

THE IMPACT OF PROACTIVE PERSONALITY IN PREDICTING TRAINING OUTCOMES

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ABSTRACT

While there has been extensive research in the past in the field of training transfer, there has been little empirical work done examining the influence of personality. Specifically, the paper examines the role of participants' age in moderating the relationship between proactive personality and motivation to transfer and training transfer. The study used random sampling from 187 employees working in a large paint manufacturing company based in India. Data was analyzed using OLS regression followed by multi-group mediation analysis using bootstrapping. The discussion provides insights into training initiatives within the organisation and recommendations for practice.

Keywords: Proactive personality, motivation to transfer, training transfer.

INTRODUCTION

Organisations are increasingly becoming aware of the need to invest in employee competence development through training. Several studies have highlighted the importance of training and its benefits to individuals and organisations at large (Maurer & Tarulli 1994; Maurer, Weiss, & Barbeite 2003). According to the American Society of Training and Development (2012), US companies spent approximately \$1,182 per employee in 2011 to enhance their employees' skills and competencies. Of the allocated budget for training, \$87.5 billion (56 percent) was dedicated to internal training expenses. The number of training opportunities available is increasing dramatically with various organisations taking advantage of open source learning, adaptive learning methods and web based learning, which individuals can complete at their own pace. These self-guided and informal courses highlight the need for a collaborate approach among the learner, facilitator, line manager and the organisation at large. This view echoes with the partnership model (Wordsworth, Malinen & Sloman 2012) that highlights joint responsibility of all stakeholders in the training process.

Nearly 40 percent of the participants attending job-related training programs fail to transfer their acquired knowledge to their job post the training, and in total only 50 percent of investments in training actually result in individual and organisational improvement (Saks 2002). Given the investment made on training each year, and the increasing rates of failure to implement learning, there is a need to examine the factors influencing training transfer more closely. Researchers

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(Burke 2001; Machin 2002) have highlighted that the issue of training transfer continues to bother organisations as reports indicate that only 10% of what is learnt during training gets applied on the job (Fitzpatrick 2001).

In the said context, understanding individual predisposition is important in relation to the motivation to engage in training transfer post the completion of training program. A variety of factors have been identified as instrumental in influencing training transfer, such as individual characteristics, work environment, training design and organisational support (Holton, Bates & Ruona 2000; Holton 2005; Baldwin & Ford 1988). However, individual characteristics have been strong predictors of involvement in voluntary training activities (Colquitt, LePine & Noe 2000; Major, Turner & Fletcher 2006; Maurer & Tarulli 1994; Warr & Birdi 1998). While on one hand employees can increase their own competence through training interventions, organisations also stand to benefit by having an agile workforce. Such employees also show their willingness to take on broader roles incorporating emergent tasks. Overall, continual learning is viewed as a significant contributor to a firm's competitive advantage (Appelbaum & Gallagher 2000; Major 2000).

Similarly, motivation to transfer has received substantial attention of researchers (Burke & Hutchins 2007; Gegenfurtner, Veermans, Festner & Gruber 2009) in influencing training transfer. One of the reasons being that motivation to transfer is crucial for training transfer post the training (Holton, Bates & Ruona 2000; Noe 1986). For example, Ford (1997) found that motivation to use knowledge and skills acquired from the training was instrumental in predicting training transfer. Similarly, Axtell, Maitlis, and Yeara (1997) found that motivation to transfer was crucial in predicting transfer of interpersonal skills, and Holton et al. (2000) identified motivation to transfer a central variable in their learning transfer system, impacting on learning implementation leading to individual and organisational performance.

Despite personality being identified as one of the factors effecting training transfer, empirical testing of personality on training transfer has been sparse (Cheng & Ho 2001). While personality has been shown to influence participation in development initiatives (Bertolino, Truxillo & Fraccaroli 2011; Major et al., 2006), its impact on training transfer has not been examined, thus far. Specifically, Bertolino et al., (2011) found that proactive personality varied with age in predicting training motivation. Younger proactive workers in their study were motivated to participate in training interventions that helped to accelerate their career, while older respondents were more inclined towards other outcomes such as maintaining relationships. Proactive personality could play a major role in influencing training transfer since proactive individuals intend to bring constructive change and are more career oriented (Bateman & Crant 1993; Bertolino et al., 2011; Major et al., 2006). Proactive personality has been linked to objective and subjective career success after considering other factors such as the type of organisation, the type of industry, and the demographics (Seibert, Crant & Kraimer 1999). Seibert et al., (1999) demonstrated the importance of proactive personality in training and development. Studies indicate that proactive personality is related to career enhancing initiatives such as training (Bertolino et al., 2011; Seibert et al., 1999; Seibert, Kraimer & Crant 2001). Proactive personality is expected to influence training transfer since proactive people are relatively unconstrained by situational forces and “identify opportunities and act on them, show initiative, take action, and persevere until meaningful change occurs” (Crant 2000, p. 439). Though past

studies have examined the role of Big Five (Barrick & Mount 1991), negative affectivity (Machin & Fogarty 2004), and positive affectivity (Naquin & Holton 2002), scant studies have addressed and assessed training transfer (Burke & Hutchins 2007). The aim of the present article is to bridge this gap by examining the role of proactive personality in predicting training transfer, and in doing so, gather support for Baldwin and Ford's (1988) personality construct.

