

SUCCESS AND FAILURE. THE SAME IN SPORT AS IN WORK?

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Abstract

Although it is clear that achievement goal orientations (how people define success) and attributional styles (how people explain success and failure) are related to achievement behaviour and motivation and that motivation is a critical factor in achieving success in work and sport, little sport or management research-based information is available regarding the identification of individuals likely to sustain high levels of motivation over time or in the development of sustained motivation levels. Data collected at two points in time from 224 employees and 272 athletes is presented. The findings contribute to resolving the debate over how specific attributional styles influence achievement goal orientation and help answer whether the optimal attributional style (how one explains success) depends on the adopted achievement goal orientation (how one defines success). Further, the preponderance of available research on these issues focuses on athletes and students. This knowledge largely has not been extended to the employment setting. In addition to addressing these issues in both a sporting and work context, this study represents the first empirical analysis of the popularly held view that the attributes necessary for excellence in motivation and performance at work are the same as those in sport. Thus, the research also contributes to the development of appropriate metaphors for the organisational context and expands understanding of motivational processes across contexts.

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RESEARCH AIMS AND SIGNIFICANCE

Although it is clear that achievement goal orientations (how people define success) and attributional styles (how people explain success and failure) are related to achievement behaviour and motivation (Elliot & Church, 1997; Vodanovich et al., 1997; Young, 1997; Ward, 1997), and that motivation is a critical factor in achieving success in work and sport (Halvari & Thomassen, 1997; Ward, 1997), little sport or management research-based information is available regarding the identification of individuals likely to sustain high levels of motivation over time or in the development of sustained motivation levels. Recently, scholars have questioned the way we conceptualise the achievement goal construct and the factors with which it combines to affect achievement behaviour (Elliot & Thrash, 2001). Further, the preponderance of available research on achievement motivation focuses on athletes (also students) and this knowledge largely has not been extended to the employment setting. The research presented here goes toward addressing these important issues.

In addition to addressing how people's definitions and explanations of success and failure work together to affect motivation levels, this study represents the first empirical analysis of the popularly held view that the attributes necessary for excellence in motivation and performance at work are the same as those in sport. Thus, the research also contributes to the development of appropriate metaphors for the organisational context and expands understanding of motivational processes across contexts. Further, understanding the similarities or differences between sport and business is important to educators and practitioners assisting athletes to the transition from sport to work.

THEORETICAL BACKGROUND

Achievement goal orientations indicate how individuals define success and influence their achievement behaviour (Maehr & Braskamp, 1986). Achievement goal orientation can be described by two dimensions, task and ego goal orientation (Nicholls, 1984). Ego orientation refers to an individual's desire to demonstrate competence or show that they perform better than others. Task orientation, in contrast, refers to an individual's desire to develop competence through mastery and learning (Duda & Hall, 2001). The existence of different achievement goal orientations suggests that individuals experiencing the same event may disagree as to whether a particular experience was successful or not (Duda, 1997).

Previous research suggests that specific styles of attribution may enhance motivation or persistence of athletes (Burton & Martens, 1986; Fisher, 1978; Rudisill & Singer, 1988; Seligman & Schulman, 1986). For example, individuals who attribute perceived success and failure to external causes tend to have lower intrinsic motivation than individuals who attribute perceived success to internal causes (Burton & Martens, 1986; Fisher, 1978). Nonetheless, there is no agreement on what specific attributional styles encourage task rather than ego goal orientation. The present study addresses this issue. Moreover, individuals' achievement goal orientations may affect their post-performance attributions (Newton & Duda, 1993). Therefore, it may be that the optimal attributional style (how one explains success) depends on the adopted achievement goal orientation (how one defines success). This study contributes to the understanding of these issues.

METHOD

Participants

The work sample comprised 224 employees ranging in age from 18 to 62 ($M = 36.88$; $SD = 10.02$). They represented eight different occupational categories including professionals ($n = 94$), managers/administrators ($n = 58$), clerks ($n = 31$), paraprofessionals ($n = 29$), salespersons ($n = 5$), tradespersons ($n = 4$), labourers ($n = 2$) and plant and machine operators ($n = 1$). There were 110 male and 114 female participants.

