A PREDICTIVE PERSPECTIVE

# Sports Imagery Ability and the Personality Types Among the Female Soccer Players

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## ABSTRACT

*In the present study, attempt was made to understand the sports imagery and personality traits of female Soccer players. The purpose of the study was to ascertain the relationship of Sports Imagery and Personality of the female Soccer players of different colleges of Panjab University. It was hypothesized that there is no relationship between Sports Imagery and Personality of the female Soccer players of different colleges of Panjab University. The study was delimited to the female players of Soccer participated in Panjab university intercollegiate competition 2017-2018 to age group of 18 to 22 years. The tools used for measuring the Sports Imagery and Personality traits were Sports Imagery Questionnaire developed by Craig R. Hall, Diane E. Stevens and Allan Paivio (2005) and Esysenick Personality Inventory developed by H.J. Eysenck and B. G. Eysenck (1985), respectively. The statistical analysis of the data was done on SPSS. The analysis was done by using mean and standard deviation, partial and multiple correlations. The results of the study were examined at 0.05 level. The result of the study suggest that the personality type i.e., Extrovert-introvert and Neuroticism have no relationship with the imagery ability of the female Soccer players.*

## INTRODUCTION

Murphy and Marten (2002) proposed another way of looking at the variety of issues related to imagery in sports. They suggested that imagery can be studied at three levels. Level 1 is concerned with understanding the nature of imagery. This involves examination of the physiological and cognitive process that occurs during imagery. Level 2 is concerned with the use of imagery to achieve performance goal. The focus here should be on examining how imagery influence sports performance. Level 3 deal with the meaning of image to the athlete.

A number of theories have been proposed to explain what makes imagery work in physical activity setting. According to Psychoneuromuscular theory imagery assists motor skill learning and performance by activating neuromuscular activity pattern that are similar to those generated in actual performance, but of a smaller magnitude. These impulses although usually not even of a sufficient level to produce movement; help create a 'muscle memory' of correct movement pattern (Vealey & Walter, 1993). The symbolic learning theory provides a cognitive oriented theory of how imagery

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works to enhance skill learning and performance. Sackett (1934, 1935) proposed that imagery symbolizes in the brain the movement needed to perform skills when an athlete is learning a new skill, imagery help create a mental map or blue print of movement required (Vealey & Walter 1993)

Ahsen's (1984) triple code (ISM) theory is a model that sets out three components of imagery that are important in the imaginal process. The first component is the image itself (I), a centrally aroused sensation that is internal but processes all the attributes of a sensation. The second component is the somatic response (S), imagery that causes psycho physiological changes in the body. The third component is the meaning of the image (M) — individuals bring their own background and history with them into imagery, so even if people receive the same imagery instruction the imagery experience is different for each individual.

Functional equivalence theory and bioinformational theory thus share the view that the people use some of the same cognitive concepts for perception, action and imagination. According to Lang (1979), A more fundamental characteristics of the image is the fact that its information network includes propositions related not just to content but also to the modality specific operation of perceptual responses, e.g., sense organ adjustment, body orientation to the stimulus, postural set, as well as psychological processing factors such as ease in resolving the image or picking it out from a background. Hence, a physiological response is produced when response proposition are activated in imagery and these responses are measurable through concurrent physiological recording.

Sports psychologist have long been intrigued with the question whether or not successful athletic performance can be accurately predicted on the basis of personality or psychological assessment. This problem will be solved with the help of measuring personality.

Friedman and Schustack (2003) list eight key aspects or underlying forces ranging from unconscious forces to the interactive forces of the person and the

**Perspectives and related forces**

| Perspective | Aspect or forces |
|---|---|
| Psychoanalytic | Unconscious |
| Neoanalytic | Ego (self) |
| Biological | Biological |
| Behavioral | Conditioned by environment |
| Cognitive | Cognitive |
| Trait | Trait, Skill, Predispositions |
| Humanistic | Spiritual |
| Interactionist | Interaction of person and environment |

environment. These aspect parallel the major perspectives on personality and represent the typical categories of major theories.