DEFINING KEY VARIABLES

Proactive personality

Bateman and Crant (1993, p.105) defined proactive personality as “one who is relatively unconstrained by situational forces, and who effects environmental change”. Individuals with proactive personality scan the environment, demonstrate initiative through focused action and persist till they bring about positive change (Crant 2000). It is a dispositional construct distinguishing people to the extent to which they influence the environment (Bateman & Crant 1993). They are more likely to engage in opportunities for self-development through higher education or acquiring skills that may be essential for promotion in near future. Proactive individuals show persistence and perseverance in pursuing actions, which is a feature of self-development (Antonacopoulou 2000). Such individuals utilise opportunities to bring about positive change in their work environment. Personality variables are more enduring and have relatively more stable characteristics that display inclinations and predispositions (Major et al., 2006). Rather than being reactive, individuals with proactive personality use their initiative to bring about meaningful change, without being prompted to do so.

Transfer of training

Baldwin and Ford (1988) defined transfer of training as the extent to which individuals utilise their knowledge and skills acquired during the training in their work context. Both, practicing managers and researchers have long recognised the transfer problem (Michalak 1981). Although Grossman and Salas (2011) provide the important factors that can be attributed to training transfer, there is no consensus or agreement with the way in which these factors interact among each other. Transfer of training has been defined as the degree to which learning through training experience is transferred to the job and results in a positive impact in the work area (Goldstein & Ford 2002). Benefits of learning on the job include generalisation and maintenance of knowledge and skills (Baldwin & Ford 1988). To summarise, transfer of training involves applying the knowledge and skills learnt during the training to the work environment for improving the performance.

Motivation to transfer

Noe (1986) defined motivation to transfer as the focused effort of individuals who aim to implement the knowledge and skills acquired during training to the work environment. Individuals are motivated to transfer when they are confident to be able to utilise their knowledge and skills obtained during the training, are able to identify the work situations where those knowledge and skills can be applied appropriately, and feel that they can make improvements in performance in their work area (Clark, Dobbins & Ladd 1993; Baldwin & Ford, 1988; Noe 1986). Holton et al. (2000) described motivation to transfer as being crucial during

the post training phase, impacting on actual transfer and consequently performance. Unless, individuals put effort to transfer the learning acquired through the training process, it is unlikely that there can be a visible impact of the knowledge and skills acquired during the training on the work environment.

HYPOTHESES DEVELOPMENT

Proactive personality and motivation to transfer

According to self-determination theory, employees are motivated to perform when their needs of feeling competent are met (Gagne & Deci 2005; Ryan & Deci 2000). However, in order to perform, employees should be able to mobilise their competencies on the job. Baldwin and Ford (1988) argued that having the opportunity to utilise knowledge and skills acquired during the training would influence training transfer. Proactive personality represents individual disposition to identify opportunities to bring about positive change to the work environment (Bateman & Crant 1993). Variations in personality influences learning and transfer of learning during training intervention (Herold, Davis, Fedor & Parsons 2002; Kanfer & Ackerman 1988). Training engagements enable individuals to access a wide range of knowledge and skills. Individuals with proactive personality could be more active in gathering such knowledge and subsequently using it to go beyond the requirements of the job, and identify opportunities to make improvements (Seibert et al., 2001).

Major et al. (2006) explained the role of proactive personality in predicting engagement in training activities and motivation to learn. Since motivation to learn mediates the relationship between personality variables and work outcomes (Barrick, Stewart & Pitrowski 2002) and work motivation also varies with age (Kanfer & Ackerman 2004), it is quite possible that younger employees with proactive personality are more motivated to transfer training compared to older employees. Ebner, Freund and Baltes (2006) found the younger individuals were more motivated towards their goal orientation while older individuals were concerned about maintenance. Similarly, Freund (2006) found that while younger individuals were focused on optimising performance, older individuals were focused on reducing losses. Ng and Feldman (2008) emphasised the need to examine the effects of age on the relationship between proactivity and training outcomes, especially since age impacts upon work outcomes differently. Further, Bertolino et al. (2011) found a stronger relationship exists between younger workers' proactive personality and training motivation, when compared to older workers. Given the effects of age on motivation and motivational variables mediating the relationship between personality and training outcomes (e.g. Barrick et al., 2002), it seems quite plausible that younger individuals with proactive personality would be more strongly associated with transfer motivation compared to older individuals.