The sport sample comprised 272 athletes, 108 males and 164 females, ranging in age from 12 to 74 ($M = 32.13$; $SD = 14.20$). Sixty-seven males and 51 females were from a team sport (field hockey or softball), while 41 males and 113 females were from an individual sport (diving, track and field, golf, swimming or triathlon). Twenty-four athletes were competing at international, national or state level, 110 athletes were participating at competitive club level and 126 participants were involved in their sport at a recreational level. Twelve participants did not provide information on their level of participation. The participants had been participating in their respective sports for an average of 10.43 years ($SD = 8.40$). They participated for an average of 9.11 months per year ($SD = 2.72$) and 8.85 hours per week ($SD = 7.57$).

Measures

Measure of achievement goal orientation. The TEOSQ is a 13-item questionnaire that asks respondents to indicate how much they personally agree each statement reflects when they feel most successful (Hanrahan & Biddle, 2002). It rates each respondent along two dimensions, Ego Orientation and Task Orientation. To date, use of the TEOSQ has been confined to the study of athletes and sporting events (Hanrahan & Biddle, 2002). For the purposes of this research, the scale was modified to study employees' feelings of success in the workplace. As in the original TEOSQ, responses were indicated on a 5-point Likert-type scale with 1 = *strongly disagree* and 5 = *strongly agree*. A pilot test on a sample of MBA students was conducted to verify psychometric equivalency to the original TEOSQ.

Measure of attributional style. The SASS (Hanrahan & Grove, 1990a, 1990b; Hanrahan, Grove & Hattie, 1989) rates each respondent on six dimensions (Internality, Stability, Globality, Controllability: Personal and External, Intentionality) for success events and for failure events, producing a total of twelve scores.

Success criterion measure. Questions regarding employees' actual and perceived success at work were asked during the intervening period in order to assess the stability of attributional style and achievement goal orientations over time and the effect of success or failure on any changes in these measures. Questions were asked for different scenarios: one where they performed well, improved a skill or learned something new; one where they failed to perform well, improve a skill or learn something; one where they experienced a successful outcome; and one where they did not experience a successful outcome.

Procedure

Participants were instructed to complete the TEOSQ and SASS on two occasions. The interval between Time 1 and Time 2 for the two assessments was approximately 5 weeks. Success measures were obtained in the intervening periods. Of the 224 employees participating in the first assessment, 114 participated in the second assessment (51% response rate at time 2). Of the 272 athletes participating in the first assessment, 117 participated in the second assessment (43% response rate at time 2). In both cases, participation was voluntary, and those who participated were assured their responses would be kept confidential.

RESULTS

Data Cleansing and Preparation

Missing values were replaced with means calculated from the available data. The distributions for the variables work experience (position, field and organisation) and number of supervised people (Time 1 & 2) were positively skewed and thus were transformed to meet the assumptions of the statistical tests used in the study.

Internal consistency for the ego and task subscales of the TEOSQ was good, with a standardised Cronbach's alpha for the ego subscale of .78 at Time 1 and of .77 at Time 2 and a standardised Cronbach's alpha for the task subscale of .73 at Time 1 and of .75 at Time 2. However, item 12 ("A skill I learn really suits the way I work") of the task subscale showed only a weak association with the rest of the items of the subscale or the total score on the subscale. Deletion of item 12 from the task subscale yielded an increase in its internal consistency in Time 1. Factor analysis (principal component analysis with oblimin rotation) of the TEOSQ

using Kaiser's criterion produced four oblique factors: ego orientation, task orientation – effort, task orientation – learning and 1-item factor including item 12 of the task subscale. The task orientation factors of effort and learning were positively correlated. In a second two-oblique-factor PCA loadings greater than .50 on a task orientation factor were observed for all items with the exception of item 12, which had a loading of .41. Given these results, item 12 was deleted from the questionnaire and two scales – ego and task orientation – were formed.

