

## Social Identity Leadership Style and Perceived Coaching Competency

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### Abstract

The aims of the study were to test the validity of two measures of team social identity against a measure of the athletes' perceptions of their coach's competency. A sample of 396 (age 18-35) athletes completed, the Coach Social Identity Scale (CSIS), the Team Social Identification Scale (TSIS), and, the Athlete's Perceptions of Coaching Competency Scale II (APCCS II). Confirmatory factor analysis showed that the single factor ten item CSIS and TSIS attained good fit. Both the CSIS and the TSIS correlated positively and significantly with the dimensions of motivation, game strategy, technique, physical conditioning and character building and with the overall rating of competence of the coach. Overall the results support the CSIS and TSIS as reliable and valid measures, and show that they can be applied in team sports as a measure of SIT.

**Keywords:** Team sports; Social identity; Leadership; Motivation; Competence; Coaching.



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### 1. Introduction

Leadership is a core aspect of sport coaching and effective coaching depends on effective leadership (Cassidy *et al.*, 2014; Chelladurai, 2007; Smoll and Smith, 1989). Deriving from the work psychology literature, theorists have applied a range of leadership models to sport coaching and have concluded that effective models must take account of the leader-follower relationship (Bennis, 2003; Hollander, 1995;2008). Theories no longer focus on the leader but are rather broader encompassing followers and contexts and leadership is viewed as 'dyadic, shared, relational, strategic, global, and a complex social dynamic' (Avolio *et al.*, 2009). While some other models such as the Transformational Leadership Model (Turnidge and Côté, 2016), Leadership Categorisation Theory (Lord, Foti & Phillips, 1982), and Servant Leadership Theory (Greenleaf, 1977; van Dierendonck, 2011) accomplish this in part but fall short of a group level explanation, the model that encompasses this broad approach to leadership is Social Identity Theory (Cassidy *et al.*, 2014; Haslam *et al.*, 2011). Social Identity Theory derives from the work of Tajfel and Turner (1979) and refers to the way in which individuals define themselves in terms of important groups in their life. This sense of group identity provides us with a source of self-esteem and drives much of our behaviour. Thus the theory provides a mechanism for explaining behaviour that cannot be explained in individual terms, or in terms of the sum of the individuals that make up the group.

In contrast to traditional views, recent leadership research suggests that a leader's primary goal is not to differentiate themselves from those they seek to lead, but rather to exaggerate their commonalities (Haslam *et al.*, 2011). Past experimental research investigating the social identity leadership approach in the organizational domain provides two important contributions: a) the most in-group prototypical group members are considered the most influential within a group and b) given a choice, group members favour leaders who display in-group prototypicality characteristics over those who display stereotypical leadership characteristics (Haslam *et al.*, 2011). Performance of the group depends on the extent to which the group members and particularly the leader appears to demonstrate the core desired attributes of the group. In sport this is observed when a team performs as a team rather than a collection of individuals and explains why lower status teams can beat higher status teams (Haslam and Reicher, 2016). In their review Haslam and Reicher (2016) use the example of Leicester City football team in the United Kingdom who remarkably won the Premier League Title despite starting the season at the bottom of the league as one of the teams predicted to be relegated. They argue that the "success teaches us that a leader is "the one who makes us feel special", not somebody who considers themselves "the special one"" (Haslam and Reicher, 2016). The social identity model of leadership identifies the leader's use of inclusive language through terms such as 'we' or 'us' exemplifies their prototypicality and gives them the edge in unifying their team (Steffens and Haslam, 2013). Despite the growth of evidence in the organisational field the Social Identity model is only beginning to be applied in the sports arena (Rees *et al.*, 2015). Furthermore the psychometric properties of scales to measure social identity theory or to test predictive and concurrent validity are non-existent.

One difficulty facing researchers in the field is the problem of how to measure social identity processes in sport. Cassidy *et al.* (2014) developed a Coach Social Identity Scale (CSIS) and a Team Social Identity Scale (TSIS) using a sample of sport students who were involved in team sports. The current study aimed to test this scale in a sample of non-student team sport athletes. The aims of the study were, a) to explore the psychometric properties of the two scales in a sample of performing athletes who were currently engaged in regular team sport, and b) to explore how

the scale relates to athletes' perceptions of their coach's competence.