Morgan (1980) suggested that there were two perspectives on the personality and sports issue, which he termed the sceptical and the credulous views. Those who believe that personality and sports were related, that it was possible to predict sports participation, preference and/ or performance on the basis of personality characteristics were considered to be credulous. Sports psychologist who proposed that personality characteristics had no role in determining sports behavior was deemed to be sceptical.

Eysenck (1970), extroverts are predicted to have a greater preference than the introvert for team sports because of sociability of sports and the greater stimulation afforded by the group. They are also predicted to prefer contact sports as they are more directly stimulating via the body contact and also entail greater risk. Thus, high risk sports would also be their choice more than that of introvert. Neurotic individuals prefer high level of structure and little threat from the environment because their emotions are easily raised to subjectively unpleasant level.

## METHODOLOGY

The present study was a descriptive type of research and the survey method was used. The researcher wanted to study the sports imagery ability of the Soccer female players. Further, it was also intended to know the association between the different personality types i.e., Extroversion and Neuroticism and sports imagery. The researcher randomly selected some colleges from the colleges participated for the Punjab University Intercollegiate Football (W) competition 2017-2018. ***Participants***

The sampling frame was drawn from the list of total number of teams participated in Panjab University Intercollegiate competition for the session 2017 — 2018. The four colleges, out of total nine teams reported for the competition, were randomly selected as a sample of the study. Total seventy two female Soccer players were acted as the subject for the present study i.e., 18 players from each college. The age of the girls ranges from 18 years to 22 years.

***Tools***

The following tools have been used by the investigators to collect data.

***Sports Imagery Questionnaire***

For measuring Sports Imagery of the female Soccer players the Sports Imagery Questionnaire was used. The test was developed by Craig R. Hall, Diane E. Stevens and Allan Paivio in 2005.

***Personality***

Eysenck Personality Inventory developed by H.J. Eysenck and B.G. Eysenck in the year 1985 was used to assess the personality trait of female soccer players.

***Statistical Design***

The statistical analysis of the data was done on SPSS. The descriptive analysis was

done by using mean and standard deviation for all the variables and the inferential statistics was done by using partial correlation, multiple correlation and independent sample t-test. The Type -I error was examined at 0.05 level.

## RESULT & DISCUSSION

Within the limitations and delimitations of the study following results are drawn:

**Table-1: Correlation Matrix of the female Soccer players on sports Imagery and Personality types**

| | Mean | SD | N | Cognitive Specific | Cognitive General | Motivational Specific | Motivation General Arousal | Neuroticism | Extroversion-Introversion |
|---|---|---|---|---|---|---|---|---|---|
| Cognitive Specific | 1.23 | .753 | 72 | | -.308** | -0.42 | .120 | -.355** | -042 |
| Cognitive General | 1.27 | .354 | 72 | -.308** | | -.317** | -.325** | -.052 | -.123 |
| Motivational Specific | .85 | .285 | 72 | -.042 | -.317** | | -.211 | -.052 | .116 |
| Motivation General Arousal | .71 | .277 | 72 | .120 | -.325** | -.211 | | .211 | .221 |
| Motivation General Mastery | .93 | .315 | 72 | -.355** | -.052 | -.221 | -.060 | | .146 |
| Neuroticism | 13.62 | 3.110 | 72 | -.042 | -.123 | -.116 | -.002 | .146 | |
| Extroversion - Introversion | 16.61 | 4.880 | 72 | .024 | .045 | -.061 | -.001 | .109 | .048 |

From Table 1, it can be seen that the cognitive specific ability of the female Football players of Panjab University is negatively significantly correlated with their Cognitive General ability with the calculated 'r' value -0.308 and the degree of freedom 362. It can also be seen that the cognitive specific ability of the female Football players of Panjab University is negatively significantly correlated with their Motivational Specific ability with the calculated 'r' value -0.317 and the degree of freedom 362. Further, it can be seen that the cognitive specific ability of the female Football players of Panjab University is negatively significantly correlated with their Motivational General Arousal with the calculated 'r' value -0.325 and the degree of freedom 362. It can also be seen that the Motivational General mastery of the female

Football players of Panjab University is negatively significantly correlated with their Cognitive General ability with the calculated `r' value -0.308 and the degree of freedom 362. However, no significant relationship has been seen in any other variables.

