

Does Sporting Activity Foster Career Advancement?

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Abstract

It has been shown empirically several times before that wages are higher for employees who are more active in sports. This was attributed to higher assertiveness and better social skills, among other things. Using the German Socio-Economic Panel (GSOEP), this study analyses whether active participation in sports fosters occupational promotion or the transfer of managerial responsibility. Personality traits of the promoted employees are also examined in order to determine whether they are in fact better suited for leadership positions. The results show that the probability of a promotion is significantly higher for individuals who participate more often in sports. Furthermore, personality traits that are more advantageous for leadership positions can be detected in the promoted employees in a higher degree.

Keywords: GSOEP, Leadership, Personality Traits, Promotion, Sporting Activity

JEL-Codes: J24, L83, M51, Z22

Introduction

In recent years, it has been repeatedly discussed and investigated whether physically active employees are more successful in the labour market. For instance, it has been empirically shown that athletes get higher wages (Lechner, 2009; Ewing, 2007; Henderson et al., 2006). Besides health aspects, the enhancement of an employee's assertiveness through sporting activity has been particularly emphasised as beneficial for their career development. More assertive employees are often perceived as more efficient and as better suited for leadership positions, so presumably they are favoured when personnel decisions are made. The literature regarding leadership concepts particularly points out the problems that arise when an executive is too assertive as well as when

his or her assertiveness is too low (Ames & Flynn, 2007). Less assertive employees neglect goal orientation more frequently when leading. However, teams led by highly assertive employees are usually more unsatisfied because social aspects are taken into account only rarely. Characteristics such as thoughtfulness and cooperation capability should therefore also be relevant for personnel decisions concerning leadership positions. As being involved in (team) sports fosters the development of social competencies in particular (Strachan et al., 2011), this might be especially beneficial for an employee's internal application for executive positions. Whereas so far only labour market effects of athletes regarding their income have been examined, this article analyses whether physically active employees are more likely to be promoted.

A particularly important aspect regarding the relation between occupational promotion and athletic activity is that the latter can increase self-confidence and self-control (Sari et al., 2014). Stronger leadership skills are attributed to more confident-appearing employees. Furthermore, self-confident employees are more likely to believe they are capable of advancing to a higher company level and therefore apply for leadership positions more often. Additionally, the career advancement of physically active employees is facilitated by the promotion of health caused by sporting activity. Employees who constantly do sports are absent less frequently because of their superior health status. This has been shown empirically various times (Cox et al., 1981; Song & Cox, 1982; Blair et al., 1986; Van den Heuvel et al., 2005; Lahti et al., 2010). In this context, a U-shaped form of absenteeism is conceivable as well. Employees who do not do sports should have the most health-related absences. Due to the promotion of health, absenteeism should decline with increasing athletic activity. However, the risk of injury for employees rises with a further increase in sporting activity, from which follows that absences from work could also increase.

In general, health-related absences are disadvantageous for applicants in internal recruitment processes. Mainly, employees reach executive positions through internal promotions instead of by changing their employer. With a promotion, the occupational expectations and demands on the employee increase. Additionally, changed constellations within departments can lead to particularly problematic situations. After a promotion, employees have to treat formerly equal colleagues differently. It has not yet been investigated whether athletically active

employees have fewer problems to cope with new working environments. However, it has been shown that sportspeople process information more quickly and are better in adapting to unfamiliar situations, too (Chaddock et al., 2011; Voss et al., 2010). Concerning the research subject of this study, it is expected based on these results that physically active employees progress faster in their careers and have less adaption problems after a promotion.

Decisions on promotions can be influenced by strategic considerations, so that not necessarily the most suitable applicant is selected. The occupational future of executives is closely related to the performance of their subordinates. Thus, employees in leadership positions could behave opportunistically by recommending less talented employees for promotions. Furthermore, distortions in perception lead often to a suboptimal applicant selection. In recruiting processes, it has been observed that athletic candidates were significantly preferred to athletically less active applicants although their qualifications did not differ. The results were primarily attributed to the applicants' higher attractiveness (Beehr & Gilmore, 1982; Cash & Kilkullen, 1985; Commisso & Finkelstein, 2012). However, promotion decisions have not been investigated within these studies. Attractive applicants can even be rather disadvantaged in promotion decisions. If the decision maker perceives the candidate as a potential competitor and both are of the same sex, the probability of an intentional discrimination is particularly high (Lee et al., 2015).

