

## SOME DIFFERENCES IN SPORTS MOTIVATION OF YOUNG FOOTBALL PLAYERS FROM RUSSIA, SERBIA AND MONTENEGRO

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### SUMMARY

In accordance with the conceptual framework of self-determination theory, sports motivation in this research was operationalized as intrinsic motivation (to know, to accomplish and to experience stimulation), extrinsic motivation (by identification, introjection and external regulation) and amotivation for sport (Deci & Ryan, 2000). The aim of this exploratory research was to test such concept of sports motivation on a sample of young football players from different countries (Russia, Serbia, and Montenegro). It was assumed that young football players did not differ with respect to intrinsic motivation regardless of their age and country. Major differences were assumed to exist in extrinsic aspects of sports motivation which may indicate a potential specificity of social influences in various countries or different development-related levels of internalization of extrinsic reasons for engaging in sports activity. The research included 178 young football players aged 12 to 15. The Sport Motivation Scale (SMS-28; Pelletier, Fortier, Vallerand, Briere, Tuson, & Blais, 1995) was used. *t*-test, ANOVA and MANOVA were applied. Significant differences were found between young football players from Russia and from Serbia and Montenegro regarding intrinsic motivation to accomplish and all aspects of extrinsic motivation. The twelve-year-olds differ from other tested ages by amotivation, and there are important differences between the football players aged 13 and 14 regarding extrinsic motivation by identification, introjected extrinsic motivation and extrinsic motivation by external regulation. When the country and age of young football players are taken into account at the same time by the motivation analysis, the major difference is spotted only in introjected extrinsic motivation.

**Key Words:** sports motivation, intrinsic motivation, extrinsic motivation, football.

### INTRODUCTION

According to self-determination theory, extrinsic and intrinsic motivations are not discrete categories, but a unique continuum. On one side of the continuum is intrinsic motivation, while on the other side is amotivation. Various forms of extrinsic motivation are set between intrinsic motivation and amotivation (Deci & Ryan, 2000).

Children engage in all kinds of sports, including football, because they take interest and pleasure in the activity itself (Marjanović, 2010). Coaches use extrinsic rewards to additionally encourage young athletes in their efforts, although there is empirical data that, contrary to the expectations of coaches, using external stimulations causes a negative effect

and additionally “undermines” intrinsic interest and enjoyment in the sport instead of contributing to intrinsic motivation (Lazarević, 2001). However, using extrinsic forms of stimulation is unavoidable in sports. The more fully an extrinsic stimulation is internalized and more successfully integrated in one’s self, the better basis for self-determination of behaviour and self-motivation will be (Mladenović, 2010a).

In different cultures, various aims and values in general are internalized through the socialization process, particularly the aims and values promoted in and through sports (Pelletier, Vallerand, & Sarrazin, 2007). During the adolescent age, which is especially sensitive to the social influences, it can be presumed that major differences in sports motivation will be found exactly in the aspects of extrinsic motivation

reflecting social influences in different cultures. *External regulation*, as a form of extrinsic motivation, is a classic example of motivation by reward and punishment. Even though material rewards are inseparable from the success in modern football, it can be assumed that in different cultures or just in different social environments, material rewards as motivational instruments can be given emphasis to various degrees while working with young football players. *Introjected extrinsic motivation* refers to incomplete internalization of aims or values highly appreciated and promoted by a social environment. Introjection, as an internalization mechanism, is manifested in sports in several ways – as dedication resulting from a sense of duty or guilt, motivation not to fail the expectations of a coach or parents, self-respect depending on the current perception of one's own accomplishment on the field, etc. The motivation based on introjection can contribute to exceptional perseverance and dedication which is very similar to intrinsic motivation on the behavioral level (Vansteenkiste & Deci, 2003). However, although we can presume that this form of extrinsic motivation is developmentally appropriate in adolescence, the optimal mental and sports development of young athletes requires an internalization process that is more complete and contributory to a higher degree of integration of social influences into one's self. The next level in the internalization of the social environment rules is called identification. An individual consciously values and accepts the rules and demands imposed by the society even though on a deeper level he/she need not feel these demands as his/her own. In sport, an individual is driven by *extrinsic motivation by identification* when he/she accepts all his/her sports duties professionally and responsibly. From the psychological point of view, the success in football, as in sport in general, involves long hours of training, repetition of the same motor movements in order to acquire necessary skills, commitment and perseverance in fulfilling boring and monotonous duties, etc. The sense of duty and professionalism in future successful athletes is developed through identification. This aspect of extrinsic motivation is important both in formative years and later in adult life. Promotion of the personal responsibility and professionalism in performing chosen activities in a specific culture or social environment will influence the extent to which an individual will adopt such attitude towards work and duties during the socialization process.

