# TURKISH OLYMPIC SPORT BRANCH COACHES' PERSONALITY TRAITS BASED ON THE FIVEFACTOR MODEL

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Abstract- The purpose of the current research is to evaluate the personality profiles of Olympic sports coaches in Turkey within the framework of the Five-Factor Personality Model, and to investigate differences based on gender, national team coaching and coaching grade. A cross-sectional survey method is used as a research design. A stratified sampling procedure was applied, and coaches (nfemale=178; nmale=609) from 23 Olympic sports branches in 10 cities in Turkey voluntarily participated. The mean age of participants was 34.78±8.84. The data collection instruments were the PERI (Personality Inventory), which was used to assess the personality traits of participants; demographic variables were also gathered. The results of the research indicated that Olympic sports branch coaches have the emotional balance personality trait at "not effective or low" levels, the extraversion and openness to experience personality traits at "partially effective or circumstantial" levels and the compatibility and sense of responsibility personality traits at "effective or high" levels. There was no significant difference found between coaching grade and personality traits. Differences in personality traits in terms of coaching duties on the national team were found for compatibility and sense of responsibility, in favor of national team coaches.

Keywords -: Coach; Personality; National Team Coaching, Coaching Grade,

# I. INTRODUCTION

Personality forms one of the most important and classic sub-fields in psychology and is one of the broadest concepts within psychology [1]. Personality is revealed in reactions and self-expression shown in relationships individuals form in their living environment; that is, everything we say, do, think and feel says something about us. The cohesive whole formed by all these traits is personality [2]. Larsen and Buss defined personality as a cluster of psychological traits. This cluster of traits, along with external forces from one's physical and social environment, interact to form an individual's psychological mechanics, inner world, permanent habits, interpersonal skills, adaptability and thoughts [3].

The notion that human personalities could be distributed into five basic categories began in the 1960s. Towards the end of the 1980s personality psychologists agreed on the "Big Five Factors" as a significant and useful classification [4]. These are extraversion compatibility, responsibility, openness and emotional balance [5, 6, 7, 8, 9).

In the ever more cutthroat climate of competitive athletics, coaches have become increasingly central to athletes' struggle to win. Sports clubs have begun to rate coaches based on various traits they exhibit that are deemed effective in helping athletes achieve their aims. Olympic champions may sometimes be born just because of the right coach, but equally the wrong coach may also be the reason a child with Olympic potential becomes disaffected by sports. Thus, the personality traits of a particular coach may be described as having a significant effect every aspect of the sports management process, from athlete attitudes to team communication. For example, in a study by Onag, Guzel and Ozbey [10], football team unity was shown to improve when knowledgeable coaches communicate effectively, exhibit

strong leadership qualities and provide professional equipment.

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Coaches are described as individuals who scientifically analyze athletes' performance to identify areas that need improvement, then apply their knowledge of the field to help all different types of athletes achieve more within their sport [11]. The primary duty of coaches and sports trainers is to prepare athletes physically, mentally, emotionally and behaviorally for competition [12]. Athletes expect their coaches to have significant technical knowledge, display positive behavior, act ethically, be intelligent, reliable, well-organized, just and helpful, ambitious, investigative, open to different ideas, patient and understanding [13].

A broad range of research has been done in this area, from topics ranging from health-related behaviors of university students [14] to the comparative academic success of women who are and are not athletes [15], to the relationships between perfectionism, narcissism and personality [16]. Though this research may be debated, when the personality traits of athletes have been compared with those of non-athletes, the results have clearly indicated that athletes exhibit higher levels of extraversion and emotional balance [17, 18]. Based on this connection between athletic performance and particular personality traits, the relationship between performance and personality has become a subject of scholarly interest. This relationship has been assessed with reference to age and gender [19]. The personality traits performance, diligence, confidence professionalism, were examined in another study [20]. Personality traits have been evaluated for athletes playing different positions in team sports [21], for footballers in different leagues [22], among wrestlers [23], among athletes of any sport according to gender [24], and for both individual or team sports [25, 26]. Research has not been limited to

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athletes themselves, the personality traits of karate coaches [27] and physical education teachers [28] have also been assessed. In fact, there have also been studies completed on the relationship between behavior management and personality in sports [29].

This study aims to evaluate the personality profiles of Olympic sports coaches in Turkey within the framework of the Five-Factor Personality Model, and to investigate differences within the categories of gender, national team coaching and coaching grade. To achieve these aims the following questions will be pursued: What are the personality profiles of coaches? Are there differences in personality profile by gender? Are there differences in personality profile among coaches with national team experience? Do differences in coaches' personality profiles correspond to coaching grade?

