

## Original Article

# Sailing: The crew leadership

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### ABSTRACT

The aim of this study is to understand the type of leadership used by sailing crews. The sample consisted of a total of 45 subjects (97.8% men and 2.2% women), and the average age was 44.61 ( $\pm 11,1$ ) years old. A questionnaire about multifactorial leadership MLQ-5S (Bernard Bass & Bruce Avolio, 2000) was provided. It is formed by 45 items, from which 3 well-differentiated and non-exclusive leadership profiles can be obtained. The results show the crew of the racing sailing-boats had a transformational style of leadership (3.36 points), which was above of the transactional leadership and the style *laissez faire* or low leadership. As a conclusion, the type of leadership used by the sailing crew is transformational. **Keywords:** Sailing; Crew; Leadership; MLQ-5S.

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## INTRODUCTION

Sailing is very connected with our society, it has reached great achievements at the highest sport level. It is a sport which its high complexity is determined by the great range of elements to take into account and their uncertainty. This implies many determinants interfering and slowing down its learning process (Renom & Violán, 2002). Regarding sailing, there are not many references in the scientific and applied literature or influencing mainly in cognitive processes: memorizing, interpretation of nautical charts and sailing terminology (Renom, 2006), decision making (Araujo & Serpa, 1999), or the relationship between the psychological profile and the sailing performance (Fernández, Bombas, Lázaro & Vasconcelos-Raposo, 2007).

There are many studies conducted with coaches within the area of Sport Psychology (Weinberg & Gould, 2010), being the most studied topics the coach leadership, the communicational skills of the coach, the coach and the cohesion of the team and the decision making of the coach (Balaguer & Castillo, 1994). In particular, the leadership style of the coach has been one of the most analysed aspects of the coaches within the sports field, due to the fact that it is considered a key factor in the management of a team, in the training process of the player and one of the essential factors in the athlete and team level of performance (Álvarez, Castillo & Falcó, 2010); (Duda & Balaguer, 1999), among other aspects. Unfortunately, studies in relation to sailing leadership are limited and partial, Komaki and her collaborators have studied the leadership processes in sailing teams and they found that those leaders who transmit clear achievement expectations and establish explicit team goals are linked with high performance teams (Komaki, Desselles & Bowman, 1989; Komaki & Minnich, 2002).

The main leadership task is to ensure the team mission is clear, convincing, challenging and shared among the team members. Defining this mission and ensuring each member of the team to have a common understanding of the mission is particularly important to satisfy the team necessities and to lead them to the finish line (Morgeson, DeRue & Karam, 2010). Besides, establishing distinctly the mission of the team guarantees the team to have aligned its intention, goals and tactical plan in the same direction.

In order to understand the leadership in the sports field, we must take into account the role of the coach. In fact, “a good coach must help the athletes to overcome the psychological limits in order to achieve a better performance” (Balaguer & Castillo, 1994). Therefore, the effective leadership in sport depends on the qualities of the leader, his/her leadership, situational factors and the participants' features (Weinberg & Gould, 2010).

The transformational leadership theory (Bass, 1985; Burns, 1978) can be found in many researches, and the number of citations and research works have been increasing until today (Northouse, 2013). According to Beauchamp and Morton (2011) “within Applied Psychology, the transformational leadership theory represents the most studied paradigm to understand the effects of the leadership's behaviour” (p.138). One of the main points in this theory is the emphasis in the intrinsic motivation and development of the followers, these facets are two extremely topical matters in the current research field (Northouse, 2013). Taking into account the impact transformational leadership has had in diverse contexts, it should be highlighted its minimum and scarce application in the practise of the physical activity and sport regarding the relationship between athletes and their coaches, teachers, instructors, parents and their peers. Zacharatos, Barling and Kelloway (2000) applied this paradigm to the context of the physical activity and sport for the first time, and it started to be applied more and more to the sporting context since then (Riemer, 2007; Daley, 2010).

With the same idea, Manso (1996) obtained results from his research, within the sporting context, which have revealed that crew members prefer an interactional style of training from their coach similar to the training-teaching.

The leadership research in boat races is absent according to the authors, consequently, we contemplate the following question: what kind of leadership appears in the crew member in a sailing race boat? In order to carry out this research, we used the MLQ-5S multifactorial leadership questionnaire from Bernard Bass and Bruce Avolio (2000), with the aim of studying the leadership in the crew members of the sailing race boats. With the analysis of the results, we will have a global view of the type of leadership used by the crew of the sailing race boats in relation to the motivational atmosphere and the variables of extra effort, efficiency and satisfaction.

## MATERIAL AND METHOD

### Sample

The sample consisted of a total of 45 subjects (97.8% men and 2.2% women) and the average age was 44.61 ( $\pm 11,1$ ) years old. Table 1 shows the descriptive statistics of the sample.

