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.

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 sport 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.

Results
It turns out that the assessment of the coaches does not differ fundamentally from those of the sport psychologists across all acts ($d = 0.0; ICC_{Cohens} = 76$) 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 of 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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