

CASES EXPERT STATEMENT

THE CASES EXPERT STATEMENT ON MEASURING PERFECTIONISM IN SPORT AND EXERCISE

Produced on behalf of the Chartered Association of Sport and Exercise Sciences by Dr Sarah Mallinson-Howard, Prof Andrew Hill FCASES, Dr Michael Grugan, Prof Daniel Madigan MCASES, and Dr John Gotwals.

The pursuit of perfection is pervasive in sport and exercise domains. It is encouraged, praised, and often considered necessary for success at the highest levels. When manifested as a personality trait, perfectionism is defined as a combination of excessively high standards and overly critical self-evaluations (Frost *et al.*, 1990). It is a complex trait that is potentially both a significant energising factor and destructive force for athletes and exercisers. To study it, and provide appropriate support and guidance where needed, sport and exercise scientists need valid and reliable measures of perfectionism. However, there is currently an abundance of measures available, which poses a significant barrier for those unfamiliar with the area. Our expert statement aims to remove this barrier by offering clear recommendations on how best to measure perfectionism in sport and exercise.

BACKGROUND AND EVIDENCE

Over the past two decades, research on perfectionism in sport and exercise has grown substantially, along with the instruments used to measure it. The two-factor model of perfectionism represents a significant advancement in clarifying the shared structure across these instruments and identifying the best indicators of perfectionism's distinct features. Here, we advocate for this model to enhance conceptual clarity and guide assessment, outlining it below as the foundation for understanding and measuring perfectionism in sport and exercise.

THE TWO-FACTOR MODEL OF PERFECTIONISM

The two-factor model is based on factor-analytical evidence examining the underlying structure of multiple perfectionism measures. Despite differences in the content of individual measures, they all assess at least one of two higher-order dimensions of perfectionism: perfectionistic strivings (PS) and perfectionistic concerns (PC).

Aligned with Frost *et al.*'s (1990) definition of perfectionism, PS is an *"internalised pressure to strive for perfection"*, while PC is the tendency to be *"overly concerned with the implications of imperfection"* (Hill *et al.*, 2024, p.629).

Meta-analytical, systematic, and narrative reviews show that PS typically has mixed relationships with motivation, performance, and well-being outcomes among athletes and exercisers. Consequently,

the ambiguity of PS—showing both energising and maladaptive effects—fuels ongoing debates over the nature of perfectionism. In contrast, PC is uncontroversial with evidence consistently showing its maladaptive effects and the need to manage irrational concerns over imperfection (Jowett *et al.*, 2023).

Against this backdrop, adopting the two-factor model is recommended to practitioners and researchers for two reasons: (1) it provides a common framework or 'lingua franca' for those using different approaches to perfectionism; and (2) it ensures both the energising features of perfectionism *and* its other, less desirable, dimensions are taken into account when evaluating its overall impact among athletes and exercisers.

MEASURING AND ANALYSING PS AND PC

Currently, two key challenges are faced by those interested in measuring PS and PC within sport and exercise. First, there are numerous perfectionism measures to choose from, each with different subscales and labels. Second, perfectionism can be global—affecting multiple life areas—or domain-/context-specific—varying across different life domains or situations. The two-factor model helps unify this diversity in measurement, subscales, and domains, enabling more valid assessments.

Recent research has shown which subscales from perfectionism measures—designed for the sport domain and sport performance context—are conceptually and statistically the best proxies for PS and PC (e.g., Hill *et al.*, 2024; Madigan, 2023). Table 1 presents these measures and subscales.

In sport, PS is best manifested via *personal standards, striving for perfection*, and/or *self-oriented perfectionism*—all including items that refer to personal endorsement of high or perfect standards. PC is best manifested via *concern over mistakes, doubts about action, and/or socially prescribed perfectionism*—all including items that capture irrational beliefs about (non-perfect) performances (see Table 1).

In exercise, PS and PC are typically assessed by applying exercise-specific adaptations to global perfectionism measures. However, further research is needed to validate and refine the measurement of perfectionism among exercisers.

Having identified the best available proxies for measuring PS and PC, it is also important to recognise that these dimensions can be analysed in various ways. Note, as there are no established cut-offs or norms to classify athletes and exercisers as "perfectionists", a common useful starting point is to examine the independent effects of PS and PC (Jowett *et al.*, 2023). However, PS and PC tend to be moderately-to-strongly correlated, exhibit opposing effects, and coexist to varying degrees. Thus, to fully understand the effects of perfectionism, it is important to simultaneously account for both PS and PC (see Hill, 2021 and Hill *et al.*, 2021 for calculating combined, total unique, and interactive effects).

CONCLUSIONS AND RECOMMENDATIONS

Grounded in the preceding discussion, we propose the following recommendations for measuring and understanding perfectionism in sport and exercise:

1. Use the best available proxies to capture both PS and PC within the domain/context of interest.
2. Proxies (e.g., *personal standards*) can be used individually, for brevity, or combined with others (e.g., *self-oriented performance perfectionism*) to improve confidence in capturing PS and PC.
3. To better understand perfectionism in sport and exercise, examine the independent, combined, and interactive effects of PS and PC.

While measurement continues to evolve, these recommendations provide an evidence-based/practical foundation for advancing perfectionism research and establishing when and where interventions may be needed.