Following the *Peter Principle*, employees are internally promoted until they are not sufficiently qualified any more (Peter & Hull, 1969). In this context, fortunate circumstances or random factors can also influence promotion decisions (Lazear, 2004). Because of the described biases regarding personnel decisions it is possible that especially athletically active employees occupy positions they are actually not suitable for more often. The Peter Principle is highly controversial and has not always been taken seriously in the past, especially since it has been introduced in a satirical manner. However, there is some empirical evidence for its validity. It could be shown that externally recruited applicants reached higher levels in their career than internally promoted employees, which could be a reaction to the Peter Principle (Acosta, 2010). Nevertheless, economically these findings can be explained through diminishing incentive effects subsequent to promotions. The prospect of possible promotions is supposed to increase the performance

motivation of employees. Since the incentive intensity decreases after the achievement of a promotion, the performance level of promoted employees often declines (Rosen, 1986). The better career development of employees chosen from an external pool can also be explained through the *handicap theory*. According to this theory, external applicants are at first disadvantaged within recruitment processes. However, if they can still assert themselves against a great number of internal applicants, their performance capability should be accordingly higher. Hence, the probability of career advancement is higher for these newly recruited employees (Chan, 2006; Agrawal et al., 2006).

When internally promoted employees are not sufficiently qualified for an acquired position, it is not impossible that they hold their position or advance even further. Especially higher work effort may lead to maintaining the status or even an improvement of the occupational situation (Koch & Nafziger, 2012). As the Peter Principle is controversial and recruitment processes go along with biases in perception as described, this article also investigates descriptively whether promoted employees rather keep or lose their leadership positions in the subsequent years. This is supposed to provide indications whether occupationally ascended employees indeed were not sufficiently qualified for their acquired positions.

Because of possible preferences of attractive applicants regarding personnel decisions, an analysis of personality traits investigates whether promoted employees are less suited for their acquired leadership positions. In this case, personality traits according to the so-called *revised NEO-personality-inventory* (NEO-PI-R) will be analysed (Ostendorf & Angleiter, 2004). In the management literature, the relation between personality traits and leadership skills has been investigated several times. Especially the dimension “extraversion” is a robust predictor for the advancement to leadership positions. Similarly, higher expressions of this trait are advantageous for staff leadership. In contrast, “neuroticism” generally correlates negatively to the occupational development so that this trait is usually less distinct for executives (Judge et al., 1999; Judge et al., 2002).

Positive effects of sporting activity on the personality traits were so far demonstrated only occasionally. However, sporting activity can foster self-awareness and self-confidence. Therefore, it is expected that athletically active employees are less neurotic. Similarly, a reverse effect

on the dimension of extraversion is assumed. It has already been shown that this is reached through learning success (Egloff & Gruhn, 1996).

Data Sample and Results

In this study, data of the German Socio-Economic Panel (GSOEP) is used. The survey is conducted annually by the German Institute for Economic Research (DIW). Several variables that are particularly relevant for the intended research are surveyed only every two years. Among others, these are the sporting activity and the change of occupational situation. The analysis is restricted to full-time employees. Public officials, farmers and freelancers are excluded because it is not possible to clearly identify whether they have managerial responsibility. In the first observation period in 2003, 8,081 interviewed persons were in the sample. In the last observation period in the year 2011, only 7,118 full-time employees were interviewed. The share of persons in leadership positions varied among 30% and 37% during the observed years. Overall, about 6.9% of the full-time employees rose into positions with managerial responsibility over at least one subordinate. This happened by either an internal promotion or a change of employer. Persons who had already occupied leadership positions in the beginning of the observation were subtracted.

Figure 1 compares the development of sporting activities of employees without managerial responsibility with the employees who were promoted into leadership positions. The sporting activity is captured on a scale with four items. However, the scale was re-coded so that employees without sporting activity were assigned a value of 0. In the period t_3 , the occupational change or rather the promotion took place. In the periods t_1 and t_2 four respectively two years before the raise into a leadership position, the sporting activity is observed. In order to be able to compare the sporting activity with the group of employees that were not promoted time lags are used. Overall, it can be observed that promoted employees are more athletically active and that the intensity only marginally changes after the promotion. This last observation could be explained by the equalisation of price- and income-effects in the sense of the classical labour-leisure choice model. The wage often increases after a promotion such that opportunity costs for the consumption of leisure increase. At the same time, the promoted employee is richer and can prefer more leisure time. Unlike the classical model, promotions in

leadership positions go along with an expansion of competencies and tasks so that the average amount of work time should not decrease. For most employees in Germany the working time is fixed anyway as long as they are not promoted to very high management positions.