## 2. Methods

**Participants:** A non-probabilistic sample of 396 athletes (214 males and 182 females) aged between 18-35 years who were actively engaged in team sport were assessed via an online survey. All were involved in team ball games (e.g. basketball, soccer, rugby, netball) on a weekly basis and engaged in training at least 2-3 times each week.

**Measures:** As well as demographic items to measure age, sex, team sport, and frequency of participation, participants were assessed on the following measures.

The Coach Social Identity Scale (Cassidy *et al.*, 2014): This was a 10 item scale which had a Cronbach Alpha of .88 and included items such as 'Our coach is just like one of us' and 'I identify with my team coach'. The items were presented with a 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

The Team Social Identification Scale (Cassidy *et al.*, 2014): This was a 10 item scale which had a Cronbach Alpha of .96 and included items such as 'It would be accurate to describe me as a typical member' and 'I identify with my team mates'. The items were presented with a 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

The Athlete's Perceptions of Coaching Competency Scale II (Myers *et al.*, 2011) which is a revision of the Coaching Competency Scale II (Myers *et al.*, 2010) was used: It is a 17 item tool used to measure athletes' evaluations of their head coach's coaching competency, an important multidimensional construct in models of coaching effectiveness. The scale measures the 4 original dimensions: motivation, game strategy, technique, and character building, and adds a fifth dimension of physical conditioning. Internal reliabilities ranged from .84 to .89. Athletes were asked to; "Think about how competent you believe your head coach is in leading this team". They then responded to each item on a 4-point scale 1=low, 2=moderate, 3=high, and 4=complete.

**Procedure:** Links to an online questionnaire with an information sheet were distributed to a number of sport teams in the UK, Ireland, United States of America and New Zealand. The link was disseminated to approximately 850 athletes and a total of 396 usable returns were received, a response rate of approximately 46%. Data was downloaded and analysed using SPSS version 22, which also included AMOS 22. The study received approval from the lead institutions research ethics committee and each participant provided informed written consent to take part.

## 3. Data Analysis

Confirmatory factor analysis was applied to test the underlying factor structure of

the CSIS and the TSIS using AMOS 22. Jackson *et al.* (2009) recommend in reporting CFA fit statistics, "a minimal set would include the chi-square value and the associated degrees of freedom and probability value, an index to describe incremental fit, such as the TLI, CFI (or RNI), or Bollen's delta 2, and a residuals-based measures (e.g., RMSEA and its associated confidence intervals or SRMR)" (p. 19). In this study the  $\chi^2$  statistic as well as the Normed Chi-Square Parameter ( $\chi^2/df$ ), the Standardized Root Mean Square Residual (SRMR), the Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA) and its confidence intervals, and the Tucker-Lewis Index (TLI), are reported. The CFI and TLI are incremental fit indices which measure the proportionate improvement in fit by comparing the target model with a baseline model in which all of the observed variables are uncorrelated. The SRMR and RMSEA are summary measures of the standardized residuals. A combination of a CFI and TLI value of greater than .95, an SRMR value of less than .08, and a RMSEA of less than .06 represent a model that adequately fits the data (Hu and Bentler, 1999).

## 4. Results

Before performing Confirmatory Factor Analysis (CFA), the psychometric properties of the items and scales were explored. Factor loadings, Cronbach Alphas and total item correlations are shown in Tables 1 and 2. Next using criteria suggested by Lamping *et al.* (2002) and summarised by Smith *et al.* (2005), we tested the psychometric properties of the scales (see Table 3).

Insert Table 1-3 about here

Analysis involved a Principal Component Analysis of all the items comprising the two scales which produced a two factor solution with all 10 items loading on independent factors. Accordingly scale reliability analysis and descriptive exploration were applied. Both scales are well within the range on all measures. The CSIS has a Cronbach Alpha of .92 and the TSIS has an Alpha of .93.