Extant research suggests that differences in age effects motivation differently (e.g. Ebner et al., 2006; Kanfer & Ackerman 2004). Research tends to suggest that younger individuals vary in their understanding of proactivity; in fact, extant literature has found no significant correlations between age and proactivity (Erdogan & Bauer 2005; Harvey, Blouin & Stout 2006; Seibert et al., 1999). Therefore, the meaning of proactivity could vary between younger and older individuals (Bertolino et al., 2011). While younger individuals may focus on competing within

the team, older individuals may be reluctant to engage in skill development initiatives and focus on collaborating with the team (Kanfer & Ackerman 2004). Research suggests that the perceived value and utility of skill building initiatives are less in older individuals compared to younger individuals (Kanfer & Ackerman 2004). It can therefore be argued that proactive personality has a differential relationship with intention to engage in training initiatives and motivation to transfer for younger and older individuals.

Hypotheses 1: Individuals age will moderate the relationship between proactive personality and motivation to transfer. Specifically, there will be a more positive relationship between proactive personality and motivation to transfer training for younger individuals than for older individuals.

Proactive personality and training transfer

Training engagements provide access to knowledge that can be used to make improvements in the work environment (Seibert et al., 2001; Seibert et al., 1999). Availability of training opportunities may be sufficient for individuals who are disposed proactively to engage in training activity (Major et al., 2006). This opportunity-seeking propensity among proactive individuals is more likely to be associated with training transfer. Additionally, proactive personality has been found to predict objective job performance (Crant 1995) and career success (Seibert et al., 2001). Proactive individuals demonstrate initiative, act and persist until they bring about change (Bateman & Crant 1993). Past research (Seibert et al., 1999; Seibert et al., 2001) has linked proactive personality with career related outcomes such as career success, career satisfaction and career development initiatives such as training (Ebner et al., 2006). Therefore, it is quite reasonable to expect that individuals with proactive personality to be in a better position to transfer the training. Taken from an interactionist perspective (Bandura 1977; Schneider 1983) proactive individuals create situations which they can control. An interactionist perspective suggests individual behaviour can be a dynamic interplay between internal factors controlled by an individual and situational factors determined by the environment (Schneider 1983). In other words, it can be expected that proactive individuals can purposefully create and influence their environment, making successful transfer possible. Such individuals would transfer knowledge to work situations where they are confident of utilising their knowledge and skills (Noe 1986). They might focus on areas where their skills can be utilised and work towards making improvements that can directly impact on their actual performance.

Individual personality differences should have an influence on the entire training engagement, not only on learning the knowledge and skills, but also on job performance (Collquitt, LePine & Noe 2000). The definition of “proactivity”, and consequently proactive behaviours, vary with age (Berolino et al., 2011). There are motivational differences between younger and older proactive individuals in work settings (e.g. Freund 2006; Kanfer & Ackerman 2004). Younger individuals, compared to older adults, were more determined in their efforts to pursue actions that offered greater opportunities to optimise performance (Freund 2006). Comparatively, older adults focus more on maintaining the status quo in order to adapt themselves to changing opportunities and limitations in their life (Ebner et al., 2006). As younger proactive workers perceived greater career development opportunities through training interventions, compared to older workers; it is plausible that younger proactive workers would be more oriented towards transfer of training, whereas older workers are more likely to maintain the status quo.

Hypotheses 2: Individuals age will moderate the relationship between proactive personality and transfer of training. Specifically, there will be a more positive relationship between proactive personality and motivation to transfer of training for younger individuals than for older individuals.

Motivation to transfer and training transfer

Several studies (Holton et al., 2000; Axtell et al., 1997; Baldwin & Ford 1988) have shown motivation to transfer is related to learning implementation post training. Previous studies (Axtell et al., 1997; Chiaburu & Lindsay 2008; Collquitt et al., 2000; Fecteau, Dobbins, Russell, Ladd & Kudisch 1995; Holton et al., 2000) have shown that motivational mechanisms are related to training implementation. A review by Kanfer and Ackerman (2004) indicated that motivation to exert effort declines with age. Alternatively, younger workers are inclined to go the extra-mile to achieve results in order to stay ahead, while older workers may be content to maintain the status-quo. Ebner et al. (2006) found that younger adults had a higher goal orientation, and acquired knowledge and skills that would help them perform better, while older adults focused on maintenance and optimising existing knowledge and skills. Additionally, research shows that younger adults are more persistent in pursuing activities that have greater opportunities to improve performance (Freund 2006). Younger adults would be interested to engage in training initiatives as they perceive that they have more time, while older adults would be keen to focus on maintaining and enhancing their relationship with their colleagues (Beier 2008). Recently, Bertolino et al. (2011) suggested that younger workers tended to have a greater orientation towards career development opportunities derived from training, compared to older adults. In other words, older workers see little benefits accrued through training. It is therefore reasonable to suggest that younger adults would have greater motivation to transfer leading to training effectiveness compared to older adults.

