

## Abstract

**Purpose:** A new measure of sportpersonship, which differentiates between compliance and principled approaches, was developed and initially validated in 3 studies. **Method:** Study 1 developed items, assessed content validity, and proposed a model. Study 2 tested the factorial validity of the model on an independent sample. Study 3 further tested the factorial validity on another independent sample as well as the construct validity. **Results:** In Study 1, a 71-item questionnaire was developed. Exploratory factor analysis reduced the questionnaire to a 6-factor, 33-item scale explaining 47.70% of the variance. Study 2 tested this revised questionnaire in a series of confirmatory factor analyses, presenting a 24-item and 5-factor model with acceptable fit,  $\chi^2(242) = 455.9$ , comparative fit index = .93, Tucker-Lewis Index = .92, standardized root mean square residual = .05, root mean square error of approximation = .04. Study 3 provided some evidence to support the construct validity of the 24-item scale using theoretically associated measures. **Conclusions:** This series of studies provided some initial validity evidences of the Compliant and Principled Sportpersonship Scale.

### Keywords:

- factor analysis,
- moral behavior,
- morality,
- sportsmanship

Sportpersonship<sup>1</sup> is an area of sport psychology that is laden with anecdotes of good and bad examples, but conceptual understanding has stalled somewhat since Vallerand, Deshaies, Cuerrier, Briere, and Pelletier (1996) presented a multidimensional definition. Sportpersonship is the psychological construct typically referred to as sportsmanship in everyday language. Public and media response to, and interest in, incidents of good and bad sporting behavior underline the importance of sportpersonship. However, while studying the frequency of good and poor sport behaviors, Shields, Bredemeier, LaVoi, and Power (2005) found that 27% of youth sports performers reported acting like a bad sport when their team lost and 31% indicated that they had argued with an official. Mainly, existing understanding of sportpersonship can be accredited to Vallerand and colleagues (e.g., Vallerand, Briere, Blanchard, & Provencher, 1997; Vallerand et al., 1996), who developed a definition and measure of sportpersonship: the Multidimensional Sportpersonship Orientations Scale (MSOS). This model of sportpersonship orientations demonstrated a clear factor structure of five dimensions: (a) one's full commitment toward participation, (b) respect for social conventions, (c) respect for rules and officials, (d) respect for the opponent, and (e) the lack of a negative approach. The definition was a huge positive step forward in sportpersonship research at the time, but the approach taken by Vallerand et al. (1996, 1997) largely presents sportpersonship in compliant terms, in that all dimensions effectively assess the extent to which an individual falls below a level of good sportpersonship. In this article, we present a new model that builds on this compliant-based approach and includes a principled dimension of sportpersonship. The principled domain enables researchers to consider positive and proactive approaches to demonstrating good sportpersonship beyond mere expectation.

Before developing a new model, it is important to critically examine existing models and identify their strengths and weaknesses. Despite significant strengths in the Vallerand et al. (1997) model, the lack of a negative approach subscale yielded relatively low internal consistency ( $\alpha = .54$ ) and the Rules and Officials subscale did not correlate strongly with a given hypothetical scenario. Indeed, Treasure and Roberts (2002) suggested that respect for rules and officials may be two separate dimensions rather than one, and they inferred that an individual's ability to respect one and not the other supports

this suggestion. These limitations were identified by the authors of the MSOS, who stated that “present findings represent only the starting point of validation research on the scale” (Vallerand et al., 1997, p. 204). One could also consider the rationale behind the inclusion of full commitment as a dimension of sportspersonship. McCutcheon (1999) refers to the example of former tennis player John McEnroe to highlight the potential conflict between commitment and sportspersonship. Specifically, McCutcheon pointed out that the full commitment was to better performance, not sportspersonship.