Internal consistency for the six attributional dimensions for positive events was acceptable (from .60 to .68 at Time 1 and from .35 to .73 at Time 2). The positive event 10 (“You have no difficulty coping with an exceptionally difficult or demanding day”) had the lowest item-total score correlation on nearly all the six dimension (time 1 & 2). It negatively affected the internal consistency of the Internality (time 1 & 2) and Intentionality (time 1) subscales. The deletion of this item improved the internal consistency of the subscales of Internality (time 1) and Intentionality (time 1). It also reduced the internal consistency of the Stability (time 1), Globality (time 1 & 2), Personal control (time 1& 2) and External control subscales (time 2) but not substantially. Internal consistency for the six attributional dimensions for negative events was similar to that of the attributional dimensions for positive events (from .44 to .71 at Time 1 and from .47 to .67 at Time 2). Events 2 (“You are selected for an important job or project”) and 4 (“You have great difficulty coping with an exceptionally difficult and demanding day”) had the lowest item-total score correlations on nearly all the dimensions (time 1 & 2). Event 4 negatively affected the internal consistency of the Internality (time 1), Personal control (time 1) and External control (time 1) subscales, while event 2 negatively influenced the internal consistency of the External control (time 1 & 2). The deletion of Event 4, the matching negative counterpart of the controversial positive Event 10, improved the internal consistency of the above-mentioned subscales but reduced the internal consistency of the Stability (time 1 & 2), Globality (time 1 & 2) and Intentionality (time 1 & 2) subscales but not substantially. Given these results the matching Events 10 and 4 (“You have no/great difficulty coping with an exceptionally difficult and demanding day”) were excluded from the questionnaire. Scores on the six attributional dimensions were based on four matching (negative and positive versions) events.

Hypothesis Testing

The relationship of the twelve attributional style (SASS) scores to the two achievement goal orientation (TEOSQ) scores were analysed using a multivariate regression model. The model included sex and type of work to see whether these factors moderated the relationship. The multivariate analysis was followed by univariate regressions of each of the twelve attributional style dimensions to determine the specific differences in attribution style in people with different achievement goal orientations. Median splits were used to classify participants into four different achievement goal orientation styles, namely high/low task by high/low ego orientation. This allowed comparisons of the patterns of attributional styles characteristic of the distinct achievement goal orientation styles. Planned comparisons were used to determine the similarity between employees' and athletes' achievement orientations and attributional styles. Due to space limitations, analytical strategy is summarised next, followed by an outline of key findings in the discussion and conclusion section. Full and detailed results are available for presentation however.

Comparisons Between the Sport and Work Sample

T-tests were performed to identify whether differences in achievement goal orientations and attributional styles were present. ANCOVAs and MANCOVAs were conducted with age and gender as a covariate to see whether there were differences in achievement goal orientations and attributional styles between the sport and work sample. ANOVAs and MANOVAs were conducted with gender as a fixed factor to determine whether there were differences in changes in achievement goal orientations and attributional styles between the sport and work sample. Multiple regression analysis for Time 1 was performed to examine attributional styles as a function of achievement goal orientations and their interaction controlling for gender. Multiple regressions were conducted to examine achievement goal orientations as a function of attributional style factors and their interaction controlling for gender (Time 1 only).

DISCUSSION AND CONCLUSION

The research contributes in four important ways. First, the research contributes to the debate over how specific attributional styles influence achievement goal orientation. Second, the research helps answer whether the optimal attributional style (how one explains success) depends on the adopted achievement goal orientation (how one defines success). Third, the research examines these issues in two contexts, sport and work, the latter being largely neglected in studies in the area. Fourth, the study provides the first empirical analysis of the popularly held view that the attributes necessary for excellence in motivation and performance at work are the same as those in sport. Key findings regarding these areas are summarised below.

Findings Addressing Impact of Attributional Style on Achievement Goal Orientation

- *Task orientation and attributional styles for positive events:* Gender was the only significant predictor of task orientation in the work sample. Females had higher task orientation than males. Gender, latent ability to control outcomes, volitional control over outcomes, the interaction term between latent ability to control and volitional control over outcomes and the interaction between gender and volitional control over outcomes were significant predictors of task orientation in the sport sample. As in the work sample, female athletes had higher task orientation than male athletes. Volitional control over outcomes was a significant predictor of task orientation only in male but not in female athletes. Higher volitional control over outcomes predicted a higher task orientation in male athletes. The effect of latent ability to control outcomes on task orientation was not significant in athletes with a volitional control above the sample mean, but was significant in athletes with a volitional control below the sample mean. In the later, higher latent ability to control outcomes predicted a higher task orientation. The effect of volitional control on task orientation was not significant in athletes with an above average but was significant in athletes with a below average latent ability to control outcomes. In the latter, higher volitional control over outcomes predicted a higher task orientation.
- *Task orientation and attributional styles for negative events:* Gender was the only significant predictor of task orientation in the work sample. Females had higher task orientation than males. Gender and Gender by Exclusive internal locus of control interaction term were significant predictors of task orientation in athletes. Exclusive internal locus of control was not a significant predictor of task orientation in male athletes but was a significant predictor in female athletes. Female athletes with a higher exclusive locus of control had a higher task orientation than female athletes with a lower exclusive internal locus of control.
- *Ego orientation and attributional styles for positive events:* The Gender by Latent ability to control outcomes by Volitional control over outcomes interaction term was a significant predictor of ego orientation in athletes. Latent ability to control outcomes was a significant predictor of ego orientation only in female athletes with below average volitional control. In these athletes, higher latent ability to control outcomes was associated with a higher ego orientation. Gender and latent ability to control outcomes were significant predictors of ego orientation in employees. The interaction terms Gender by Latent ability to control outcomes and Gender by Volitional control over outcomes approached significance. Males had higher ego orientation than females. Latent ability to control outcomes was a