Hypotheses 3: Individuals age will moderate the relationship between motivation to transfer and transfer of training. Specifically, there will be a more positive relationship between younger adults' motivation to transfer and transfer of training compared to older adults.

Mediating role of motivation to transfer

Katzell and Thompson's (1990) model of work motivation suggests that individual characteristics and attitudes towards performance are partially mediated by motivation. In their model, it was also posited that the situational factors have a direct and indirect effect on actual performance. Similar thoughts have been reflected echoing this notion, for example Noe (1986) argued that transfer environment was closely linked to motivation of individuals in training. Fecteau et al. (1995) studied that support (peer and supervisor) and task constraints impacted training transfer both directly and indirectly through motivation. Naylor, Pritchard & Ilgen (1980) proposed motivation as a function of individual differences, such as personality and demographic variables, which creates differences in resource availability. In their model, Naylor et al. (1980) argued that individual differences influence each stage of motivation. Kanfer and Ackerman (1989) proposed a similar view in their resource allocation perspective on motivation where they supported the view that individual differences influence resource capacity which in turn affects the resource allocation for a particular activity. This suggests that individual differences do influence training outcomes post training as resource allocation becomes crucial for training transfer.

Hypotheses 4: Motivation to transfer will partially mediate the relationship between proactive personality and transfer of training for younger adults than for older adults.

RESEARCH METHOD

Participants and procedure

Participants comprised 233 employees working in a company engaged in manufacturing of paints. Employees in the organisation were approached through the human resource (HR) department. The objective of the study was explained to them and anonymity of their responses was assured. Participation in the survey was voluntary in nature. While the data for proactive personality and motivation to transfer was obtained directly from the respondents, actual transfer was measured based on supervisor's feedback to the survey. For this purpose each questionnaire carried a unique serial number known to the researcher and the participant only. The HR department of the organisation helped the researcher to get in touch with the respective supervisors of the employees to capture their training implementation data. From the initial sample (N = 233) of employees who were contacted for the survey, 27 either did not indicate the name of their supervisor or did not complete all parts of the questions and hence they were excluded from the analysis. For the remaining 206 employees, 18 supervisors were contacted to collect their subordinate's training implementation data. A reminder was sent via electronic mail requesting them to complete the survey after an interval of 3 days. Final consolidation of the data was done after three such reminders, resulting in a total completed survey of 187 employees, equating to a response rate of 79.83 percent. The mean age was 35.71 (SD = 7.78) with a range from 23 to 53. Sixty seven percent of the respondents were male while the remaining 33 percent were female. The training provided by the organisation ranged from emulsifier treatment, additives preservation, solvent extraction, planning methods, accounting methods and guidelines, and statistical quality control. Participation in various training programmes was voluntary in nature.

Measures

Proactive personality was measured using the 10 items scale developed by Seibert et al., (1999). Respondents were asked to assess the extent to which they believed that the statements accurately described them. Responses were on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Sample items include, "No matter what the odds, if I believe in something, I will make it happen" and "I excel at identifying opportunities". The internal consistency of this scale was $\alpha = 0.88$.

Motivation to transfer was measured using a subscale (motivation to transfer) from the Learning-Transfer-System-Inventory (LTSI) (Holton et al., 2000). Sample items of the four item scale include, "I get excited when I think about trying to use my new learning of my job" and "I am motivated to apply the new skills I gained in the training on my job". Responses were scored on a 5-point scale ranging from 1 (totally disagree) to 5 (totally agree). This measure reported an internal consistency of $\alpha = 0.82$.

Transfer of training was measured using Xiao's (1996) output of transfer scale consisting of six items. Supervisors were asked to rate the extent to which each of their subordinates transferred

the training on the job. They were asked to rate the extent to which they agreed or disagreed with each of the statements. Responses were on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Sample items include, “Subordinate has accomplished the job tasks faster than before training” and “The quality of work of subordinate has improved after using the new KSA”. In the present study, the alpha co-efficient was 0.85.

Information regarding respondents’ demographics such as age, gender, and organisation tenure and education level was also collected. Participants age was measured using an open-ended question while gender, education level and organisation tenure was measured using multiple choice response. All the participants completed the survey during the participation in the training programs.

RESULTS

The study used hierarchical OLS regression to test the hypotheses, followed by multi-group mediation analysis using the bootstrapping procedure recommended by Preacher and Hayes (2008). Reliability of the scales was checked using Corrected Item Total Co-relation and all items showing item-total co-relation less than 0.4 were discarded according to Brut-Banks criterion ($p < 0.001$). Means, standard deviations and inter correlations among the study variables are represented in Table 1. A review of correlation matrix shows non-significant correlation between age and proactive personality ($r = -0.12, p > 0.05$). Proactive personality was related to transfer motivation ($r = 0.26$) and actual training transfer ($r = 0.37$). Training transfer was related to motivation to transfer ($r = 0.43$) which are consistent with earlier findings (Chiaburu & Lindsay, 2008; Seyler et al., 1998).

