

Research Paper

## Beyond Physical Ability: How Personality and Cognitive Flexibility Shape Decision-Making in Competitive Sports

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### ABSTRACT

During the last few years, there has been a growing interest amongst researchers in examining the psychological aspects behind an athlete's thought processes, behaviour, and performance. The present study examines the relationship between personality, cognitive flexibility, and the style of decision-making amongst university athletes, with the aim of understanding how these psychological factors influence athletic performance and coping mechanisms under competitive conditions. A total of 172 athletes (86 males and 86 females), aged 18–24 years, participated in the study. Data were collected using standardized self-report measures, including the Big Five Inventory, the Decision Style Questionnaire, and the Cognitive Flexibility Inventory. The Independent samples t-test results demonstrated clear psychological differences between team and individual athletes in mean scores. Team athletes scored higher on agreeableness, conscientiousness, and openness, and also showed a greater inclination toward avoidant decision-making. However, individual athletes showed a tendency toward more dependent decision-making. The results of correlation analysis revealed that alternative cognitive flexibility is positively correlated with vigilant and confident decision-making regardless of the type of athletes. In individual athletes, high levels of personality traits corresponded to low levels of dependency and intuition in decision-making. On the contrary, in team athletes, personality traits positively correlate with avoidance and anxiety in decision-making. It can be concluded that personality traits and cognitive flexibility should be taken into account in coaching to improve decision-making and eliminate anxiety in athletes.

**Keywords:** *Cognitive Flexibility, Decision-Making Styles, Individual Athletes, Personality Traits, Team Athletes*

Performance in competitive sports is influenced not only by physiological capabilities but also by psychological factors, particularly those affecting decision-making and cognitive flexibility.

Personality is the key characteristic that lasts the longest in a human being, and it has a big impact on almost everything we do. Besides, personality changes other mental factors. It is

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said to be "the set of psychological features that make a person's emotional, reasoning, and responding patterns their persistent and unique ones" (Pervin & Cervone, 2010, p. 8). When talking about sport, personality is very important to athletes as it determines their performance, how they handle stress, and how they meet the challenge of a competitive environment. Studies show that personality may well decide which sports an individual will be drawn to and their level of success in those sports. Traits such as agreeableness, conscientiousness, and openness are associated with better performance under competitive conditions, as they promote discipline, cooperation, and adaptability. At the same time, variations in neuroticism are linked with anxiety and emotional instability, which can affect performance outcomes (Barrett et al., 2016). The general profile of athletes in terms of the Big Five five-factor personality model (McCrae & Costa, 2003) is low neuroticism, high extroversion and conscientiousness, and average openness to experience and agreeableness (Fuller, 2011; Mirzaei et al., 2013; Paunonen, 2003; Piedmont et al., 1999; Piepiora & Kaśków, 2019; Piepiora et al., 2018; Shrivastaval et al., 2010; Watson & Pulford, 2004). Individuals with high cognitive flexibility are more likely to perceive difficult situations as manageable, analyze problems from multiple viewpoints, and develop effective solutions. Furthermore, cognitive flexibility supports the reconstruction of knowledge when individuals encounter new information or experiences (Spiro & Jehng, 1990; Spiro et al., 1992).

Cognitive flexibility refers to the ability to adapt thinking and behavior in response to changing situations (Cañas et al., 2003). For instance, people demonstrate cognitive flexibility when they can alter their points of view, change their plans and strategies, and react to new and complicated problems appropriately. The ability is critical to success in studies, careers, and personal life. Cognitive flexibility comprises two main elements, namely alternative flexibility and control flexibility. Alternative cognitive flexibility concerns the capability to come up with various solutions and take into account several views. On the other hand, control cognitive flexibility relates to the regulation of thoughts and emotions under complicated circumstances (Dennis & Vander Wal, 2010). Persons who are cognitively flexible tend to view difficult conditions as controllable, analyze issues from diverse angles, and devise appropriate strategies for solving them. In addition, cognitive flexibility facilitates the reconstruction of knowledge by individuals who come across new data or situations. (Spiro & Jehng, 1990; Spiro et al., 1992).

