

LOCUS OF CONTROL AT RUGBY ATHLETES

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Abstract: This article presents data from a larger study on the motivation of athletes in rugby. For this purpose, we were interested in highlighting the correlation between introvert/extrovert personality type and the locus of control and also its correlation with emotional stability. The study was conducted during training on a group of 29 subjects, all rugby athletes.

Keywords: locus of control, extroversion/introversion, emotional stability, performance sport

1. Theoretical premises

The basis of sports performance is motivation, a process that must be taken into account in structuring an effective workout plan. From the complex of psychiatric manifestations which shape a success-oriented motivation, we chose to investigate emotional stability, introversion versus extroversion and locus of control.

In this context an important role is the attribution (cited from Epuran, Holdevici, Tonița, 2008, p. 138-140) of the cognitive process by which individuals perceive and explain their behavior (self-attribution) or those of others (hetero-attribution) in every day life. The basic idea is to

take into consideration the fact that events or behaviors are all due either to people in action (internal causality or dispositional factors) or to ambience (external causality or situational factors). Out of the hundreds of types of causal attribution, *Weiner* (1986) considers three as the most significant:

- a) Stability and its opposite, instability
- b) Causality, internal or external ("place of causality")
- c) Control, or what can master the subject ("locus of control")

The concept of "locus of control" has two components, an internal and an external one. Those who have "internal locus of control" believe that their actions, through effort, will be able to greatly influence results in a favorable way and those possessing "external locus of control" believe they can not influence the results. Usually, those who win, make assignments that refer to themselves ("I won because I pulled hard"), as well as those who lose ("I lost because I was lazy" - personal assignments, or "The referee did not see" – impersonal allocations") (Stephen J. Bull, 2011, pp. 120-121). In other words, the winners tend to attribute success to themselves, while losers tend to make attributions that reflect the partial aspects of the game, but which do not depend on them and which protect their inner-selves. This difference between winner/loser is known as the "error of instrumental attribution" (self-serving bias), as it helps the winners to feel good and the losers not to feel too bad. In sports, for example, effort and skill refer to in the individual, while difficulty and chance are connected to specific situations. Hence the distinction between the size of the locus of causality – attributions related to the individual (internal), of environment (external) –and the dimension of stability – attributions which reflect

something stable, permanent (sustainable) or unstable and variable (transient).

Another aspect that was observed in this study was related to temperament. Temperament is a complex formation revealing a summary of the energy, balance and mobility of one's processes of excitation and inhibition, reflecting innate and acquired traits, which constitute the dynamic-energetic fund of personality which they influence discretely in all its manifestations. (Dughi, Roman, 2008, p.137). Allport, G., indicates that "temperament refers to the phenomena characteristic to an individual's emotional nature, including sensitivity to emotional stimulation, strength and the regular speed of response, the quality of his predominant moods and all the peculiarities of mood fluctuation and intensity, these elements being largely hereditary in their origin." (Allport, G., 1981, p.46). Of all these traits, we have chosen to investigate introversion and extroversion according to Jung's typology and emotional stability, features described and measured by Eysenck.

2. Objectives of the study

- Highlighting the correlation between introversion - extroversion and locus of control for rugby practitioners at senior level in the pre-competitive period.

- Highlighting the correlation between emotional stability and locus of control for rugby practitioners at senior level in the pre-competitive period.

3. Hypothesis of the study

- I.1. - The more the degree of emotional stability increases in rugby athletes, the greater is the degree of control over their performance.

I.2. - The higher the tendency to extroversion is, the lower is the level of assumption of control over their performance.

4. Sample

The sample on which we have conducted the study is made of 29 male participants, athletes in the rugby team of CS Aurel Vlaicu University of Arad.

Characteristics of the subjects:

- The average age of the athletes surveyed is 21
- Most of them have high school as their last graduated institution
- Most of them have more than 5 years experience in professional sports
- The age when they commenced performance sports is about 14
- The status of the subjects is “unmarried”
- Their income falls on average between 500-1000 lei.

5. Research methods and tools

- *The Rotter Test (Locus of Control)* is a test with 29 items, each having two a) and b) answers and which regards the internal or external appearance of the control. Locus of control refers to the degree to which individuals believe that they have the ability to control events which involve them. People with an internal locus of control believe that events are mainly caused by their own behavior and actions. Internal locus of control is associated with an increased tolerance to stress. People with external locus of control believe that certain forces, fate or chance determine the events they cannot control. External locus of control is associated with an increased stress level.

- *The E.P.I. test (Eysenck Personality Inventory)* is a test with 90 questions that can be answered with yes or no and which measures personality in two dimensions independent of one another: extraversion

and neuroticism. Scale E (Extraversion - Introversion) defines traits of affirmation sociability, energy, life and dominance. Scale N (Neuroticism) measures the degree of stability or emotional instability. ([Http://www.slideshare.net/ MariusDeWolf/psihodiagnoza-personalitatii-ch-eysenck](http://www.slideshare.net/MariusDeWolf/psihodiagnoza-personalitatii-ch-eysenck), 06/08/2013, 8:40 p.m.).