Confirmatory Factor Analysis (CFA) using AMOS 22 was then performed on each scale and the results are shown in Figures 1 & 2.

Insert Figures about here

The single factor ten item CSIS attained good fit with  $\chi^2(32) = 68.425$ ,  $p < .001$  (CMin/DF=2.1), and TLI = .99, CFI = .99, RMSEA = .05 (CI .04-.07) and SRMR = .015.

The single factor ten item TSIS also attained good fit with  $\chi^2(25) = 70.353$ ,  $p < .001$  (CMin/df=2.8), and TLI = .98, CFI = .98, RMSEA = .06 (CI .04-.08) and SRMR = .011.

If social identity leadership is related to performance one would predict that it would correlate positively with a measure of coaching competency. The next stage was to test the correlation between the CSIS and the TSIS and the dimensions of perceived competence measured by the Coaching Competency Scale. The results are shown in Table 4. Both the CSIS and the TSIS correlate positively and statistically significantly with the dimensions of motivation,

game strategy, technique, physical conditioning and character building and with the overall rating of competence of the coach.

## 5. Discussion

This study aimed to contribute to the issue of measurement of a social identity model of leadership in sport coaching by testing the scales developed by Cassidy *et al.* (2014). Overall the results support both scales as reliable and valid measures. The unidimensionality of each scale was supported and both had good internal consistency and met the criteria selected. Confirmatory factor analysis showed both sets of items to fit the data. The importance of this is that the sample were real world team sport athletes as opposed to students studying sport used in the original study (Cassidy *et al.*, 2014). This suggests that the scales could be effectively used in team sport settings. In addition, the scales correlated positively with athlete perceptions of their coach's competence supporting the argument that a coach who scores high on prototypicality with the team is seen as more effective on all the dimensions of coach competence.

A further finding here is that team member's self-ratings on social identity with their team correlate significantly with their ratings of the coach in terms of shared social identity. This finding suggest that when a coach is seen as prototypical, team members also have a strong sense of team identity.

In conclusion, this study assessed the psychometric properties of the CSIS and TSIS to measure the social identity perspective in team sport athletes outside college/ university settings. The sample is robust and supports the utility of the measures in team sports. The scale has also been tested successfully against a measure of the athletes' perceptions of their coach's competency. There is still work to be done on testing the validity of the scales but there is sufficient evidence for its use in research on coaching effectiveness.

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**Table-1.** Factor Loadings and psychometric properties of the Coach Social Identity Scale (CSIS).

<b>Eigenvalue=8.1 Variance=31.4% Cronbach Alpha=.91</b>	<b>Item-Total Correlation</b>	<b>Factor Loading</b>
Our coach is just like one of us	.641	.741
It would be accurate to describe our coach as a typical member of our team	.778	.824
I see our coach as a member of the team	.706	.756
Our coach would feel good to be described as a typical member of the team	.457	.506
I don't feel our coach is one of us	.615	.683
I am proud to acknowledge that our coach is a member of the team	.795	.833
I feel strong ties with my team coach	.717	.771
We often socialise with our team coach	.781	.736
I'm glad to have a coach who is a member of the team	.708	.813
I identify with my team coach	.641	.764