Decision-making is the cognitive process by which individuals evaluate options and select the most suitable course of action for specific situations. A decision-making style is a consistent approach people use when making choices (Scott & Bruce, 1995). These styles evolve over time, shaped by personality traits, prior experiences, cognitive abilities, and situational demands. The effectiveness of decision-making processes significantly impacts outcomes, both in everyday situations and in high-performance domains such as sports (Kahneman & Tversky, 1979). In sports, athletes are required to make rapid decisions under dynamic and time-pressured conditions. Different decision-making styles are observed across various sports and levels of expertise. Developing expertise is essential for effective decision-making in sports environments (Ericsson & Lehmann, 1996). Additionally, leadership styles, such as autocratic and democratic approaches, influence decision-making processes and subsequently affect team coordination and performance (Chelladurai, 1990).

However, limited research has examined the combined influence of personality, cognitive flexibility, and decision-making in sports, particularly between team and individual athletes.

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Therefore, this study aims to investigate these relationships and examine differences between the two groups. It is hypothesized that significant differences will exist and that these variables will be significantly interrelated.

### METHODOLOGY

**Design:** The study has followed a survey-based cross-sectional research design.

#### *Sample*

A total of 172 athletes (86 males and 86 females), aged between 18 and 24 years, have been selected using purposive sampling. Participants were drawn from both team and individual sports.

#### *Setting*

The study has been conducted at the MYAS-GNDU Department of Sports Sciences and Medicine, GNDU, Amritsar, Punjab.

#### *Measures and Procedure*

Each participant has been given the following standardized questionnaires after providing their informed consent:

- Decision Style Questionnaire (Leykin & DeRubeis, 2010)
- Big Five Inventory (John and Srivastava, 1998)
- Cognitive Flexibility Inventory (Dennis and Vander Wal, 2010)

All participants completed the survey in a single session under supervision. A 30 minutes break has been given to all participants between each test. All responses were kept confidential.

#### *Statistical Analysis*

The acquired data have been compiled and analyzed using SPSS software. Statistical methods that include descriptive and inferential analysis, such as computation of mean, t-test, and Pearson's correlation test were applied for evaluating associations between the chosen variables in relation to the objectives of the study. Scoring has been conducted according to the respective standardized manuals, and appropriate statistical techniques are employed for interpretation. In relation to the objectives of the study, scoring has been conducted according to the respective standardized manuals, and appropriate statistical techniques are employed for interpretation.

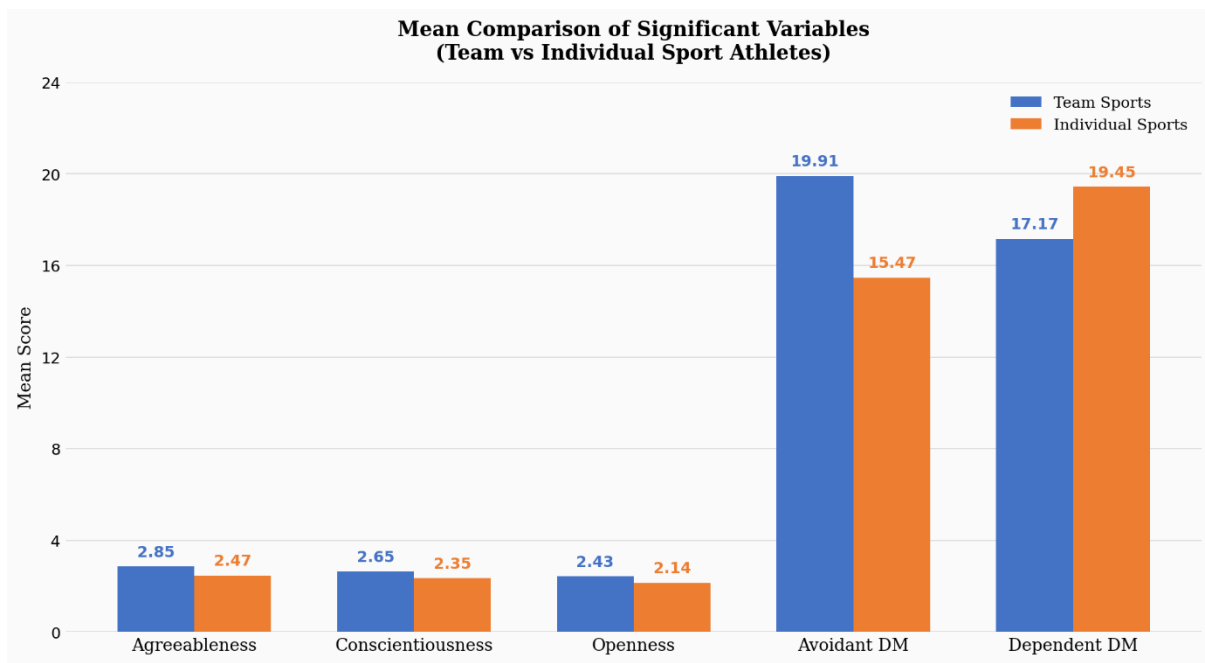
### RESULTS

*Table 1: Mean, Standard Deviation and T-Test Values of Team and Individual Athletes*