While existing understanding of sportspersonship does not distinguish between levels, research in moral behavior and in moral reasoning does make this distinction effectively. Bandura (1999) provided an approach that identified two aspects of morality, highlighting proactive (i.e., the power to behave humanely) and inhibitive (i.e., the power to refrain from behaving inhumanely) behaviors. Bandura makes no suggestion that either proactive or inhibitive behavior are of greater value; rather, they are just separate aspects of morality. However, it seems logical that to proactively engage in behavior congruent with a society's ethos is a greater level of moral behavior than inhibitive behaviors. For example, a soccer player refraining from diving to win an undeserved penalty is an example of inhibitive sports behavior and is widely expected. However, informing the official that a penalty should not be awarded for one's team is a form of proactive sports behavior and is widely congratulated. Drawing on Bandura's work that distinguishes between inhibitive and proactive moral behavior, Kavussanu and Boardley (2009) considered differentiating between prosocial and antisocial behavior in sport and developed the Prosocial and Antisocial Behavior in Sport Scale (PABSS). This scale identified behaviors toward teammates and opponents. The Prosocial Teammate subscale refers to proactive demonstrations to benefit teammates such as encouraging or congratulating them. Conversely, the Antisocial Teammate subscale includes behaviors such as arguing with or criticizing a teammate. The Prosocial Opponent subscale denotes occasions when the performer has acted in the best interests of the opponent rather than gaining victory such as helping an injured opponent. The Antisocial Opponent subscale items include distracting, fouling, injuring, and physically intimidating an opponent.

Earlier research in moral reasoning, predominantly adopting a structural-developmental approach, is useful to inform how we can better consider levels of sportspersonship. Specifically, the work of Kohlberg (1976, 1986), Haan (1978, 1983), and Rest (e.g., Rest, 1979; Rest, Cooper, Coder, Masanz, & Anderson, 1974) present a sound rationale of how this could be achieved. Perhaps most notably, Kohlberg (1976) developed a six-stage model of moralization, in which stages are distinctly split into three levels: preconventional, conventional, and postconventional. Preconventional morality refers to heteronomous morality and individualism, typically evident in young children when moral reasoning is based on an exchange relationship. For example, a child may act in a moral way to avoid getting into trouble. Conventional morality includes a notion of relationships, interpersonal conformity, and an awareness of social systems. This level requires acknowledgment that actions have consequences for others within a society. Postconventional morality includes more individual rights and universal ethical principles. Existing models of sportspersonship do not acknowledge such postconventional approaches. These are more principled in nature and it seems appropriate that a model of sportspersonship should consider this perspective alongside more compliant perspectives such as respecting rules and officials.

Although significant advances in our understanding and the assessment of sportspersonship have been made, it now seems appropriate to revisit Vallerand et al.'s (1996, 1997) multidimensional

definition and develop a new model acknowledging what has been learned from moral development and moral behavior literature (e.g., Bandura, 1999; Kohlberg, 1976). The purpose of this three-study project was to develop and initially validate a new model and measure of sportspersonship. The Compliant and Principled Sportspersonship Scale (CAPSS) was developed without identifying a specific number of factors but was grounded in existing theory. Study 1 explains the preliminary development of the CAPSS and presents the results of principle component analysis to propose a model. Study 2 used a further independent sample to confirm the factor structure, whereas Study 3 provided evidence for the construct validity of the CAPSS, again using an independent sample.

## Study 1

The aim of Study 1 was to develop an initial scale, which was achieved in two distinct stages. Firstly, sport psychologists and sports coaches were consulted to generate items. Secondly, the initial scale was completed by a large sample and analyzed using exploratory factor analysis (EFA) to propose a model.