## II. METHODS

# **Participants and Procedure**

The sampling group was determined by the cluster method using random selection methods.

Within Turkey's seven different geographical regions, taking into account population density, accessibility and voluntary participation, 10 provinces were selected from 81. These provinces were Adana (Mediterranean Region), Elazığ (East Anatolia Region), İzmir (Aegean Region), Diyarbakır (Southeast Anatolia Region), Kırıkkale and Sivas (Central Anatolia Region), Samsun and Tokat (Black Sea Region) and Istanbul and Canakkale (Marmara Region). Among the 10 selected provinces anyone with a coaching certification, whether or not they were working in a sports club, was included in the research. Out of a total of 800 surveys, 13 were identified as missing data so were excluded; the final was thus made up of 787 coaches. The mean age of participants was 34.78+8.84 years. Of the 787 coaches comprising the research group, 195 (24.77%) had two or more coaching certifications.

TABLE I. FREQUENCY AND PERCENTAGE DISTRIBUTIONS OF OLYMPIC SPORTS COACHES BY REGION, PROVINCE, GENDER AND COACHING GRADE

Region	n	%	Province	n	%	Gender	n	%	Coaching Grade	n	%
Mammana	252	32	İstanbul	180	22.86						
Marmara	232	32	Çanakkale	72	9.14	Female	178	22.6	First grade	293	37.2
Aegean	99	12.57	İzmir	99	12,57						
Mediterranean	88	11.18	Adana	88	11.18	_			Second grade	313	39.8
Central Anatolia	88	11.18	Kırıkkale	43	5.46	-			TIL: 1	1.50	20.1
			Sivas	45	5.72				Third grade	158	20.1
Black Sea	111	14.10	Tokat	34	4.32	Male	609	77.4	E d 1	1.6	2.0
			Samsun	77	9.78				Fourth grade	16	2.0
Southeast Anatolia	85	10.80	Diyarbakır	85	10.80	_			E:fda anada	7	0.0
East Anatolia	64	813	Elazığ	64	8.13				Fifth grade	7	0.9
Total	787	100	Total	787	100	Total	787	100	Total	787	100

The highest participation was from the Marmara region (32%), with lowest from the East Anatolia region. The highest participation by province came from Istanbul (22.86%) with lowest from Kırıkkale (5.46%). Of participants 22.6% (n=178) were female and 77.4% (n=609) were male. Coaches had coaching certifications at the following grades: 39.8% (n=313) 2nd grade, 37.2% (n=293) 1st grade, 20.1% (n=158) 3rd grade, 2.0% (n=16) 4th grade and 0.9% (n=7) 5th grade.

In the research year of 2015, 55.8% (n=449) of coaches were working individually or with a sports club, while 44.2% (n=348) were not actively coaching. While 16.9% (n=133) had coached national teams, 83.1% (n=653) had not.

Organized by sport, participating coaches were involved in the following distribution of sports: football 23.3% (n=183), basketball 11.8% (n=93), swimming 9.3% (n=73), volleyball 7.9% (n=62), athletics 7.4% (n=58), gymnastics 6.0% (n=47), handball 5.7% (n=45), judo-taekwondo 5.7% (n=45), tennis 5.6% (n=44), wrestling 4.8% (n=38), badminton 4.2% (n=33), table tennis 2.5% (n=20), skiing 1.1% (n=9), boxing 1.0% (n=8), archery 1.1% (n=8), sailing 0.9% (n=7), weight-lifting 0.6% (n=5), cycling 0.5% (n=4), shooting 0.3% (n=2), softball 0.3% (n=2) and bocce 0.1% (n=1).

The research was completed by describing and explaining the current situation. As a result, it employed a survey cross-sectional model within a descriptive research method. The survey cross-sectional model is effective for research on an event within a certain timeframe. This approach attempts to determine the development, or a variety of development periods represented by different groups, observed at a particular point in time. The results are interpreted as though from the same group and assumed to reflect the continuity of development [30].

To apply the data collection instruments used in the research, provincial sports representatives, sports club managers, coaches and physical education teachers were contacted in provinces representing each region. Provincial sports representatives, sports club managers, coaches and physical education teachers stated that they voluntarily supported the research, at which point the necessary information about the research infrastructure was sent. The instruments were sent to provincial sports representatives, sports club managers, coaches and physical education teachers in 10 provinces in ready-to-apply format. The data collection instruments were applied in voluntary face-to-face interviews by the researcher in Canakkale and by provincial sports representatives, sports club managers, coaches and physical education teachers in the other provinces. The applied data collection instruments were then returned to the researcher.