Variables	Team (n=86)		Individual (n=86)		t	p
	M	SD	M	SD		
<b>Big Five Personality Traits</b>						
Agreeableness	2.85	0.82	2.47	0.62	3.44	.001*
Conscientiousness	2.65	0.87	2.35	0.67	2.57	.011*
Openness	2.43	0.90	2.14	0.79	2.21	.028*
<b>Decision-Making Styles</b>						
Avoidant	19.91	13.41	15.47	7.04	2.72	.007*
Dependent	17.17	6.19	19.45	4.74	2.71	.007*

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The results show significant differences are observed between team and individual athletes in terms of personality traits and decision-making styles. The mean score for team sports athletes score higher in agreeableness ( $M = 2.85$ ) than individual sports athletes ( $M = 2.47$ ;  $p = 0.001$ ), conscientiousness ( $M = 2.65$  vs.  $2.35$ ;  $p = 0.011$ ), and openness ( $M = 2.43$  vs.  $2.14$ ;  $p = 0.028$ ). No significant differences were observed in extraversion and neuroticism between the two groups ( $p > 0.05$ ). As for decision-making styles, team sports athletes show higher avoidant decision-making ( $M = 19.91$ ) than individual athletes ( $M = 15.47$ ;  $p = 0.007$ ), whereas individual sports athletes score higher in dependent decision-making ( $M = 19.45$ ) than team sports athletes ( $M = 17.17$ ;  $p = 0.007$ ). No significant differences were found in vigilant, intuitive, anxious decision-making styles, and decisional self-esteem variables ( $p > 0.05$ ). No significant differences were observed between team and individual athletes in alternative and control cognitive flexibility ( $p > 0.05$ ).



**Figure-1: Mean comparison of sub-dimension of scale BFI, DMS & CFI between team sports and individual sports athletes**

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**Table 2: Inter-Correlation of Personality, Cognitive Flexibility & Decision-Making Styles among Individual Athletes (N=86)**