Intrinsic motivation in sport is defined as enjoyment just from taking part in the favourite sport. There are three types of *intrinsic motivation – to know, to accomplish*

*and to experience stimulation*. Striving to broaden one's knowledge is most prominent in education, while the motivation to accomplish something, to reach personal achievement standards and to experience the sports activity itself as stimulative and encouraging (Pelletier et al., 2007) is more dominant in sport.

The aim of this research was to test the concept of sports motivation based on the principles of self-determination theory on football players coming from different countries, that is, to find out if there are major differences in the sports motivation defined in such a way between young football players from Russia and from Serbia and Montenegro. Some previously conducted researches show that the basic principles of self-determined motivation are independent of the culture although cultural specificities can be discussed as well (Chirkov & Ryan, 2001; Chirkov, Ryan, & Wellness, 2005). A special task was to determine if there are any development-related differences in the level of internalization of extrinsic motivation in young athletes of different ages. It was also important to examine if the athletes' age combined with the environment they come from can cast additional light on differences in sports motivation.

The main hypothesis proposed that there were certain considerable differences between Russian football players on one side and football players coming from Serbia and Montenegro on the other side. It was assumed there were no major differences regarding intrinsic motivation and that diversity of social influences reflected primarily in extrinsic motivation. It was also presumed that certain development-related differences in the level of internalization of extrinsic motivation could be expected. There was an assumption that football players aged 14 and 15 could significantly differ from 12- and 13-year-old ones regarding extrinsic motivation by identification.

## METHOD

### Sample

The sample included 178 respondents, aged 12 to 15. The 12-year-olds accounted for 18%, 13-year-olds 16.9%, while 14- and 15-year-olds participated with a somewhat bigger share: 34.8% and 30.3% respectively. A little over half of the tested sample (54.5%) included the athletes from the Krasnodar football academy in Russia. The respondents from Serbia and Montenegro were merged into one category and accounted for 45.5% of the sample. They belong to

different football schools. Structure of the sample by age and nationality is given in Table 1.

## Variables

Two independent variables were used: the nationality (whether the respondents came from Russia or from Serbia and Montenegro) and the age (12, 13, 14 or 15 years). There were also seven dependent variables

referring to different aspects of sports motivation. These dependent variables were operationalized according to self-determination theory as intrinsic motivation to know, to accomplish and to experience stimulation; extrinsic motivation by identification, introjected extrinsic motivation and extrinsic motivation by external regulation, and amotivation.

**TABLE 1**

*Structure of the sample by age and nationality (N = 178)*

Age	Nationality RUS <i>n</i>	SRB / MNE <i>n</i>	$\chi^2$	<i>df</i>	<i>p</i>
12 years old	27	5			
13 years old	26	4			
14 years old	22	40	37.198	3	.000
15 years old	22	32			
Total	97	81			

Legend: **RUS** – Russia; **SRB** – Serbia; **MNE** – Montenegro; *n* – number of subjects;  $\chi^2$  – The chi-square distribution; *df* – Degrees of freedom; *p* – Probability.

## Procedure

The questionnaires for this research were filled in during other testings that the respondents had to undergo. They participated voluntarily with the consent of the clubs they train in.

## Instruments

The Sport Motivation Scale (SMS-28; Pelletier et al, 1995) was used. This was one of the exploratory testings of the scale on a Serbian and Montenegrin sample, and the first testing of such kind on a Russian sample. The Serbian and Montenegrin version and the Russian version of the SMS-28 scale were first translated from English into Serbian and Russian, and then they were translated back into English in order to spot redundancies and inconsistencies in the translation, if any. The translations of the scale into Serbian and Russian were tested on the 12-year-old respondents during a preliminary research. Twenty respondents from each category were asked to mark language dilemmas, if any, on the Serbian and the Russian version of the scale. The respondents who participated in the preliminary research made no critical remarks.

