note: Number of items in the scale in parentheses.*

months and at least 1 month before data collection to ensure that trainees were back to the workplace and not still in training process as prescribed by Gegenfurtner *et al.*, 2010. Based upon human resources department records of the nature of the trainees' enrollment in the programs, questionnaires were sent to two different groups: one comprised trainees who had voluntarily enrolled in training and the other trainees who had been enrolled in training in a mandatory way. Employees at headquarters received printed questionnaires and those in regional branches around the country received questionnaires by e-mail. All participants contributed to the study on a voluntary and anonymous basis: 64 out of the 70 distributed printed questionnaires were collected and 33 out of the 60 ones sent by e-mail returned, with an overall response rate of 74.6 per cent. We followed Hair *et al.* (2005) to confirm the absence of non-response bias.

Measurements

A multi-item questionnaire was used to assess the constructs. AMT ($\alpha = 0.942$) and CMT ($\alpha = 0.853$) (see Table 1) are measured using Gegenfurtner *et al.*'s (2009) scale. Lower values are associated to lower levels of AMT and CMT. A four-point Likert scale was used. It was anchored by 1 – 'strongly agree' to 4 – 'strongly disagree'. Considering control variables, age, gender, years at school, tenure and having a supervisor position were controlled because they could affect the criteria variables. There are no relevant statistical results to report.

Analysis

To avoid issues of common method variance following Podsakoff *et al.* (2003) when preparing the questionnaire, several measures were taken to reduce the common method variance; each item was rated from 1 – 'strongly agree' to 4 – 'strongly disagree', eliminating in this way the possible notion of right or wrong answer and also avoiding the anchoring effect of the scale (there is no middle point in the scale). Additionally, the questions order was counterbalanced when designing the questionnaire and during the collection of the data, total anonymity was guaranteed for all respondents. All information that could serve as back-tracking from the questionnaire to the respondent was removed.

After retrieving data, the Harman's single-factor test was run (as in Aulakh & Gencturk, 2000) and results show no single factor or a general factor that accounts for the majority of the covariance among the measures. Such results indicate the absence of common method variance and thus it is acceptable that the proactive measures used when preparing the questionnaire were fruitful.

Results

The response rate to questionnaires was 75 per cent. The majority of participants are women (55 per cent), holding a university degree (56.7 per cent) and not holding a management position (61.9 per cent). On average, participants are 30 to 50 years old (60.80 per cent) and are working at the firm for 1 to 8 years (61.9 per cent). Regarding the participants' enrollment in the training programs, 53.6 per cent have voluntarily entered the programs. Data analysis in Table 1 presents the mean, standard deviation, zero-order correlation and Cronbach's alphas for all variables used.

In order to test hypotheses *H1*: AMT of participants who undergo training by voluntary enrollment is superior to that of those who undergo training as a result of imposed enrollment and *H2*: CMT of participants who undergo training by imposed enrollment is superior to that of those who undergo training by voluntary enrollment, Levene's and Student's *t*-tests were used (normality assumed for $n > 30$). Levene's test for equality of variances results indicate equal variances assumed for AMT ($p = 0.011$), but not regarding CMT ($p = 0.186$). According to Table 2, AMT presents higher values than CMT. Results on Table 2 display evidence supporting *H1* and not supporting *H2*.

Table 1: Descriptive statistics, correlations and reliability

	Mean	Std. Dev.	1	2	3	4	5	6	7
1. Age	35.3	7.617							
2. Gender	0.45	0.501	0.288**						
3. Years at school	13.1	1.639	-0.125	0.035					
4. Years of tenure	4.59	2.78	0.425**	-0.103	-0.088				
5. Supervisor	0.38	0.488	0.330**	0.192	-0.089	0.078			
6. Autonomous motivation	3.3	0.749	0.165	-0.010	-0.053	0.008	0.414**	(0.942)	
7. Controlled motivation	2.9	0.852	0.254*	0.092	-0.124	-0.120	0.493**	0.757**	(0.853)
8. Training program enrollment	0.46	0.501	-0.325**	-0.072	0.231*	-0.026	-0.731**	-0.659**	-0.703**

* Correlation is significant at the 0.05 level.

** Correlation is significant at the 0.01 level.

Cronbach's alpha values in parentheses.

