New Ideas for a Complex Paradigm:

Testing the Role of Positivity within Training Transfer

Ramon Wenzel

The University of Western Australia, Business School

Email: ramon.wenzel@uwa.edu.au

Training and development activities often do not realise the benefits they were designed for because trainees tend to apply (too) little of what they have learned to their work place. This 'training transfer' problem is of considerable concern, particularly in the current context of projected skills shortages. This paper draws on social-cognitive theory and positive psychology to offer new insights into how training transfer could be improved. It is proposed that trainees' positive cognitions (hope, optimism, self-efficacy, resilience) positively influence motivation to transfer and hence actual transfer of training. Findings from an exploratory study involving 800 members of a professional training association suggest the notion of trainee positivity can offer new insights into how training transfer may be more effectively managed.

Keywords: learning and development; human resource development; motivation; work performance; occupational training; management training/education/development

"Knowing is not enough; we must apply. Willing is not enough; we must do."

Johann Wolfgang von Goethe

Despite current economic uncertainties, there have been increasing calls for higher levels of skill to be developed and deployed within the Australian workforce (Skills Australia, 2012). Whilst current employer direct expenditure on workforce training is unknown, it was estimated a decade ago that 80% of Australian workers were receiving some form of structured training at their employer's expense, with total costs estimated at 1.3% of payroll (ABS, 2003). In the USA, organisations spent about $171.5 billion on employee learning and development in 2010, despite the economic downturn, with an estimated average investment per employee of $1,228 or 2.27% direct expenditure of the payroll (ASTD, 2011). In the United Kingdom, total employer expenditure on work-related training in 2011 was estimated at £49bn. (Vivian, Mark, Jan, & Davies, 2011). In Europe, 70% of those attending a recent summit of business leaders still felt that increased investment in education and skills was the appropriate response in times of economic crisis (Accenture, 2012).

Whilst investment in training and development does have the potential to deliver substantial benefits for employers and employees alike (Aguinis & Kraiger, 2009), evidence on the degree to which such benefits are realised is surprisingly mixed (Alliger, Tannenbaum, Bennett Jr., Traver, & Shotland, 1997; Colquitt, LePine, & Noe, 2000; Tharenou, Saks, & Moore, 2007). Increasingly, it is recognised that training must not only take place, but the skills and knowledge thus acquired must also must be applied or 'transferred' to the workplace, if significant benefits for both employers and employees are to eventuate (Baldwin, Ford, & Blume, 2009; Skills Australia, 2010). Although the claim that trainees use only 10% of their trained skills at work, should be considered "a cautionary tale" (Ford, Yelon, & Billington, 2011), scholars agree that the time, money, and energy invested into training are insufficiently converted (Grossman & Salas, 2011). Thus, for researchers and practitioners training transfer remains a challenge.

THE TRAINING TRANSFER PARADIGM

Training can be understood as the systematic acquisition of knowledge, skills and attitudes that lead to improved work, individual or organisational performance (Grossman & Salas, 2011). Training transfer occurs when trainees make effective use of what they have learned in training when performing their work. Such transfer poses something of a challenge for trainees, as it requires that they generalize learning to the job context and maintain the use of trained knowledge or skills over time on the job (Baldwin & Ford, 1988). Since Baldwin and Ford's (1988) seminal paper researchers have investigated a range of factors that can affect the effective application of knowledge, skills and abilities acquired through training and development activities (Alliger et al., 1997; Burke & Hutchins, 2008; Ford & Weissbein, 1997; Salas & Cannon-Bowers, 2001; Salas & Kozlowski, 2009). However, despite these efforts, a recent review concluded that more research is still needed as "conclusions regarding the key components of transfer remain somewhat ambivalent" (Grossman & Salas, 2011, p. 104). A meta-analysis by Blume, Ford, Baldwin, and Huang (2010) revealed that only a few of those factors that have been identified as potentially influencing training effectiveness are consistent predictors. They concluded that the amount of actual research on strategies and malleable factors that allow facilitating positive transfer of formal employee training is still insufficient.

Conceptual models continue to highlight the key role of employee motivation in facilitating the training process in general, including the transfer of learned knowledge, skills and abilities (Beier & Kanfer, 2009; Kontoghiorghes, 2004). However, there is substantial ambiguity surrounding the concept of training-related motivation: what it is, what triggers it, and what are the motivational mechanisms underpinning successful transfer of learning to on-the-job behaviour (Hutchins & Burke, 2007). This has led Noe, Tews, and McConnell-Dachner (2010) to call for further research that identifies and operationalises key psychological processes underpinning the training transfer process.

