CHAPTER - II

REVIEW OF LITERATURE


This study examined the association of coping style classifications based on (a) dispositional vigilance (VIG) and cognitive avoidance (CAV) and (b) trait anxiety and social desirability (SD). 281 Ss (123 men, 158 women) completed questionnaires to assess these variables. By applying median splits, Ss were divided into high and low scorers on each dimension. According to both classifications, four coping style groups were operationally defined on the basis of the respective dichotomized variables. Results yielded convergent assignments of repressers (low anxiety and high SD; low VIG and high CAV, respectively), sensitizers (high anxiety and low SD; high VIG and low CAV), and low-anxious
individuals (low anxiety and low SD; low VIG and low CAV), but not for individuals with high scores on both scales of each classification system. Implications of these findings concerning the conceptualization and measurement of coping styles are discussed.”

“Booth (1959) and Ikegami (1970) suggested that participation in physical education activities and games and sports reduced anxiety. They also found that higher the level of performance, the lesser anxiety was seen in sportsmen. However, Harman & Johnson (1952) do not agree with this finding and they found high achievers to be more anxious.

Keeping in view the contradictory findings on this issue, the present research study to compare anxiety level between champion and non-champion male and female judo players of National level, was undertaken.”

In recent years, psychologists, coaches and athletes have become increasingly aware of the determinant role that anxiety plays in athlete's performance in competition (Suinn, 1979). “The awareness has been followed by an increased interest in assessing anxiety responses and analysing their sources (Endler and Okada, 1975; Endler, 1977). Before any appropriate intervention strategy could be
implemented, it might be useful to have athletes keep a log of the various activities in which they would indicate how they perceive various situations and how they react to them. Therefore, before one can investigate such differential effectiveness an appropriate diagnosis of source and response manifestation is required.”

Breen (1969) “found physical fitness to be negatively related to such characteristics as anxiety tension, emotionality and withdrawal in collegemen. Misner, (1971) and Milene (1971) concluded that high anxious subjects would do poorer than low anxious subjects and the medium anxious group tend to improve their performance.”

Booth (1959) “reported that freshman athletes, freshman non-athletes, and upper class non-athletes scored significantly higher than varsity athletes on the anxiety (A) scale MMPI.”

A study by Johnson, Hutton and Johnson (1954) “using projective psychological tests, revealed that "high and generalized anxiety" was a definite personality characteristic of a group of champion athletes.”

Butzbach: Afra,” has defined the personality trait and motivation and factors properly.


“This study examined personality as related to endurance sports. Compared to a group of non-exercisers (n = 73) with similar scores on demographic variables, 86 triathletes and long-distance runners were more extraverted and reported less physical complaints. Groups did not
differ concerning Neuroticism and Lie scores. Outstanding athletes (11 or more hours of training per week) were more extraverted than average sportsmen (less than 4 hours). Neuroticism was associated with "management of negative affect" and "recreation" as reasons for beginning with endurance sports. Extraversion correlated with improvements due to sporting activity in "goal achievement/success", whereas intensity of training was associated with positive changes in "physical health". These results are discussed in terms of psychological processes related to the benefits of endurance sports and with respect to factors that might influence successful performance.”


In dieser Untersuchung gaben 86 Ausdauersportler (Triathleten und Langstreckenläufer) Auskunft über Gründe, die sie zum Beginnen dieser Sportart motivierten, sowie über Veränderungen, die durch das Ausüben des Sports ausgelöst wurden. Zudem wurden Persönlichkeitsmerkmale (Extraversion, Neurotizismus, Offenheit), demographische Daten und Trainingsintensitäten erhoben. Faktorenanalytisch ließen sich je vier Dimensionen der Gründe zur Sportteilnahme (Umgang mit negativen
Affekten, Erholung, Leistung, Einfluß anderer und Aussehen) sowie der wahrgenommenen Veränderungen (Entspannung, Zielerreichung/Erfolg, Physische Gesundheit, Geselligkeit und Selbstkonzept) identifizieren. Multiple Regressionsanalysen mit Geschlecht, Alter, Trainingsintensität und den Persönlichkeitsvariablen als Prädiktoren sowie den Gründen und Veränderungen als Zielgrößen dokumentierten spezifische Assoziationen zwischen beiden Variablengruppen: Extraversion war positiv mit Erholung und Zielerreichung assoziiert, während Neurotizismus mit Umgang mit negativen Affekten, Erholung und Entspannung zusammenhing. Diese Ergebnisse weisen auf spezifische Konfigurationen von differentiellen und motivationalen Variablen beim Beginnen und Aufrechterhalten sportlicher Aktivität hin. Ariables. Only for individuals high in trait anxiety, state anxiety was positively related to Stroop interference. In contrast, the low anxious group showed the opEgloff.”