**Table-2: Model Summary along with the values of R and R square indicating multiple correlation between the dependent variable (Neuroticism) and independent variables (Motivational General Mastery, Cognitive General, Motivation General Arousal, Cognitive Specific, Motivational Specific)**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .196 | 038 | .035 | 3.16 |

a. Predictors: (Constant), Motivational General Mastery, Cognitive General, Motivation General Arousal, Cognitive Specific, Motivational Specific

From Table 2, model 1 (Constant) R is 0.196, the R Square 0.38 with adjusted R Square 0.035 and std. error of the estimate is 3.16. It can be said from this table that there is 38 percent contribution of Motivational General Mastery, Cognitive General, Motivation General Arousal, Cognitive Specific, and Motivational Specific on the Neuroticism of female Football players of Panjab University.

**Table-3 : ANOVA summary showing f-values of the model of all the female players**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 26.29 | 5 | 5.259 | .525 | .756[a] |
| | Residual | 660.57 | 66 | 10.009 | | |
| | Total | 686.87 | 71 | | | |

a. Predictors: (Constant), Motivational General Mastery, Cognitive General, Motivation General Arousal, Cognitive Specific, Motivational Specific b. Dependent Variable: Neuroticism

The linear regression model which produced R2.038, From Table 3, it can be seen that the F (5, 66) = .525 < .000. This table reports that the model 1 (Constant) is not significant at 0.05 level. It can therefore be concluded that the Neuroticism do not have significant regression with Motivational General Mastery, Cognitive General, Motivation General Arousal, Cognitive Specific, Motivational Specific, indicating female Football players of Panjab University with Neuroticism are expected to have no association with Motivational General Mastery, Cognitive General. Motivation General Arousal. Cognitive Specific, Motivational Specific.

**Table-4 : Regression Coefficients of selected variables in the model along with their t- values of all the female players**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | t | Sig. |
| 1. | (Constant) | 13.74 | 3.71 | | 3.70 | .000 |
| | Cognitive Specific | -.13 | .57 | -.032 | -.23 | .816 |
| | Cognitive General | -1.03 | 1.31 | -.118 | -.78 | .433 |
| | Motivational Specific | -51 | 1.51 | .047 | .34 | .735 |
| | Motivation General Arousal | -.21 | 1.52 | -.019 | -.13 | .890 |
| | Motivational General Mastery | 1.14 | 1.3 | .116 | .87 | .386 |

a. Dependent Variable: Neuroticism

The Standardized Beta Coefficients shows the contribution of each variable to the model. The value (3.70) indicates that a unit change in this predictor variable (Motivational General Mastery, Cognitive General, Motivation General Arousal, Cognitive Specific, Motivational Specific) has a moderate effect on the criterion variable (Neuroticism).

From the above Table, it is clear that the t value -.23, -.78, .34,-.13 and .87 are not significant at 0.05 level. Thus it indicates that the independent variable (Motivational General Mastery, Cognitive General, Motivation General Arousal, Cognitive Specific, Motivational Specific) do not have significant impact on the dependent variable (Neuroticism) among the female Football players of Panjab University

**Table 5: Model Summary along with the values of R and R square indicating multiple correlation between the dependent variable** (Extroversion - Introversion) **and independent variables (Motivational General Mastery, Cognitive General, Motivation General Arousal, Cognitive Specific, Motivational Specific)**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .165[a] | .027 | .046 | 4.99 |

a. Predictors: (Constant), Motivational General Mastery, Cognitive General, Motivation General Arousal, Cognitive Specific, Motivational Specific

From Table 2, model 1 (Constant) R is 0.165, the R Square 0.27 with adjusted R Square 0.046 and std. error of the estimate is 4.99. It can be said from this table that there is 27 percent contribution of Motivational General Mastery, Cognitive General, Motivation General Arousal, Cognitive Specific, and Motivational Specific on the Extroversion - Introversion of female Football players of Panjab University.