### Method

#### Preliminary Scale Development

In keeping with Vallerand et al.'s (1996, 1997) approach, to examine sportspersonship orientations, psychologists ( $n = 6$ ) and sports coaches ( $n = 6$ ) were recruited to generate items they believed identified sporting attitudes, beliefs, and behaviors. All psychologists were registered within the United Kingdom and had experience in working with professional sports performers. Coaches were all head coaches of their respective clubs, representing soccer, cricket, hockey, and netball, and had at least 10 years of experience and at least a Level 3 UK coaching certificate. The psychologists and coaches were provided with an information sheet indicating potential areas to consider, including dimensions from Vallerand et al.'s (1997) MSOS, and they were asked to consider a distinction between compliant and principled approaches. The dimensions explained from the MSOS were respect toward officials, rules, opponent, and social convention. This was to encourage those generating items, but they were not restricted to any areas of what they considered to best represent sportspersonship. In total, 86 items were generated. To enhance content validity, each psychologist and coach rated items on a 4-point content validity index (CVI; Waltz & Bausell, 1983). All items with a CVI greater than 0.75 were retained. Consequently, 11 items were discarded based on low CVI for relevance, clarity, simplicity, and/or ambiguity. A further 4 items were discarded as they were too similar to other items and therefore deemed to be redundant. The consultation ended with the development of a 71-item questionnaire assessed on a 4-point Likert-type scale anchored at 1 (*strongly disagree*) and 4 (*strongly agree*). A 4-point Likert-type scale was used because it eliminates the neutral option, which seems appropriate for requesting a moral response. If eliminating the neutral, there appears to be little difference between 4-point and 6-point scales, but reliability issues can become exaggerated in a 6-point scale (Chang, 1994).

#### Participants

Three hundred fifty-seven participants (236 men, 121 women) aged 16 to 54 years ( $M_{\text{age}} = 20.77$  years,  $SD = 4.95$ ) who played a variety sports at the time of data collection including team ( $n = 263$ ) and individual sports ( $n = 94$ ) took part in this study. The diverse range of participant experience ( $M_{\text{number of years}} = 10.50$ ,  $SD = 5.07$ ) and sport ensured heterogeneity within the sample. This sample completed a paper copy of the initial 71-item CAPSS.

#### Procedure

Following clearance from a UK university ethics committee, we contacted participants directly and attended training sessions for teams or invited student sport performers to volunteer for the study. All participants were informed that the questionnaire examined sportspersonship attitudes, beliefs, and behaviors. Participants were assured that all responses were anonymous and were informed that their honesty was vital. Completion of the 71-item CAPSS and informed consent form took approximately 15 min to 20 min.

## Results

### Exploratory Factor Analysis

Data from the first sample of the 71-item CAPSS were collated and screened for outliers before being subjected to EFA employing the maximum likelihood method. Less than 0.1% of data were missing and univariate values for skewness ( $< 2$ ) and kurtosis ( $< 2$ ) indicated no issues. Sample size was deemed appropriate (Kaiser-Meyer-Olkin [KMO] = .923). Bartlett's test of sphericity,  $\chi^2(2,485) = 10,642.5$ ,  $\chi^2/df = 4.28$ , indicated correlations between items were sufficiently large for EFA. The original extraction presented seven factors based on the scree plot and eigenvalues  $> 1$ . Items with a weak loading on any factor ( $< .30$ ) were removed and the analysis was rerun. In total, 25 items were removed at this stage. Next, a further 9 items were removed because they loaded significantly ( $> .30$ ) on two or more factors. A six-factor, 33-item solution emerged with eigenvalues  $> 1$ , explaining 47.70% of the variance (KMO = .911), Bartlett's test of sphericity,  $\chi^2(528) = 4,469.8$ ,  $\chi^2/df = 8.47$ . To examine internal consistency, composite reliability (CR) was preferred to the commonly used Cronbach's alpha coefficient after Raykov (1997) demonstrated that it is less likely to underestimate scale reliability. Compliant sportspersonship subscales toward officials (CR = .84), rules (CR = .73), opponent (CR = .73), and legitimacy of injurious acts to opponents (CR = .76) were identified. Principled sportspersonship toward game perspective (CR = .81) and opponent (CR = .72) emerged. Factor structure, item means, standard deviations, and factor loadings are displayed in Table 1. The model developed, as a result of EFA, supports the viability of a model that differentiates between compliant and principled sportspersonship. This model has a clear factor structure. Reliability of subscales was largely good ( $> .7$ ). Thirty-three items were retained and administered to the second sample, for which the data were subjected to confirmatory factor analysis (CFA) to assess model fit.

**Table 1 33-Item Factor Structure With Item Means, Standard Deviations and Factor Loadings (FL)**

## Study 2

The purpose of Study 2 was to test the measurement model developed in Study 1. To achieve this, a series of CFAs and final exploratory structural equation modeling (ESEM) were conducted on an independent sample.