Table 2: Levene's and Student's t-tests for the type of enrollment in training

Variables		Type of enrollment				Test	
		Voluntarily (<i>n</i> = 52)		Obligatory (<i>n</i> = 45)		<i>t</i>	<i>p</i>
		Mean	Std. Dev.	Mean	Std. Dev.		
Motivation to transfer	Autonomous	3.73	0.41	2.80	0.75	-7.7	<0.05
	Controlled	3.45	0.54	2.27	0.70	-9.2	>0.05

Discussion

Taking into account the type of enrollment considered, AMT presents significantly higher value in the case of voluntary enrollment in training when compared with mandatory enrollment in training. Results show that employees who participate in training by means of a voluntary participation have higher AMT than those who are forced to participate, consistent with the theory of intrinsic motivation. Offering the choice between alternatives is a crucial mechanism to increase feelings of self-determination, which influences participation in training (Baldwin *et al.*, 1991). Employees usually react more positively to the program when they voluntarily decide to participate in training instead of being enrolled by supervisors and required to participate (Mathieu *et al.*, 1992; Yardley, 2003). Trainees that are pressured by their superiors to attend training present lower motivation levels (Hicks & Klimoski, 1987) and therefore they learn less effectively and subsequently, they are less likely to transfer training to the workplace (Baldwin *et al.*, 1991). Results show that CMT of employees participating in training programs by means of voluntary enrollment in training when compared with CMT of those following a mandatory enrollment in training is not significantly different. One may wonder if this outcome is related to the rule-dominated nature of CMT, which in practice reduces the difference in results between the two types of enrollment.

The study's results make one wonder whether firms truly understand the importance of motivating employees, in particular motivation to transfer training. According to the empirical outcomes in the present study, voluntarily enrolled employees present higher levels of AMT, leading to more positive reactions to training programs and subsequently they will be more likely to transfer training to the workplace. Such an important result shows organizations that they can further increase the value of their knowledge patrimony if and when employees are willing to voluntarily participate in training programs. Organizational consequences emerge. Motivating employees is therefore not limited to engaging the willingness of employees to work hard and to accomplish objectives (Kinicki & Kreiner, 2006); it is also about stimulating voluntary enrollment in training programs. This theoretical implication opens a new direction for research and development in motivation issues, its antecedents and results. Based upon theory of intrinsic motivation and focusing on an internal locus of causality, this outcome is consistent with organizational training being a tool of not only teaching employees to do something, but instead rewarding employees (Hijazi *et al.*, 2007; Noe, 2010). Voluntary enrollment in training programs enhances trainee motivation and improves training transfer, thus it should be further researched. Employees should be encouraged to voluntarily enroll in training. Managerial implications drawn from this study's outcomes are equally relevant. Employees' knowledge grows through training and AMT further expands the potential of such knowledge. Employees are truly sources of competitive advantage and their voluntary willingness to attend training

programs enlarges their potential: they are competitive advantage units. Employees that voluntarily attend training programs are fully loaded with knowledge and are motivated to put it to use back at the workplace. This motivational mechanism is crucial because employees' knowledge is a part of an organization's intellectual capital component: human capital. Human capital reflects the employee's ability to learn on behalf of its organization (Curado & Bontis, 2007; McKnight & Bontis, 2002; Stovel & Bontis, 2002). The nature of the relation between organizations and their human capital is based on access, and not on ownership; as a result, the importance of the motivational mechanism identified in the study is immense.

Conclusions

The study adopts the double dimensionality of the motivation to transfer construct (autonomous and controlled) and it adds and extends past research because it addresses the influence of the choice effect and thus contributes to explore a research gap on the willingness of the trainee to participate in the training program. In fact, the paper offers original contribution by assessing the difference in motivation to transfer depending on the employee's willingness to attend the training program (voluntary vs. mandatory). Motivation to transfer is a multidimensional construct that needs to be taken into account when assessing the training transfer to the organization (Gegenfurtner *et al.*, 2009). Research addressing the multidimensionality of motivation to transfer is still rare, so the contribution of this study should be considered a valuable breakthrough. With regard to the nature of the enrollment in training, results show that being voluntarily enrolled has a greater impact on AMT than when being mandatorily enrolled. This study highlights the importance of the employee's willingness to transfer training. Theoretically, this study offers an original contribution to motivation to transfer literature. It adds to the existing empirical literature by considering the multidimensionality of motivation and the choice effect. By emphasizing the importance of the choice effect on motivation to transfer, this study launches a practical bridge to human resources management domains. The study invites further work and developments on the influence of other individual factors on motivation to transfer, such as personality traits or organizational citizenship behavior. It also offers several future research options.