# Instruments

In the research the PERI Personality Inventory and the Coach Data seForm were ud as data collection instruments.

Coach Data Form. The Coach Data Form was created by the researcher and comprised questions to obtain information such as the gender, age, educational level, sports branch, coaching grade, working situation, work with national teams, years of service and branch of sportsmanship of participants.

PERI Personality Inventory. To assess the personality traits of participants, the short form of the PERI Personality Inventory developed by Sevinc [31] was used. The inventory

was developed in accordance with the Five-Factor Personality Model. The five basic personality traits of openness to experience, sense of responsibility, extraversion, compatibility and emotional balance are evaluated. The scale is organized as a 5-point Likert scale and includes a total of 25 statements. The inventory includes five statements relating to each personality trait. For this research the scale was labeled (a) Definitely true, (b) True, (c) Neither true or false (d) False and (e) Definitely false. The Cronbach's alpha value calculated for the inventory varies from 0.70 to 0.88.

The personality dimensions measured by the short version of the PERI personality scale are explained below [31]:

Openness to Experience: This category considers interest in new experiences, discovering unknown and unrecognized things, and traditionalism. A high score indicates creativity, diverse interests and no constant opinions.

Sense of Responsibility: This measures an individual's level of organization, self-motivation, planning and effort. Those who score high in this category do not easily give up when faced with obstacles, pay attention to details, plan their actions and are disciplined.

Extraversion: This measures the amount and intensity of interaction between people. Those who score high in this area enjoy spending time with other people, do not like remaining in the background, pursue their rights to the end, convince others of their opinions, dislike a static life, enjoy recreation and adventure, and are witty and cheerful.

Compatibility: This measures individuals' emotions, thoughts and behavior, together with their compatibility in relationships and tendency to oppose. A high score indicates tendency to approach others with good intentions, guilelessness, altruism, willingness to put the problems of others ahead of their own, willingness to cooperate with others and soft-heartedness.

Emotional Balance: This category measures emotional consistency. Individuals who score high are calm and not anxious, are able to control anger and do display annoyance readily, are optimistic in the face of obstacles, are open to criticism, and do not have difficulty in resisting their desires and wishes.

The obtained data were uploaded to a computer environment and descriptive statistics (mean and standard deviation) were calculated. For data with normal distribution the T test was used for parametric data analysis, while for data with non-normal distribution the Kruskal Wallis test and Mann-Whitney U test were used for non-parametric data analysis. Significance level was accepted as 0.05.

# III. RESULT and DISCUSSION

TABLE II. EVALUATION OF PERSONALITY TRAITS OF COACHES

Personality Traits	n	Min.	Max.	Mean	SD
Openness to experience	787	1.40	5.00	3.73	.624
Extraversion	787	1.00	5.00	3.74	.668
Emotional stability	787	1.00	5.00	3.28	.889
Compatibility	787	1.40	5.00	4.13	.634
Responsibilty consciousness	787	1.00	5.00	4.38	.651

The personality traits participants scored the highest mean points for were sense of responsibility ( $\bar{X}$ =4.38) and compatibility ( $\bar{X}$ =4.13), described as "effective or high" levels, and they appear to display related behavior in most situations. The lowest mean points were for emotional balance ( $\bar{X}$ =3.28), described as "not effective or low" levels.

Participants rarely display the related behavior or are more likely to display negative examples of the behavior. The participants scored ( $\bar{X}$ =3.73) on the trait of openness to experience and ( $\bar{X}$ =3.74) on extraversion, described as "partially effective or circumstantial" levels; they appear to display related behavior in certain situations.