In response to these shortcomings, this paper focuses on the motivation to transfer what is learned through training (transfer motivation). Transfer motivation is conceptualised in terms of three core dimensions ('Can do', 'Reason to', "Energised to'; Wenzel, 2012). It is subsequently argued that the degree to which these motivational elements develop, resulting in an increased likelihood of effective training transfer, will depend on the strength of four employee cognitions: Hope, optimism, self-

efficacy, and resilience. In this paper, I present a new conceptual model that links the four positive work orientations to transfer effectiveness by means of the three elements of transfer motivation. Subsequently, this model is empirically tested using a large sample of professionals who had recently undergone training. The paper makes a significant and unique theoretical, empirical and practical contribution to the literature on training transfer. The so-called 'positive' cognitions of hope, optimism, self-efficacy, and resilience have been widely studied in other areas (Avey, Reichard, Luthans, & Mhatre, 2011), but their relevance for transfer motivation has yet to be explored, conceptually or empirically. If proven, this link could prove to be of great practical significance, since such cognitions have been found to be susceptible to change via intervention (e.g. Davidson, 2012; Feldman & Dreher, 2011; Folke et al., 2002; Luthans, Avey, Avolio, & Peterson, 2010)

A COGNITIVE-MOTIVATIONAL APPROACH

A central premise of social-cognitive theory is that human individuals are reflective, self-regulating agents who are not only products but also producers of their environment (Bandura, 2001). That is, individuals do not have a direct read on reality, but their information about the world is screened through their thought and belief systems. The ensuing attributions and cognitive judgments of oneself and the environment establish the motivation to act. Motivation, understood as a contextualised dynamic process, subsequently determines behaviour (Weissbein, Huang, Ford, & Schmidt, 2010).

Explicitly, cognitions about events are important mediators of the effect of events on a person's motivation and behaviour. Therefore, I propose that elevated levels of positive thoughts and beliefs about the work experience generate higher levels of individual motivation to transfer received training to work, leading in turn to more effective training transfer.

Trainee Positivity

In recent times, much attention has been devoted to the study of four positively-framed cognitions as they impact on behaviour in organisational settings. They are: *hope*, *optimism*, *self-efficacy*, and

resilience. Luthans and colleagues (Luthans, 2004) argue that they jointly represent a higher-order construct coined 'psychological capital'. Stajkovic (2006) describes them as 'core confidence' constructs, pointing out that "employee's concerns over their work are typically linked to a perceived lack of confidence to handle work demands rather than to the objective difficulty to executing such demands". Although hope, optimism, and resilience have received considerable attention within social, clinical, and personal psychology, where they have been shown to have positive influence on human functioning, researchers have made few connections between these constructs and the learning and development domain. However, conceptually there is strong utility for all four constructs to be associated with training outcomes and effectiveness.

Hope is defined as "the perceived capability to derive pathways to desired goals, and motivate oneself via agency thinking to use those pathways" (Snyder, 2002). Hope is comprised of three elements: goals, pathways, and agency. Goals provide the targets for mental action sequences. Yet, they remain unanswered calls without the necessary means to reach them via thoughts of generating usable routes - pathways. Lastly, agency is the motivational component in hope, manifesting in the perceived capacity to use one's pathways to reach desired goals (Snyder, 2002). In short, hopeful individuals identify specific goals, want to achieve them, and know how to go about doing that.

Optimism entails holding positive expectations about the future (Peterson, 2000). Regardless of present circumstances, an optimistic belief anticipates that future events will be positive in nature and negative events scarce. Consecutively this defines individual's self-regulation processes; that is, how people identify, adopt, and pursue goals (Carver, Scheier, & Segerstrom, 2010). Thus, when encountering difficulties in pursuit of a goal, if one believes that positive outcomes are most likely then persistence is more likely.

Self-efficacy refers to a person's belief that one can generate necessary means in order to perform well in a particular situation (Bandura, 1998). More specifically, self-efficacious thoughts appraise the ability to accomplish goals via existing resources such as knowledge, skills, or energy to successfully execute required actions. The belief of one's confidence was found to have extensive impact on various work-related performance and organisational outcomes: the higher the self-efficacy, the better the performance outcomes (Bandura, 2000; Stajkovic & Luthans, 1998).

Resilience is defined as the capability of individuals to cope successfully in the face of significant change, adversity, or risk (Masten, 2001) and may also be understood as "a capacity to rebound or bounce back from adversity, uncertainty, conflict, failure or even positive change, progress and increased responsibility" (Luthans, 2002). Resilience contributes to performance by producing sustained focus on established goals in the face of ongoing or potential adversity and to refocus on meaningful goals if focus was lost.

Taken together, hope, optimism, self-efficacy, and resilience represent positive cognitions that continuously appraise situations and conditions of the environment and oneself. It is argued that these thoughts and beliefs regarding one's work experience positively influence how individuals – as employees and trainees – set and strive for goals related to professional training activities. Accordingly, a person must know what to do at work, how to do it, and have the will to do it (hope). A person must also believe that efforts sooner or later lead to desired outcomes at work (optimism). A person must further have sufficient conviction that he or she can actually handle demands at work using available resources (self-efficacy). Ultimately, a person must sustain focus to persist at work if obstacles arise or refocus to bounce back from setbacks (resilience).