▼ **Table 1:** Recommended subscales from sport-domain/-context perfectionism measures

INSTRUMENT	RESPONSE FORMAT	SPECIFICITY	SUBSCALE NAME	ITEMS PER SUBSCALE	TARGET DIMENSION		BEST FITTING DIMENSION*		PSYCHOMETRIC EVIDENCE	RECOMMENDATIONS
					PS	PC	PS	PC		
Sport-Multidimensional Perfectionism Scale-2 (S-MPS-2)	5-point Likert scale (1 = strongly disagree to 5 = strongly agree)	Sport-domain	Personal standards	7	✓	✘	✓	✘	Gotwals and Dunn (2009) provide validity and reliability evidence for the scores of this instrument.	Debate is ongoing over whether parental and coach pressure are perceptions of a perfectionistic social environment or antecedents and dispositions of perfectionism. Until this debate is resolved, it is best to omit these two subscales from the two-factor model. Organisation should be omitted from the two-factor model due to conceptual incoherency with and a low factor loading on PS.
			Concern over mistakes	8	✘	✓	✘	✓		
			Perceived parental pressure	9	✘	✓	✘	✘		
			Perceived coach pressure	6	✘	✓	✘	✘		
			Doubts about action	6	✘	✓	✘	✓		
			Organisation	6	✓	✘	✘	✘		
Multidimensional Inventory of Perfectionism in Sport (MIPS)	5-point Likert scale (1 = strongly disagree to 5 = strongly agree).	Sport-domain	Striving for perfection	5	✓	✘	✓	✘	Madigan (2016) provides validity and reliability evidence for the scores of this instrument.	Negative reactions to imperfection may be a candidate for omission from the two-factor model due to cross-loading on PS (non-target) and PC (target), but further examination is required.
			Negative reactions to imperfection	5	✘	✓	✘	✘		
Performance Perfectionism Scale-Sport (PPS-S)	7-point Likert scale (1 = strongly disagree to 7 = strongly agree).	Sport performance-context	Self-oriented performance perfectionism	4	✓	✘	✓	✘	Hill *et al.* (2016) provide validity and reliability evidence for the scores of this instrument.	Other-oriented performance perfectionism should be omitted from the two-factor model due conceptual incoherency with and inconsistencies in factor loadings on PS and PC.
			Socially prescribed performance perfectionism	4	✘	✓	✘	✓		
			Other-oriented performance perfectionism	4	✓	✘	✘	✘		

Note. *Based on the best fitting model in Hill *et al.* (2024).



DR SARAH MALLINSON-HOWARD

Sarah is a Senior Lecturer in Sport and Exercise Psychology at York St John University, UK.



PROF ANDREW HILL FCASES

Andy is a Professor of Sport and Exercise Psychology at York St John University, UK and a Fellow of CASES.



DR MICHAEL GRUGAN

Michael is an Assistant Professor in the Department of Psychology at Northumbria University, UK.



PROF DANIEL MADIGAN MCASES

Daniel is a Professor of Sport and Health Psychology at York St John University, UK and a CASES accredited sport and exercise scientist.



DR JOHN GOTWALS

John is an Associate Professor in the School of Kinesiology at Lakehead University, CA.

REFERENCES

Frost, R.O. *et al.* (1990). The dimensions of perfectionism. Cognitive Therapy and Research, 14(5), 449–468.

Gotwals, J.K. & Dunn, J.G.H. (2009). A multi-method multi-analytic approach to establishing internal construct validity evidence: The Sport Multidimensional Perfectionism Scale 2. Measurement in Physical Education and Exercise Science, 13(2), 71-92.

Hill, A.P. (2021). Perfectionistic tipping points: Re-probing interactive effects of perfectionism. Sport, Exercise, and Performance Psychology, 10(2), 177–190.

Hill, A.P., Appleton, P.R., & Mallinson, S.H. (2016). Development and initial validation of the Performance Perfectionism Scale for Sport (PPS-S). Journal of Psychoeducational Assessment, 34(7), 653-669.

Hill, A.P. *et al.* (2024). Exploring and evaluating the Two-Factor Model of Perfectionism in sport. Journal of Psychoeducational Assessment, 42(6), 612-634.

Hill, A.P., Madigan, D.J., & Olamaie, M. (2021). Combined effects, total unique effects and relative weights of perfectionism. Personality and Individual Differences, 183, 111136.

Jowett, G.E. *et al.* (2023). An update and extension of the independent effects approach to perfectionism in sport, dance, and exercise. In A.P. Hill (Ed.), The psychology of perfectionism in sport, dance, and exercise (pp. 75-161). Routledge.

Madigan, D.J. (2016). Confirmatory factor analysis of the Multidimensional Inventory of Perfectionism in Sport. Psychology of Sport and Exercise, 26, 48-51.

Madigan, D.J. (2023). Advances in the measurement of perfectionism in sport, dance, and exercise. In A.P. Hill (Ed.), The psychology of perfectionism in sport, dance, and exercise (pp. 26-50). Routledge.

Download a PDF of this article www.CASES.org.uk/CASES-Expert-Statements.

COPYRIGHT © CASES, 2025

Permission is given for reproduction in substantial part. We ask that the following note be included: "First published in The Sport and Exercise Scientist, Issue 84, Summer 2025. Published by the Chartered Association of Sport and Exercise Sciences - **www.cases.org.uk**"