					Mean	Sum of			
Personality Traits	Gender	n	Mean	SD	Rank	Ranks	t	Z	P
Openness to experience **	Female	178	3.73	.659			172		0.62
	Male	609	3.74	.614			173		.863
Extraversion**	Female	178	3.79	.691					.257
	Male	609	3.73	.661			- 1.134		
Emotional stability **	Female	178	3.13	.893			-2.521		.012*
	Male	609	3.32	.884					
G H H H H H	Female	178	4.09	.697			903		
Compatibility **	Male	609	4.14	.614					.367
Responsibilty consciousness ***	Female	178	4.23		356.56	63467.50		-2.40	.011*
	Male	609	4.42		404.94	246610.50			

The results of the T test for differences in personality traits based on gender showed that the Levene equality of variance value was smaller than the p value (F=0.000<p=0.05) only for sense of responsibility, and so the Mann-Whitney U test was performed. For the other four personality traits, the T test was used. The results of the analysis found

significant differences in favor of male coaches for the personality traits of emotional balance (p=0.012<0.05) and sense of responsibility (p=0.01<0.05). There was no significant difference by gender found for the personality traits of openness to experience (p=0.863>0.05), extraversion (p=0.257>0.05) and compatibility (p=0.8367>0.05).

TABLE IV. T TEST AND MANN-WHITNEY U TEST OF THE RELATIONSHIP BETWEEN COACHING DUTIES ON A NATIONAL TEAM AND PERSONALITY TRAITS

	National				Mean	Sum of			
Personality Traits	Team	n	Mean	Sd	Rank	Ranks	t	Z	P
Openness to	Yes	133	3.73	.603			096		.924
experience **	No	654	3.74	.628			090		.924
Extraversion**	Yes	133	3.71	.652			633		.527
	No	654	3.75	.672					.521
Emotional stability **	Yes	133	3.39	.874			1.627	-	.104
	No	654	3.26	.891					.104
Compatibility **	Yes	133	4.23	.573			2.107		.035*
	No	654	4.11	.644					.033
Responsibilty consciousness ***	Yes	133	4.54		444.80	59159	2.0	-2.874	.004*
	No	654	4.35		383.67	250919	-2.8/4		.004

The results of the T test for differences in personality traits based on participants' work with a national team showed that only for sense of responsibility was the Levene equality of variance value smaller than the P value (F=0.000 < P=0.05), and as a result the Mann-Whitney U test was performed. For the other four personality traits the T test was used. The results of the analysis found significant differences

in favor of coaches working with national teams for the personality traits of sense of responsibility (P=0.004<0.05) and compatibility (P=0.012<0.035). There was no significant difference found for the personality traits of openness to experience (P=0.924>0.05), extraversion (P=0.527>0.05)and emotional balance (P=0.104>0.05).

Personality Traits	Coaching Grade	n n	Mean	Mean Rank	X <sup>2</sup>	df	P P
	First level	293	3.77	403.16			
		313	3.68	375.12	6.439	4	.169
	Second level	158	2.70	411.02			
Openness to experience	Third level	158	3.79	411.93			
		16	3.65	360.31			
	Fourth level	7	4.11	527.14			
	Fifth level						
	First level	293	3.80	416.96			
	riist ievei	313	3.71	381.56			
	Second level						
Extroversion	Third level	158	3.72	384.14	7.685	4	.104
		16	3.70	381.66			
	Fourth level	7	3.07	237.64			
	Fifth level	/	3.07	237.04			
	First level	293	3.29	396.35			
		313	3.22	383.39			
	Second level						
Emotional stability	Third level	158	3.34	405.28	1.786	4	.775
stability	Fourth level	16	3.47	438.38			
		7	2 22	412.02			
	Fifth level	/	3.33	413.93			
		293	4.10	384.44			
	First level	313	4.12	390.81			
	Second level	313	4.12	370.61			
Compatibility	Third level	158	4.19	414.04	2.878	4	.578
	Third level	16	4.16	395.25			
	Fourth level						
	Fifth level	7	4.37	481.57			
		293	4.36	380.22			
	First level	313	4.36	394.21			
	Second level	313	4.30	374.21			
Responsibilty	Third level	158	4.43	404.32	7.838	4	.098
consciousness	Fourth level	16	4.61	456.69		-	1370
	Fifth level	7	4.85	585.43			

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Participants had a heterogeneous distribution in terms of coaching grade. As a result, to determine differences in personality traits according to coaching grade the Kruskall Wallis test was used. There was no significant difference found for the coaching grade of coaches of Olympic sports branches in terms of the personality traits of openness to experience (p=0.169>0.05), extraversion (p=0.104>0.05), emotional balance (p=0.775>0.05), compatibility (p=0.578>0.05) and sense of responsibility (p=0.098>0.05).