**Table-6 : ANOVA summary showing f-values of the model of all the female players**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 46.26 | 5 | 9.25 | .371 | .867[a] |
| | Residual | 1644.85 | 66 | 24.92 | | |
| | Total | 1691.11 | 71 | | | |

a. Predictors: (Constant), Motivational General Mastery, Cognitive General, Motivation Genera: Arousal, Cognitive Specific, Motivational Specific b. Dependent Variable: Extroversion - Introversion

The linear regression model which produced R2 .027, From Table 6, it can be seen that the F (5, 66) = .371 < .000. This table reports that the model 1 (Constant) is not significant at 0.05 level. It can therefore be concluded that the Extroversion - Introversion do not have significant regression with Motivational General Mastery, Cognitive General, Motivation General Arousal, Cognitive Specific, Motivational Specific, indicating female Football players of Panjab University with Extroversion - Introversion are expected to have no association with Motivational General Mastery, Cognitive General, Motivation General Arousal, Cognitive Specific, Motivational Specific.

**Table-7 : Regression Coefficients of selected variables in the model along with their t-values of all the female players**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|---|
| | | B | Std.Error | Beta | t | Sig. |
| 1. | (Constant) | 13.42 | 5.85 | | 2.29 | .025 |
| | Cognitive Specific | .63 | .90 | .097 | .70 | .486 |
| | Cognitive General | .84 | 2.06 | .062 | .41 | .683 |
| | Motivational Specific | -1.24 | 2.39 | -.073 | -.52 | .604 |
| | Motivation General Arousal | .05 | 2.41 | .003 | .02 | .981 |
| | Motivational General Mastery | 2.52 | 2.07 | .163 | 1.21 | .228 |

a) Dependent Variable: Extroversion - Introversion

The Standardized Beta Coefficients shows the contribution of each variable to the model. The value (2.29) indicates that a unit change in this predictor variable (Motivational General Mastery, Cognitive General, Motivation General Arousal, Cognitive Specific, and Motivational Specific) has a moderate effect on the criterion variable (Extroversion - Introversion).

From the above table, it is clear that the t value .70, .41, -.52, .02 and 1.21 are not significant at 0.05 level. Thus it indicates that the independent variable (Motivational

General Mastery, Cognitive General, Motivation General Arousal, Cognitive Specific, Motivational Specific) do not have significant impact on the dependent variable (Extroversion - Introversion) among the female Football players of Panjab University.

## CONCLUSION

Although there has been a great deal of research on the topic of sports imagery and personality, a number of question remains, particularly in regards to sports. The primary focus of the current study was to address some of the questions by examining the relationship between Sports Imagery and personality. Statistical analyses revealed several significant relationships, which require further explanations.

It can be said that the cognitive specific ability of the female Football players of Panjab University is negatively significantly correlated with their Cognitive General ability, cognitive specific ability of the female Football players of Panjab University is negatively significantly correlated with their Motivational Specific ability, cognitive specific ability of the female Football players of Panjab University is negatively significantly correlated with their Motivational General Arousal and the Motivational General mastery of the female Football players of Panjab University is negatively significantly correlated with their Cognitive General ability. However, no significant relationship has been seen in any other variables.

The results from multiple correlations suggest that the Neuroticism do not have significant regression with Motivational General Mastery, Cognitive General, Motivation General Arousal, Cognitive Specific, Motivational Specific, indicating female Football players of Panjab University with Neuroticism are expected to have no association with any of the ability of Sports Imagery (Motivational General Mastery, Cognitive General, Motivation General Arousal, Cognitive Specific, Motivational Specific). Similarly Extroversion - Introversion do not have significant regression with Motivational General Mastery, Cognitive General, Motivation General Arousal, Cognitive Specific, Motivational Specific, indicating female Football players of Panjab University with Extroversion - Introversion are expected to have no association with Motivational General Mastery, Cognitive General, Motivation General Arousal, Cognitive Specific, Motivational Specific.

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