

Development and Validation of the Sport Causality Orientations Scale (SCOS)

Thursday 24 July 2025 17:10 (20 minutes)

Abstract

Athletes often perceive contextual factors in sports differently, which influences their motivation and their tendencies to respond in specific ways, affecting their participation and sport experience. According to the Self-Determination Theory, these individual differences are known as causality orientations and they represent separate tendencies to: (a) focus on those features of the context that allow the individual to initiate and regulate their behavior in a self-determined way (autonomy orientation); (b) pay attention to environmental cues that provide the individual with rewards or punishments, regulating their behavior in a more controlled way (control orientation); (c) orient oneself towards obstacles that diminish one's potential to achieve one's goals, thereby considering oneself to be incompetent and without control over one's environment (impersonal orientation). As no instrument has been developed to measure this concept in the sports context, this presentation aims to introduce the development and validation of the Scale of Causality Orientations in Sport (SCOS).

The present study employs a vignette format, as previously utilized in related causality orientation scales, whereby situations are delineated and respondents are invited to indicate their likelihood of responding in alignment with each of the three causality orientations using a 7-point Likert scale. The generation of a pool of 20 situations resulted in a total of 60 items, with the situations being adapted from previous scales and new ones being created to represent relevant collective sporting events. The situations were designed to encompass events preceding, during, or following a competition or training session, during extended periods of physical exertion, and social interactions with teammates or coaches. The scale was then administered to five experts in the domain of SDT, specializing in the fields of sport sciences and sport psychology, who have experience working with adolescent athletes. These experts evaluated the scale's general instructions, situations, and items, offering comments and suggestions for improvement. The evaluation focused on the precision and breadth with which the relevant constructs were represented. Following these evaluations, the wording of some situations and items was modified, resulting in a scale with 18 situations (54 items) that was applied to 276 adolescent athletes ($M = 16.14$ years). During the administration of the scale with the participants, comments and questions were recorded. In general, the adolescents reported that the scale was easy to understand.

Using confirmatory factor analysis, a stepwise reduction of situations was conducted to ensure a good fit of the scale. The final version consists of seven situations (21 items) evaluating the three causality orientations: one before competition, one during, and two after; two situations related to practice and one addressing general motivation.

The psychometric properties of the SCOS were deemed acceptable, including factorial validity ($R\text{-CFI} = .929$; $R\text{-TLI} = .907$; $R\text{-RMSEA} = .043$; $SRMR = .058$) and internal consistency ($\omega\text{-autonomy} = .67$; $\omega\text{-control} = .69$; $\omega\text{-impersonal} = .70$). A subsequent study provided further support for the validity of the SCOS, thereby confirming these initial findings. Consequently, the SCOS can be considered a valid and useful instrument for measuring causality orientations in the sport context.

Keywords

self-determination theory, sport, motivation, adolescents

Primary authors: Dr PEREZ-GAIDO, Mauro G. (Consejo Nacional de Investigaciones Científicas y Técnicas, Universidad Nacional de Tres de Febrero (Argentina)); Dr MOLINA, María F. (Universidad Nacional de Tres de

Febrero (Argentina)); Dr RAIMUNDI, María J. (Consejo Nacional de Investigaciones Científicas y Técnicas, Instituto de Psicología Básica, Aplicada y Tecnología (Argentina)); Dr SCHMIDT, Vanina I. (Consejo Nacional de Investigaciones Científicas y Técnicas, Universidad de Buenos Aires (Argentina)); Prof. CASTILLO, Isabel (Universitat de València (Spain)); Dr ÁLVAREZ, Octavio (Universitat de València (Spain)); Prof. TOMÁS, Inés (Universitat de València (Spain))

Session Classification: Poster Session 4

Track Classification: Measurement: Measurement