# **III.DISCUSSION**

When the personality traits of participants are assessed, the highest scores were recorded for the personality trait of sense of responsibility, or "effective or high" levels. Thus coaches are described as individuals who do not give up when faced with difficulties, who pay attention to details, act with planning, and are disciplined. The personality trait of compatibility, described as people who think of others, are helpful and agreeable, was recorded at "effective or high" levels. The emotional balance personality trait was held at "not effective or low" levels; respondents described themselves as being insufficiently optimistic, easily annoyed and having high anxiety levels. Similar results, with the lowest points being for the personality trait of emotional balance, were recorded in another study assessing the personality traits of physical education teachers [28]. The personality traits of extraversion and openness to experience were at "partially effective or circumstantial" levels, and participants appear to display the related behavior in certain situations. Thus they appear to be individuals who produce new ideas, have varied interests, are creative, social, find it easy to communicate and do not have fixed ideas. Another study, which evaluated the personality traits of coaches and managers in football clubs, found that participants recorded high scores for extraversion [32]. Also, studies of swimmers [33], physical education teachers [34], basketball players [35] and footballers [36] recorded similar results

Significant differences in personality traits by gender were found for the categories of emotional balance and sense of responsibility. The results were in favor of male coaches, indicating they are more detail-oriented, less likely to give up in the face of difficulties, that they plan effectively and are disciplined, have lower anxiety levels, and are calmer and more optimistic than female coaches. This finding supports the results of a study by Noemi, Agota and Krisztina [19], who found significant differences in personality traits according to gender, as well as those of studies measuring differences in personality traits between male and female athletes in different branches of sport [21, 37, 24]. Other research has also found significant differences between the genders in terms of extraversion, emotional balance and compatibility, while no differences were found for openness to experience and sense of responsibility [38]. Regarding differences in personality traits according to gender, studies have found no significant differences among physical education teachers [28, 39], karate coaches [27], weightlifters [40] and athletes in different branches of sport [19].

Differences in personality traits in terms of coaching duties on the national team were found for compatibility and sense of responsibility, in favor of national team coaches. That is, national team coaches are found to pay more attention to detail, plan more, be more disciplined, think of others more, and be more helpful and agreeable. The results obtained in a study of national and non-national athletes found that the personality traits of confidence, decisiveness and will to succeed affected athletes' performance at the national level [41]. A different study found that among athletes competing in national and international competitions, athletes at regional competitions had lower emotional balance points but higher points for sense of responsibility and compatibility [42].

There was no significant difference found between coaching grade and personality traits, meaning that the personality trait points of first grade coaches and fifth grade coaches are similar. It had been thought that the results would be lowest for fourth and fifth grade coaches. Research evaluating the personality traits of karate coaches according to grade had similar results [27]. A certain number of years of service are necessary to advance between coaching grades, creating a direct correlation between coaching grade and vears of service. A study evaluating the personality traits of physical education teachers according to years of service found a significant difference for the traits of extraversion and emotional balance, but no significant difference in terms of sense of responsibility, compatibility and openness to experience [28]. However, research assessing the personality traits of physical education teachers, coaches and athletes found a significant difference among those under 21 years of age [19]

### IV. CONCLUSION

In summary, Olympic sports branch coaches scored lowest for the personality trait of emotional balance, describing themselves as insufficiently optimistic, easily annoyed and with high anxiety levels. However, patience, optimism and limited anxiety are characteristics that are expected of coaches, so these perceived shortcomings could be the cause of psychological and pedagogical problems on teams. For example, athletes who have difficulty learning a skill in training will be negatively affected by an anxious or nervous response from coaches. In order to counteract this, coaches are recommended to participate in anger management, anxiety management and positive thinking training, and to be made aware of the importance of these traits in the performance of their professional duties. Coaches rated themselves highest in compatibility and sense of responsibility, meaning they do not give up easily in the face of difficulty, they pay attention to detail, plan effectively, are disciplined, think of others, are they are helpful and agreeable. An emphasis on these personality traits is also recommended. Male Olympic sports branch coaches pay more attention to detail, do not give in to difficulty as quickly, plan more, are more disciplined, have lower anxiety levels, and are calmer and more optimistic than female coaches. Coaches with duties on the national team pay more attention to detail, plan more and are more disciplined; they also think of others and are helpful and agreeable. Thus, in addition to the criteria defined by the national team coaches themselves as key to their work, traits that need to be reinforced are to not give in to difficulty as quickly, plan more, be more disciplined, display less anxiety, and be calmer and more optimistic. There was no difference observed in personality traits according to coaching grade. For this reason it is thought that the first and second coaching

grades are dominant. Only by studying the relationship between personality traits and coaching grade might different results be obtained.

### V. ACKNOWLEDGMENT

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