Chapter - II

Review of Literature

Rothpearl (1980), examined the personality traits of martial artists. found that intermediate athletes showed a greater variety of hostile modes of expression than both beginner and advanced athletes. Study found that the effects of martial arts training on aggressiveness have gathered great research attention.

Indian researcher Dr. Rajkumar Karve (2012) That result significant difference between the Kabaddi players of Karnataka and Maharastra on personality factors B, C, E, F, G, M, Q1 and Q2. His research focused on The female Kabaddi players have scored significantly high on personality factor Q1 than the male Kabaddi players. That result significant difference between the Kabaddi players of Karnataka and Maharastra in locus of control. That result significant gender difference in locus of control females believed that behavior is influenced by powerful person and chance factor while male player’s behavioral outcomes are attributed to internal self. The Karnataka Kabaddi players have higher need for aggression, achievement, power and affiliation than the Maharastra Kabaddi players. That result significant differences in the need pattern between the male and female Kabaddi players.

In other promising personality research, results indicated that some type of aggression, anger, or dominance measure is related to injury risk. Fields, Delaney, and Hinkle (1990) found that runners scoring high (e.g., more aggressive, hard-driving) on a Type A behavior screening questionnaire experienced significantly more injuries, especially multiple injuries, compared to runners scoring lower on this measure. In recent Type A behavior research with a large sample of Japanese collegiate athletes (N = 2,164), Nigorikawa et al. (2003) found that athletes who rated high on Type A behaviors experienced more injuries than athletes with lower ratings. They
conjectured that an athlete with this type of personality profile might take greater risks and, therefore, incur more severe injuries. Earlier research by Jackson et al. (1978) and Valiant (1981) revealed the opposite (i.e., tender-minded, dependent players received more injuries). Van Mechelen et al. (1996) determined that more dominant persons ran a higher risk of sports injury than those who were less dominant. Dominance was defined as self-reliance, trying to be or play the boss. Similar to the other researchers, they offered the possible explanation that dominant persons tend to play more central and more intense roles in sport situations and assume more risks to achieve their personal goals than persons with lower dominance. The apparent contradictory findings point to a general problem in personality research. Many personality variables (as measured by a wide variety of instruments) generally do not account for much variance in almost any outcome one wishes to measure. The personality variables included in the Williams and Andersen (1998) model, however, were chosen because they appeared most related to sport and stress. Some of the previous studies were atheoretical, not guided by models, and had somewhat shotgun or fishing.

Women score higher on the Five Factor Model (FFM) traits of Neuroticism and Agreeableness (Costa, Terracciano & McCrae 2001). The former reflects distress proneness and propensities toward the experience of a variety of negative effects, while the latter reflects amicability, altruism, trust, tender-mindedness, and compliance. Gender differences on these traits are of medium magnitude: Costa and colleague's comprehensive study showed US adult women scored .51 SD higher on Neuroticism and .59 SD higher on Agreeableness. Costa et al. replicated this pattern of gender differences across 26 different nations in data comprising over 23,000 individuals. These findings cannot easily be attributed to self-report artifacts, as
McCrae and colleagues (2005) have replicated them in observer reports of FFM traits across 50 cultures. Goodwin and Gotlib (2004) replicated the Neuroticism and Agreeableness findings in a nationally representative sample using a brief trait-adjective measure of the lexical Big Five (cf. also Goldberg et al., 1998), suggesting these gender differences are not a sole function of the instrument on which Costa and McCrae’s findings are based, the NEO-Personality Inventory Revised (NEO-PI R; Costa & McCrae, 1992).

Gender differences on Extraversion (encompassing gregariousness, excitement seeking, and positive affect) and Openness to Experience (encompassing interest in novel people, ideas, and aesthetics) have been either inconsistent or of negligible magnitude in large, statistically well-powered samples (cf. Feingold, 1994). However, Costa et al. (2001) investigated gender differences across specific aspects of these broad FFM domains, finding that men scored higher in some facets of Openness, such as Openness to Ideas, while women scored higher in others such as Openness to Aesthetics and Feelings. Men scored higher in some facets of Extraversion such as Excitement Seeking, while women scored higher in other Extraversion facets such as Warmth. Comparisons at the aggregate level of Extraversion and Openness are thus less meaningful. Men and women appear to differ little on either specific aspects of Conscientiousness (encompassing such qualities as diligence, self-discipline, orderliness, and goal-orientation) or the subdimensions it comprises.