The Sport Motivation Scale (SMS-28) includes 28 items in total which are assessed by the respondents on a 7-point Likert-type scale. Four items each measure the aspects of intrinsic motivation (to know, to

accomplish and to experience stimulation), the aspects of extrinsic motivation (by identification, introjection and external regulation) and amotivation for sports.

## Statistical Analysis

The reliability of instruments was tested with Cronbach's alpha. Mean values and standard deviations were calculated for each aspect of intrinsic and extrinsic motivations and for amotivation as well t-test was used to determine the importance of differences between the aspects of sports motivation in young football players from Serbia and Montenegro and from Russia. ANOVA was performed to detect potential differences in sports motivation by the age of participants. However, in order to additionally analyze the differences between young football players, at the same time including the respondents' background (country) and age, a two-way MANOVA was performed with two independent variables (nationality and age), and seven dependent variables (each aspect of sports motivation was treated as a separate variable). Data was processed by SPSS 8.0.

## RESULTS

Reliability of SMS-28 was tested by calculating Cronbach's alpha. For the scale as a whole, the lowest reliability in this research was produced for the sub-

scale measuring amotivation for sports (.44), whereas the highest individual value of Cronbach's alpha was recorded on the subscale measuring extrinsic moti-

vation by identification (.79). Table 2 shows values of Cronbach's alpha for all subscales, and by age and nationality of respondents.

**TABLE 2**

*Cronbach's alpha values for SMS-28 subscales, and by age and nationality of respondents*

	Whole sample ( <i>N</i> = 178)	Age of 12 ( <i>n</i> = 32)	Age of 13 ( <i>n</i> = 29)	Age of 14 ( <i>n</i> = 60)	Age of 15 ( <i>n</i> = 54)	RUS ( <i>n</i> = 97)	SRB/MNE ( <i>n</i> = 81)
Intrinsic motivation to know	.73	.63	.75	.73	.72	.73	.70
Intrinsic motivation to accomplish	.60	.57	.44	.72	.63	.48	.74
Intrinsic motivation to experience stimulation	.53	.31	.45	.68	.55	.46	.61
Extrinsic motivation by identification	.79	.76	.76	.65	.87	.76	.75
Introjected extrinsic motivation	.74	.69	.68	.73	.79	.68	.72
Extrinsic motivation by external regulation	.78	.76	.68	.67	.86	.70	.67
Amotivation	.44	.34	.43	.47	.42	.31	.54

Legend: **RUS** – Russia; **SRB** – Serbia; **MNE** – Montenegro; *N*, *n* – Number of subjects.

**TABLE 3**

*Significant differences among aspects of sports motivation in young football players from Russia, Serbia and Montenegro*

Sports motivation	Nationality	<i>M</i>	<i>SD</i>	<i>t</i>
Intrinsic motivation to know	RUS	5.43	1.22	-1.900
	SRB/MNE	5.75	.99	
Intrinsic motivation to accomplish	RUS	5.14	1.09	<b>-4.045</b>
	SRB/MNE	5.77	.95	
Intrinsic motivation to experience stimulation	RUS	5.62	.93	-.146
	SRB/MNE	5.60	1.06	
Extrinsic motivation by identification	RUS	3.85	1.31	<b>-7.623</b>
	SRB/MNE	5.29	1.19	
Introjected extrinsic motivation	RUS	4.29	1.48	<b>-5.948</b>
	SRB/MNE	5.50	1.19	
Extrinsic motivation by external regulation	RUS	2.82	1.39	<b>-7.537</b>
	SRB/MNE	4.34	1.28	
Amotivation	RUS	2.31	.87	-1.145
	SRB/MNE	2.47	1.01	