Because this is a cross-sectional study, data have been collected at one moment in time only, not allowing for longitudinal readings. To assume the viability assessment of motivation to transfer, the collection was made at least 1 month after training sessions were finished, but it is noticeable that it would be interesting to assess the situation on two occasions, before and after training, as motivation to transfer may change over time (Gegenfurtner *et al.*, 2009). A longitudinal study encompassing pre- and post-training data collection could result in richer research worth developing. There are other limitations inherent to collecting data at a single moment in time. A study involving sequential data collection moments would make it possible to address motivation to transfer at several stages: before, during and after training. This study uses data from a single organization (in the insurance industry) and although the training programs were quite diverse, the fact that the organization has unique specific characteristics excludes generalization and extrapolation of the results. Finally, the fact that this is a co-relational study does not allow for testing of causal relationships. Future research is encouraged to extend the examination of other circumstances affecting dimensions of motivation to transfer, such as the nature of the legal working relations and the training evaluation consequences. This specific study is also worth replicating on different settings such as special knowledge intensive industries or public organizations.

References

- Aulakh, P. and Gencturk, E. (2000), 'International principal-agent relationships: control, governance and performance', *Industrial Marketing Management*, 29, 521–38.

- Axtell, C. M., Maitlis, S. and Yearta, S. K. (1997), 'Predicting immediate and longer-term transfer of training', *Personnel Review*, **26**, 3, 201–13.
- Baldwin, T. and Ford, J. (1988), 'Transfer of training: a review and directions for future research', *Personnel Psychology*, **41**, 63–105.
- Baldwin, T. and Magjuka, R. (1991), 'Organizational training and signals of importance: linking pretraining perceptions to intentions to transfer', *Human Resource Development Quarterly*, **2**, 1, 25–36.
- Baldwin, T., Magjuka, R. and Loher, B. (1991), 'The perils of participation: effects of choice of training on trainee motivation and learning', *Personnel Psychology*, **44**, 1, 51–65.
- Bhatti, M. and Kaur, S. (2010), 'The role of individual and training design factors on training transfer', *Journal of European Industrial Training*, **34**, 7, 656–72.
- Bhatti, M. A., Kaur, S. and Battour, M. M. (2013), 'Training transfer and transfer motivation in the Malaysian banking sector', *Global Business and Organizational Excellence*, **33**, 1, 40–57.
- Blume, B., Ford, J., Baldwin, T. and Huang, J. (2010), 'Transfer of training: a meta-analytic review', *Journal of Management*, **36**, 4, 1065–105.
- Burke, L. and Baldwin, T. (1999), 'Workforce training transfer: a study of the effect of relapse prevention training and transfer climate', *Human Resource Management*, **38**, 3, 227–42.
- Cheng, E. and Ho, D. (2001), 'A review of transfer of training studies in the past decades', *Personnel Review*, **30**, 1, 102–14.
- Chiaburu, D., Van Dam, K. and Hutchins, H. (2010), 'Social support in the workplace and training transfer: a longitudinal analysis', *International Journal of Selection and Assessment*, **18**, 2, 187–200.
- Clark, C., Dobbins, G. and Ladd, R. (1993), 'Exploratory field study of training motivation: influence of involvement, credibility and transfer climate', *Group and Organization Management*, **18**, 3, 292–307.
- Cohen, L. (1990), 'Absorptive capacity: a new perspective on learning and innovation', *Administrative Science Quarterly*, **35**, 1, 128–52.
- Curado, C. and Bontis, N. (2007), 'Managing intellectual capital: the MIC matrix', *International Journal of Knowledge and Learning*, **3**, 2/3, 316–28.
- Egan, T. (2008), 'The relevance of organizational subculture for motivation to transfer learning', *Human Resources Development Quarterly*, **19**, 4, 299–322.
- Elkjaer, B. (2004), 'Organizational learning: the "third way"', *Management Learning*, **35**, 4, 419–34.
- Ford, J. K. and Weissbein, D. A. (1997), 'Transfer of training: an updated review and analysis', *Performance Improvement Quarterly*, **10**, 2, 22–41.
- Gagné, M. and Deci, E. (2005), 'Self-determination theory and work motivation', *Journal of Organizational Behavior*, **26**, 4, 331–62.
- Gegenfurtner, A. (2013), 'Dimensions of motivation to transfer: a longitudinal analysis of their influences on retention, transfer, and attitude change', *Vocations and Learning*, **6**, 2, 187–205.
- Gegenfurtner, A., Festner, D., Gallenberger, W., Lehtinen, E. and Gruber, H. (2009), 'Predicting autonomous and controlled motivation to transfer training', *International Journal of Training and Development*, **13**, 2, 124–38.
- Gegenfurtner, A., Vauras, M., Gruber, H. and Festner, D. (2010), 'Motivation to transfer revisited', in *ICLS2010 Proceedings, Vol. 1*. (Chicago, IL: International Society of the Learning Sciences). pp. 452–9.
- Gist, M. E., Bavetta, A. G. and Stevens, C. K. (1990), 'Transfer training method: its influence on skill generalization, skill repetition, and performance level', *Personnel Psychology*, **43**, 3, 501–23.
- Grohmann, A., Beller, J. and Kauffeld, S. (2014), 'Exploring the critical role of motivation to transfer in the training transfer process', *International Journal of Training and Development*, **18**, 2, 84–103.
- Grossman, R. and Salas, E. (2011), 'The transfer of training: what really matters', *International Journal of Training and Development*, **15**, 2, 103–20.
- Hair, J. F. Jr., Babin, B., Money, A. H. and Samouel, P. (2005), *Fundamentos de métodos de pesquisa em administração* (Porto Alegre: Bookman).
- Hicks, W. and Klimoski, R. (1987), 'Entry into training programs and its effects on training outcome: a field experiment', *Academy of Management Journal*, **30**, 3, 542–52.
- Hijazi, S. T., Anwar, A. and Mehboob, S. A. (2007), 'Impact of non-financial rewards on employee motivation: a case of cellular communication service providing sector of telecom industry registered under PTA in Islamabad', *Business Review*, **7**, 2, 272–7.
- Holton, E. (1996), 'The flawed four-level evaluation model', *Human Resources Development Quarterly*, **7**, 1, 5–21.
- Holton, E. F., Bates, R. A. and Ruona, W. E. A. (2000), 'Development of a generalized learning transfer system inventory', *Human Resources Development Quarterly*, **11**, 4, 333–60.