		Extraversion Prsnlty	Agreeableness Prsnlty	Conscientiousness Prsnlty	Neuroticism Prsnlty	Openness Prsnlty	Alternative Cognitive Flexibility	Control Cognitive Flexibility	Respected Dcsnal Self Esteem	Confident Dcsnal Self Esteem	Dependent Dcsn Making Styles	Vigilant Dcsn Making Styles	Avoidant Dcsn Making Styles	Intuitive Dcsn Making Styles	Anxious Dcsn Making Styles	Age
Extraversion Prsnlty	Pearson Correlation	1														
	Sig. (2-tailed)															
Agreeableness Prsnlty	Pearson Correlation	.647**	1													
	Sig. (2-tailed)	0														
Conscientiousness Prsnlty	Pearson Correlation	.575**	.639**	1												
	Sig. (2-tailed)	0	0													
Neuroticism Prsnlty	Pearson Correlation	.608**	.556**	.604**	1											
	Sig. (2-tailed)	0	0	0												
Openness Prsnlty	Pearson Correlation	.670**	.593**	.610**	.424**	1										
	Sig. (2-tailed)	0	0	0	0											
Alternative Cognitive Flexibility	Pearson Correlation	-.332**	-.312**	-.354**	-.201	-.619**	1									
	Sig. (2-tailed)	0.002	0.003	0.001	0.063	0										
Control Cognitive Flexibility	Pearson Correlation	-0.04	0.118	-0.027	0.157	-0.195	0.046	1								
	Sig. (2-tailed)	0.712	0.279	0.802	0.15	0.072	0.674									
Respected Dcsnal Self	Pearson Correlation	-.271*	-0.155	-.317**	-.260*	-.302**	.250*	.299**	1							
	Sig. (2-tailed)	0.012	0.155	0.003	0.016	0.005	0.02	0.005								
Confident Dcsnal Self	Pearson Correlation	-.297**	-0.118	-.241*	-0.178	-.341**	.385**	.430**	.445**	1						
	Sig. (2-tailed)	0.005	0.278	0.025	0.101	0.001	0	0	0							
Dependent Dcsn Making	Pearson Correlation	-.322**	-.310**	-.396**	-.361**	-.396**	.265*	0.058	.415**	.221*	1					
	Sig. (2-tailed)	0.003	0.004	0	0.001	0	0.014	0.598	0	0.04						
Vigilant Dcsn Making	Pearson Correlation	-.259*	-.255*	-.232*	-0.183	-.522**	.415**	.242*	.467**	.431**	.414**	1				
	Sig. (2-tailed)	0.016	0.018	0.032	0.092	0	0	0.025	0	0	0					
Avoidant Dcsn Making	Pearson Correlation	0.045	0.139	0.129	-0.176	0.185	-0.209	-.273*	-0.121	-0.126	-0.051	-0.006	1			
	Sig. (2-tailed)	0.678	0.202	0.237	0.105	0.089	0.054	0.011	0.267	0.248	0.638	0.957				
Intuitive Dcsn Making	Pearson Correlation	-.391**	-.364**	-.328**	-.290**	-.391**	.229*	0.059	.399**	.394**	.430**	.504**	0.113	1		
	Sig. (2-tailed)	0	0.001	0.002	0.007	0	0.034	0.591	0	0	0	0	0.301			
Anxious Dcsn Making Styles	Pearson Correlation	-.295**	-.335**	-0.098	-.328**	-0.031	-0.122	-.534**	-0.187	-.333**	0.005	-0.088	.328**	.249*	1	
	Sig. (2-tailed)	0.006	0.002	0.371	0.002	0.776	0.263	0	0.085	0.002	0.966	0.418	0.002	0.021		
Age	Pearson Correlation	-0.005	-0.002	-0.034	0.097	0.056	0.027	.245*	0.103	0.066	-0.067	0.056	-0.012	-0.081	-.227*	1
	Sig. (2-tailed)	0.967	0.984	0.753	0.376	0.607	0.808	0.023	0.344	0.548	0.537	0.606	0.91	0.459	0.036	

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

The table shows that among individual sport athletes, openness shows strong positive correlations with extraversion (.670), conscientiousness (.610), and agreeableness (.593), Extraversion is also significantly correlated with agreeableness (.647), neuroticism (.608), and conscientiousness (.575). Alternative cognitive flexibility shows a strong negative correlation with openness (-.619). Dependent decision-making is negatively associated with openness, conscientiousness, extraversion, and agreeableness (ranging from -.310 to -.396), Intuitive decision-making also shows negative correlations with these personality traits (ranging from -.328 to -.391). Vigilant decision-making has also shown a positive correlation with alternative cognitive flexibility (.415). Anxious decision-making has been negatively associated with age (-.227), control cognitive flexibility (-.534), and extraversion (-.295).

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**Table 3: Inter-Correlation of Personality, Cognitive Flexibility & Decision Making Styles among Team Athletes (N=86)**

		Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness	Alternative Cognitive Flexibility	Control Cognitive Flexibility	Respected Desnal Self Esteem	Confident Desnal Self Esteem	Dependent Desn Making Styles	Vigilant Desn Making Styles	Avoidant Desn Making Styles	Intuitive Desn Making Styles	Anxious Desn Making Styles	Age
Extraversion Personality	Pearson Correlation	1														
	Sig. (2-tailed)															
Agreeableness Personality	Pearson Correlation	0.02	1													
	Sig. (2-tailed)	0.858														
Conscientiousness Personality	Pearson Correlation	0.177	<b>.370**</b>	1												
	Sig. (2-tailed)	0.103	0													
Neuroticism Personality	Pearson Correlation	<b>.234*</b>	0.066	<b>.293**</b>	1											
	Sig. (2-tailed)	0.03	0.545	0.006												
Openness Personality	Pearson Correlation	<b>.458**</b>	<b>.216*</b>	<b>.407**</b>	<b>.251*</b>	1										
	Sig. (2-tailed)	0	0.046	0	0.02											
Alternative Cognitive Flexibility	Pearson Correlation	-0.071	-0.062	0.122	-0.05	-0.087	1									
	Sig. (2-tailed)	0.518	0.573	0.263	0.647	0.425										
Control Cognitive Flexibility	Pearson Correlation	0.143	-0.137	-0.1	-0.067	-0.071	0.116	1								
	Sig. (2-tailed)	0.19	0.208	0.358	0.542	0.515	0.287									
Respected Desnal Self Esteem	Pearson Correlation	0.009	0.173	0.164	<b>.221*</b>	0.177	-0.019	-0.106	1							
	Sig. (2-tailed)	0.935	0.112	0.132	0.041	0.103	0.859	0.33								
Confident Desnal Self Esteem	Pearson Correlation	-0.107	0.046	0.091	0.007	-0.02	<b>.303**</b>	0.13	-0.02	1						
	Sig. (2-tailed)	0.328	0.672	0.407	0.952	0.855	0.005	0.233	0.853							
Dependent Desn Making Styles	Pearson Correlation	-0.057	<b>-.284**</b>	<b>-.326**</b>	-0.069	-0.157	0.165	0.068	-0.134	<b>.244*</b>	1					
	Sig. (2-tailed)	0.601	0.008	0.002	0.526	0.149	0.129	0.533	0.22	0.024						
Vigilant Desn Making Styles	Pearson Correlation	-0.138	<b>-.389**</b>	<b>-.238*</b>	-0.06	-0.109	<b>.290**</b>	0.165	-0.161	<b>.351**</b>	<b>.469**</b>	1				
	Sig. (2-tailed)	0.204	0	0.027	0.586	0.316	0.007	0.128	0.14	0.001	0					
Avoidant Desn Making Styles	Pearson Correlation	<b>.404**</b>	<b>.283**</b>	<b>.384**</b>	0.148	<b>.596**</b>	-0.022	-0.209	0.178	-0.025	<b>-.392**</b>	-0.21	1			
	Sig. (2-tailed)	0	0.008	0	0.175	0	0.837	0.054	0.102	0.817	0	0.053				
Intuitive Desn Making Styles	Pearson Correlation	-0.125	-0.101	-0.122	0.084	-0.018	0.068	-0.045	0.168	0.192	<b>.285**</b>	<b>.311**</b>	-0.03	1		
	Sig. (2-tailed)	0.25	0.356	0.262	0.442	0.872	0.535	0.682	0.122	0.077	0.008	0.004	0.786			
Anxious Desn Making Styles	Pearson Correlation	<b>.232*</b>	-0.075	<b>.235*</b>	-0.095	<b>.388**</b>	0.198	-0.14	<b>.273*</b>	0.058	-0.035	0.091	<b>.335**</b>	0.172	1	
	Sig. (2-tailed)	0.031	0.494	0.029	0.386	0	0.067	0.198	0.011	0.597	0.751	0.405	0.002	0.113		
Age	Pearson Correlation	0.024	0.071	0.098	0.111	-0.006	0.061	0.048	0.207	0.006	-0.054	-0.004	0.067	0.065	0.085	1
	Sig. (2-tailed)	0.823	0.515	0.371	0.309	0.956	0.576	0.658	0.056	0.957	0.623	0.973	0.537	0.55	0.437	

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

The table has shown that among team sport athletes, openness has been positively correlated with extraversion (.458), conscientiousness (.407), and neuroticism (.251). Conscientiousness has been positively associated with agreeableness (.370) and neuroticism (.293), while extraversion has also been correlated with neuroticism (.234). Confident decisional self-esteem and vigilant decision-making have shown positive correlations with alternative cognitive flexibility (.303 and .290), Dependent decision-making has been negatively associated with conscientiousness (-.326) and agreeableness (-.284). Avoidant decision-making shows strong positive correlations with openness (.596), extraversion (.404), and conscientiousness (.384). Intuitive decision-making has been positively correlated with dependent decision-making (.285). Anxious decision-making has also been positively correlated with openness (.388) and extraversion (.232)

## DISCUSSION

The results are further interpreted as following:

### *Means of comparison for Individuals and Team sports*

The present study examines the relationship between personality traits, cognitive flexibility, and decision-making styles among university-level athletes, with a focus on differences between team and individual sports. According to the results of the independent sample t-test, individual athletes have high levels of dependent decision-making (Mean = 19.45, SD = 4.74), while team athletes have low levels (Mean = 17.17, SD = 6.19;  $t = 2.71$ ,  $p = 0.007$ ). However, team athletes exhibit high levels of avoidant decision-making (Mean = 19.91, SD = 13.41), while individual athletes have low levels (Mean = 15.47, SD = 7.04;  $t = 2.72$ ,  $p = 0.007$ ).