Table 1: Descriptive statistics: means, standard deviations, and correlations

Variable	Means	SD	1	2	3	4	5	6	7
1. Gender	0.67	0.47	-						
2. Age	35.71	7.78	0.31	-					
3. Org. tenure	1.76	0.81	0.24**	0.62**	-				
4. Education level	2.27	0.72	0.07	0.04	0.11	-			
5. Proactive personality	59.01	5.38	0.06	-0.12	-0.04	0.12	-		
6. Motivation to Transfer	14.02	3.62	0.04	-0.09	0.05	0.04	0.26*	-	
7. Training transfer	21.25	3.80	-0.02	-0.12	0.09	0.09	0.37*	0.43**	-

Notes: Gender was coded: 0 = female, 1 = male; education level was coded: 1 = diploma or high school, 2 = graduation, 3 = post graduation; 4 = Doctorate; organisation tenure was coded: 1 = less than 5 years, 2 = between 5.1 to 10 years, 3 = between 10.1 to 15 years, 4 = greater than 15 years.

* $p < 0.05$, ** $p < 0.01$, $n = 187$

Hierarchical OLS regression was used to test the hypotheses H1 and H2. The dependent variables in these equations were training transfer and motivation to transfer. The main effects were centered (e.g., Aiken & West 1991), that is setting the mean to zero in order to reduce the multicollinearity between the main effects and the interaction term due to scaling. The control variable gender, participants’ age (centered) and proactive personality (centered) were entered in

Step 1. The interaction term formed as a product of proactive personality and age was entered in Step 2. Table 2 shows the results of hierarchical OLS regressions

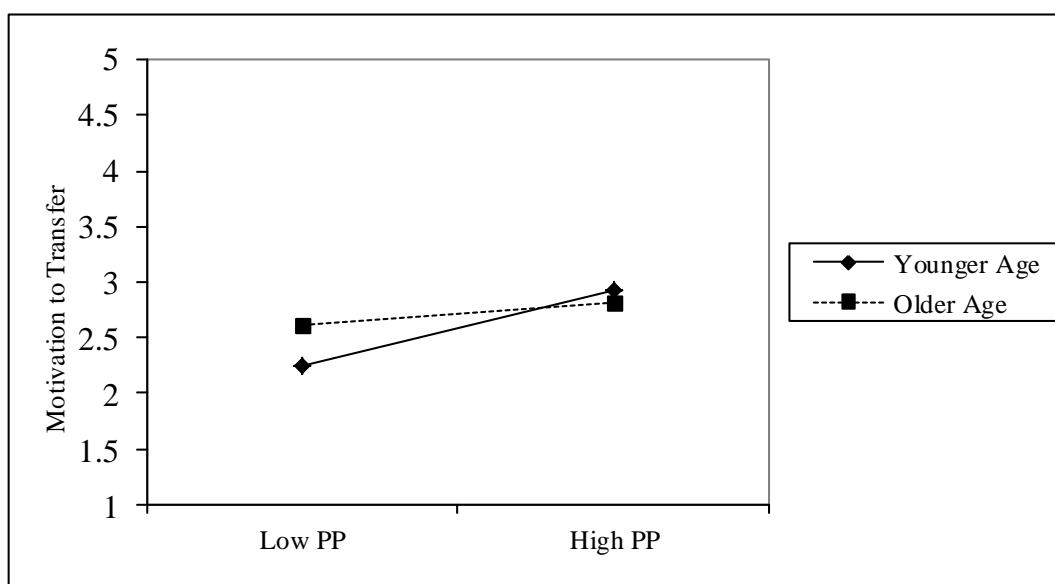
Table 2: Hierarchical OLS regressions for age, proactive personality, and their interaction on motivation to transfer and training transfer

Variable	Motivation to transfer			Training transfer		
	R ²	Δ R ²	β	R ²	Δ R ²	β
Step1	0.06**			0.14**		
Control variable: gender			0.03			0.09
Age			-0.09			-0.08
Proactive personality			0.15***			0.36**
Step2	0.12**	0.06**		0.16**	0.02*	
Age X proactive personality			-0.42**			-0.62**

Note: N = 187, *p < 0.05, **p < 0.01, ***p < 0.001. R² and Δ R² may not add up due to rounding. Gender was coded: 0 = women, 1 = men.