In the literature, hope, optimism, resilience, and self-efficacy originated independently and scholars argue that they conceptually represent discrete constructs (Aspinwall & Leaf, 2002; Luthans, 2006; Shorey, Snyder, Rand, Hockemeyer, & Feldman, 2009; Snyder, 2002). Research also demonstrated empirically that the constructs have discriminant validity predicting favourable outcomes in the wider work performance domain (Avey, Reichard, Luthans, & Mhatre, 2011; Bailey, Eng, Frisch, & Snyder, 2007; Bruininks & Malle, 2006; Bryant & Cvengros, 2004; Carifio & Rhodes, 2002; Carvajal, Clair, Nash, & Evans, 1998; Davidson, 2012; Huprich & Frisch, 2004; Magaletta & Oliver, 1999; Rand, 2009; Rand, Martin, & Shea, 2011; Shorey, Little, Snyder, Kluck, & Robitschek, 2007). In consequence there is reason to believe that hope, optimism, self-efficacy, and resilience offer similar access to psychological mechanisms of and for enhancing training success via transfer motivation.

Transfer Motivation

Transfer motivation is described as the trainee's desire to use the competencies learned in training on the job (Noe, 1986; Noe & Schmitt, 1986). It occupies a central role in existing conceptualisations of transfer processes, as being a predictor of whether or not a trainee will choose to expend effort in order to apply newly acquired competencies in the workplace (Holton, Bates, & Ruona, 2000; Latham, 2007). However, for the most part, the training effectiveness literature has paid relatively limited attention to the underlying psychological mechanisms through which transfer motivation leads to desired outcomes. Existing constructs of transfer motivation have been described as being one-dimensional, ill-conceived, and insufficient (Gegenfurtner, Veermans, Festner, & Gruber, 2009).

Recently, Wenzel (2012) proposed a multi-dimensional transfer motivation construct based on motivational theory by Parker, Bindl and Strauss (2010). Specifically, *can-do*, *reason-to*, and *energised-to* were suggested as three complementary motivational dimensions needed to prompt goal generation and sustain goal striving, thereby reflecting vital processes for training transfer.

Can-do motivation arises from perceptions of self-efficacy, control, and (low) cost. Individuals need to feel confident they can engage in an activity, such as trialling a new skill for the very first time. Aspinwall (2005) suggested that individuals may not engage in tasks if they perceive the effort involved as too costly in terms of time, money, energy, or other resources relative to the gain they may provide. Efficacy beliefs have also been shown to enhance persistence and increase individuals' willingness to overcome obstacles (Bandura, 2000), both of which are essential when mastering and applying a new skill.

Reason-to motivation relates to why someone generates and strives for goals. For example, trainees might feel able to apply a new skill, but have no compelling reason to do so. Individuals therefore need to have a desire to transfer new knowledge, and thus see a value associated with getting involved in such a task. 'Reason-to' motivation is well recognised in existing theory, such as the concept of utility judgments in expectancy theory (Vroom, 1964). Individuals will pursue goals because they recognise that change toward the envisioned future outcome is important, for themselves and/or for others. A trainee thus may draw on reason-to motivation when the transfer action (though maybe not personally relevant) is accepted or owned as personally important.

Energised-to motivation refers to activated positive affective states that can affect the setting of and striving for goals. Energised motivation refers to momentary, elementary feelings that combine both valence and activation (Russell, 2003). For example, positive affect fosters the setting of more challenging goals (Ilies & Judge, 2005), helps individuals engage with a more problematic future (Oettingen, Mayer, & Thorpe, 2005), and promotes taking charge behaviours (Fritz & Sonnentag, 2009). A high degree of activation increases the amount of effort put into a behaviour by increasing the experience of energy (Brehm, 1999). A trainee with positive feelings thus may be more enthused to master a difficult transfer task.

In sum, transfer motivation is understood as a trainee's direction, intensity, and persistence to apply new knowledge and use new competencies at work as a function of confidence beliefs, appreciation thoughts, and positive activating feelings.

Research Model

Altogether, trainees' positive cognitions (hope, optimism, self-efficacy, resilience) about their work experience are hypothesised to affect their motivation to transfer (can-do, reason-to, energised-to) which in turn influences subsequent transfer of training to the work place. In its broadest sense, this cognitive-motivational system is likely greater than the sum of its parts. However, to make meaningful assertions about the role of each state, and ultimately understand how we can leverage different aspects for desired outcomes, we must study these individual parts. In addition, to further explore trajectories of transfer motivation onto outcome variables reflecting training success, the research model distinguishes between the initiation of training transfer and the effectiveness of the training. The former describes the enactment of change and transfer behaviours whereas the latter represents consequences of that change. All of the proposed relationships are visually summarised in Figure 1 below.

Insert Figure 1 About Here

An empirical investigation of these proposed trajectories and the extent to which they might impact training success, is described next.

EXPLORATORY STUDY

Sample and Procedure

800 valid responses (20% response rate) were collected via an online self-report questionnaire from trainees who had undergone one of various formal work training courses offered by a major Australian training provider. The training courses cover a range of domains, job levels, as well as low and high complexity skills (e.g. software training, administration assistance, site safety, or people skills). Participants age ranges from 18 to 69 with a mean of 39 years, 47.6% respondents are male, 93.3% work in full-time positions, 81.9% have remained in the same position since undertaking the training.

Measures

Unless otherwise stated, respondents were asked how much they agree or disagree with certain statements on a 5-point self-report response scale: (1) Strongly disagree, (2) Disagree, (3) Neither, (4) Agree, (5) Strongly agree.