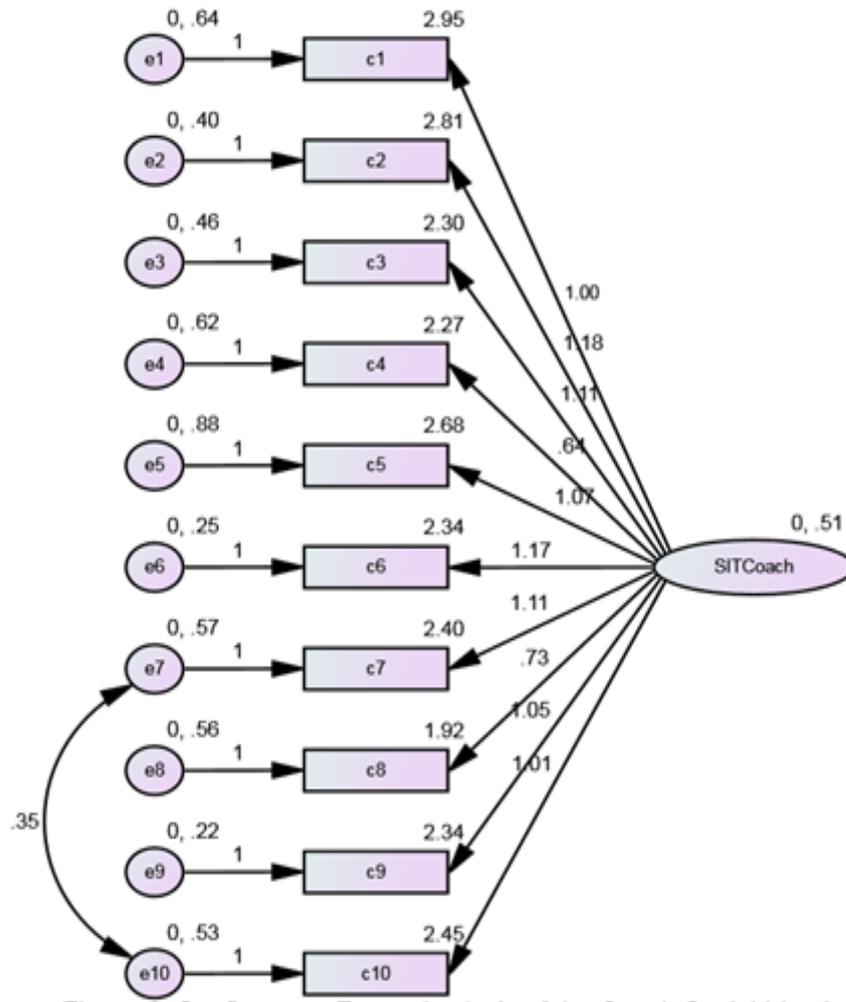
**Table-2.** Factor loadings and psychometric properties of the single factor Team Social Identity Scale (TSIS)

<b>Eigenvalue=5.8: Variance=29.8%: Cronbach Alpha=.93</b>	<b>Item-Total Correlation</b>	<b>Factor Loading</b>
1. I am pleased to be a member of my team	.800	.842
2. I feel strong ties with my team mates	.811	.854
3. I feel good about my team	.779	.822
4. When I talk about my team I usually say we	.820	.866
5. I identify with my team mates	.772	.826
6. I am a worthy member of my team	.648	.717
7. I am glad to belong to my team	.666	.693
8. When someone praises my team, it feels like a compliment	.798	.857
9. I would rather belong to my team than any other	.586	.624
10. It would be accurate to describe me as a typical member	.594	.621

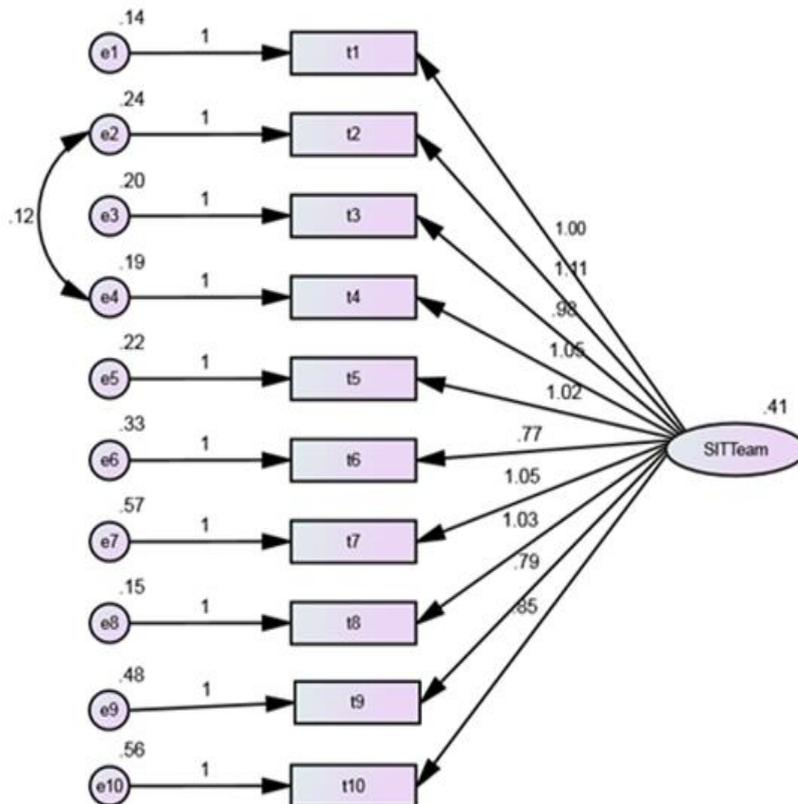
**Table-3.** Psychometric criteria and scale performance for the CSIS and the TSIS