In her comment on our article (Egloff & Hock, 1997) on the association of coping style classifications based on (a) dispositional vigilance and
cognitive avoidance and (b) trait anxiety and social desirability, Mendolia (in press) argued that our data demonstrated only weak agreement between both assessment approaches. In this reply, we demonstrate by crosstabulations of the dichotomized split-half scales that even Mendolia's criteria of "fair to good" interrater agreement between the methods (Cohen's kappa > .40) is not reached within each assessment approach alone. This result may be due to unreliability of measurement and problems inherent in median split procedures.”


This study examined main, interaction, and quadratic effects of state and trait anxiety on attentional bias toward threat related stimuli. 121 students completed a card version of an emotional Stroop task. While there were no main effects for trait anxiety or state anxiety, regression analyses revealed a significant contribution of the interaction term of both vsosite response pattern. A quadratic effect of trait anxiety was also found but the interaction term proved to be the most important predictor. Implications of these findings are discussed with respect to divergent theoretical conceptions of attentional biases.”

This study examined the association of two widely used measures of attention allocation toward or away from threat-related stimuli: The emotional Stroop task and the attentional probe task. 53 participants responded to computer versions of both tasks where stimuli were presented both subliminally and supraliminally. Thus, four indexes indicating attention allocation were computed for each participant. A correlation analysis showed that the attentional probe index and the emotional Stroop index were associated within each presentation mode while all other relations were nonsignificant. These results are discussed in terms of a distinction between preattentive and attentional processes operationalised by different stimulus presentation times.”


The relationship between coping dispositions and emotional responses after failure in an anagram task was examined. Previous research
indicated that only repressers' nondominant emotions were less intense compared to nonrepressers', whereas the dominant emotion was of equal intensity. Using an experimental design in which emotions were measured as they were actually felt, the authors were able to demonstrate that this effect, called repressive emotional discreteness, is also apparent during an emotional event. Compared to nonrepressers, repressers reported roughly the same amount of guilt, which was the dominant emotion after failure, but they showed lower self-rated fear, sadness, and hostility. No differential effects were observed regarding positive emotions after success, indicating that repressive discreteness is restricted to negative emotions. The implications of these findings for explaining the mechanism underlying repression are discussed.”


Der Artikel stellt Untersuchungen zur Konstruktion und empirischen Überprüfung des Angstbewältigungs-Inventars (ABI) vor. Theoretische Grundlage dieses Tests ist das Modell der Bewältigungsmodi (H. W. Krohne, 1993b), das von zwei zentralen Konstrukten der Streßbewältigung ausgeht: Vigilanz (die verstärkte Aufnahme und

The Implicit Association Test (IAT) was adapted to measure anxiety by assessing associations of self (vs. other) with anxiety-related (vs. calmness-related) words. Study 1 showed that the IAT-Anxiety exhibited good internal consistency and adequate stability. Study 2 revealed that the IAT-Anxiety was unaffected by a faking instruction. Study 3 examined the predictive validity of implicit and explicit measures and showed that the IAT-Anxiety was related to changes in experimenter-rated anxiety and performance decrements after failure. Study 4 found that several behavioral indicators of anxiety during a stressful speech were predicted by the IAT. Taken together, these studies show that the IAT-Anxiety is a reliable measure that is able to predict criterion variables above questionnaire measures of anxiety and social desirability.”

Explicit measures assess introspectively accessible self-descriptions and evaluations. In contrast, implicit measures assess introspectively inaccessible processes that operate outside of awareness. Consequently, implicit measures should be free of response factors such as faking tendencies and social desirability (SD). Usually, correlations between implicit and explicit measures of the same construct tend to be low. Study 1 (N = 145) tested the hypothesis that SD should moderate the relationship between an implicit (the Implicit Association Test) and an explicit (a standard questionnaire) anxiety measure. Study 2 (N = 62) extended this test by distinguishing between the SD components of self-deceptive enhancement and impression management. However, results of both studies suggest that SD does not act as a moderator between implicit and explicit anxiety measures. The discussion focuses on implications and limitations of this finding.”