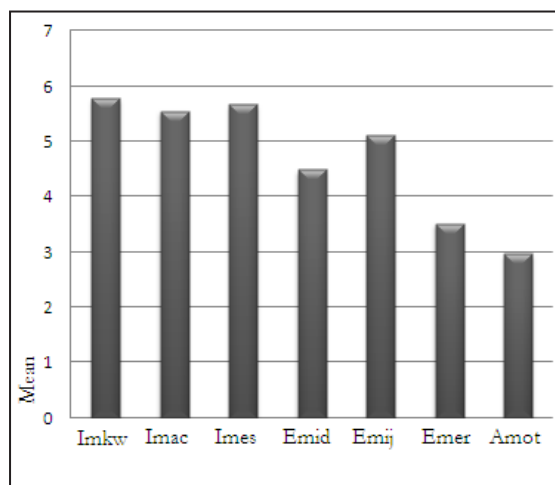
Legend: **RUS** – Russia; **SRB** – Serbia; **MNE** – Montenegro; *M* – Sample mean; *SD* – Standard deviation; *t* – Student's *t* distribution; *p* < .01.

Table 3 shows that young football players from Russia differ from their peers from Serbia and Mo-

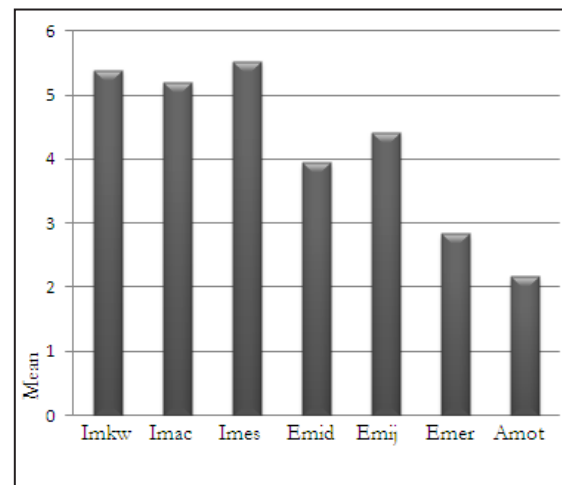
nenegro in their intrinsic motivation to accomplish and in all aspects of extrinsic motivation.

**FIGURE 1**

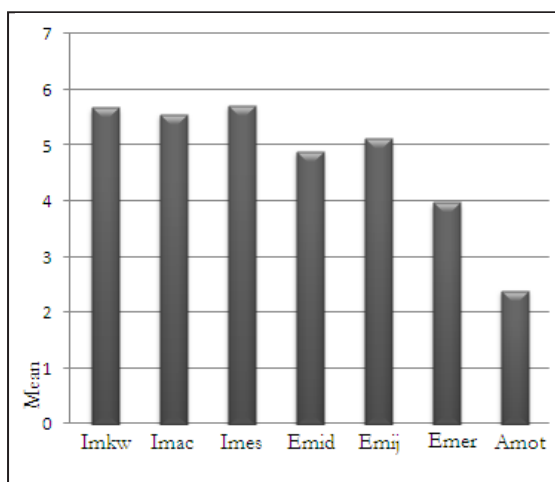
*Sports motivation  
for 12-year-olds (n = 32)*

**FIGURE 2**

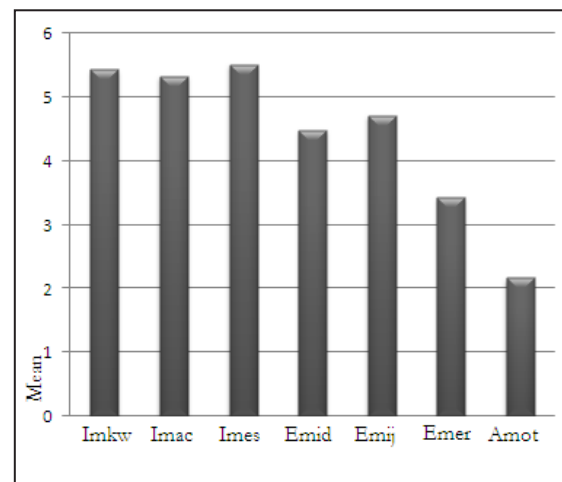
*Sports motivation  
for 13-year-olds (n = 29)*

**FIGURE 3**

*Sports motivation  
for 14-year-olds (n = 60)*

**FIGURE 4**

*Sports motivation  
for 15-year-olds (n = 54)*



Legenda: **Imkw** – intrinzička motivacija za saznanjem; **Imac** – intrinzička motivacija za ostvarenjem; **Imes** – intrinzička motivacija za stimulacijom; **Emid** – ekstrinzička motivacija identifikacijom; **Emij** – ekstrinzička motivacija introjeksijom; **Emer** – ekstrinzička motivacija eksternom regulacijom; **Amot** – amotivacija.