- *Analysis and statistical processing*, by means of which we made the descriptive processing and analysis of data in tables, graphs, figures. The statistical process has three stages: statistical observation, statistical processing, analysis and statistical interpretation.

5. The design of the research

To test assumption 1 with the dependent variable of intrinsic and extrinsic motivation we used questionnaires I, II and III, while for the statistical analysis we used the Pearson correlation index. For assumption 2 we calculated the statistical significance with the Pearson correlation index to highlight the link between emotional stability and taking control of sports performance, obtained by using the Rotter tests and the EPI.

Table 3.

The design of the research

	Independent variable	Dependent variable
Assumption1	Practising performance sports	Emotional stability Taking control of sports performance
Assumption2	Practising performance sports	Introversion-extroversion Taking control of sports performance

6. Data analysis and results

I.1. - The more the degree of emotional stability increases in rugby athletes, the greater is degree of control over their performance.

I.2. - The higher the tendency to extroversion is, the lower is the level of assumption of control over their performance.

We applied the Rotter test (Locus of Control) to determine whether the actions of athletes can influence what is happening around them or if they are dependent or independent of them. The test results were as follows:

- LCI (Internal locus of Control) = 79.31 % (23 of the 29 subjects had scores below 13) - it is considered that their involvement can influence the outcome of an action

- LCE (External locus of control) = 20.61 % (6 of 29 subjects had scores above 13) - it is considered that their involvement cannot influence the outcome of an action.

Most team members are people who can influence the course of things through their active involvement.

The graphical representation of the results of the Rotter test is:

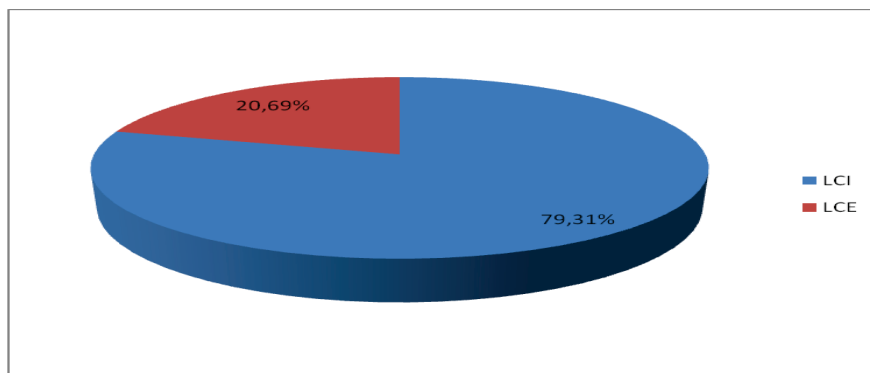


Fig.5: Result of the Rotter test (Locus of Control)

By applying the E.P.I. test we observed the degree of introversion and extraversion (scale E) of rugby athletes and their degree of emotional instability (scale N). The other test scales were not taken into consideration, as they were not conclusive to the study.

The results are shown in the following table

Table 6.

EPI test results– scales E and N

Score	Scale E	Scale E %	Scale N	Scale N %
0	4	13,79%	6	20,69%
1	6	20,69%	20	68,97%
2	19	65,52%	3	10,34%

We can see that a percentage of 13.79% of the athletes are introverted, 20.69% are between the introversion and extraversion average area, and a percentage of 65.52% are extroverts.

The graphical representation of scale E the following:

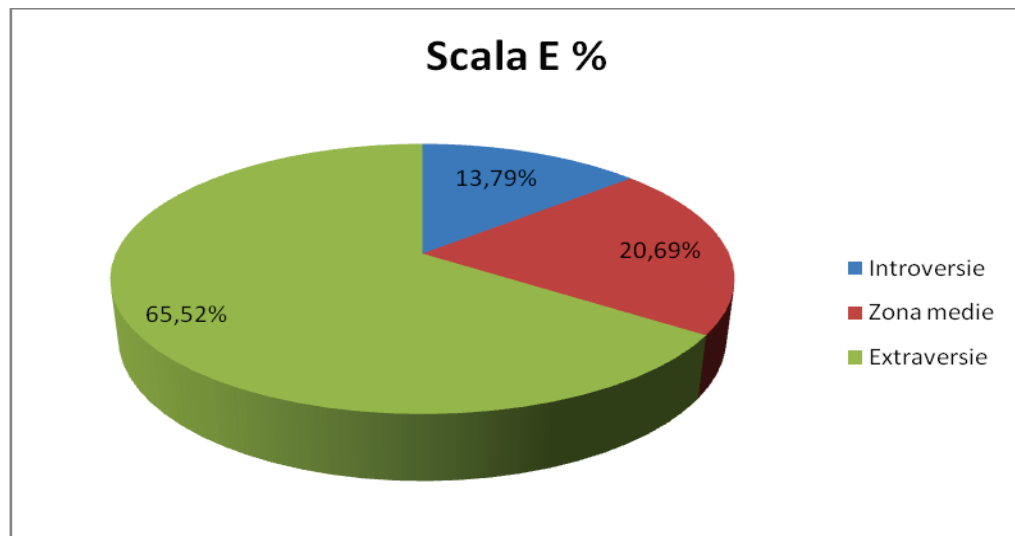


Fig. 6 The graphical representation of scale E of the E.P.I. test

Table 7. Descriptive statistics

	Average	Standard deviation	N
control	11,8966	3,48819	29
extroversion	13,3793	3,09855	29