## Methods

### Participants

A sample of 502 participants (334 men, 168 women;  $M_{\text{age}} = 20.63$  years,  $SD = 5.05$ ) independent from the sample in Study 1, from a range of team sports ( $n = 368$ ) and individual sports ( $n = 134$ ) with an average playing experience of 10.24 years ( $SD = 5.21$ ) in their main sport at the time of data collection were recruited. The second sample completed the 33-item CAPSS, which was used for CFA to test model fit.

### Procedure

Ethical approval was granted by the institutional review board. Participants received exactly the same instructions as they did in Study 1. Participants were informed of the purpose of the data collection

and a total of 540 questionnaires were distributed to the second sample, of which 502 were completed and returned. Completion of informed consent form and the 33-item CAPSS took approximately 10 min to 15 min.

## Results

### Descriptive Statistics

Tests for normality indicated no issues with univariate skewness ( $< 2$ ) or kurtosis ( $< 2$ ). Correlations among subscales ranged from low ( $r = .35$ ) to moderately high ( $r = .77$ , see Table 2). CR was good in all subscales, similar to Study 1 (CR = .71–.84).

### Confirmatory Factor Analyses

We tested a series of models by conducting CFA. A multivariate kurtosis indicated that the assumptions of normal distribution were violated (Mardia's coefficient = 196.4, normalized estimate = 41.0). The robust maximum likelihood estimation method was employed using Mplus Version 7.0 (Muthén & Muthén, 2012).

Typically, model development and testing are subject to rigid cutoff values for fit indexes. Comparative fit index (CFI) and Tucker-Lewis Index (TLI) values equal to or greater than .95 are purported to indicate acceptable model fit, and root mean square error of approximation (RMSEA) values less than .06 and standardized root mean square residual (SRMR) values less than .08 further indicate good model fit (Hu & Bentler, 1999). However, researchers (e.g., Hopwood & Donnellan, 2010; Marsh, Hau, & Wen, 2004) have warned against the use of fit indexes as cutoff values for acceptable model fit or not, instead proposing that they should be considered as subjective guidelines.

The first model assessed was the 33-item, six-factor model, which demonstrated a reasonable but not acceptable fit (Table 3, Row 1). Modification indexes indicated a high error covariance between items within the rules factor. Consequently, 1 item was removed from the model. Further inspection of regression weights identified 2 weak items within the officials factor and these items were removed, which provided a 29-item, six-factor model (Table 3, Row 2). Model fit was improved marginally, but the compliant opponent factor demonstrated relatively low factor loadings. Therefore, this factor was deleted to produce a 25-item, five-factor single-order model (Table 3, Row 3). One further item was removed from the principled opponent subscale after presenting a weak factor loading ( $< .4$ ). This model demonstrated acceptable fit in all fit indexes (Table 3, Row 4). By identifying statistically significant modification indexes (i.e.,  $> 10$ ) and allowing them to be estimated, chi-square will be decreased, thus yielding a better statistical model fit. The use of modification indexes to respecify poorly fitting models was effectively demonstrated by MacCullum (1986) and further recommended by Saris, Satorra, and van der Veld (2009). However, all of these authors offer caution with this approach, as decisions to respecify a model must have theoretical relevance and not be purely data-driven. Therefore, to better assess the true model fit, we correlated errors from within subscales only. Of the eight statistically significant modifications identified, seven were within the same subscale and therefore were free to be estimated. This further improved model fit (Table 3, Row 5). As advocated by Kavussanu and Boardley (2012), further models were developed to assess model fit when aggregating responses to form an overall score for compliant and principled sportspersonship (two-factor model) and an overall sportspersonship score (single-factor model). The two-factor model fit was low (Table 3, Row 6), indicating that the subscales within each overriding factor are relatively independent. The single-factor, unidimensional model (Table 3, Row 7) fit was also low.