Figure 1. Comparison of average sporting activity of promoted employees and employees without executive duties

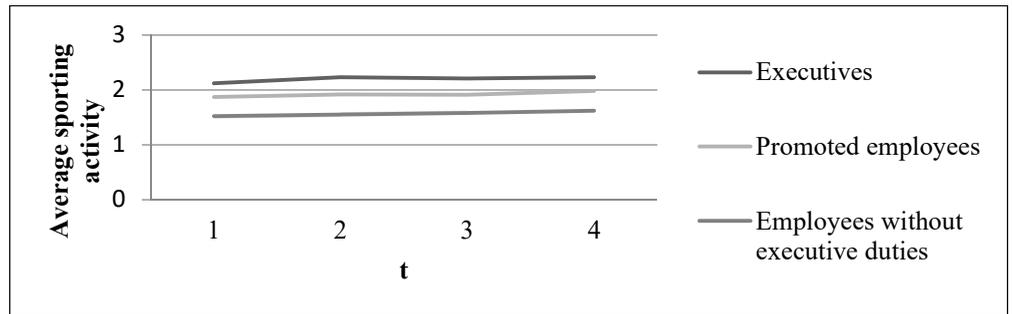


Table 1 shows that the effective working hours of the observed employees slightly decrease after a promotion. Economically this can be explained by an inherent motivational effect of the promotion. The employees work more when they want to commend themselves for promotion. After they reached this goal, the employees work less and do something else like sports. In the literature regarding personnel economics, it is recommended to prefer internal promotions to external recruiting because of motivational reasons (i.e. Backes-Gellner et al., 2001). However, in this context it has to be considered that employees might decrease their working commitment after a promotion and that the other internal applicants can lose some of their motivation when they have been disregarded.

Table 1. Development of the effective working hours and extra hours of promoted employees

	Mean effective working hours	Mean extra hours
Two years before promotion	44.14965	2.940734
Year of promotion	44.41692	3.268655
Two years after promotion	43.49693	2.471592
Four years after promotion	43.68734	2.619293
N	1,642	

In order to investigate whether sporting activity has a positive influence on the probability of occupational promotion a binary logistic regression

model is estimated. The estimation-equation for the logistical model has the following form:

$$p(y = 1) = \frac{1}{1 + e^z} \text{ with } z = b_0 + b_1x_1 + b_2x_2 + \dots + b_nx_n$$

The dependent variable p measures an occupational change between two dates of the survey and is coded as a dichotomous variable. When an employee rose in an executive position, it is labelled with the value 1. If the occupational situation of the employee did not change, the value is 0. Since the dependent variable in the data sample is very frequently 0, the use of other estimation procedures was considered as well. Among others, a Kernel regression was estimated. However, the results did not differ significantly from the ones of the logistic regression. Besides the main explanatory variable additional control variables are added to the model. Table 2 shows that the probability to rise in an executive position is statistically significant higher for athletically active employees. Likewise, it is shown that employees with higher educational qualifications get also more often promoted. For female employees it is significantly less likely to reach executive positions. In addition to the usual obstacles for women's careers, this can be explained by women's tendency to avoid competitive situations (Backes-Gellner et al., 2008).

The amount of health-related absences influences significantly whether employees rise in leadership positions or not. The reference group in the regression model are employees who were absent more than 20 days. Interestingly, solely the group with persons without any absences is statistically insignificant in comparison to the reference group. Firstly, this can be caused by strategic aspects of promotion recommendations. As described, team leaders can intentionally recommend underachieving employees for promotions in order to prevent a deterioration of their team. Secondly, only every second employee was absent because of medical reasons. Thus, it can be presumed that the performance capability is in general more heterogeneous within this group. Several employees might not fulfil the requirements for leadership positions although they were not absent from work.