After the analysis included the respondents' age, some major differences were found in sports motivation of the athletes of different age. Figures 1 to 4 shows the presence of all examined aspects of sports motivation in the respondents aged 12, 13, 14 and 15. The results of variance analysis showed differences in extrinsic motivation by identification ( $F = 3.111$ ;  $df = 3$ ;  $p < .05$ ), by external regulation ( $F = 3.520$ ;  $df = 3$ ;  $p < .01$ ) and amotivation ( $F = 6.344$ ;  $df = 3$ ;  $p < .01$ ).

Series of  $t$ -tests showed considerable differences between the twelve-year-olds and young athletes of

other ages in amotivation ( $M_{12} = 2.97$ ;  $M_{13} = 2.16$ ;  $t$ -test = 3.292;  $M_{14} = 2.40$ ;  $t$ -test = 2.644;  $M_{15} = 2.17$ ;  $t$ -test = 4.207; all significant at  $p < .01$ ).

Differences were also detected between 13- and 14-year olds in extrinsic motivation by identification ( $M_{13} = 3.94$ ;  $M_{14} = 4.90$ ;  $t$ -test = -3.418;  $p < .01$ ), introjected extrinsic motivation ( $M_{13} = 4.42$ ;  $M_{14} = 5.13$ ;  $t$ -test = -2.217;  $p < .05$ ) and in extrinsic motivation by external regulation ( $M_{13} = 2.84$ ;  $M_{14} = 3.98$ ;  $t$ -test = -3.754;  $p < .01$ ).

In order to test if the differences still exist when the data analysis additionally includes the respondents'

background (Russian or Serbian and Montenegrin sample) and the “age” variable, a two-way MANOVA was performed. The assumptions about linearity, normality, atypical points and homogeneity of variance-covariance matrices were checked by preliminary tests and no major disturbance of assumptions was recorded. Calculation of Mahalanobis distances excluded three respondents from further analysis.

Contrary to the preliminary testing of assumptions about equality of variances, Levene's test for equality of variances performed within MANOVA showed disturbance of the assumption about equality of variances with the “amotivation” variable. For this reason and also due to the unequal number of respondents in certain cells, while testing the importance of differences among the groups with reference to the combination of dependent variables, apart from Wilk's lambda, other tests – sensitive exactly to the above mentioned deviations – were considered as well (Table 4).

Table 4 shows the differences in sports motivation by the countries the respondents come from

**TABLE 4**

*Significant differences in sports motivation by nationality and age of respondents*

	Value	F	p	df	$\epsilon^2$
<b>Nationality</b>					
V	.311	10.394	.000	7; 161	.311
$\Lambda$	.689	10.394	.000	7; 161	.311
$T^2$	.452	10.394	.000	7; 161	.311
$\Theta$	.452	10.394	.000	7; 161	.311
<b>Age</b>					
V	.153	1.253	.202	21; 489.000	.051
$\Lambda$	.851	1.271	.189	21; 462.855	.052
$T^2$	.169	1.288	.177	21; 479.000	.053
$\Theta$	.131	3.054	.005	7; 163.000	.116
<b>Nationality / Age</b>					
V	.188	1.559	.055	21; 489.000	.063
$\Lambda$	.821	1.572	.052	21; 462.855	.064
$T^2$	.208	1.583	.049	21; 479.000	.065
$\Theta$	.143	3.322	.002	7; 163.000	.125

Legend: V – Pillai-Bartlett multivariate trace criterion;  $\Lambda$  – Wilks's multivariate test criterion;

$T^2$  – Hotelling's multivariate test for the equality of the mean vector in two multivariate populations;  $\Theta$  – Roy's multivariate test criterion; F – Fisher's F ratio; p – Probability;

df – Degrees of freedom;  $\epsilon^2$  – Measure of strength of relationship in analysis of variance.