According to the table above, regarding control over one's own actions(the Rotter test) and extroversion(the EPI test -scale E) using parametric tests of comparison, it appears that the correlation between them is significant. Thus assumption 2 – **I.2 The higher the tendency to extroversion is, the lower is the level of assumption of control over their performance**, is confirmed.

By analyzing scale N for the applied E.P.I. test we noticed that 20.69% of athletes are emotionally stable, 68.97% are in the average emotional instability, and 10.34% of the athletes we applied the test t, are emotionally unstable, being characterized by an increased nervousness and anxiety that can lead to aggression, they are fickle people, with

Table 8. **Correlations**

		control	extroversion
control	The Pearson correlation	1	,694**
	Bilateral significance		,000
	N	29	29
extroversion	The Pearson correlation	,694**	1
	Bilateral significance	,000	
	N	29	29

** . The Correlation is only significant at a level of 0.01 (bilateral).

psychomotor disorders and with adaptability issues. Figure 6 shows graphically the results presented here.

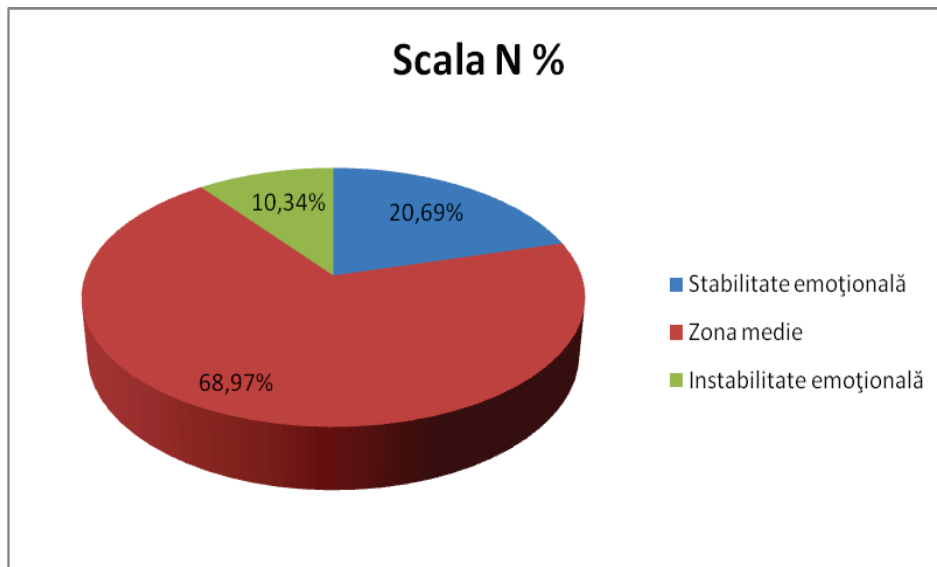


Fig. 7 Graphic representation of scale N for the E.P.I. test

Table 9. **Descriptive statistics**

	Average	Standard deviation	N
control	11,8966	3,48819	29
nevrotism	12,0000	4,19183	29

Table 10. **Correlations**

		Control	nevrotism
control	Pearson correlation	1	,765**
	Bilateral significance		,000
	N	29	29
nevrotism	Pearson correlation	,765**	1
	Bilateral significance	,000	
	N	29	29

Table 10. **Correlations**

		Control	nevroism
control	Pearson correlation	1	,765**
	Bilateral significance		,000
	N	29	29
nevroism	Pearson correlation	,765**	1
	Bilateral significance	,000	
	N	29	29

** . The Correlation is only significant at a level of 0.01 (bilateral).

According to the table above, regarding one's control over one's own actions (the Rotter test) and neuroticism (the EPI test - scale N) using parametric tests of comparison, it appears that the correlation between them is significant. Thus hypothesis *I.1. - The more the degree of emotional stability increases in rugby athletes, the greater is degree of control over their performance*, is confirmed.

Conclusions and limitations of the study

We observed the correlation between one's control over one's own actions (the Rotter test) and neuroticism (the EPI test - scale N) using parametric tests of comparison, the correlation proving to be significant; we analyzed the correlation of control over one's own actions (the Rotter test) and extroversion (the EPI test – scale E), using parametric tests which result in a significant correlation, which confirms the assumptions of our study.

A limitation of the study would be the small number of subjects who were involved in the study, which does not allow an extrapolation of

the results. These only have an orientative role in the training activity of the team. Thus, the coach may establish a more appropriate motivational plan to stimulate the needs of the players.

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