Table 2.
Binary logistical regression: Relative probabilities of promotion in executive positions in the years 2003 until 2011

Variable	B	Exp (B)	Lower confidence interval for Exp(B) (95 %)	Upper confidence interval for Exp(B) (95 %)
Sport (lagged)	0.082***	1.086	1.057	1.115
Female	-0.501***	0.606	0.546	0.673
Further training	0.052**	1.053	1.033	1.074
Secondary school (Hauptschule)	0.387**	1.473	1.204	1.803
Middle school (Realschule)	0.620***	1.860	1.528	2.263
Grammar school (Gymnasium)	1.236***	3.443	2.810	4.218
Married	0.180**	1.197	1.079	1.327
Tenure 5-10 years	-0.409**	0.664	0.560	0.788
Tenure 11-15 years	-0.124	0.883	0.756	1.032
Tenure over 15 years	-0.072	0.930	0.819	1.057
Age 35-45 years	0.449	1.051	0.923	1.094
Age 46-55 years	0.020	1.020	0.873	1.192
Age over 55 years	-0.139	0.870	0.717	1.056
No absents (lagged)	0.095	1.099	0.968	1.248
1 up to 10 absents (lagged)	0.251**	1.285	1.112	1.486
11 up to 20 absents (lagged)	0.146*	1.157	1.004	1.376
Nagelkerkes R ²	0.042			
2 – Log – Likelihood	14413.599			
N	24,477			

*/**/*** labels the significance on the 10/5/1 %-level

In the used data sample an interrelation between sporting activity and absenteeism can be detected ($r_{xy} = -0.657$; $p < 0.01$). Figure 2 shows the average absent days arranged in the order of sporting activity of the employees. It is observable that the amount of absent days decreases with increasing sporting activity. To analyse whether the athletic activity influences occupational advancement indirectly, too, a mediation analysis is used. The mediator M is the amount of absent days due to illness. Figure 3 shows the results of the mediation analysis. The direct effect of sporting activity on career advancement is similar as in the estimated logistic regression. However, a statistically significant indirect effect of sporting activity can be detected over the second path. The overall effect increases through the additional indirect effect ($ab = 0.009$) to 0.0880 (Hayes, 2013).

Figure 2.
Comparison of average of health-related absence dependent on sporting activity

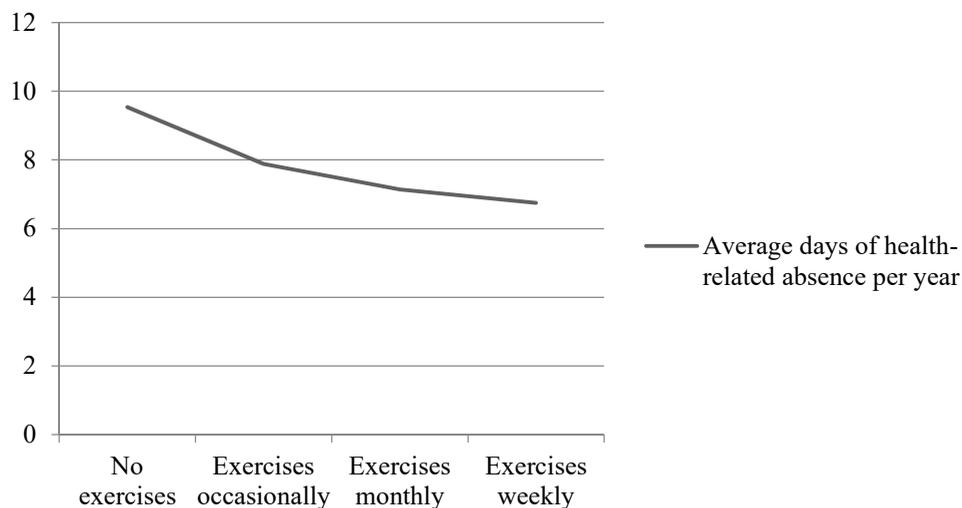
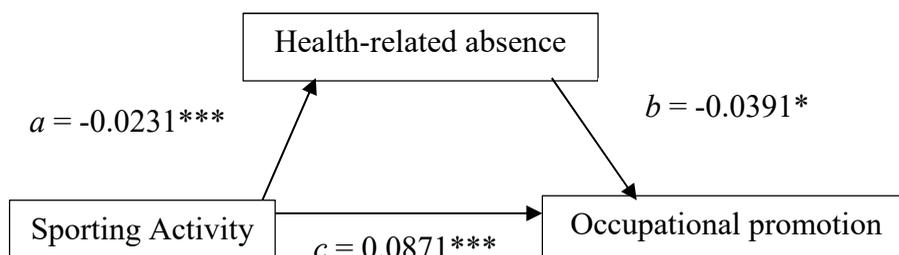


Figure 3.
Mediation analysis between sporting activity, health-related absence and occupational promotion



*/**/** labels the significance on the 10/5/1 %-level

In addition, it can be observed that only about 2% of the promoted employees were not able to keep their leadership position. This value is below the average. Overall 8.3% changed their employer after their promotion. Nearly all of them occupied leadership positions at their new employers as well. With a percentage of 87. % the majority of the promoted employees remained by their employer respectively in their leadership position. This result indicates that promotion decisions are not mainly based on the physical appearance of the applicants.