Hypothesis 1 stated that employees' age and proactive personality would interact to affect motivation to transfer, such that there would be a stronger positive relationship between proactive personality and motivation to transfer among younger individuals than older counterparts. The results supported Hypothesis 1, as indicated by the significant increase in R² due to presence of the interaction term in Step 2, ΔR² = 0.06, F (1, 182) = 5.94, p < 0.005. As shown in Figure 1, for younger employees there was a stronger relationship between proactive personality and motivation to transfer, but this relationship was weaker for older employees.

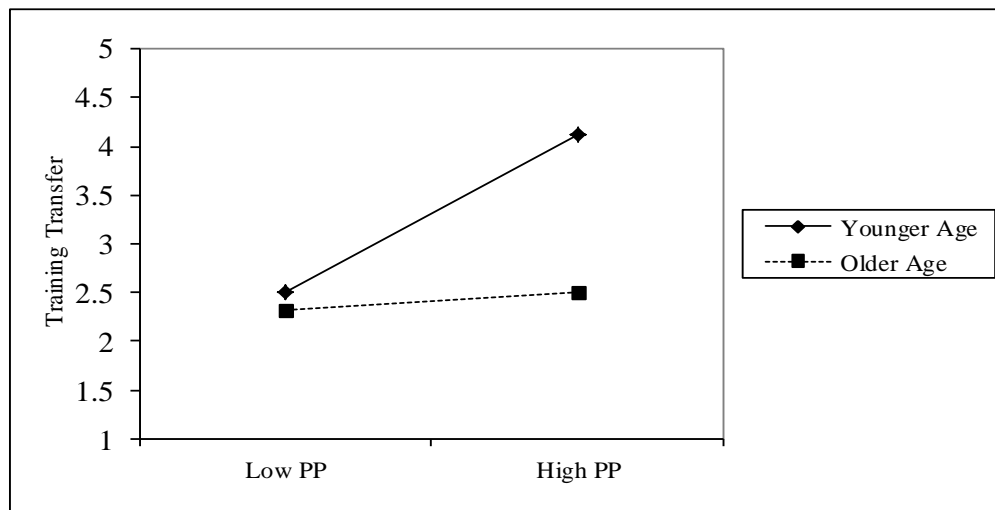
Figure 1: Interaction between age and proactive personality on motivation to transfer



Note: Younger age means 27.9 (-1 SD below the mean) and older age means 43.5 (+1 SD above the mean), PP = proactive personality

Hypothesis 2 stated that age and proactive personality would interact to influence training transfer, such that there would be stronger relationship between proactive personality and transfer of training among younger employees than their older counterparts. Results supported Hypothesis 2, $\Delta R^2 = 0.06$, $F(1, 182) = 8.82$, $p < 0.05$. This interaction is represented graphically in Figure 2. Specifically, there was a greater positive relationship between employees' proactive personality and training transfer for younger employees compared to older employees.

Figure 2: Interaction between age and proactive personality on training transfer



Note: Younger age means 27.9 (-1 SD below the mean) and older age means 43.5 (+1 SD above the mean), PP = proactive personality

Hypothesis 3 stated that age and motivation would interact to influence training transfer, such that there would be stronger relationship between proactive personality and transfer of training among younger employees than their older counterparts. The results of OLS regression are shown in Table 3. The control variable gender, participants' age (centered) and motivation to transfer (centered) were entered in Step 1. The interaction term formed as a product of motivation to transfer and age was entered in Step 2. The results supported Hypothesis 3, $\Delta R^2 = 0.01$, $F(1, 182) = 6.88$, $p < 0.05$.

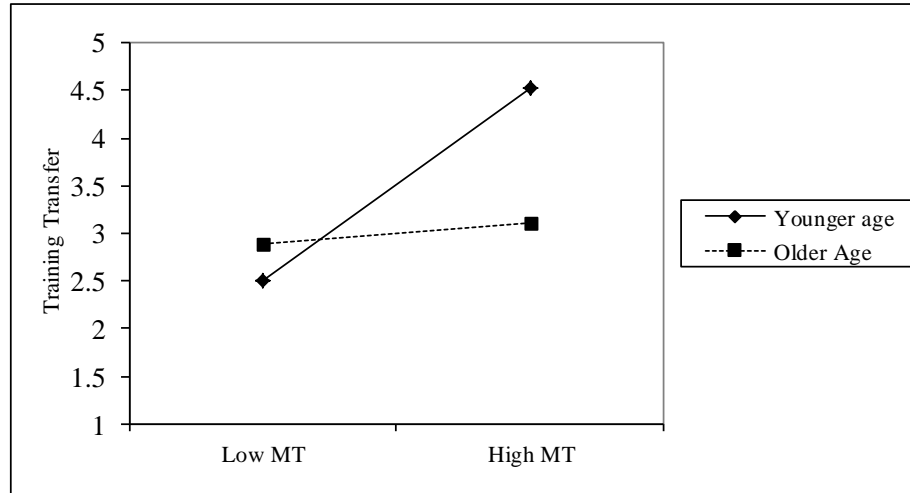
Table 3: Hierarchical OLS regressions for age, motivation to transfer, and their interaction on training transfer

Variable	Training Transfer		
	R ²	ΔR^2	β
Step1	0.19**		
Control variable: gender			0.04
Age			-0.07
Motivation to transfer			0.18*
Step2	0.20**	0.01**	
Age X motivation to transfer			-0.23**

Note: * $p < 0.05$, ** $p < 0.01$

The interaction is represented graphically in Figure 3. Specifically, there was a greater positive relationship between employees' proactive personality and training transfer for younger employees than older employees.