Explicit measures assess introspectively accessible self-descriptions and evaluations. In contrast, implicit measures assess introspectively inaccessible processes that operate outside of awareness. While women
consistently yield higher scores on explicit anxiety measures, there are to
date no studies available that examine gender differences in implicit
anxiety measures. To analyse this topic, we used the Implicit Association
Test (Study 1, N = 248) and the Emotional Stroop task (Study 2, N =
121) as implicit anxiety measures and a standard trait questionnaire as
explicit anxiety measure. As expected, women scored higher on the
explicit anxiety test. Women also yielded higher anxiety scores on both
implicit tests. The effect sizes of the gender differences in the implicit
measures were approximately half as large as those in the explicit
measures. Furthermore, correlations between implicit and explicit
measures were higher for women. Implications of these findings for
personality assessment are discussed.”

Egloff, B., Schmukle, S. C., Burns, L. R., Kohlmann, C.-W. & Hock, M.
(2003). “Facets of dynamic positive affect: Differentiating joy, interest,
and activation in the Positive and Negative Affect Schedule (PANAS).

This article proposes the differentiation of Joy, Interest, and Activation in
the positive affect (PA) scale of the Positive and Negative Affect
Schedule (PANAS; D. Watson, L. A. Clark, & A. Tellegen, 1988). Study
1 analyzed the dynamic course of PA before, during, and after an exam
and established the differentiation of the three facets. Study 2 used a multistate-multitrait analysis to confirm this structure. Studies 3-5 used success/failure experiences, speaking tasks, and feedback of exam results to further examine PA-facets in affect-arousing settings. All studies provided convincing evidence for the benefit of differentiating three facets of PA in the PANAS: Joy, Interest, and Activation do have distinct and sometimes even opposite courses that make their separation meaningful and rewarding.”


In these studies, the correlates of spontaneously using expressive suppression and cognitive reappraisal during stressful speeches were examined. Spontaneous emotion regulation means that there were no instructions of how to regulate emotions during the speech. Instead, participants indicated after the speech to what extent they used self-motivated expressive suppression or reappraisal during the task. The results show that suppression is associated with less anxiety expression, greater physiological responding, and less memory for the speech while
having no impact on negative affect. In contrast, reappraisal has no impact on physiology and memory while leading to less expression and affect. Taken together, spontaneous emotion regulation in active coping tasks has similar consequences as experimentally induced emotion regulation in passive tasks.”


The Implicit Association Test-Anxiety (IAT-Anxiety) provides an indirect assessment of anxiety by measuring associations of self (vs. other) with anxiety-related (vs. calmness-related) words. In 3 studies (using 3 independent samples), the temporal stability of the IAT-Anxiety was examined. In Study 1, 65 participants responded twice to the IAT-Anxiety with a time lag of 1 week. The test-retest correlation was .58. Study 2 (N = 39) extended the time interval between test and retest to 1 month and yielded a stability coefficient of .62. Study 3 (N = 36) examined the long-term stability (time lag: 1 year) of the IAT-Anxiety and showed a correlation of .47. Implications of these results for the assessment of personality dispositions with the IAT are discussed.”

This study examined the relationship between time of day, day of the week, and two measures of positive affect (PA). According to previous research and the circumplex model of affect, one scale was designed to assess the activation component of PA, the other one measured the pleasantness aspect. Subjects rated their mood three times a day for seven consecutive days. Consistent with our hypotheses, PA-Pleasantness showed a peak on the weekend, whereas PA-Activation remained stable throughout the week. Regarding time of day, maximum PA-Activation was reached in the afternoon. In contrast, the Pleasantness component of PA increased from morning to evening. Implications of these results as well as other findings concerning the differential content of "PA" measures are discussed regarding the fact that a certain scale is most appropriate and maximally valid for representing certain aspects of affective experience.”