Trainee positivity was operationalised by selecting 6 items from each of the four construct's original state scales and adapting them to fit the work context, if necessary. *Optimism* was measured using the Life Orientation Test-Revised (LOT-R) developed by Scheier, Carver, and Bridges (1994). A sample item reads: "When things are uncertain for me at work, I usually expect the best." *Hope* was measured using the State Hope Scale (SHS) developed by Snyder et al. (1996). A sample item reads: "There are lots of ways around any problem that I am facing now at work." *Self-efficacy* was measured using the New General Self-Efficacy Scale (NGSE) developed by Chen, Gully, and Eden (2001). Parker's (1998) scale for Role Breadth Self-Efficacy was considered less suitable as some items target a managerial profession which is only one population of the trainee sample in this study. A sample item of the NGSE reads: "I am able to achieve most of my goals at work." *Resilience* was

be measured using the Resilience Scale (RS-14) developed by Wagnild (2009). A sample item reads: "At work, I usually manage one way or another."

Transfer motivation was measured by an instrument specifically developed for this study. Feasible items from existing transfer motivation measures were collated and redundant items were merged or discarded. Based on its meaning each item was then associated with one of the three motivational dimensions or discarded due to non-fit. Based on conceptual suggestions by Wenzel (2012), additional items were developed to complete typical aspects of training transfer. For the resulting initial 52 item pool, a consistent syntax was then applied to each item across the three dimensions. A basket-sorting exercise by ten PhD students resulted in 10 items being discarded due to inter-rater item matching problems. The remaining 42 items were then pilot tested in an independent trainee sample (n=369) of similar composition to the participants of this survey. The resulting 12 items (3x4) were sensibly selected considering sub-scale reliability (α = .90), item loadings (all above .65), and theoretical coverage of the three dimensions. A confirmatory factor analysis showed a three factor solution (Chi-square=387; CFI=0.959; DF=132; RMSEA=0.054) is a better fit to the data than a one-factor solution (Chi-square=433; CFI=0.924; DF=135; RMSEA=0.073). Sample items read: "I am able to apply new skills at work as a result of this training." (can-do); "Using the new skills is of great practical value to me for my job." (reason-to); "I feel enthusiastic about using this training on the job." (energised-to).

Training Success was distinguished between training transfer behaviours and the effectiveness of these behaviours. Due to the highly heterogeneous sample covering various training programs and work contexts, the measure had to cover generic transfer aspects. *Training transfer* was measured using 3 items describing the actual initiation and application of a trained competency at work. A sample item reads "I made changes to how I do my work based on this training." Ideally an applied competency has the effect it was intended to have originally based on the needs analysis and derived intervention design. *Training effectiveness* was measured using 3 items based on Xiao (1996). A sample item reads: "Supervisors, peers, or subordinates have told me that my work performance/quality has improved following the training.".

Analyses

Descriptive statistics and scale intercorrelations are presented in Table 1. Testing for the presence of common method effect I conducted a Harman's one-factor test (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). All self-report variables were entered into an exploratory factor analysis (EFA), using unrotated principal components factor analysis and principal axis analysis with promax rotation. In both cases the EFA revealed five distinct factors (eigenvalue > 1.0, explaining 24, 12, 8, 7, and 6 standardised percent of the variance respectively) and not a single factor that would indicate a substantial amount of common method variance is present.

I used path analysis in structural equation modelling (SEM) software (MPlus) to test relationships proposed in figure 1. This SEM technique is considered more rigorous than typical stepwise regression techniques as all mediation paths are measured simultaneously rather than step by step. Measurement properties further indicated that structural equation modelling was appropriate. The theorised model showed a good fit ($\chi 2$=545.258, df=377, p<.01, CFI=.984, TLI=.981 RMSEA=.024 SRMR=.027) and was more parsimonious than two possible alternate models (positivity partially and not mediated via transfer motivation on outcome variables).

Findings

Results suggest that individuals with more positive cognitions about their work experience are more motivated to transfer trained competencies to the job. Moreover, this elevated transfer motivation appears to convert to behaviour changes and increases in performance as reported by the trainee. However, some of proposed relationships in this study were not supported or insignificant. These differential effects are reported next.

Hope show significant relationships with can-do (β=.358) and reason-to motivation (β=.328). Self-efficacy in turn only show significant relationship with energised-to motivation (β=.214). Surprisingly, optimism and resilience show no significant relationships with any motivational dimensions.

All three motivational dimensions can-do (β=.552), reason-to (β=.384), and energised-to (β=.207) significantly affect training transfer. However, only can-do (β=.375) and reason-to (β=.216) motivation show significant effects on training effectiveness.

The significant paths from hope and self-efficacy to training transfer and training effectiveness are fully mediated by the motivational dimensions can-do and reason-to or energised-to respectively.

Insert Figure 2 About Here

DISCUSSION AND CONCLUSIONS

The contributions of this paper are twofold. First, it suggests a new way of understanding the role of positive cognitions in the process of transferring training. Although transfer motivation is already considered a key construct for training effectiveness, there is still substantial ambiguity in its conceptualisation and operationalisation. Second, the multi-dimensional construct used here is a useful attempt to explicate dynamic motivational mechanisms. The joint approach may be understood as a first step in unpacking processes that further help improving the effectiveness training. Relevance of such continued inquiry is justified when considering the strategic function of training and development for organisations' competitiveness. Together, this study is arguably amongst the earliest to merge multidimensional social-cognitive and motivational theory to illustrate how research can explore untapped 'positive' psychological mechanisms underlying training transfer.