Figure 3: Interaction of age and motivation to transfer on training transfer



Note: Younger age means 27.9 (-1 SD below the mean) and older age means 43.5 (+1 SD above the mean), MT = motivation to transfer

Hypotheses 4 predicted that motivation to transfer will partially mediate the relationship between proactive personality and transfer of training for younger proactive adults rather than for older proactive adults. Mediation analysis was carried out using multi-group mediation analysis using bootstrapping recommended by Preacher and Hayes (2004). Compared to the Barron and Kenny (1986) method of mediation testing that assumes normality of sample, the bootstrapping method is applicable to samples that need not follow a normal distribution (Preacher & Hayes, 2004). Further, Barron and Kenny's method essentially mandates that the path from IV to M (regression co-efficient denoted by a) and the path from M to DV (regression co-efficient denoted by b) to be statistically significant; while either or both the paths could be non-significant due to low statistical power. The bootstrap method therefore avoids Type II errors by testing whether the product of the two paths (i.e., the difference between total effects of IV on DV not controlling for M; the regression coefficient denoted by c and the direct effect of IV on DV after controlling for M; and the regression coefficient denoted by c'), that is $c - c' = ab$ is significantly different from zero. The results of mediation analysis for older employees are presented in Table 4.

Table 4: Results of Direct and Total effects of motivation to transfer based on Preacher and Hayes (2004) for older individuals

	<i>Coeff</i>	<i>s.e</i>	<i>t</i>	<i>Sig (two tailed)</i>
1. PP to MT (a path)	0.014	0.096	0.147	0.884
2. Direct effects of MT on TT (b path)	0.679	0.117	5.831	0.004
3. Total effects of PP on TT (c path)	0.204	0.098	2.072	0.044
4. Direct effect of PP on TT (c' path)	0.195	0.075	2.600	0.013

Note: PP = proactive personality, MT = motivation to transfer, TT = training transfer, older individuals means with age greater than 43.5 (+1 SD above the mean)

Clearly, proactive personality predicting motivation to transfer is not significant $p > 0.05$, but the effect of proactive personality on training transfer is significant ($p < 0.05$), as is the effect of motivation to transfer and training transfer ($p < 0.05$). In the present study, 95% confidence interval of the indirect effects was obtained with 5,000 bootstrap re-samples (Preacher & Hayes 2004). Examination of specific indirect effects indicated that the relative magnitude of motivation to transfer was not significantly different from zero because the point estimate for motivation to transfer (0.0081) is within the 95% CI for motivation to transfer, with a lower limit of -0.1319 and an upper limit of 0.1430 that did contain zero. Results of mediation analysis are presented in Table 5.

Table 5: Mediation result of motivation to transfer for older individuals

<i>Mediating variable on MT</i>	<i>Effect of PP (a)</i>	<i>Effect of MT on TT(b)</i>	<i>Indirect effect of MT (Bootstrap estimate) (ab)</i>	<i>95% confidence interval for the estimate (Lower limit to Upper limit)</i>
MT	0.014	0.679*	0.008	-0.132 to 0.143

Note: N = 42, * $p < 0.05$, PP = Proactive personality, MT = Motivation to transfer

Similar, analysis was carried out for younger individuals with an age of less than 27.5 years. All the paths, proactive personality predicting motivation to transfer ($p < 0.05$), proactive personality predicting training transfer ($p < 0.05$), and motivation to transfer predicting training transfer ($p < 0.05$) were significant. Results are shown in Table 6. In the presence of motivation to transfer, there is a significant influence of proactive personality on training transfer, indicating a partially mediating result for motivation to transfer.

Table 6: Results of Direct and Total effects of motivation to transfer based on Preacher and Hayes (2004) for younger individuals

	<i>Coeff</i>	<i>s.e</i>	<i>t</i>	<i>Sig (two tailed)</i>
1. PP to MT (a path)	0.287	0.114	2.521	0.017
2. Direct effects of MT on TT (b path)	0.329	0.185	1.779	0.085
3. Total effects of PP on TT (c path)	0.374	0.124	3.023	0.005
4. Direct effect of PP on TT (c' path)	0.279	0.131	2.123	0.041

Note: PP = proactive personality, MT = motivation to transfer, TT = training transfer, older individuals means with age less than 27.5 (-1 SD below the mean)

Using 95% confidence intervals, and with 5,000 bootstrap re-samples as recommended by Preacher and Hayes (2004), examination of indirect effects showed that the magnitude of motivation to transfer was significantly different from zero because the bootstrap estimate of 0.094 was within 95% CI with lower limit of 0.0075 and the upper limit of 0.2684 did not contain zero. Results of final mediation effects are shown in Table 7 below.