significant predictor of ego orientation in male employees but not in female employees. Higher latent ability to control outcomes predicted a higher ego orientation in male employees.

- *Ego orientation and attributional styles for negative events*: No significant predictors of ego orientation were found for the sport sample. The interaction terms Gender by External intentionality and Gender by Internal locus of control by External intentionality were significant predictors of ego orientation in employees. The regression coefficient of External intentionality was positive but not significant for the male sub-sample, whilst the same was negative and approaching significance in the female sub-sample. Higher External Internality tended to be associated with lower Ego orientation in female employees. Analysis of the second interaction showed a significant effect of gender on ego orientation in employees with a below average Internal locus of control and an above average External intentionality. In this sub-sample, male employees had a higher ego orientation than female employees. No gender differences in ego orientation were found in employees with above average Internal locus of control.

Findings Addressing Impact of Achievement Goal Orientation on Attributional Style

- *Internality for positive events*: Only a “gender by ego orientation” effect was observed. Ego orientation was not a significant predictor of internality for positive events in male athletes and female employees but was a significant predictor in female athletes and male employees. Higher ego orientation in female athletes and male employees was associated with a higher internality for positive events.
- *Stability for positive events*: Ego orientation was not a significant predictor of stability in athletes but was a significant predictor in employees. Higher ego orientation was associated with higher stability for positive events.
- *Globality for positive events*: Higher task orientation was associated with higher globality for positive events. The effect of task orientation on globality for positive events was similar in male and females employees. Task orientation was not a significant predictor in female athletes but was a significant predictor in male athletes.
- *Personal control for positive events*: No achievement orientation effect was observed.
- *External control for positive events*: The regression coefficient for ego orientation was positive in the sport sample, but not significant, whereas the same coefficient was negative and approached significance in the work sample. Higher ego orientation predicted lower external control for positive events in employees.
- *Intentionality for positive events*: A significant “gender by task orientation by ego orientation” interaction was found. No significant “gender by task orientation by ego orientation” interaction was observed in athletes. An interaction approaching significance was found in the work sample. In employees with a task orientation above the sample mean and an ego orientation below the sample mean, females had higher intentionality than males. No gender differences were found in employees with task and ego orientations above the sample mean, task and ego orientations below the sample mean or task orientation below and ego orientation above the sample mean.
- *Globality for negative events*: No achievement orientation effect was observed.
- *Personal control for negative events*: A significant between-sample difference was found in the regression coefficient for “gender by task orientation” interaction term. The “gender by task orientation” interaction term was significant in the sport but not work sample. Gender was a significant predictor of personal control in employees with ego orientation above the sample mean and task orientation below the sample mean.
- *Intentionality for negative events*: No achievement orientation effect was observed.

Important Differences Between Athletes and Employees

- Compared to employees, athletes had lower task orientation, lower internality, stability, globality, personal control, external control and intentionality for positive events than employees. For negative events, however, athletes, compared to employees, had higher internality, stability, globality and personal control. Athletes also had lower ego orientation than employees.
- Employees had, on average, higher personal control and higher external control than athletes.
- Athletes experienced a greater decrease in ego orientation from time 1 to time 2 than employees.

In conclusion, the results provide important information for practitioners and trainers involved in training athletes, assisting athletes in the transition from sport to work, and in assisting employees in the workplace. Future research is required to illuminate the task and individual features explaining these differences.

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