Combined biological and sociocultural explanations have been offered to explain these findings. Neuroticism and Agreeableness are genetically based, species-invariant, and the result of adaptation to selection pressures which vary across men and women (Buss, 1995). Budaev (1999) suggested an evolutionary hypothesis that Neuroticism and Agreeableness together represent a single dimension with low
Neuroticism and low Agreeableness at one end, and high Neuroticism and high Agreeableness at the other. His data suggested men and women fall at opposite ends of this dimension. Costa et al. (2001) stipulated that a purely evolutionary explanation entails two corollaries: First, the traits on which men or women differ are consistent across cultures; second, gender differences in these traits are of the same general magnitude. Costa et al.’s (2001) findings supported the former. However, gender differences were larger, rather than smaller, in industrialized countries where more progressive socioculture gender role norms would presumably lead to smaller differences. Thus, Costa and colleagues concluded that gender differences on Neuroticism and Agreeableness stemmed from stable evolutionary and biological bases, but Social Role Theory (Eagley, 1987), which articulates socialization processes leading to different roles and behaviors for men and women, also held potential usefulness for understanding gender differences in Neuroticism and Agreeableness (Costa et al., 2001; McCrae, et al., 2005).

Frank C. Bakker (1991) Development of personality in dancers: A longitudinal study. In a longitudinal designed study, young female dancers, spending about 15 hr weekly on classical and modern ballet education, filled in questionnaires measuring temperamental and motivational traits. Subjects were tested on two occasions, with a time interval of 2 yr between first and second occasion. In addition, on the second testing occasion a new sample of dancers filled in the questionnaires for the first time. The results confirmed the typical personality profile of dancers, reported in an earlier study, i.e. dancers being introverted, relatively high on emotionality, strongly achievement motivated, and exhibiting less favourable self-attitudes. Differences in personality scores between dancers who had continued their professional ballet education and those who had dropped out were small. It is
concluded that differences in personality traits between dancers and non-dancers are most likely the result of a process of self-selection, i.e. the ballet subculture attracts persons who possess particular personality traits.

John H. Kerr, Tom Cox (1991) Arousal and individual differences in sport. This paper reviews a programme of research, carried out by the authors, into psychological factors in competitive squash. The research was based on the orthogonal model of stress and arousal; Mackay, Cox, Burrows and Lazzerini (1978) and Apter's (1982) reversal theory. These two approaches, which both consider arousal in relation to other psychological states, are presented here as alternatives to optimal arousal theory. Research participants completed a number of questionnaires, including personality and attentional style inventories, and their psychological responses to task performance and competitive play were monitored using state measures. The results suggested that all the players studied, irrespective of their level of skill and later success, entered games with high levels of arousal, but did not necessarily experience these high levels as ‘stressful’ or show obvious signs of anxiety. ‘Winners’ showed slightly higher and more stable levels of arousal across games than ‘losers’ who showed significant decrease in arousal as their lack of success became more apparent, and this was associated with increased feelings of stress. The results also indicated significant differences in extraversion and neuroticism between playing ability and success levels. Skilled and novice players were found to have similar attentional strategies, which were different from their moderately skilled colleagues. The results are discussed in terms of their importance in the understanding of the psychological processes involved in successful squash.

Jan Graydon, Timothy Murphy (August 1995) The effect of personality on social facilitation whilst performing a sports related task. The aim of the experiment
was to investigate the effect of personality on social facilitation in a sporting context. After initial screening of 50 subjects by administration of the E.P.I., a group of 20 were selected for the experiment. Of these, 10 were designated as extraverts and 10 introverts. The task selected was a table tennis serve into a target area marked by grids. Subjects were required to perform the task both alone and in front of an audience. The results were analysed using a two-way ANOVA with one repeated measure. There were no significant main effects, but a highly significant interaction \((F_{1.18} = 17.7, \ P < 0.001)\) between personality type and audience condition was revealed. This effect was due to the predicted pattern of extraverts performing better than the introverts in the presence of an audience and vice versa for the alone condition. It is concluded that the personality dimension of extraversion/introversion is a significant factor in social facilitation research.