Explicit personality tests assess introspectively accessible self-descriptions. By contrast, implicit personality tests assess introspectively inaccessible processes that operate outside of awareness. Despite their inaccessibility, implicit processes are presumed to influence a variety of current responses. This study tested the hypothesis that an implicit anxiety test should predict cardiovascular reactivity during a speech stressor task. Ninety-seven participants completed a measure of attention allocation toward threat (implicit test) and an anxiety questionnaire (explicit test) one week before giving an evaluated speech. Whereas the explicit test showed modest relations with only one measure of cardiovascular reactivity, the implicit test predicted heart rate and blood pressure reactivity during preparation and delivery of the speech. These findings encourage the broader use of implicit measures to assess cardiovascular responses to threat.”


Gerson & Deshaies (1978) conducted “a study on competitive trait anxiety and performance as predictors of pre-competitive state anxiety. The results yielded
a significant positive relationship between SCAT and pre-competitive state anxiety. It was found that the anxiety measures were significant predictors of performance in this setting. It is in agreement with the results obtained by Martens & Gill (1976) and Scanlan & Passer (1978). Similarly, Martens & Gill (1976), Martens (1977) and Scanlan & Passer (1978) indicated consistently that high A-trait individuals manifest greater A-state just prior to engaging in competition than low A-trait individuals. Hudileston & Gill (1981) using Martens' CSAI attempted to examine whether there was a difference in A-state between two groups of female track and field athletes based on skill level but they found non-significant results.”

Gold (1955) “observed that college tennis players were lower in anxiety than professional players. But some other research workers (Cooper-1969; Kroll, 1970 and Marten, 1975) have reported no differences in level of anxiety between participation and non-participation and among participants of different skill levels. So a controversy on the relationship between competition performance and anxiety level exists in literature.”

Anxiety, especially the State type, plays a significant role in motor performance of individuals.

Based on the theoretical assumptions of the "two-process model", this study investigated the exchange of aversive communicative acts between 59 mothers and their 8- to 14-year-old children (29 girls and 30 boys) during a homework period of 25 minutes. Observed frequencies of aversive behavior as well as functional relationships between mother and child behavior were analyzed regarding their associations with child-rearing as perceived by the child and the mother, respectively, and anxiety-related personality characteristics of the child. Maternal aversive behavior was found to be associated with high restriction and high inconsistency as perceived by the child and the mother, respectively. The child's aversive behavior, however, was correlated significantly with the child's report of maternal child-rearing only. State anxiety, evaluation anxiety, and the maternal concept of achievement disorder were related positively to observed maternal aversiveness. At the same time high-anxiety children tended to show aversive behavior more often than low-anxiety children. Perceived child-rearing practices as well as indicators of anxiety of the child. In K. A. Hagtvet (Ed.), Advances in test anxiety research (Vol. 7, pp. 156-174). Lisse, The Netherlands: Swets and Zeitlinger.
the child's anxiety were associated with specific dependencies that could be observed between the mother's and the child's behavior.”


The studies described in the chapter represent initial attempts to empirically address how coping dispositions are implied in the mutual dependencies of actual emotion and cognitive coping processes. To tackle this question, there is an obvious need for establishing methods which allow for a continuous tracking of behavioral indicators of emotional and attentional changes within persons. Regarding attention, the looking behavior of individuals, directed toward or away from a source of threatening information, is considered to provide a promising starting point. Based on assumptions of the "model of coping modes", looking behavior is discussed as an indicator of attention orientation in socially threatening situations. Special emphasis is given to the notion of a twofold function of gaze: first, as an integral part of a person's "warning system" and, second, as an important "arousal regulation device". Two studies directed at analyzing dispositional determinants of looking at or
away from a source of threat are subsequently described. The last section of the chapter covers interindividual differences in the sequential relationships between looking behavior (an indicator of attention) and bodily arousal (an indicator of emotion) during the anticipation of an potentially aversive event.”


durch assoziierte Stimuli gebahnt. Trotz verstärkter Primingeffekte affektiv valenter Stimuli erinnerten Represser diese Reize vergleichsweise schlecht, während dies Sensitizern (Vigilanz hoch, Vermeidung niedrig) gut gelang. Die Ergebnisse werfen die Frage auf, inwieweit die bei Repressern festgestellten Erinnerungsdefizite für bedrohliche Reize auf ein weniger differenziertes Netzwerk emotionaler Information zurückgeführt werden können."