## DISCUSSION

As it was assumed, significant differences between the football players coming from various countries

(nationality). Yet, when only their ages were considered, no significant differences were found. However, significant differences in sports motivation were spotted when the age of respondents in various countries was taken into account.

Further on, it was important to examine if the respondents of different ages from the two samples differed in all aspects of sports motivation or just in some of them. To avoid the conclusion that there are differences when in fact there are no actual differences at all in particular aspects of sports motivation in respondents of different ages from the two samples, Boniferroni correction was applied. The chosen significance level was .007.

Table 5 shows that the results obtained using t-test for the sample-related differences were also confirmed with MANOVA. However, when the respondents' age is concurrently introduced into the analysis, significant differences are detected only in introjected extrinsic motivation.

were found in all aspects of extrinsic motivation. However, contrary to our hypothesis that there were no differences in intrinsic motivation regardless of the respondents' countries, young football players

from Russia were also found to differ from their peers from Serbia and Montenegro in their intrinsic motivation to accomplish something in football.

If various aspects of extrinsic motivation are considered to be the indicators of socialization in sport, young football players from Serbia and Montenegro can be said to “absorb” external influences more than their peers from Russia. This means that young football players are more likely to receive influence, primarily

from their coaches and parents, although each influence can produce both positive and negative effects. Higher susceptibility to influence by environment can mean that young football players in Serbia and Montenegro are quicker than their Russian peers to develop individual responsibility and professional attitude to their duties related to football, internalize various kinds of external pressures and respond to material rewards.

**TABLE 5**

*Significant differences in aspects of sports motivation by nationality and age*

Sports motivation	<i>F</i>	<i>p</i>	$\epsilon^2$
<b>Nationality</b>			
Intrinsic motivation to know	6.183	.114	.036
Intrinsic motivation to accomplish	12.927	<b>.000</b>	.072
Intrinsic motivation to experience stimulation	.107	.744	.001
Extrinsic motivation by identification	43.515	<b>.000</b>	.207
Introjected extrinsic motivation	26.473	<b>.000</b>	.137
Extrinsic motivation by external regulation	33.150	<b>.000</b>	.166
Amotivation	7.322	<b>.008</b>	.042
<b>Age</b>			
Intrinsic motivation to know	2.248	.085	.039
Intrinsic motivation to accomplish	1.205	.310	.021
Intrinsic motivation to experience stimulation	.980	.404	.017
Extrinsic motivation by identification	2.240	.085	.039
Introjected extrinsic motivation	2.605	.054	.045
Extrinsic motivation by external regulation	2.250	.084	.039
Amotivation	4.716	<b>.003</b>	.079
<b>Nationality / Age</b>			
Intrinsic motivation to know	1.068	<b>.008</b>	.068
Intrinsic motivation to accomplish	.928	.429	.016
Intrinsic motivation to experience stimulation	1.792	.151	.031
Extrinsic motivation by identification	4.043	<b>.008</b>	.068
Introjected extrinsic motivation	4.168	<b>.007</b>	.070
Extrinsic motivation by external regulation	1.694	.170	.030
Amotivation	2.081	.105	.036

Legend: *F* – Fisher’s *F* ratio; *p* – Probability;  $\epsilon^2$  – Measure of strength of relationship in analysis of variance.

On the other hand, contrary to the assumption there were no differences in intrinsic interest in football, young football players from Serbia and Montenegro were found to have a stronger authentic intrinsic desire to accomplish something in football. In general, the relevant literature does not explicitly link intrinsic motivation to accomplish and the achievement

motivation as defined by McClelland (1987). Intrinsic motivation to accomplish indicates a tendency referenced in the inner need to develop and achieve one’s own competence, while from McClelland to this day, the achievement motivation is defined as striving to reach and exceed the achievement standards set by someone else or the individual itself. Therefore, this is a kind of an external reference. It seems that traditional

definitions of the achievement motivation overemphasize the competition with something outside the individual itself whereas intrinsic motivation to accomplish, as defined by self-determination theory, relies more on inner personal achievement standards related in the first place to the development of personal competence.