Stephen R. McDaniel, Choonghoon Lim, Joseph E. Mahan III (June 2007) The role of gender and personality traits in response to ads using violent images to promote consumption of sports entertainment. The promotion of violent media has become an issue for both marketers and public policymakers. One common form of mediated violence can be found in televised sports. Some media research suggests that males tend to enjoy violent sport media more than females. However, personality research related to the notion of Optimum Stimulation Levels (OSL) suggests certain audiences might be drawn to violent media stimuli, to help maintain their OSL, regardless of gender. Building upon marketing and media psychology, the current study examines the effect of central (sensation seeking, SS) and surface (Curiosity About Morbid Events, CAME) traits, along with gender, to account for variance in consumer reactions to advertisements utilizing violent/non-violent images to promote sports media. Regression results indicate that subjects’ ad response is moderated by
OSL constructs, while CAME is found to mediate the effect of SS. Practical and theoretical implications are discussed along with future directions for research.

R. E. Franken, Ross Hill, James Kierstead (*October 1994*) Sport interest as predicted by the personality measures of competitiveness, mastery, instrumentality, expressivity, and sensation seeking. The study was designed to examine sport interest in a sample of male and female university students in order to determine if the personality measures of competitiveness, instrumentality, expressivity, and sensation seeking are predictive of sport interest as well as sport participation in a variety of sports. Factor analysis of Franken's WCMP Scale (a scale that contains a variety of questions pertaining to winning, competitiveness, mastery, and persistence) produced three factors that were named: the Motivation for High Performance Scale (MHP), the Motivation for New Learning Scale (MNL), and the Importance of Winning Scale (WIN). The emergence of the MHP and WIN as distinct factors was taken as evidence for the idea that sometimes people seek out competition in order to perform at a high level or observe others perform at a high level while at other times people seek out competition in order to be a winner or observe others as winners. MHP was the best predictor of sport interest for both males and females although WIN, the Competitiveness Scale of Spence and Helmreich's Work and Family Orientation Questionnaire (WOFO), and Instrumentality were also good predictors for certain sports. MNL, the Mastery Scale of the WOFO, and Expressivity were significant predictors of sport interest but mainly in connection with female interest in figure skating and gymnastics. Sensation seeking was not a predictor of sport interest although certain subscales of Zuckerman's Sensation Seeking Scale did predict sport interest in certain instances. Analysis of sex differences indicated that female as compared to male participants were significantly more interested in gymnastics and
figure skating, whereas male as compared to female participants were significantly more interested in hockey, football, baseball and basketball, golf, tennis, and boxing. Males obtained higher scores on all of the personality measures used except expressivity (where females scored significantly higher).

Cindy H. P. Sit, Koenraad J. Lindner (February 2005) Motivational orientations in youth sport participation: Using Achievement Goal Theory and Reversal Theory. The purpose of this study was to examine motivational orientations of youth (N=1235) towards sport participation by using Achievement Goal Theory (AGT; Nicholls, 1989) and Reversal Theory (RT; Apter, 1989). Both theories are useful for determining how individuals varying in motivational orientations differ in their participation motives in the sport context. AGT postulates that individuals have task and ego orientations whereas RT assumes that individuals have eight orientations (telic, paratelic, conformist, negativistic, autic, alloic, mastery, and sympathy). Confirmatory factor analysis demonstrated overall good fit of seven underlying sport motive structures derived from the 30-item Participation Motivation Inventory (Gill, Gross, & Huddleston, 1983). Subsequent canonical correlation analyses generally indicated a close relationship between motivational orientations and sport participation motives congruent with theoretical predictions in both AGT and RT. It was also found that task and ego orientations in AGT were linked with specific motivational orientations in RT. The results suggest that the two theories have similar motivational orientation constructs, more articulated in RT, which may be useful in examining what motivates youth to participate in physical activities and sport.