Table 1. Descriptive statistics of the sample

		n	%
<b>Level of finished studies</b>	Primary Education	1	2,2
	General Certificate of Education/ Training Programs	9	20,0
	Diploma in Physical Education	4	8,9
	Graduate in Physical Education	13	28,9
	Other university degrees	17	37,8
	NR/DK	1	2,2
	<b>Title in recreative sailing</b>	Yacht captain	7
Yacht master		18	40,0
Recreational vessel skipper		13	28,9
Basic navigation skipper		2	4,4
<i>Titulin</i>		2	4,4
NR/DK		3	6,7
<b>Length of the boat</b>	ORC1	8	17,8
	ORC2	12	26,7
	ORC3	17	37,8
	ORC4	8	17,8
	<b>Role within the crew</b>	Trimmer	14
Helmsman/Skipper		12	26,7
Bowman		10	22,2
Tactician		2	4,4
Pitman		7	15,6

### Instrument

For the realization of this research, a questionnaire about multifactorial leadership MLQ-5S created by Bernard Bass and Bruce Avolio (2000) was provided. It is formed by 45 items with a Likert scale answer from 0 to 4, where 0 is never and 4 is always, and from which 3 well-differentiated and non-exclusive leadership

profiles are obtained. The questionnaire MLQ-5S, Multifactorial Leadership Questionnaire, was the most important contribution of Bass and his collaborators. They embodied their theoretical conception in a questionnaire able to measure the transformational and transactional leadership through seven factors and dimensions: four of them of transformational leadership, known as the four I's according to Bass and Avolio (1993) (charisma or idealized influence, inspirational motivation, intellectual stimulation and individualised consideration); two of them of transactional leadership (contingent reward and direction by exception); and an element which indicates a lack of leadership (*laissez faire*). This version, validated in Spain (Molero, 1994; Morales y Molero, 1995), showed an appropriate liability and validity. The liability analysis got the value of 0.792 in Cronbach Alpha for the leadership style rate and a 0.784 for the factors of the result.

Those factors that indicate the presence of the transformational leadership are the idealised influence (behavioural and assumed), inspirational motivation, intellectual stimulation and individualised consideration, while those which denote the transactional leadership are two: contingent reward and direction by exception (active). Finally, there are two factors expressing the lack of leadership, these are: the direction by exception (passive) and *laissez faire*.

In order to be able to analyse the questionnaire and the type of leadership present in crew members in a sailing race boat, we have to know that each item is assigned to a specific leadership factor, these factors are defined in the following table:

Table 2. Item linked to each factor

Factor	Item
<i>Leadership styles</i>	
Idealised behavioural influence	6, 14, 23, 34
Idealised assumed influence	10, 18, 21, 25
Inspirational motivation	9, 13, 26, 36
Intellectual stimulation	2, 8, 30, 32
Individualised consideration	15, 19, 29, 31
Contingent reward	1, 11, 16, 35
Direction by exception (active)	4, 22, 24, 27
Direction by exception (passive)	3, 12, 17, 20
<i>Laissez faire</i>	5, 7, 28, 33
<i>Factors of the result</i>	
Efficiency	37, 40, 43, 45
Extra effort	39, 42, 44
Satisfaction	38, 41

Depending on the average valuation of the different items assigned to each factor, we will identify a type of leadership or another in the selected sample and we will be able to connect it with the efficiency, satisfaction and extra effort variables.

### **Procedure**

After gathering with the organisation, the aims of the research were explained in the skippers' meeting prior to the beginning of the competition. A link to the questionnaire was sent by e-mail to the different vessels requesting their voluntary participation in the research. A personalised link was sent to everyone who agreed in order to make only possible to fill the questionnaire once and before the competition. After the competition, the link was sent again to those who hadn't answered before.

### **Data analysis**

For the data analysis, the statistical programme SPSS v.20 was used. Descriptive analysis were carried out (median, standard deviation, frequencies and percentages), a test *t* of Student, ANOVA test and cluster analysis. In this analysis, two methods of estimations were combined (hierarchical and non-hierarchical) of the cluster result with the purpose of optimize the results. The hierarchical cluster analysis was carried out using the association process of the Ward's Method and taking the Euclidean distance squared as the similarity measure. From the suggested group in the latter analysis, a non-hierarchical analysis was applied through the K-means clustering. It was also carried out the Cronbach Alpha test for the calculation of the liability. The significance level was established in  $p \leq .05$ .

## **RESULTS**

Table 3 shows the general statistics of the different factors and correlation among them. The results exposed that the crew members had a transformational leadership style (3.36 point), which was above of the transactional leadership and the style *laissez faire* or low non-leadership (1.13 points). Regarding the factors of the result, the *satisfaction* of the crew members was the most scored factor, it obtained 3.33 points, just followed by the *extra effort* and *efficiency* which got acceptable valuations. The *laissez faire* factor did not correlate significantly with any factor, having inverse correlations with *extra effort* and *efficiency*.