These differences can be explained by the different demands that individual and team sports place on athletes. In individual sports, the athlete is fully responsible for their own performance. So they would like to take the opinion of their coach, follow a set plan, and seek social support while making decisions. In team sports, however, decisions are shared among players, so an individual cannot make decisions that affect the whole team. Thus, team athletes often avoid making quick decisions. These findings align with previous research, which shows that team athletes score higher in agreeableness a trait associated with cooperation, harmony, and conflict avoidance, which aligns with avoidant decision tendencies in group settings (Allen et al., 2013). Moreover, decision-making in team sports occurs under conditions of high uncertainty, time pressure, and dynamic interaction, which increases cognitive pressure and reinforces delayed or avoidant responses (Ashford et al., 2021). Additionally, decision-making styles are a stable pattern. Dependent decision-making involves seeking guidance from others, while avoidant decision-making involves delaying or evading decisions under pressure. In this study, individual athletes show greater reliance on external input, whereas team athletes display higher decision avoidance due to shared responsibility (Leykin & DeRubeis, 2010).

### *Inter-correlation of individual and team sports on all measured variables*

#### **Individual Sports**

The correlational analysis reveals that individual sport athletes have significant positive correlation between openness with extraversion, conscientiousness and agreeableness ( $r = .59$  to  $.67$ ), and extroversion with agreeableness, neuroticism and conscientiousness ( $r = .57$  to  $.65$ ). The results indicate athletes who are open to new experiences tend to be more active, disciplined, reflective, adaptable, cooperative, and socially comfortable, which enhances their self-regulation and effective functioning in competitive situations.

There is a negative relationship between alternative cognitive flexibility and openness ( $r = -.619$ ). This suggests that athletes who score high in openness tend to rely more on their instincts and past experiences rather than considering different choices. In fast-paced sports, athletes often do not have time to weigh all options, so they depend on instinct to act quickly. Dennis and Vander Wal (2010) support this idea, explaining that cognitive flexibility means being able to change thinking styles, not necessarily always generating lots of alternatives.

Dependent and Intuitive decision-making styles have shown significant negative correlations with openness and conscientiousness ( $r = -.31$  to  $-.39$ ). This suggests that athletes who are

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more confident, responsible and socially active are less likely to depend on others or make intuitive decisions. Instead, they are more self-reliant. It shows in individual sports, athletes with stronger personality traits tend to rely less on others and make more independent decisions. This finding is supported by previous research, which shows that openness is negatively associated with dependent decision-making, and conscientiousness is linked with more controlled and effective decision styles (El Othman et al., 2020).

Vigilant decision-making significantly correlates positively with alternative cognitive flexibility ( $r = .415$ ) indicating that athletes who can think flexibly are better at making careful, logical decisions. Flexible thinking helps them to adjust quickly and choose the best option under pressure. Similarly, a more recent study by Küçükkelepçe et al. (2026) reported that individuals with higher cognitive flexibility tend to use more careful and controlled decision-making styles, while avoiding poor or impulsive decisions.

Finally, anxious decision-making is significantly negatively related to age, cognitive flexibility, and extraversion ( $r = -.23$  to  $-.53$ ). This interprets that matured athletes feel less stress while making decisions. They become more confident and less afraid of making mistakes that helps them to stay calm under pressure. This finding is supported by Shanmugarajah et al. (2025), that revealed improving cognitive flexibility significantly reduces anxiety levels and manages stress and emotional pressure effectively.

### **Team Sports**

The results among team sport athletes show that various personality traits are moderately interrelated ( $r = .23$  to  $.46$ ) i.e. traits like openness, extraversion, and conscientiousness tend to develop together in a team environment. In team sports, constant interaction, communication, and shared goals develop athletes to be socially active as well as disciplined and adaptable. This pattern is consistent with the Big Five framework proposed by Costa and McCrae (1992) that suggests personality traits work together rather than independently.