Furthermore, the personality traits of promoted employees are compared to the ones of employees who do not occupy leadership positions over the entire period of observation. The Tables 3 to 5 show the results of t-tests. Promoted employees have significantly higher

values in the dimensions of openness and extraversion. Conversely, the self-ratings of employees without any managerial responsibilities are significantly higher in the dimension of neuroticism. From these results it follows that the promoted employees do in fact exhibit personality traits that are advantageous for leadership positions. Since personality traits are relatively robust and change only slightly over short periods of time, it is less problematical that the used statistical method cannot determine the direction of causality.

Table 3.
t-test: Comparison of neuroticism of promoted employees and employees without managerial responsibilities in the years 2005 and 2009

	Promoted employees	Employees without executive tasks
Mean	3.5210	3.6577
Standard deviation	1.15785	1.20320
Significance (2-sided)	**	**
F	1.421	
N	7,664	

*/**/** labels the significance on the 10/5/1%-level

Table 4.
t-test: Comparison of openness of promoted employees and employees without managerial responsibilities in the years 2005 and 2009

	Promoted employees	Employees without executive tasks
Mean	4.6225	4.3695
Standard deviation	1.18684	1.16301
Significance (2-sided)	***	***
F	0.259	
N	7,664	

*/**/** labels the significance on the 10/5/1%-level

Table 5.
t-test: Comparison of extraversion of promoted employees and employees without managerial responsibilities in the years 2005 and 2009

	Promoted employees	Employees without executive tasks
Mean	4.8438	4.7392
Standard deviation	1.19040	1.16297
Significance (2-sided)	*	*
F	0.625	
N	7,664	

*/**/** labels the significance on the 10/5/1%-level

Conclusions and Limitations

This paper analyses the relationship between sporting activity and career advancement. Using longitudinal data from the German Socio-Economic Panel (GSOEP), the results show that the probability of occupational promotion is significantly higher for athletically active employees. In addition, promoted employees also exhibit characteristics of personality traits that are more advantageous for leadership positions. Previously detected positive labour market outcomes of athletes are among other things explained by higher assertiveness and superior social skills. Since an indirect effect on employee absenteeism is found as well, sporting activity can foster further important factors in career advancement. The findings of this study confirm the positive effect of athletic activity on employee promotion. Due to the less-frequent dismissals of promoted employees, it can be assumed that athletically active employees are not only more often promoted in leadership positions because of their higher attractiveness. Nevertheless, more attractive appearances might be also helpful for employees to remain in their acquired positions. In this context, it should be noticed that the willingness to revise personnel decisions tends to be low. Every personnel decision that is revoked would undermine the credibility of the decision-maker and the motivation of the demoted employee. To analyse whether athletically active employees are indeed more efficient in leadership positions, additional performance data of similar divisions on the same company levels would be required.

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Appendix

Variable	Mean	Standard deviation
Difference executive position (binary)	0.07	0.245
Sport (lagged)	1.62	1.696
Female	0.33	0.472
Further training	0.21	0.226
Secondary school (Hauptschule)	0.31	0.463
Middle school (Realschule)	0.39	0.487
Grammar school (Gymnasium)	0.19	0.393
Married	0.66	0.474
Tenure under 5 years	0.27	0.418
Tenure 5-10 years	0.16	0.350
Tenure 11-15 years	0.19	0.346
Tenure over 15 years	0.35	0.464
Age 18-34 years	0.21	0.396
Age 35-45 years	0.34	0.457
Age 46-55 years	0.28	0.439
Age over 55 years	0.16	0.330
No absents (lagged)	0.49	0.423
1 up to 10 absents (lagged)	0.22	0.326
11 up to 20 absents (lagged)	0.16	0.228
Over 20 days absent (lagged)	0.12	0.235

Descriptive results to Table 1