The difference in intrinsic motivation to accomplish between young football players from Russia and from Serbia and Montenegro indicates the complexity of sport achievement construct which needs to include both inner authentic needs for self-accomplishment which are not stimulated externally and also external achievement standards that are inseparable from competitive aspect of each sport. The importance of further exploration of the sport achievement construct is supported by the findings of this research which suggest that intrinsic motivation to accomplish is more present in young football players from Serbia and Montenegro who are at the same time more responsive to social influences than their peers from Russia.

As far as age differences are concerned, significant differences were mostly found between the 13- and 14-year-olds. The significant differences spotted in all aspects of extrinsic motivation indicate greater personal maturity of the 14-year-old athletes. The socialization processes seem to lead to qualitative changes between the age of 13 and 14. Fourteen-year-olds are substantially more responsible in performing their sports duties, they become more and more conscious of the value of material rewards and are more inclined to link their self-respect and self-worth to an immediate achievement, etc. In other words, at this age external influences are most likely to contribute to a positive sports and personal development of young athletes and yet to make them quit the sport as well. Experience from practice shows that young athletes quit sport exactly at the age of 13 or 14. Some researches carried out on young Serbian athletes indicate that a coach's motivational approach to athletes might play a role toward a higher quality internalization of regulatory mechanisms into self-regulatory ones (Mladenović, 2010b). The coach whose approach is based on supporting autonomy and not on behaviour control is more likely to keep young athletes from quitting sport and contribute to their more optimal personal and sports development (Mladenović, 2010c).

A significant age-related difference in amotivation was found between the 12-year-olds and young football players aged 13, 14 and 15. The question is why is amotivation for sport considerably more present at the age of 12 than in the years to follow? Is it about the fact that compared with the complex and potentially stormy processes of internalization of external influences going on at the age of 13 and 14, 12 years of age is a calm period which can be qualified as a lack of interest

in sport? We provide no answer for that at this point. Further researches will need to examine amotivation for sport. According to self-determination theory, amotivation is defined as a lack of any intention to act because the person is unable to see the link between cause and effect and doubts that his/her involvement can bring about meaningful changes in his/her surroundings (Deci & Ryan, 2000). Such definition is rather pathocentric and seems not to be fully applicable in sport. Athletes can be more or less motivated intrinsically or extrinsically, but the issue is if it is possible to discuss amotivation as a pathocentric category, particularly with reference to young athletes whose initial motivation for taking up sport is most often intrinsic.

Finally, taking into account, at the same time, both the age of respondents and the country they come from, the only significant difference was found in extrinsic motivation based on the introjection mechanism. Introjection, as a stage of internalization of rules imposed by a wider and immediate social environment, seems to be an especially sensitive period in one's personal development. The relevant literature emphasizes that introjected motivation can develop into a positive direction and lead to a more complete internalization. If, during one's own personal development, an individual is passing through such positive form of internalization based on the introjection mechanism, they will feel positive emotions when experiencing achievement – pride, for instance. However, internalization through introjection can take a negative direction as well and lead to development of the sense of shame, guilt and anxiety (Vansteenkiste, Niemiec, & Soenens, 2010). Depending on the form of internalization through introjection dominating in motivation and personal development of young athletes, they may either quit the sport or experience further personal and sports development. This research suggests that individual differences relating primarily to a particular age are not the only important issues but that various socialization agents also play a substantial role in the process of personal and sports development of young athletes.

## CONCLUSION

The results of this research indicate the complexity of sports motivation depending both on the process of sports socialization and socialization agents of various degree of influence and generality, and on the individual's personal psychological development which determines the quality and speed of internalization of external influences.

Young football players from Serbia and Montenegro were found to be considerably more motivated than their Russian peers by the intrinsic desire to achieve their



sports competence. Additionally, all aspects of extrinsic motivation were present in young football players from Serbia and Montenegro in a much higher degree than in young athletes from Russia. The twelve-year-old football players were also significantly more amotivated than their peers aged 13, 14 and 15. The majority of age-related differences regarding all aspects of extrinsic motivation were found between thirteen- and fourteen-year-olds.

In the analysis of sports motivation with respect to the respondents' age and country, only extrinsic motivation based on the introjection mechanism proved to be significant.

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