Confident decisional self-esteem and vigilant decision-making show positive relationship correlations with cognitive flexibility ( $r = .29$  to  $.30$ ), indicating that athletes who have cognitive adaptability tend to be more confident and take more careful decisions. Flexible thinking helps them adjust to teammates' actions and changing game situations. This is supported by Dennis and Vander Wal (2010) found that cognitive flexibility improves the ability to evaluate different options and make effective decisions.

Dependent decision-making shows significant negative relationships with conscientiousness and agreeableness ( $r = -.28$  to  $-.33$ ) reveal that responsible and cooperative athletes are less likely to rely on others while making decisions. Even in team sports, players with stronger personality traits tend to take personal responsibility. In support of my results, El Othman et al. (2020) found that conscientious individuals prefer more controlled and independent decision-making styles.

Avoidant decision-making shows strong positive significant correlations with openness, extraversion, and conscientiousness ( $r = .38$  to  $.59$ ). In team settings athletes are in the situation in which they have to make a decision that affects the whole team. In some situations, they delay or avoid decisions due to overthinking, social pressure, or fear of making mistakes that affect the whole team. Intuitive decision-making is also positively

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related to dependent decision-making ( $r = .285$ ), indicating that athletes who rely on others may also depend more on quick, less analytical judgments.

Finally, anxious decision-making is positively associated with openness and extraversion ( $r = .23$  to  $.39$ ) reveal that more socially active and emotionally expressive athletes experience higher pressure in team situations. In team sports, expectations from teammates and performance demands can increase stress during decision-making.

### CONCLUSIONS

The outcomes of this study show the significance of taking into account psychological aspects like personality features and cognitive flexibility when studying decision-making among athletes. The outcomes imply that coaches need to pay attention to the distinctions between team and individual athletes during coaching sessions and training exercises. Psychological skills training, specifically improving cognitive flexibility and decision-making adaptability, might lead to better results.

### REFERENCES

- Allen, M. S., Greenlees, I., & Jones, M. (2013). Personality in sport: A comprehensive review. *International Review of Sport and Exercise Psychology*, 6(1), 184–208. <https://doi.org/10.1080/1750984X.2013.769614>
- Ashford, M., Abraham, A., & Poolton, J. (2021). Understanding decision-making in sport: A review. *International Review of Sport and Exercise Psychology*. <https://doi.org/10.3390/sports9050065>
- Barrett, J. L., Eason, C. M., Lazar, R. A., & Mazerolle, S. M. (2016). Personality traits and burnout among athletic trainers employed in the collegiate setting. *Journal of Athletic Training*, 51(6), 454–459. <https://doi.org/10.4085/1062-6050-51.7.08>
- Cañas, J. J., Quesada, J. F., Antolí, A., & Fajardo, I. (2003). Cognitive flexibility and adaptability to environmental changes in dynamic complex problem-solving tasks. *Ergonomics*, 46(5), 482–501. <https://doi.org/10.1080/0014013031000061640>
- Chelladurai, P. (1990). Leadership in sports: A review. *International Journal of Sport Psychology*, 21, 328–354.
- Conner, M., & Abraham, C. (2001). Conscientiousness and health behavior. *Personality and Social Psychology Bulletin*, 27(11), 1547–1561. <https://doi.org/10.1177/01461672012711014>
- Costa, P. T., Jr., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO PI-R) and NEO Five-Factor Inventory (NEO-FFI) professional manual*. Psychological Assessment Resources.
- Coulter, T. J., Mallett, C. J., & Singer, J. A. (2015). A subculture of mental toughness in elite sport. *Psychology of Sport and Exercise*, 20, 98–107. <https://doi.org/10.1016/j.psychsport.2015.04.003>
- De Fruyt, F., Van De Wiele, L., & Van Heeringen, C. (2004). Personality and sport participation. *Personality and Individual Differences*, 36(8), 1813–1825. <https://doi.org/10.1016/j.paid.2003.07.004>
- Dennis, J. P., & Vander Wal, J. S. (2010). The Cognitive Flexibility Inventory: Instrument development and estimates of reliability and validity. *Cognitive Therapy and Research*, 34(3), 241–253. <https://doi.org/10.1007/s10608-009-9276-4>
- Ericsson, K. A., & Lehmann, A. C. (1996). Expert and exceptional performance: Evidence of maximal adaptation to task constraints. *Annual Review of Psychology*, 47, 273–305. <https://doi.org/10.1146/annurev.psych.47.1.273>