Das Kapitel enthält einen knappen Überblick über die Rolle der Angst im Kontext von Bewältigungsvorgängen. Im ersten Abschnitt wird die Erfassung von Angstzuständen auf verschiedenen Verhaltensebenen (physiologisch, behavioral, kognitiv) diskutiert. Es wird argumentiert, daß sich die Bestimmung der für die Erfassung angstbezogenen Erlebens und Verhaltens relevanten beobachtbaren Erscheinungen auf Theorien stützen mub, die deren Bedeutung als Angstindikatoren begründen. Dies ist insbesondere im Hinblick auf die Separierung der Angst von Bewältigungsprozessen relevant: Letztere sind unmittelbar mit dem Auftreten von Angst verbunden und bestimmen wesentlich die Intensität


Hypothesen über die Bedeutung variabler Übergangswahrscheinlichkeiten abgeleitet und im Hinblick auf ihre Korrespondenzen mit kind- und mutterperzipiertem Erziehungsverhalten überprüft. Die Hypothesen konnten für jüngere Kinder (acht bis zehn Jahre) bestätigt werden. Für ältere Kinder (elf bis 14 Jahre) dagegen zeigten sich insgesamt nur schwache und z.T. erwartungswidrige Assoziationen.”

“Hardman (1973) found that up class athletes are lower in anxiety. Wells (1959) found that physical fitness performance was poor in students of high anxiety.”

Hardman (1973) compared A- "trait among 42 different samples of athletes. It was found out that most male athletes were within the normal range of A-trait on the Cattell 16 PF using the desired anxiety factor, when compared with Cattell’s norms, hence most athletes tend to have A-trait levels similar to the general population. Hardman did not reveal any differences between athletes participating in individual and team sports or between athletes participating in contact and non-contact sports. He, however, suggested that superior athletes were less anxious than average-ability players, while displaying higher levels of A-trait than the population mean.”
Research dealing A-state and sports performance has produced conflicting results. Connell (1977) “found A-states reduced after winning but increased after losing in women’s intercollegiate basketball.

Significant changes in A-states of college wrestlers were found by Morgan and Hammer (1974). Basler, Fisher and Mumford (1976) also could not find a relationship between A-states and gymnastic performance, in college women. Griffin (1972) found that female gymnasts had much higher A-states scores prior to competition, when compared with other women individual and team sport participants, including basketball players.


The "model of coping modes" distinguishes four dispositionally determined patterns of behavior (coping modes) which become apparent in stressful situations: repression, sensitization, nondefensiveness, and high anxiety. Following from this model, the present study was aimed at
assessing associations between coping modes and children's looking behavior towards their mothers in a moderately stress-inducing laboratory setting. The visual exchange of 63 mothers and their eight- to 14-year-old children was observed during a ten-minute planning period for a Punch and Judy show which the child had to later perform. A close visual orientation toward the mother was registered for sensitizers. While repressers showed a heightened frequency of gazes at their mothers, their total time of looking was comparatively short. In high-anxious children, frequency of gazes as well as total time of looking were low.”


Im Modell der Bewältigungsmodi werden Intoleranz gegenüber Unsicherheit (IU) und emotionaler Erregung (IE) als zentrale personale Faktoren thematisiert, die habituellen Präferenzen für vigilante und kognitiv vermeidende Angstbewältigung zugrundeliegen sollen. Ausgehend von diesem Modell wird die Konstruktion eines Befragungsverfahrens zur separaten Erfassung von Unsicherheits- und


Ausgehend von Annahmen des "Zweiprozeß-Modells" (Krohne) und des "Kontrollmuster-Modells" (Heilbrun) elterlicher Erziehungs-wirkung, wurden Hypothesen über Zusammenhänge zwischen dem Blickverhalten des Kindes gegenüber der Mutter in einer moderat belastenden


Two studies examined the influence of coping dispositions (repression, sensitization, nondefensiveness) and anxiety on the encoding and memory representation of ambiguous threat-related stimuli. In Study 1, memory was tested shortly after encoding. Study 2 contrasted immediate and delayed testing. Repressers showed evidence of "mixed" affective reactions to ambiguous stimuli at encoding, accompanied by weak
memory representation of potentially threatening implications of these stimuli. In contrast, sensitizers and anxious individuals manifested a processing bias in favor of threatening implications of ambiguous stimuli. Influences of coping on memory were most pronounced for delayed testing. Anxiety influences on memory were weak. An expectancy-based account of individual differences in processing ambiguous stimuli is discussed.”