<b>Property</b>	<b>Criteria for Acceptability</b>	<b>Performance of the CSIS</b>	<b>Performance of the TSIS</b>
Item analysis / reduction	All items should have factor loadings >0.30	Factor loadings range 0.62 to 0.86	Factor loadings range 0.51 to 0.83
	Missing data < 5%	No missing data	No missing data
	Inter-item correlations <0.75	Inter-item correlations range 0.46 to 0.63	Inter-item correlations range 0.44 to 0.65
	Item total correlations ≥ 0.25	Item total correlations range 0.46 to 0.80	Item total correlations range 0.58 to 0.77
	Maximum endorsement frequency < 80%	Maximum endorsement frequency = 61%	Maximum endorsement frequency = 53%
	Minimum adjacent endorsement > 10%	Minimum adjacent endorsement = 11.6%	Minimum adjacent endorsement = 15.4%
Acceptability	Skewness values < 1	Maximum skewness 0.19	Maximum skewness 0.74
	Missing data < 5%	No missing data	No missing data
Reliability	Cronbach Alpha >0.70	Cronbach Alphas 0.92	Cronbach Alpha 0.93
	Item total correlations ≥ 0.20	Item total correlations range 0.46 to 0.80	Item total correlations range 0.58 to 0.77

**Figure-1.** Confirmatory factor analysis of the coach social identity scale (CSIS) chi-square (32) =68.425,p,.001 (CMin/df=2.1);TLI=.99; RMSEA= .05(CI.04-.07),SRMR= 0.011



**Figure-2.** confirmatory factor analysis of the team social identity scale Chi-square (25)=70.353,p,0.001CMin/df=2.8);TLI=.98,CFI=.98; RMSEA=.06(CI.04-.08);RMR=.015.



**Table-4.** Correlations and regression of TSIS and CSIS on Athlete's ratings of Coaching Competence factors and Scale scores

	TSIS			CSIS		
	r	$\beta$	R <sup>2</sup>	$\beta$		R <sup>2</sup>
Athlete rating of coach on motivating competency	.39 <sup>***</sup>	.22 <sup>***</sup>	14.8	.56 <sup>***</sup>	.49 <sup>***</sup>	20.8
Athlete rating of coach on game strategy competency	.33 <sup>***</sup>	.17 <sup>***</sup>	11.1	.53 <sup>***</sup>	.48 <sup>***</sup>	19.9
Athlete rating of coach on technique competency	.34 <sup>***</sup>	.19 <sup>***</sup>	11.6	.49 <sup>***</sup>	.42 <sup>***</sup>	15.6
Athlete rating of coach on character building competency	.40 <sup>***</sup>	.25 <sup>***</sup>	16.3	.53 <sup>***</sup>	.44 <sup>***</sup>	17.0
Athlete rating of coach on physical conditioning competency	.36 <sup>***</sup>	.25 <sup>***</sup>	12.8	.40 <sup>***</sup>	.31 <sup>***</sup>	8.7
Athlete rating of coach on overall competency	.36 <sup>***</sup>	.23 <sup>***</sup>	15.9	.58 <sup>***</sup>	.50 <sup>***</sup>	22.1