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- Fuller, J. R. (2011). Sport and personality. *Journal of Sports Science & Medicine*, 10(2), 285–290.
- Goldberg, L. R. (1990). An alternative description of personality: The Big-Five factor structure. *Journal of Personality and Social Psychology*, 59(6), 1216–1229. <https://doi.org/10.1037/0022-3514.59.6.1216>
- John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102–138). Guilford Press.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263–292.
- Kardum, I., & Polić, M. (2012). Cognitive flexibility and decision-making competence. *Psychological Topics*, 21(2), 211–230.
- Küçükkeleşçi, D. S., Maraşlı, İ., & Mir, S. K. (2026). The relationship between cognitive flexibility and decision-making styles of midwifery and nursing students. *BMC Medical Education*, 26, 410. <https://doi.org/10.1186/s12909-026-08734-6>
- Leykin, Y., & DeRubeis, R. J. (2010). Decision-making styles and depressive symptoms: Development of the Decision Styles Questionnaire. *Judgment and Decision Making*, 5(7), 506–515.
- Mahajan, D., & Kapur, S. (2023). An exploratory factor analysis examining psychological correlates among females. *Bangladesh Journal of Medical Science*. <https://doi.org/10.3329/bjms.v22i20.6631>
- McCrae, R. R., & Costa, P. T., Jr. (2003). *Personality in adulthood: A five-factor theory perspective* (2nd ed.). Guilford Press.
- Mirzaei, A., Nikbakhsh, R., & Sharififar, F. (2013). The relationship between personality traits and sport performance. *International Journal of Sport Studies*, 3(3), 337–342.
- Paunonen, S. V. (2003). Big Five factors of personality and replicated predictions of behavior. *Journal of Personality and Social Psychology*, 84(2), 411–424. <https://doi.org/10.1037/0022-3514.84.2.411>
- Piedmont, R. L., Hill, D. C., & Blanco, S. (1999). Predicting athletic performance using the Five-Factor Model of personality. *Personality and Individual Differences*, 27(4), 769–777. [https://doi.org/10.1016/S0191-8869\(98\)00280-3](https://doi.org/10.1016/S0191-8869(98)00280-3)
- Piepiora, P., & Kaśków, W. (2019). Personality traits of athletes in individual and team sports. *Journal of Education, Health and Sport*, 9(9), 394–403.
- Piepiora, P., Migasiewicz, J., & Witkowski, K. (2018). The personality profile of athletes practising endurance sports. *Journal of Education, Health and Sport*, 8(6), 124–136.
- Raab, M. (2007). Think SMART, not hard: A review of teaching decision-making in sport. *International Journal of Sport and Exercise Psychology*, 5(2), 111–121.
- Riaz, M. N., Ahmed, M. A., & Akram, U. (2012). Personality traits as predictors of decision-making styles among university students. *Pakistan Journal of Psychological Research*, 27(2), 285–298.
- Salimi, A. (2010). Decision-making styles and openness to experience among university students. *Procedia - Social and Behavioral Sciences*, 5, 895–899. <https://doi.org/10.1016/j.sbspro.2010.07.207>
- Scott, S. G., & Bruce, R. A. (1995). Decision-making style: The development and assessment of a new measure. *Academy of Management Journal*, 38(3), 680–697.
- Shanmugarajah, M. M., Pal, D., Mishra, S., Goyal, M., & Mishra, P. (2025). Impact of cognitive training exercises on cognitive flexibility and anxiety symptoms in young adults. *Applied Neuropsychology*.

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- Spiro, R. J., & Jehng, J. C. (1990). Cognitive flexibility and hypertext. In D. Nix & R. Spiro (Eds.), *Cognition, education, and multimedia* (pp. 163–205). Erlbaum.
- Spiro, R. J., Feltovich, P. J., Jacobson, M. J., & Coulson, R. L. (1992). Cognitive flexibility and knowledge acquisition. In T. M. Duffy & D. H. Jonassen (Eds.), *Constructivism and the technology of instruction* (pp. 57–75). Erlbaum.
- Steca, P., Baretta, D., Greco, A., D’Addario, M., & Monzani, D. (2018). Associations between personality, sports participation, and athletic success. *Personality and Individual Differences, 121*, 176–183. <https://doi.org/10.1016/j.paid.2017.09.040>
- Watson, D., & Pulford, B. D. (2004). Personality differences in sport performance. *European Journal of Personality, 18*(3), 235–247.

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