#### Table 2 CFA Factor Correlations for the Six-Factor Model

With a potential higher-order model, it is necessary to consider the extent to which the factors are assessing the same overriding construct. As such, we examined the factor correlations. High correlations indicate that the overall construct is a measure in its own right as well as each factor. It is worth noting, however, that very high correlations may indicate that factors are relatively indistinctive from each other. Correlations between factors (Table 2) ranged from low ( $r = .35$ ) to moderately high ( $r = .70$ ). The presence of a variety in the interrelationships among factors indicates a distinction between factors while supporting a broad measure of sportspersonship. We then constructed a higher-order model on which to conduct additional CFAs. If the model fit was not significantly different from the lower-order model (e.g.,  $\Delta CFI < .01$ ), the higher-order functions were deemed to be further supported. CFA yielded very similar results for this model:  $\chi^2(246) = 474.4, p < .001, \chi^2/df = 1.93, CFI = .926, TLI = .917, SRMR = .054, RMSEA = .045, 90\% CI [0.039, 0.051]$ . Overall, the CFAs supported the five-factor model with each of the subscales demonstrating some independence, but they did not provide convincing support for a higher-order or overall sportspersonship model.

### **Table 3 Summary of Fit Indexes for All CFA Models**

CFA is a robust technique for testing an a-priori model, but it does have significant limitations. Specifically, all nontarget loadings are assumed to be 0, and therefore, non-statistically significant cross-loadings from items to factors other than those intended result in model misspecification (Marsh et al., 2004). To account for such loadings, we employed ESEM, as advocated by Marsh et al. (2009) and Marsh, Liem, Martin, Morin, and Nagengast (2011). The 24-item, five-factor model fitted the data very well:  $\chi^2(166) = 231.9, p < .001, \chi^2/df = 1.40, CFI = .979, TLI = .964, SRMR = .024, RMSEA = .029, 90\% CI [0.020, 0.038]$ . The standardized parameter estimates for the CFA and ESEM are presented in Table 4. The ESEM estimates support the model, as all intended factor loadings are statistically significant and there are no statistically significant cross-loadings ( $p < .01$ ).

### **Table 4 Standardized Parameter Estimates for CFA and ESEM for 24-Item CAPSS**

## **Study 3**

In the second study, we developed and confirmed a model of compliant and principled sportspersonship. While this identifies good content and factorial validity, we wanted to assess the construct validity of the CAPSS through evaluation of convergent and discriminant validity. The most appropriate way to assess convergent validity is to assess its relationship to existing concepts to which it should theoretically demonstrate a correlation. Discriminant validity was assessed by examining the correlations among factors representing the subscales of CAPSS and evaluating the correlations between CAPSS subscales and theoretically related constructs.

To examine the relationship between CAPSS subscales and moral behavior, we used the PABSS (Kavussanu & Boardley, 2009). Specifically, we hypothesized that higher levels of sportspersonship would be positively associated with prosocial behavior and negatively associated with antisocial behavior. Further, it was anticipated that the relationships between principled dimensions of sportspersonship would be more strongly related to prosocial behavior than would compliant dimensions.

Previous research has demonstrated a significant link between sportspersonship and goal orientations. In particular, task orientation has been associated with higher sportspersonship (e.g., Dunn & Causgrove-Dunn, 1999; Gano-Overway, Guivernau, Magyar, Waldron, & Ewing, 2005). Although Dunn and Causgrove-Dunn (1999) found a significant negative correlation between ego orientation and sportspersonship, they commented that task orientation had a significant effect irrespective of ego orientation. Consequently, we hypothesized that there would be a strong positive

correlation between task orientation with all sportspersonship dimensions and weaker negative correlations to ego orientation.

## Methods

### Participants

Participants were 156 men and 51 women ( $M_{\text{age}} = 21.49$  years,  $SD = 7.01$ ) recruited from sports clubs in England. This sample was independent of the samples used in Study 1 and Study 2. At the time of data collection, respondents played football ( $n = 110$ ), rugby ( $n = 32$ ), netball ( $n = 25$ ), basketball ( $n = 16$ ), cricket ( $n = 12$ ), and hockey ( $n = 12$ ). On average, they had participated in their sport for 10.56 years ( $SD = 5.36$ ) and competed at recreational ( $n = 101$ ), club ( $n = 84$ ), semiprofessional ( $n = 17$ ), and professional ( $n = 5$ ) levels.