The study examined associations between coping dispositions (vigilance, cognitive avoidance) and indicators of the processing of ambiguous stimuli. In the first phase of the investigation, 58 male subjects were presented with a series of sentences that could be interpreted in a threatening or a nonthreatening fashion. The subjects had to rate the unpleasantness of the events described in the sentences. Subsequently, a previously unannounced recognition memory test for disambiguated (threatening and nonthreatening) variants of the sentences was carried out. Evidence based on ratings, reaction times, and recognition memory measures indicated that vigilant individuals are characterized by
processing activities which favor the intake and storage of the threatening rather than the nonthreatening meanings of ambiguous stimuli. Highly avoidant nonvigilant individuals ("repressers") showed a disproportionately large number of extremely delayed ratings.”

Hutson (1966) “while studying the relationship between level of anxiety and learning of skills in beginner horse back riding found that as the students increased in skill, their anxiety tended to decrease.”

Hardman (1973) has also reported that superior athletes are less anxious than the average ability players. Some other research workers have reported that better performers have higher level of anxiety than average player.”


Reductions in autonomic activation and muscle tension were considered to indicate adaptive relaxation following relief from a presumed stressor. Repressive coping styles were predicted to give less fall in various psychophysiological indices of activation, indicating a physiological "cost" (of repression of feelings). Forty-two male volunteers were
unexpectedly given 3 min to prepare a speech for immediate delivery. But then no speech was required, only relaxation while listening to 8 min of soothing music. Concurrent psychophysiological indices included integrated neck trapezius muscle electromyogram, non-specific skin conductance response (rate and mean amplitude), heart rate, finger pulse volume, and finger pulse volume fluctuation rate. Saliva was sampled after speech preparation and relaxation, and (K +) and (Na +) were measured. Eysenck's "Eysenck Personality Questionnaire", Spielberger's State-Trait Anger Expression Inventory and Rationality/Emotional Defensiveness Scale, Roger's Emotion Control Questionaire, and Krohne's Mainz Coping Inventory were applied. Introverts showed more tension (higher tonic electromyogram) during speech preparation and afterwards did not exhibit adaptive reduction in electromyogram. Emotional inhibition correlated negatively with electromyogram change. These results support the hypothesis that slow muscular relaxation following release from a stressor is a feature of introversion and emotional inhibition.”

Knap (1966) “found that anxiety was detrimental to the performance of a novice collegiate gymnast but had no effect on the performance of experienced gymnast.”
Kane (1968) “suggested that a process of selection on the basis of these personality traits required for athletic success, is inherent in competitive sports. Those youngsters not possessing traits such as aggression, dominance, persistence etc. are generally drop outs of highly competitive sport or selected out by their coaches through the years as not having the ‘desirable’ traits for success.”

Sports psychologists like “Cratty (1968), Davey (1972), Singer (1972), Whiting (1972) and Deelman (1972) have tried to find the linkage between sports performance on the one hand and the physical ability, skill and psychological factors on the other. However, it was Alderman (1974) who put such relationship more succinctly.”

Anxiety plays a paramount role in sports. It is the challenge in sports which produces anxiety. How an athlete handles anxiety determines how successful he would be. Anxiety may be a positive motivating force or it may interfere with performances. The degree of anxiety also varies with different conditions.

Anxiety is greater in individual sports participants than those in team sports. In an individual sport, success or failure lies solely with the individual participant. The individual here must singularly accept the repercussions of losing. In team games, errors usually go unnoticed
because of the general activity of the contest and moreover success and failure are commonly shared. The study of individual differences in anxiety responses to competitive situations has been an important area of sport personality research.

higher than introverts (n = 10). Introverts showed the expected shark-fin shaped pattern of effort-related cardiovascular reactivity for the alpha-adrenergic and cholinergic activation components. Effort decreased after the moderately difficult 2-back task. Results provide first evidence for an extraversion-based extension of the model and are discussed with regard to mood and resource allocation as possible mechanisms.”