Ciaran Dolphin, Moira O'Brien, Noel Cahill, John Cullen (1980) Personality factors and some physiological correlates in athletes. In the course of an ongoing study to evaluate cardiac and left ventricular performance in athletes,
personality data using the Cattell 16PF questionnaire was also collected for rowers, canoeists, judo players, archers and cross-country runners. Personality differences between these groups have been found. Cross-country runners had a very low score on factor F; this indicates taciturn, cautious, deliberate individuals, suited to monotonous and repetitive situations. With rowers, they also had the highest $Q_3$ scores, indicative of self-discipline and compulsive tendencies. On both those personality dimensions, cross-country runners contrasted significantly with judo players. These had the highest F score—impulsive, quick and alert, and the lowest $Q_3$ score—less self-controlled and disciplined. Judo players were also the most assertive in contrast to the archers who were least so. Personality factors were correlated with physiological data from resting and exercise conditions. Anxiety gave an unexpected negative correlation with heart rate and systolic blood pressure for rest, but was not associated with physiology in exercise. Factor N, however, gave a similar pattern of correlation, in both conditions, with left ventricular performance—the more natural, unpretentious and less shrewd the athlete, the higher his left ventricular volumes and the better his physiological performance.

Prabhjot Kaur, Maman Paul, Jaspal Singh Sandhu (2006) Auditory and visual reaction time in athletes, healthy controls, and patients of type 1 diabetes mellitus: A comparative study. Background and Purpose: Reaction time is one of the important methods used to study a person's central information processing speed and fast coordinated peripheral movement response. The purpose of this study was to compare the reaction time performances in controls, athletes, and patients of type 1 diabetes mellitus and to find out any gender differences. Methodology: 120 subjects aged 20-30 years were distributed into three groups. Group I - Healthy controls, Group II - Athletes, Group III - Patients of type 1 diabetes mellitus. Equal number of males and
females were taken. The reaction time was recorded for auditory and visual stimuli in seconds, by reaction time device. Results: Assessed by using unpaired 't' test. The athletes performed better than the controls and in the patients of Type 1 diabetes mellitus; there was a significant prolongation of the visual as well as auditory reaction times. However, gender differences were not observed. Conclusion: It can be concluded that the reaction time is a good indicator of performance in sports, which suggests that diabetics participating in quick action sports should be careful about the injuries that may occur as a result of increased reaction time.

Werner and Gotheil (1966) investigated the effect of athletic participation over four years on cadets, but found no evidence to indicate that athletic involvement affected the 16 PF structures of these young men. Rushall (1968) likewise could find no consistent personality change among sportsmen particular in track and field, football and swimming over a period of three years.

One pioneering study has been performed by Lukehart (1969) who tested a group of 12 and 13 years old boys prior to their decision to become members of an organized sport team. It will be noted that those boys who selected to join the team (American football) were significantly more extroverted than those who selected not to participate (non-athletes). Also, he re-tested both groups following the first year of competition and found these differences to have remained unchanged. It did not differ on neuroticism at either point. It would be predicted from the outset of their careers and athletic competition would not be expected to modify this trait.

In another pioneering study, Tattersfield (1975) followed up 106 boys who were members of 23 swimming clubs for a period of five years. The objective of the study was to find out the effect of frequent and regular exposure to a highly competitive environment on the personality development of boys. It was Tattersfield
who provided reasonable explanation for the insignificant personality changes in Kane’s longitudinal study. He pointed out that there are many influences in a competitive environment which changes more than those are more likely to show at a younger age, i.e., during the formative years of childhood and adolescence. Hence, Tattersfield selected subjects in the age group of 12 to 14 years. His findings were quite revolutionary in the sense that the total personality profile did change during the experimental period. The most prominent changes were in the directions of increased extroversion, decreased anxiety and a lower level of independence. Buccola and Stone (1975) reported similar kind of findings as Tattersfield.

In a 12 month follow up and pre-post analysis by Doyne et al (1987) indicated development of feelings of accomplishment and enhanced self-efficacy in subjects. Edgar (1988) investigated the relationship between sport-practice in a longitudinal study with a group of sportspersons playing different games over a period of 27 months. The personality variables as measured by Thill’s sport personality questionnaire showed significant changes with respect to emotional control and energetic control.

Mayer et al (1988) conducted an eighteen month prospective study of personality traits as measured by Cattell’s children’s Personality Questionnaire and 16 PF Questionnaire. They found that the primary personality trait score for both adults and children’s had relatively low stability over the 18 months interval.

Nelson et al (1991) in a recent study examined the longitudinal change in throwing performance. They concluded that while hereditary factors may be operating to increase the differences in throwing performance across the three years span, girls do not throw as far as boys because the developmental level of their movement pattern shows little change.