- Hutchins, H., Burke, L. A. and Berthelsen, A. M. (2010), 'A missing link in the transfer problem? Examining how trainers learn about training transfer', *Human Resource Management*, **49**, 4, 599–618.
- Jaidev, U. and Chirayath, S. (2012), 'Pre-training, during-training and post-training activities as predictors of transfer of training', *The IUP Journal of Management Research*, **11**, 4, 54–70.
- Jodlbauer, S., Selenko, E., Batinic, B. and Stiglbauer, B. (2011), 'The relationship between job dissatisfaction and training transfer', *International Journal of Training and Development*, **16**, 1, 39–53.
- Kinicki, A. and Kreiner, R. (2006), *Comportamento Organizacional*, 2nd edn (São Paulo: McGraw-Hill).
- Kirkpatrick, D. L. (1987), 'Evaluation of Training', in R. L. Craig (ed.), *Training and Development Handbook: A Guide to Human Resource Development*, 3rd edn (New York: McGraw-Hill), pp. 301–19.
- Knyphausen-Aufseß, D., Smukalla, M. and Abt, M. (2009), 'Towards a new training transfer portfolio: a review of training-related studies in the last decade', *Zeitschrift für Personalforschung*, **23**, 4, 288–311.
- Kozlowski, S. and Salas, E. (1997), 'An Organizational Systems Approach for the Implementation and Transfer of Training', in J. K. Ford, S. W. J. Kozlowski, K. Kraiger, E. Salas and M. Teachout (eds), *Improving Training Effectiveness in Work Organizations* (Mahwah, NJ: Lawrence Erlbaum Associates), pp. 247–87.
- Latham, K. and Wexley, G. (1981), *Increasing Productivity through Performance Appraisal* (Reading, MA: Addison-Wesley).
- Lim, D. and Morris, M. (2006), 'Influence of trainee characteristics, instructional satisfactions, organizational climate on perceived learning and training transfer', *Human Resources Development Quarterly*, **17**, 1, 85–115.
- Locke, E. and Latham, G. (2004), 'What should we do about motivation theory? Six recommendations for the twenty-first century', *Academy of Management Review*, **29**, 3, 388–404.
- Ma, C. and Chang, H. (2013), 'Training transfer in the Taiwanese hotel industry: factors and outcomes', *Social Behavior and Personality*, **41**, 5, 761–76.
- Mathieu, J., Tannenbaum, S. and Salas, E. (1992), 'Influences of individual and situational characteristics on measures of training effectiveness', *Academy of Management Journal*, **35**, 4, 828–47.
- Mathieu, J., Martineau, J. and Tannenbaum, S. (1993), 'Individual and situational influences on the development of self efficacy: implications for training effectiveness', *Personnel Psychology*, **46**, 1, 125–47.
- Maurer, T. J. and Tarulli, B. A. (1994), 'Investigation of perceived environment, perceived outcome, and person variables in relationship to voluntary development activity by employees', *Journal of Applied Psychology*, **79**, 1, 3–14.
- McKnight, B. and Bontis, N. (2002), 'E-Improvisation: collaborative groupware technology expands the reach and effectiveness of organizational improvisation', *Knowledge and Process Management*, **9**, 4, 219–27.
- Noe, R. (1986), 'Trainees' attributes and attitudes: neglected influences on training effectiveness', *The Academy of Management Review*, **11**, 4, 736–49.
- Noe, R. (2010), *Employee Training and Development*, 5th edn (Singapore: McGraw-Hill International Edition).
- Noe, R. and Schmitt, N. (1986), 'The influence of trainee attitudes on training effectiveness: test of a model', *Personnel Psychology*, **39**, 3, 497–523.
- Noe, R. and Wilk, S. L. (1993), 'Investigation of the factors that influence employees' participation in development activities', *Journal of Applied Psychology*, **78**, 2, 291–302.
- Pelozo, J. and Hassay, D. (2006), 'Intra-organizational volunteerism: good soldiers, good deeds, and good politics', *Journal of Business Ethics*, **64**, 4, 357–79.
- Persico, J. and McLean, G. N. (1994), 'Manage with valid rather than invalid goals', *Quality Progress*, **27**, 4, 49–53.
- Podsakoff, P. M., MacKenzie, S. M., Lee, J. and Podsakoff, N. P. (2003), 'Common method variance in behavioral research: a critical review of the literature and recommended remedies', *Journal of Applied Psychology*, **88**, 5, 879–903.
- Porter, L. and Lawler, E. (1968), *Managerial Attitudes and Performance* (Homewood, IL: Irwin-Dorsey).
- Quinones, M. A. (1995), 'Pretraining context effects: training assignment as feedback', *Journal of Applied Psychology*, **80**, 2, 226–38.
- Renaud, S., Morin, L. and Cloutier, J. (2006), 'Participation in voluntary training activities in the Canadian banking industry: do gender and managerial status matter?', *International Journal of Manpower*, **27**, 7, 341–54.