Table 7: Mediation result of motivation to transfer for younger individuals

<i>Mediating variable on MT</i>	<i>Effect of PP (a)</i>	<i>Effect of MT on TT(b)</i>	<i>Indirect effect of MT (Bootstrap estimate) (ab)</i>	<i>95% confidence interval for the estimate (Lower limit to Upper limit)</i>
MT	0.287*	0.329*	0.094	0.008 to 0.268

N = 45, * $p < 0.05$,

This means that there is a significant partial mediation of motivation to transfer between the relation of proactive personality and training transfer. Based on the above findings, Hypothesis 4 is therefore also supported.

DISCUSSION

The purpose of the study was to operationalise the personality construct employed in Baldwin and Ford's (1988) training transfer and generalisation. In doing so, an attempt was made to examine the moderating effect of age on the relationship between proactive personality and motivation to transfer and training transfer. An attempt was also made to integrate the research on proactive personality influencing development activity (e.g., Major et al., 2006), age and development activity (e.g., Maurer et al., 2003) and research on varying levels of motivation with age (e.g., Kanfer & Ackerman 2004).

The results indicate that age is likely to moderate the relationships of proactive personality with motivation to transfer and training transfer. Age also moderated the relationship between motivation to transfer and training transfer. Results in this study are consistent with prior research findings indicating that age is associated with varying levels of motivation (e.g., Freund 2006) and that personality could vary with age (e.g., Roberts, Walton & Viechtbauer 2006; Bertolino et al., 2011). Positive relationships were found between proactive personality and motivation to transfer (H1) and training transfer (H2) for younger employees compared to older employees. Similarly, age appears to moderate the relationship between motivation to transfer and training transfer (H3). It is important to note that older employees were less motivated to transfer their training compared to younger counterparts. This could be due to the reason that older employees were more concerned with maintenance of the status quo and younger employees were more development oriented (e.g. Fecteau et al., 1995). Similarly, younger proactive employees were more inclined to motivation to transfer and training transfer compared to older counterparts, perhaps because older proactive employees were keen to focus on other outcomes at the expense of these (Kanfer & Ackerman 2004).

Practicing managers need to consider that proactive personality has varying interpretations based on employees' age. Research of employees' age and organisational outcomes indicate that varying age influences work outcomes (Kanfer & Ackerman 2004). According to Kanfer and Ackerman, employees work motivation varies with their life stage. For example, older employees may be less concerned over failure for promotion since achievement is less important in their lives. Older employees may be more concerned for maintenance of relationships rather

than optimising opportunities (Freund 2006) or growth (Ebner et al., 2006). The present study however, did not indicate any significant relationship between age and proactive personality (e.g. Bertolino et al., 2011).

LIMITATIONS AND FUTURE DIRECTIONS

The study presents potential limitations. First, since the sample comprised of employees working in a manufacturing company, results may not generalise to other work contexts. Similar research can be done using samples from different organisations. Second, cross sectional methodology of data collections limits the possibility to attribute any causality. Data was collected from two different sources, the employees and their supervisors. When possible, objective data on training implementation could be more useful rather than capturing perceptions of training implementation through the supervisor. Third, while data collection was based on technical trainings attended by the employees, they would be more related to actual work done by the employees impacting on productivity.

Future research could focus on examining the relationship between how younger and older employees perceive “young” or “old” age. There has been little agreement on the operational meaning of “younger” and “older” workers (Finkelstein & Farrell 2007). It may also be that ages are differently perceived, based on perceptions of development opportunities in an individual’s career. This needs to be examined in subsequent research. While past research has shown the proactive personality is related to career success (Seibert et al., 2001), future research could examine the interactive effects of age and proactive personality on specific training programmes aimed at enhancing an individual’s career. Subsequent research needs to examine whether proactive personality and age interact in predicting development orientation among employees.

CONCLUSION

To conclude, the results of the present study may be useful to understand proactivity and training outcomes. Specifically, it suggests that age is likely to moderate the relationship between proactive personality and motivation to transfer and training transfer. In other words, younger proactive employees were more inclined or motivated to transfer and also younger employees’ motivation to transfer was more related to the training transfer. The purpose of the study was also to examine the mediating role of motivation to transfer. Multi-group mediation analysis illustrated that for younger employees’ motivation to transfer partially mediated the relationship between proactive personality and training transfer.

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