The limitations of a cross-sectional self-report study design need to be acknowledged. Causation cannot be inferred. Also, although the one-factor test was negative, same source bias due to the study design may be an issue and replication via longitudinal study design and multiple data sources is suggested. Conversely, the large and heterogeneous sample population can be considered a strength. Using trainees from different backgrounds that were trained in various competencies allows generalising the findings to some extent. Ultimately, the study's differential findings are intriguing.

Given the substantial effect of hope, this positive construct may need to complement efficacious beliefs in future research and facilitation endeavours. And although optimism and resilience showed

no significant effect in the current study, they shall not be ruled out. Both may be more relevant in other stages of the training process, such as learning during training. For instance, resilience helps to recover from mistakes whereas optimism shifts the attention to positive beliefs about the future, both potentially leading to heightened perseverance in the face of obstacles during skill learning and mastery attempts.

Moreover, the multi-dimensional transfer motivation allowed useful insights about discrete trajectories. In the presented study, positive affect (energised-to transfer motivation) seems vital for initiating training transfer behaviours. Future investigations should examine how features of the work environment and characteristics of the training design and delivery affect trainee's positivity, transfer motivation, and thus subsequent training transfer.

Also, the nature and complexity of the competencies trained most likely has to be considered. For instance, it is conceivable that high complexity skills may require elevated levels of hope (i.e. proximal goals, specific pathways) to activate sufficient energy-to motivation that initiates the transfer of this competency to the job.

Based on the malleable nature and theoretical grounding of hope and energised-to motivation, researchers and practitioners are invited to develop facilitating activities. Methods have been developed that enhance an individual's hope (e.g. Snyder, 2002) or generate positive affect for particular behaviours (e.g. Isen, & Reeve, 2005). Interventions that combine these motivational facets may represent untapped levers for enhancing training effectiveness.

Taken together, for researchers, a clearer understanding of the complex interplay between cognitions, motivations, and behavioural responses can help to build a more complete theoretical framework on which future training transfer investigations can be built. For practitioners, a better understanding of how individual states may impact training success might be helpful for designing approaches that effectively elicit desirable transfer behaviours.

REFERENCES

ABS. (2003). *Employer Training Expenditure and Practices, Australia, 2001-02* (p. 44).

ASTD. (2011). *State Of The Industry 2011 - Annual Review of Workplace Learning and Development Data* (p. 70).

Accenture. (2012). *Turning the Tide: How Europe Can Rebuild Skills and Generate Growth* (p. 56).

Aguinis, H., & Kraiger, K. (2009). Benefits of Training and Development for Individuals and Teams, Organizations, and Society. *Annual Review of Psychology*, *60*(1), 451–474.

Alliger, G. M., Tannenbaum, S. I., Bennett Jr., W., Traver, H., & Shotland, A. (1997). A meta-analysis of the relations among training criteria. *Personnel psychology*, *50*(2), 341–358.

Aspinwall, L. G. (2005). The psychology of future-oriented thinking: From achievement to proactive coping, adaptation, and aging. *Motivation and Emotion*, *29*(4), 203–235.

Aspinwall, L. G., & Leaf, S. L. (2002). In search of the unique aspects of hope: Pinning our hopes on positive emotions, future-oriented thinking, hard times, and other people. *Psychological Inquiry*, *13*(4)

Avey, J. B., Reichard, R. J., Luthans, F., & Mhatre, K. H. (2011). Meta-Analysis of the Impact of Positive Psychological Capital on Employee Attitudes , Behaviors , and Performance. *Human Resource Development Quarterly*, *22*(2), 127–152.

Bailey, T. C., Eng, W., Frisch, M. B., & Snyder, C. R. (2007). Hope and optimism as related to life satisfaction. *The Journal of Positive Psychology*, *2*(3), 168–175.

Baldwin, T. T., & Ford, K. J. (1988). Transfer of Training: a Review and Directions for Future Research. *Personnel Psychology*, *41*(1), 63–105.

Baldwin, T. T., Ford, K. J., & Blume, D. B. (2009). Transfer of Training - 1988-2008 - An Updated Review and Agenda for Future Research. In G. P. Hodgkinson & J. K. Ford (Eds.), *International Review of Industrial and Organizational Psychology* (Volume 24., pp. 41–70). Hoboken: John Wiley & Sons, Ltd.

Bandura, A. (2000). Self-efficacy. *Corsini Encyclopedia of Psychology*.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual review of psychology*, *52*(1), 1–26.

Beier, M. E., & Kanfer, R. (2009). Motivation in training and development: A phase perspective. In S. W. J. Kozlowski & E. Salas (Eds.), *Learning, training, and development in organizations* (pp. 65–97). Psychology Press.

Blume, D. B., Ford, K. J., Baldwin, T. T., & Huang, J. L. (2010). Transfer of Training: A Meta-Analytic Review. *Journal of Management*, *36*(4), 1065–1105.