- Robertson, I. and Downs, S. (1979), 'Learning and the prediction of performance: development of trainability testing in the United Kingdom', *Journal of Applied Psychology*, **64**, 1, 42–50.
- Ryan, R. and Deci, E. (2000), 'Self-determination theory and the facilitation of intrinsic motivation, social development and well-being', *American Psychologist*, **55**, 1, 68–78.
- Ryman, D. and Biersner, R. (1975), 'Attitudes predictive of diving training success', *Personnel Psychology*, **28**, 2, 465–81.
- Saks, A. and Belcourt, M. (2006), 'An investigation of training activities and transfer of training in organizations', *Human Resource Management*, **45**, 4, 629–48.
- Saks, A. and Burke-Smalley, L. (2014), 'Is transfer of training related to firm performance?', *International Journal of Training and Development*, **18**, 2, 104–15.
- Stovel, M. and Bontis, N. (2002), 'Voluntary turnover: knowledge management friend or foe', *Journal of Intellectual Capital*, **3**, 3, 303–22.
- Tharenou, P. (2001), 'The relationship of training motivation to participation in training and development', *Journal of Occupational and Organizational Psychology*, **74**, 5, 599–621.
- Tsai, W. and Tai, W. (2003), 'Perceived importance as a mediator of the relationship between training assignment and training motivation', *Personnel Review*, **32**, 2, 151–63.
- Velada, R., Caetano, A., Michel, J., Lyons, B. and Kavanagh, M. (2007), 'The effects of training design, individual characteristics and work environment on transfer of training', *International Journal of Training and Development*, **11**, 4, 282–94.
- Vroom, V. (1974), 'Decision making and the leadership process', *Journal of Contemporary Business*, **3**, 47–64.
- Weissbein, D., Huang, J., Ford, J. and Schmidt, A. (2011), 'Influencing learning states to enhance trainee motivation and improve training transfer', *Journal of Business Psychology*, **26**, 4, 423–35.
- Yamnill, S. and McLean, G. (2001), 'Theories supporting transfer training', *Human Resource Development Quarterly*, **12**, 2, 195–208.
- Yardley, S. (2003), 'Perceptions/comparisons: voluntary and mandatory pre-employment government training', *Journal of European Industrial Training*, **27**, 7, 341–54.