### Measures

#### Compliant and principled sportspersonship

Compliant and principled sportspersonship was measured using the CAPSS model confirmed in Study 2. This included 24 items and five subscales. The subscales are Compliance Toward Officials, Compliance Toward Rules, Not Legitimizing Injurious Acts, Approach Toward Opponent, and Principled Game Perspective. Responses were recorded on a 4-point Likert scale anchored at 1 (*strongly disagree*) and 4 (*strongly agree*).

#### Goal orientations

Goal orientations were assessed using the Task and Ego Orientation in Sport Questionnaire (TEOSQ; Duda & Nicholls, 1992). The TEOSQ is a 13-item questionnaire requiring participants to indicate when they feel successful in sport and physical activity. There are 7 items related to task orientation and 6 items related to ego orientation. Responses were recorded on a 5-point Likert-type scale, anchored at 1 (*strongly disagree*) and 5 (*strongly agree*).

#### Prosocial and antisocial behavior in sport

Moral behavior was assessed using the PABSS (Kavussanu & Boardley, 2009). The PABSS is a 20-item questionnaire that requires participants to indicate how often they have engaged in each behavior during the current competitive season. The scale includes four subscales: Prosocial Teammate, Prosocial Opponent, Antisocial Teammate, and Antisocial Opponent. Responses were recorded on a 5-point Likert-type scale anchored at 1 (*never*) and 5 (*very often*).

### Procedure

Following ethical approval from the institutional review board, head coaches of nine sports clubs were contacted to request the participation of their athletes. All coaches agreed to allow us to collect data from their teams. As with the data collection procedure in Study 1 and Study 2, participants were informed of the reason for data collection and assured that their responses would remain anonymous before informed consent was given.

## Results

### Descriptive Statistics

Correlations among CAPSS subscales and descriptive statistics can be found in Table 4 and Table 5, respectively. For all subscales, there was evidence that the full range of scoring was used. Tests for normality indicated no issues with univariate skewness ( $< 2$ ) or kurtosis ( $< 2$ ). Correlations between subscales were low ( $r = .32$ ) to moderately high ( $r = .71$ ). CR was lower in this sample, but overall, CAPSS subscales have retained good reliability across the three studies (Table 2). To examine the factorial validity of CAPSS on a sample independent from the previous sample, we conducted an

additional CFA and ESEM analyses. The CFA presented a reasonable model fit:  $\chi^2(242) = 449.9, p < .001, \chi^2/df = 1.86, CFI = .819, TLI = .793, SRMR = .067, RMSEA = .066, 90\% CI [0.056, 0.075]$ , though a little lower than in Study 2. As in the second study, we identified minor modifications to the model to improve fit. In total, eight modifications were made, which improved model fit:  $\chi^2(232) = 318.5, p < .001, \chi^2/df = 1.37, CFI = .925, TLI = .910, SRMR = .059, RMSEA = .041, 90\% CI [0.031, 0.055]$ . ESEM yielded a similar fit:  $\chi^2(166) = 208.43, p < .001, \chi^2/df = 1.26, CFI = .953, TLI = .917, SRMR = .034, RMSEA = .042, 90\% CI [0.025, 0.056]$ .

### **Table 5 Factor Correlations Between CAPSS, TEOSQ, and PABSS Subscales**

#### **Construct Validity**

The purpose of Study 3 was to assess the construct validity of the CAPSS by examining the convergent and discriminant validity evidence by evaluating relationships with CAPSS subscales and theoretically associated concepts. A significant relationship between variables supports this association, but a correlation that is too high ( $r > .90$ ) would suggest that the new dimension is redundant (Kline, 2005). Following the recommendations of Zhu (2012), correlations .2 to .39 were considered low, .4 to .59 were considered moderate, and .6 to .79 were considered moderately high. Compliance toward officials, respect for opponent, and game perspective presented a low positive correlation with task orientation (Table 5). There was no substantive relationship between sportspersonship and ego orientation. Principled game perspective was positively correlated with prosocial behavior toward teammates, while compliance toward rules and compliance toward officials demonstrated a low negative correlation with antisocial behavior toward teammates. All CAPSS subscales with the exception of the Compliance Toward Officials subscale presented a low positive correlation with prosocial behavior toward an opponent. Further, all CAPSS subscales with the exception of the Game Perspective subscale negatively correlated with antisocial behavior toward an opponent ( $r = -.29$  to  $-.55$ ). The low-to-moderate correlations in the expected direction provide some support for the convergent validity of CAPSS while ensuring that it is discriminant from a related measure of moral behavior. Further evidence for discriminant validity is demonstrated by the moderate factor correlations displayed in Table 2 and the variation of correlations found in Table 5.

