

# Which motivational patterns are promising in individual sports?

## A prospective longitudinal study

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**Introduction** Specific patterns of motivational constructs such as achievement goal orientation, achievement motivation and self-determination have recently demonstrated promising associations with future success in the team sports football and ice hockey (e.g., Zuber & Conzelmann, 2015). The present study scrutinizes whether these patterns and their associations can also be found in individual sports. Since considerable dissimilarities between team and individual sports have been reported when examining motivational processes (e.g., Hanrahan & Cerin, 2009), some doubts persist as to whether or not these patterns can be generalized beyond team sports.

**Methods** A sample of 152 young athletes from 17 individual sports ( $M_{age} = 16.47$ ,  $SD = 2.21$ ) completed different motivation questionnaires (SOQ, AMS-Sport, SMS) at  $t_1$ . Two and a half years later ( $t_2$ ), their performance level was assessed. The person-oriented method of Linking of Clusters after removal of a Residue (LICUR; Bergman et al., 2003) was used to form clusters based on the variables win orientation, goal orientation, hope for success, fear of failure and self-determination at  $t_1$ . The relationships between these clusters and the performance levels at  $t_2$  (i.e., international level; national level and lower; dropout) were then analysed by determining the transition probabilities.

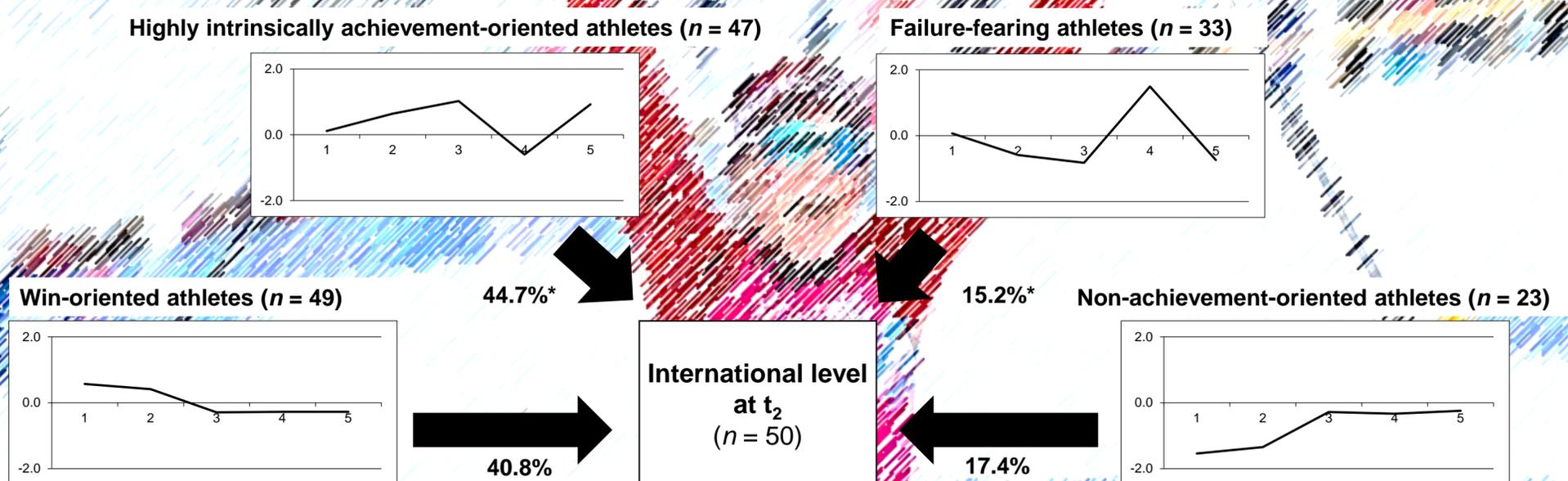


Figure 1. Profiles of z-scores of the four clusters and transitions to the highest performance level at  $t_2$ . Operating factors: 1 = win orientation; 2 = goal orientation; 3 = hope for success; 4 = fear of failure; 5 = self-determination index. The numbers next to the arrows represent the percentages of the athletes competing on an international level 30 months later. The probabilities of two transition paths (\*) showed significant deviations from the assumption of randomness ( $p < .05$ ).

**Results** An acceptable four cluster solution was found at  $t_1$  ( $EESS = 51.78\%$ ; weighted  $HC_{mean} = 0.99$ ;  $SC = 0.58$ ). At  $t_2$ , 44.7% of the *highly intrinsically achievement-oriented athletes* were ( $OR = 2.12$  [1.03; 4.33]) competing internationally, whereas this was only the case for 15.2% of the *failure-fearing athletes* ( $OR = 0.29$  [0.11; 0.82]). The probabilities of the other transition paths showed no significant deviations from the assumption of randomness ( $p > .05$ ).

**Discussion** In line with the current state of the research in team sports, the *highly intrinsically achievement-oriented athletes* have the best prospects of success. Although team and individual sports are different in many respects, they seem to be characterized by similar and thus generalizable career-promoting motivational profiles. From a talent development perspective, future studies should examine whether these motivational patterns are stable or can be adapted over time through sport psychological interventions in order to improve the athlete's chances of success.

**References** Bergman, L., Magnusson, D., & El-Khoury, B. M. (2003). *Studying individual development in an interindividual context: A person-oriented approach. Paths through life*. Erlbaum.  
Hanrahan, S. J., & Cerin, E. (2009). Gender, level of participation, and type of sport: Differences in achievement goal orientation and attributional style. *Journal of Science and Medicine in Sport*, 12(4), 508–512.  
Zuber, C., Zibung, M., & Conzelmann, A. (2015). Motivational patterns as an instrument for predicting success in promising young football players. *Journal of Sports Sciences*, 33(2), 160–168.