

# Prototypicality ratings of acts for achievement motivated behavior of young competitive athletes by coaches and sport psychologists

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## Introduction

Achievement motivation has proved to be an important talent criterion for young athletes (Zuber et al., 2015). However, the evaluation of achievement motivation by means of self-assessment instruments entails the risk of social desired answers. In addition, it would make sense to assess the observable achievement motivated behavior from coaches' reports. One possibility to construct an observation grid is based on the Act-Frequency Approach (Buss & Craik, 1983; e.g. figure 1) that relies on the definitions of characteristics elaborated by psychological laypersons: In the first step, coaches are asked about manifest achievement motivated behavior in concrete situations (acts). In the next phase, these acts are then assessed by news samples with respect to their prototypicality for the construct to be examined. Thereby, the question arises as to whether the concept of "achievement motivated behavior" of youth coaches - who usually have no well-founded knowledge in sports psychology - is consistent with that of sports psychologists.

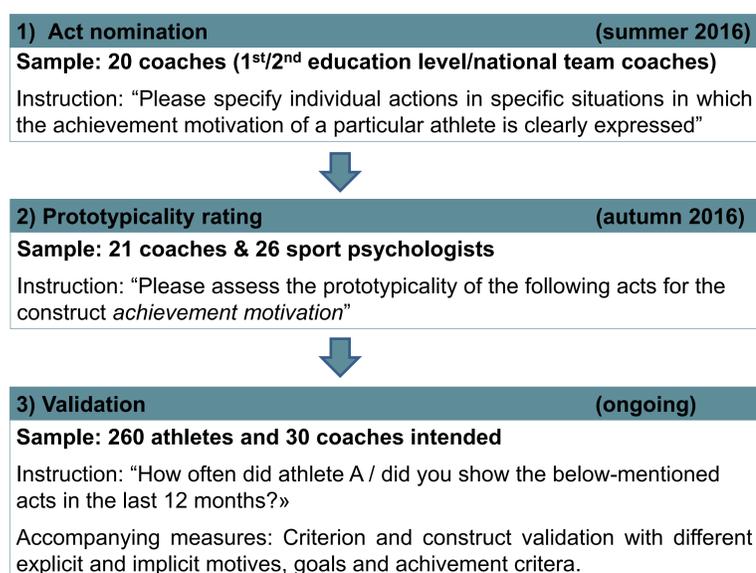


Figure 1. Process of the research project based on the Act-Frequency Approach

## Results

It turns out that the assessment of the coaches does not differ fundamentally from those of the sport psychologists across all acts ( $d = 0.0$ ;  $ICC_{unjust} = .76$ ) and that the overall assessment with  $M = 3.75$  ( $SD = .99$ ) in both groups leans towards "fairly prototypical". At the level of the individual acts, the group judgments differ in nine acts with a large ( $d > .8$ ) or moderate effect ( $d > .5$ ). Of these, seven acts were regarded as more prototypical by the sports psychologists (e.g. table 1, acts 16 / 17). Only two acts were examined as more prototypical by the coaches (e.g. act 18).

## Discussion

The results show that on average, the acts were rated as fairly prototypical and therefore adequately for the concept of achievement motivated behavior. In terms of differences in the perception of the two samples, it became apparent, that behavior pointing to the concept of task orientation (Duda, 2007), is regarded as more prototypical for achievement motivated behavior by the sports psychologists than by the coaches. In terms of content, this motivation facet is concerned with striving to achieve its own goals and to constantly improve itself. This seems to be of higher relevance for the sport psychologists than for the coaches. This gives us an indication that the two groups might conceive the concept of achievement motivation in a slightly different form. In the upcoming phase of validation, it has to be examined if the constructed observation grid serves as a reliable and valid tool to assess achievement motivated behavior.

## References

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## Method

In the first phase of the project, 58 acts were created by 20 coaches of 14 different sport federations ( $M_{age} = 46.0$ ;  $SD_{Age} = 9.17$  years). These acts were then evaluated by 21 further coaches of 12 different sport federations ( $M_{age} = 41.48$ ;  $SD_{Age} = 9.4$  years) and 26 sports psychologists ( $M_{age} = 43.23$ ;  $SD_{Age} = 10.14$  years) with regard to their prototypicality for achievement-motivated behavior in young athletes on a 5-point scale (1 = not at all; 2 = slightly; 3 = somewhat; 4 = rather; 5 = very). The prototypicality ratings were checked for mean differences between the two samples. Cohens d was calculated to determine the size of the effect.

No.	Act	Coaches		Sport psychologists		Group comparison		
		M	SD	M	SD	t(45)	p	d
1	Did set goals for himself/herself	4.52	0.98	4.54	0.58	-0.06	.95	-0.02
42	Has shown great commitment during practice	4.43	0.93	4.42	0.64	0.02	.98	0.01
41	Has completed a simple exercise while remaining focused and making only a few mistakes	4.33	0.86	3.96	1.00	1.35	.18	0.40
16	Has asked how he/she could further develop him-/herself in sports	4.29	0.72	4.65	0.56	-1.97	.05	-0.58
13	Stayed after practice to continue practicing	4.00	0.84	3.92	1.09	0.27	.79	0.08
18	Strived to be the best at performance comparisons in another type of sport	4.00	0.89	3.23	0.95	2.83	.01	0.83
17	Asked continuously for precise feedback on his/her performance after a correction	3.81	0.98	4.46	0.65	-2.74	.01	-0.80

Table 1. Comparison of the prototypicality ratings by the coaches ( $n = 21$ ) and the sport psychologists ( $n = 26$ ) of seven exemplary acts, sorted by the coaches' rated prototypicality.