Brehm, J. (1999). The intensity of emotion. *Personality and Social Psychology Review*, *3*(1), 2–22.

Bruininks, P., & Malle, B. F. (2006). Distinguishing Hope from Optimism and Related Affective States. *Motivation and Emotion*, *29*(4), 324–352.

Bryant, F. B., & Cvengros, J. a. (2004). Distinguishing Hope and Optimism: Two Sides of a Coin, or Two Separate Coins? *Journal of Social and Clinical Psychology*, *23*(2), 273–302.

Burke, L. A., & Hutchins, H. M. (2008). A study of best practices in training transfer and proposed model of transfer. *Human resource development quarterly*, *19*(2), 107–128.

Carifio, J., & Rhodes, L. (2002). Construct validities and the empirical relationships between optimism, hope, self-efficacy, and locus of control. *Work (Reading, Mass.)*, *19*(2), 125–36.

Carvajal, S. C., Clair, S. D., Nash, S. G., & Evans, R. I. (1998). Relating optimism, hope, and self-esteem to social influences in deterring substance use in adoloscents. *Journal of Social and Clinical Psychology*, *17*(4), 443–465.

Carver, C. S., Scheier, M. F., & Segerstrom, S. C. (2010). Optimism. *Clinical psychology review*, *30*(7), 879–89.

Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a New General Self-Efficacy Scale. *Organizational Research Methods*, *4*(1), 62–83.

Colquitt, J. A., LePine, J. A., & Noe, R. A. (2000). Toward an integrative theory of training motivation: A meta-analytic path analysis of 20 years of research. *Journal of applied psychology*, *85*(5), 678.

Davidson, O. (2012). A Focused Intervention for 1st-Year College Students: Promoting Hope, Sense of Coherence, and Self-Efficacy. *The Journal of Psychology*.

Feldman, D. B., & Dreher, D. E. (2011). Can Hope be Changed in 90 Minutes? Testing the Efficacy of a Single-Session Goal-Pursuit Intervention for College Students. *Journal of Happiness Studies*, *13*(4), 745–759. doi:10.1007/s10902-011-9292-4

Folke, C., Carpenter, S., Elmqvist, T., Gunderson, L., Holling, C. S., & Walker, B. (2002). Resilience and sustainable development: building adaptive capacity in a world of transformations. *Ambio*, *31*(5), 437–40.

Ford, K. J., & Weissbein, D. A. (1997). Transfer of training: An updated review and analysis. *Performance Improvement Quarterly*, *10*(2), 22–41.

Ford, K. J., Yelon, S., & Billington, Q. A. (2011). How much is transferred from training to the job - The 10% Delusion as a catalyst for thinking about transfer.pdf. *Performance Improvement Quaterly*, 7–24.

Fritz, C., & Sonnentag, S. (2009). Antecedents of Day-Level Proactive Behavior: A Look at Job Stressors and Positive Affect During the Workday. *Journal of Management*, *35*(1), 94–111.

Gegenfurtner, A., Veermans, K., Festner, D., & Gruber, H. (2009). Motivation to Transfer Training: An Integrative Literature Review. *Human Resource Development Review*, *8*(3), 403–423.

Grossman, R., & Salas, E. (2011). The transfer of training: what really matters. *International Journal of Training and Development*, *15*(2), 103–120.

Holton, E. F., Bates, R. A., & Ruona, W. E. A. (2000). Development of a generalized learning transfer system inventory. *Human Resource Development Quarterly*, *11*(4), 333–360.

Huprich, S. K., & Frisch, M. B. (2004). The Depressive Personality Disorder Inventory and Its Relationship to Quality of Life, Hopefulness, and Optimism. *Journal of Personality Assessment*, *83*(1), 22–28.

Hutchins, H. M. H. M., & Burke, L. A. (2007). Identifying trainers' knowledge of training transfer research findings – closing the gap between research and practice. *International Journal of Training and Development*, *11*(4), 236–264.

Ilies, R., & Judge, T. A. (2005). Goal regulation across time: the effects of feedback and affect. *Journal of Applied Psychology*, *90*(3), 453–467.

Kontoghiorghes, C. (2004). Reconceptualizing the learning transfer conceptual framework: empirical validation of a new systemic model. *International Journal of Training and Development*, *8*(3), 210–221.

Latham, G. P. (2007). *Work motivation: history, theory, research, and practice* (p. 337). SAGE.

Luthans, F. (2002). Positive organizational behavior: Developing and managing psychological strengths. *Academy of Management Executive*, *16*(1), 57–72.

Luthans, F. (2004). Positive psychological capital: beyond human and social capital. *Business Horizons*, *47*(1), 45–50.

Luthans, F. (2006). Developing the Psychological Capital of Resiliency. *Human Resource Development Review*, *5*(1), 25–44.

Luthans, F., Avey, J. B., Avolio, B. J., & Peterson, S. J. (2010). The Development and Resulting Performance Impact of Positive Psychological Capital. *Human Resource Development Quarterly*, *21*(1), 41–67.

Magaletta, P. R., & Oliver, J. M. (1999). The Hope Construct, Will, and Ways: Their Relations with Self-Efficacy, Optimism, and Genefal Well-Deing. *Journal of Clinical Psychology*, *55*(5), 539–551.

Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American psychologist*, *56*(3), 227.

Noe, R. (1986). Trainees' Attributes and Attitudes: Neglected Influences on Training Effectiveness. *The Academy of Management Review*, *11*(4), 736.

Noe, R., & Schmitt, N. (1986). The Influence of Trainee Attitudes on Training Effectiveness: Test of a Model. *Personnel Psychology*, *39*(3), 497–523.

Noe, R., Tews, M. J., & McConnell Dachner, A. (2010). Learner Engagement: A New Perspective for Enhancing Our Understanding of Learner Motivation and Workplace Learning. *The Academy of Management Annals*, *4*(1), 279–315.

Oettingen, G., Mayer, D., & Thorpe, J. (2005). Turning fantasies about positive and negative futures into self-improvement goals. *Motivation and Emotion*, *29*(4), 237–267.

Parker, S. K. (1998). Enhancing role breadth self-efficacy: the roles of job enrichment and other organizational interventions. *The Journal of applied psychology*, *83*(6), 835–52.

Parker, S. K., Bindl, U. K., & Strauss, K. (2010). Making Things Happen: A Model of Proactive Motivation. *Journal of Management*, *36*(4), 827–856.

Peterson, C. (2000). The Future of Optimism. *American Psychologist*, *55*(1), 44–55.

Podsakoff, P. M., MacKenzie, S., Lee, J., & Podsakoff, N. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of applied psychology*, *88*(5), 879.

Rand, K. L. (2009). Hope and optimism: Latent structures and influences on grade expectancy and academic performance. *Journal of personality*.

Rand, K. L., Martin, A. D., & Shea, A. M. (2011). Hope, but not optimism, predicts academic performance of law students beyond previous academic achievement. *Journal of Research in Personality*, *45*(6), 683–686.

Russell, J. A. (2003). Core affect and the psychological construction of emotion. *Psychological review*, *110*(1), 145–172.

Salas, E., & Cannon-Bowers, J. A. (2001). The science of training: a decade of progress. *Annual review of psychology*, *52*, 471–99.

Salas, E., & Kozlowski, S. W. J. (2009). Much Progress and a Peek Over the Horizon. In S. W. J. Kozlowski & E. Salas (Eds.), *Learning, training, and development in organizations* (pp. 461–476). Routledge Academic.

Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the Life Orientation Test. *Journal of Personality and Social Psychology,*, *67*(6), 1063–1078.

Shorey, H. S., Little, T. D., Snyder, C. R., Kluck, B., & Robitschek, C. (2007). Hope and personal growth initiative: A comparison of positive, future-oriented constructs. *Personality and Individual Differences*, *43*(7), 1917–1926.

Shorey, H. S., Snyder, C. R., Rand, K. L., Hockemeyer, J. R., & Feldman, D. B. (2009). Somewhere Over the Rainbow: Hope Theory Weathers Its First Decade. *Psychological Inquiry*, *13*(4), 322–331.

Skills Australia. (2012). *Better use of skills , better outcomes□: A research report on skills utilisation in Australia* (p. 192).

Snyder, C. R. (2002). Hope Theory: Rainbows in the Mind. *Psychological Inquiry*, *13*(4), 249–275.

Snyder, C. R., Sympson, S. C., & Ybasco, F. C. (1996). Development and Validation of the State Hope Scale. *Journal of Personality and Social Psychology*, *70*(2), 321–335.

Stajkovic, A. D. (2006). Development of a core confidence-higher order construct. *The Journal of applied psychology*, *91*(6), 1208–24.

Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological bulletin*, *124*(2), 240–261.

Tharenou, P., Saks, A. M., & Moore, C. (2007). A review and critique of research on training and organizational-level outcomes. *Human Resource Management Review*, *17*(3), 251–273.

Vivian, D., Mark, W., Jan, S., & Davies, B. (2011). *UK Employer Skills Survey 2011: First Findings* (p. 32).

Vroom, V. H. (1964). *Work and motivation.* Oxford, England: Wiley.

Wagnild, G. (2009). A Review of the Resilience Scale. *Journal of Nursing Measurement*, *17*(2), 105–113.

Weissbein, D. A., Huang, J. L., Ford, K. J., & Schmidt, A. M. (2010). Influencing Learning States to Enhance Trainee Motivation and Improve Training Transfer. *Journal of Business and Psychology*, *26*, 423–435. x

Wenzel, R. (2012). In Desperate Need For Rejuvenation: Conceptualising And Measuring Training-Related Motivation. *72nd Annual Meeting of Academy of Management* (p. 40). Boston, MA.

Xiao, J. (1996). The Relationship Between Organizational Factors and the Transfer of Training in the Electronics Industry in Shenzhen, China. *Human Resource Development Quarterly*, *7*(1), 55–73.