## **Discussion**

The aim of this article was to develop a new model, which is informed by elements of developmental psychology research on morality as well as the psychosociological approach advocated by Vallerand et al. (1996, 1997). We have presented a five-factor compliant and principled sportspersonship model and scale, composed of (a) compliance toward officials, (b) compliance to rules, (c) the legitimacy of injurious acts, (d) approach toward opponents, and (e) a principled game perspective.

By compliance, we are referring to approaches and behaviors that adhere to expectations. That is, not performing in this way would be seen as poor sportspersonship. This is characterized in the compliant and principled model as compliance to expectations regarding adherence to rules, treating the officials with the respect society demands, and not viewing acts that endanger the opponent as legitimate. Though not linked directly to any of Kohlberg's (1976) levels of moralization, which focus specifically on moral reasoning, complying with expectations is an approach to sportspersonship of which those in the early pre-conventional or mid-conventional levels would be capable. The conventional level relies largely on interpersonal expectations, conformity, and a social system. Therefore, behavior may be determined by one's desire to fit in with such societal norms and expectations. To further incorporate different approaches to understanding sportspersonship, there are also comparisons to inhibitive moral morality as proposed by Bandura (1999). Inhibitive morality

applies to refraining from behaviors that could be considered immoral. In instances like this, one is complying with expectations by refraining from such actions.

In contrast to compliance, principled sportspersonship is characterized by its requirement for an individual to reason based on their own moral values. To firstly understand reasoning, Kohlberg (1976) refers to postconventional/principled morality as prior to society and from a moral point of view. This means selecting a moral course of action regardless of societal norms or expectations. In short, it is an individual doing what he or she believes is right rather than what he or she perceives others would deem to be right. Of course, the societal norm and the individual's value are usually consistent with each other, but not always. For example, to call one's own foul in sports like golf or snooker is common practice; thus, doing so is compliant. However, in most other sports, this would not be the norm. Therefore, by doing so, one would be proactive in their action and principled in their reasoning. The model presented here includes some dimensions not previously used in conceptualizations of sportspersonship. Specifically, we present the legitimacy of injurious acts and principled game perspective. The legitimacy of injurious acts is a topic that has been studied thoroughly in the past (e.g., Bredemeier, 1985; Williams, Wisdom, & Brannon, 2004), but it has yet to have been included in a model of sportspersonship. The inclusion of this in the compliant and principled model has been supported by the factorial validity assessments in Study 1 and Study 2. In particular, this constitutes a prime example of compliant behavior in most sports, excluding some combat sports, where it is unrealistic to not legitimize potentially injuring an opponent. It is normally a minimum expectation to not endanger the opponent, and therefore, to adhere to this expectation is compliance. Perhaps the most significant addition to the literature is principled game perspective. This dimension has one major assumption. Namely, if an individual considers winning as everything, this will always transcend any selected behavior that may compromise winning. Conversely, if one's perspective of the game is broader, perceiving a sporting event as ultimately just a game, he or she is more likely to prioritize other values higher than winning. For example, maintaining one's integrity could be seen to transcend the importance of winning. Therefore, behaviors that are likely to enhance the chances of winning at the cost of personal stature or grace are less likely to be adopted for performers scoring highly in this dimension.