Table 4 shows the descriptive statistic of the different factor depending on the type of crewman, the decisions (helmsman and tactician) and who executes the actions (trimmer, bowman and pitman). The results showed that the crew members who have decision making as their responsibility obtained a higher score in the leadership styles (transformational and transactional) than the crew member who executed the actions. The latter had a higher non-leadership style than the decision marker crew members. According to the factors of the result, the crew members involved in the decision making obtained better evaluations in every factor than the crew members involved in executing the actions, and significant statistical differences have appeared between both groups regarding the efficiency factor.

The results of Table 5 show the types of leadership and factors of the result according to the groups obtained in the cluster analysis. The crew member of the three groups had a transformational leadership, being greater for the "very satisfied" crew members (3.58 points). The "satisfied" crew members obtained the highest valuation within the transactional style (2.65 points). Regarding the "little satisfied" crew members, although they obtained the lowest values in the types of transformational and transactional leaderships, they also obtained a low score in the *laissez faire* non-leadership style, being the value under one point (0.81).

Table 3. Descriptive statistic of factors and correlations. Media/Deviation typica

Factor	M(SD)	1	2	3	4	5	6
<i>Leadership styles</i>							
1. Transformational Leadership	3.36(±.35)	-					
2. Transactional Leadership	2.55(±.34)	.619**	-				
3. <i>Laissez Faire</i>	1.13(±1.01)	.160	.292	-			
<i>Factors of the result</i>							
4. Extra effort	3.14(±.56)	.601**	.591**	-.014	-		
5. Efficiency	2.89(±.67)	.584**	.308*	-.222	.734**	-	
6. Satisfaction	3.33(±.51)	.423**	.129	.044	.461**	.519**	-

\*\* . The correlation is significant at the level 0.01 (bilateral).

\* . The correlation is significant at the level 0.05 (bilateral).

Table 4. Descriptive statistics of the factors regarding the type of crewman

	Crewman involved in decision making (n=14)		Crewman involved in executing actions (n=33)		Sig.
	M	SD	M	SD	
<i>Type of leadership</i>					
1. Transformational leadership	3.44	.42	3.34	.31	.344
2. Transactional leadership	2.68	.40	2.50	.30	.101
3. <i>Laissez Faire</i>	0.96	1.00	1.22	1.03	.436
<i>Factors of the result</i>					
4. Extra effort	3.36	.57	3.05	.55	.088
5. Efficiency	3.24	.42	2.74	.71	.005*
6. Satisfaction	3.46	.50	3.28	.52	.267

\*Significance level  $p \leq .05$ .

The “very satisfied” crew members also obtained a greater score in every factor of the result than the other two groups. “Satisfied” crew members had an extra effort evaluation above 3 points, although they showed

a lower index of satisfaction than the other two groups (2.79). The results determined significant statistical differences for all of the factors with the exception of *laissez faire* or non-leadership factor.

Table 5. Descriptive statistics and ANOVA test of the resulted group from the cluster analysis

	1 Little satisfied		2 Satisfied		3 Very satisfied		<i>F</i>	<i>Sig.</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
<i>Type of Leadership</i>								
1. Transformational Leadership	2.83	.21	3.38	.26	3.58	.17	40.87	.000*
2. Transactional Leadership	2.26	.46	2.65	.20	2.61	.30	5,12	.010*
3. <i>Laissez Faire</i>	0.81	.47	1.02	1.09	1.35	1.11	1.04	.361
<i>Factors of the result</i>								
4. Extra effort	2.70	.54	3.05	.54	3.39	.48	6.10	.005*
5. Efficiency	2.42	.45	2.71	.77	3.21	.53	6.51	.003*
6. Satisfaction	3.22	.26	2,79	.38	3.74	.26	43.04	.000*

\*Significance level  $p \leq .05$ .

## DISCUSSION AND CONCLUSIONS

Crew members presented a greater transformational leadership in relation to the transactional leadership. The *laissez faire* or non-leadership style was low for both groups. Satisfaction is the greatest weight factor within the three factor model of types of leadership.

These data match with Rowold (2006) work, who used the transformational leadership behaviours to predict the executors perceptions about the efficiency of their coaches' behaviour, the satisfaction with their coaches and the extra effort above the transactional leadership.

However, in the sporting context, the conceptual and theoretical test of these leadership behaviours is a little limited, especially in relation to the transactional and transformational leadership theory (Rowold, 2006; Charbonneau, Barling & Kelloway, 2001).

In researches related, in other sports, to different scales of leadership like the Democratic Conduct and the Autocratic Conduct scales (Ruiz, 2006; Ruiz, 2007; Charbonneau, Barling & Kelloway, 2001), the relationship between the athlete and the coach is significantly relevant in the athlete's initiation and training period. Likewise, in the majority of cases this relationship can become something greater than the pure sporting training, where the sense of discipline and other ethical and moral values can develop into distinguishing aspects from other sports.

However, in this study, the coach, as it is described in other sports, do not carry out the same functions as the people in charge of making the group decisions are part of the crew.

This way of leadership is different from the traditional forms of leadership and it presents a vision of the team leadership, which points out future promising researches.

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