Appendix

Figure 1

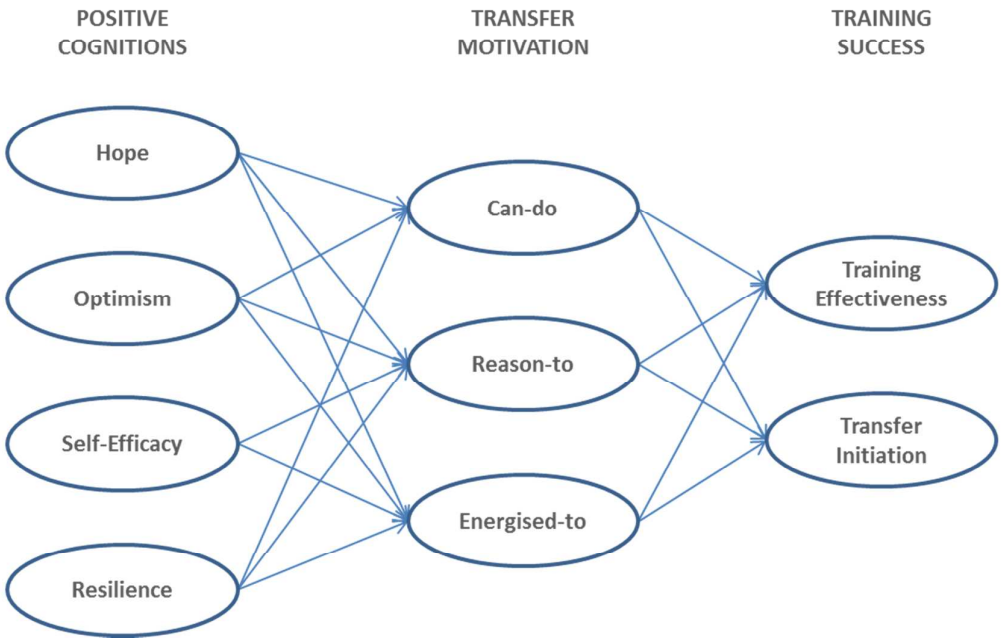
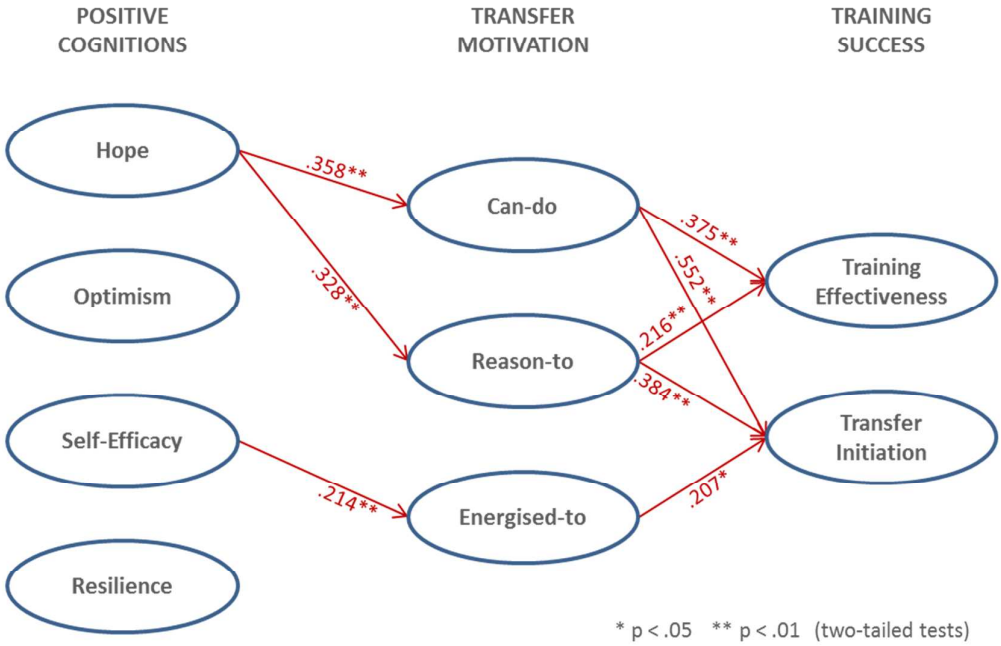


Figure 2



Means, Standard Deviations, and Intercorrelations of All Variables Included in the Study at the Individual Level (Pearson correlation computed in SPSS)

	Variable	*N*	*M*	*SD*	1	2	3	4	5	6	7	8	9
1	Hope	800	3.7573	.55345									
2	Optimism	800	3.9052	.49092	0.470 **								
3	Self-Efficacy	800	4.0985	.40958	0.663 **	0.413 **							
4	Resilience	800	3.9112	.44221	0.546 **	0.443 **	0.584 **						
5	Can-do Transfer Motivation	800	3.9170	.52873	0.355 **	0.154 **	0.319	0.272	—				
6	Reason-to Transfer Motivation	800	4.0118	.51899	0.289 **	0.094	0.262	0.753	0.753 **	—			
7	Energised-to Transfer Motivation	800	4.0439	.53771	0.275	0.119	0.284 **	0.714	0.714 **	0.785 **	—		
8	Training Transfer	800	3.1792	.86231	0.296 **	0.094	0.251 **	0.600	0.600 **	0.611 **	0.618 **	—	
9	Training Effectiveness	800	3.3852	.67347	0.337 **	0.099	0.281 **	0.706	0.706 **	0.741 **	0.706 **	0.923 **	—

Note. * p < .05, ** p < .01