The findings from Studies 2 and 3 are encouraging and provide a new measure suitable for future research. However, there are still several limitations that require further examination. Firstly, the samples used are restricted to the United Kingdom. To account for potential cultural differences, future research outside of the United Kingdom could examine the psychometric properties of the CAPSS. Secondly, it is worth noting that the samples used in this article are largely dominated by men and performers from team sports. Although an effort has been made to include women and individual sport performers, researchers employing the CAPSS in these samples are encouraged to further examine the factor structure. Thirdly, despite several items in the initial scale development referring to phrases like game value, integrity, and etiquette, we were unable to identify a dimension of sportspersonship whereby the individual values the good of the sport. Essentially, we were expecting a more principled version of Vallerand et al.'s (1996, 1997) respect for social convention. It seems logical that this is indeed an important part of sportspersonship but has not been found in our model presently. Finally, the higher-order model and aggregated single-factor model were not supported. Therefore, one cannot confidently aggregate subscales to create higher-order compliant and principled dimensions or an overall value for sportspersonship.

The validation of a measure should be seen as a continuing process. Consequently, we are presenting the CAPSS here not as a perfect model, but as an important development in our ability to define and measure sportspersonship. Future research should examine the test–retest reliability of the scale and the criterion validity. To do so, studies examining the predictive ability of the CAPSS on moral behavior are encouraged. It would also be of interest to examine more closely how moral reasoning, perhaps through qualitative methods and moral dilemmas, relates to concepts of principled sportspersonship. One important unanswered question remains about the benefits of being high in sportspersonship. This would be a very interesting avenue of research using the compliant and principled model. Although behaviors resultant of a principled approach may in themselves be detrimental to performance, to be able to make value judgments and be prepared to follow through on them when many would not is a sign of mental strength and requires many positive psychological attributes. Further research should investigate the potential benefits that developing a principled approach could have on areas like mental toughness, emotional intelligence, coping, and leadership. Moreover, this model of sportspersonship could be used to examine positive youth development through sport, as examined previously by Hellison and Walsh (2002).

In sum, we have developed here a five-factor model and measure of compliant and principled sportspersonship and presented initial evidence of its validity. This model was largely informed by the social-psychological approach of Vallerand and colleagues (1996, 1997), but it considered the earlier moral development research by Kohlberg (1976) and slightly more recent moral behavior research by Bandura (1999). Overall, the scale represents a useful tool for researchers wishing to investigate sportspersonship.

## What does this article add?

Sportspersonship is an important aspect of sport psychology. However, since Vallerand et al. (1996, 1997) made the most significant contribution in the development of a multidimensional definition and scale, research has stalled somewhat. At the time, Vallerand and colleagues (1996, 1997) identified the limitations of their model, but to date, there has been no superseding model. While we do not claim that the model developed in this series of studies is perfect, we do believe that it reignites a sedentary but important research area. The inclusion of a principled perspective is something completely new to sportspersonship. By redefining sportspersonship in this way, we believe that we can expand the research area and develop a broader range of interventions to increase sportspersonship in participants by examining game perspectives alongside existing efforts to increase compliance to rules/conventions.

## Notes

*Note.* Cof = compliant officials; Cru = compliant rules; Cop = compliant opponent; IA = injurious acts; GP = game perspective; Pop = principled opponent.

*Note.* Correlations below the diagonal are from Study 2; correlations above the diagonal are from Study 3. CFA = confirmatory factor analysis; CR = composite reliability. For all correlations  $p < .01$ , with a range from low to high.

*Note.*  $df$  = degrees of freedom;  $\chi^2$  = chi-square; CFI = comparative fit index; TLI = Tucker-Lewis index; SRMR = standardized root mean square residual; RMSEA = root mean square error of approximation; 90% CI = 90% confidence intervals.

*Note.* CFA = confirmatory factor analysis; ESEM = exploratory structural equation modeling; CAPSS = Compliant and Principled Sportspersonship Scale. Target loadings from CFA in the ESEM data are presented in bold.

\*\*Statistically significant at  $p < .01$ , with a range from low to high.

*Note.* CAPSS = Compliant and Principled Sportspersonship Scale; TEOSQ = Task and Ego Orientation in Sport Questionnaire; PABSS = Prosocial and Antisocial Behavior in Sport Scale.

\*Statistically significant at  $p < .05$ . \*\* $p < .01$ , with a range from low to high.

<sup>1</sup> The rather awkward term *sportspersonship* is preferred over the traditional *sportsmanship* in an effort to reduce gender bias in language.

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