The ratio of the lengths of the second and fourth finger (2D:4D) has been proposed to index prenatal exposure to androgens. Different methods have been utilized to measure digit ratio, however, their measurement precision and economy have not been systematically compared yet. Using different indirect methods (plastic ruler, caliper, computer software), three independent raters measured finger lengths of 60 participants. Generally, measurement precision (ICC, TEM, and relative TEM) was acceptable for each method. However, precision estimates were highest for the computer software, indicating excellent measurement precision. Estimates for the caliper method were somewhat lower followed by ruler which had the lowest precision. On the contrary,
the software-based measurements took somewhat longer to complete than
the other methods. Nonetheless, we would favor the use of these tools in
digit ratio research because of their relative superior reliability which
could be crucial when associations with other variables are expected to
be low to moderate or sample size is limited.

Software offers several promising opportunities that may contribute to an
accurate identification of the proximal finger crease (e.g., zooming,
adjusting contrast, etc.).”

K. Hurrelmann & F. Lösel (Eds.), Health hazards in adolescence (pp.
115- 130) Berlin, New York: Walter de Gruyter.

Anxiety is an emotional disorder with severe consequences both for a
person's psychic and physical well-being. Preventive interventions
require valid results with regard to etiological factors of this disorder.
Yet, among the numerous studies in the area of anxiety few
investigations refer explicitly and in a theory-guided way to the
developmental conditions of this disorder. To overcome this shortcoming
a model has been elaborated that deals with the relationship between
specific styles of parental child-rearing and the development of anxiety in
the child ("two-process model"). Dispositional anxiety is conceptualized
as a specific configuration of coping tendencies as well as habitualized consequence and competence expectancies: a tendency to frequently manifest negative consequence expectancies, low expectancies with regard to a successful mastery of stress-inducing encounters, and, in fact, a deficient competence to cope with problem situations. In forming these child characteristics parents can influence their child's behavior especially at two points: When the child is confronted with a stress-inducing problem, parents can influence the construction of respective competencies and, hence, induce competence expectancies in the child. Child-rearing styles relevant in this context are called "support" and "restriction". When a child has executed a certain problem-related response, parents can feedback the appropriateness of this behavior and, hence, induce consequence expectancies. The styles "praise" and "blame" with the dimensions frequency, intensity, and consistency are relevant for this expectancy. According to the two-process model trait anxiety is expected to be associated with specific configurations of the described child-rearing variables. An instrument for assessing child-rearing styles as perceived by the child (the "Child-Rearing Inventory") as well as studies to test the model are presented."

Lazarus discusses several controversial issues in recent stress research: (a) objective versus subjective assessment of stress, (b) the importance of critical life events versus daily hassles in predicting adaptational outcomes (e.g., health status), and (c) the role of process variables versus personality dispositions in empirical investigations. Many points made in this and earlier articles are well reasoned: the importance of assessing appraisal and coping repeatedly over slices of time and across different encounters employing a within-subject design; the necessity of prospective studies when analyzing the relationship between stress and adaptational consequences; the conceptualization of a multivariate, systems-theory approach. However, certain discrepancies between this ambitious program and some problems arising within the theoretical formulations and research strategies of the Lazarus group are obvious: 1. Deficiencies in the definition of central concepts of the theory and of the relationship among these concepts. 2. Underestimation of the role of personality dispositions in the stress process. The first problem, especially
the issue of confounded measurement resulting from it, has been the focus of much attention and debate during the last few years. I therefore present my view of this topic only briefly. For the major part of this commentary, I outline my position on the role of personality variables in analyzing the stress process.”

Many researchers have conducted studies to determine the relationship between level of anxiety and competitive performance. Nelson and Langer (1963) “have reported that athletes with extremely high levels of anxiety performed poor in competition and those who scored extremely low in anxiety did not perform well.”

Sanderson and Asthon (1981) “confirmed that the effect of anxiety on performance is not unidimensional but can be explained within the framework of the inverted U-hypothesis (performance is optimal at intermediate levels of anxiety with high and low anxiety levels affecting performance negatively). Oxendine (1970) also argued that learning performance are negatively affected when anxiety levels are high.”

Silverman (1974) “on optimal level of anxiety, stressed that a person who is insufficiently anxious will seek stimulation which increases his level of anxiety and a person who is excessively anxious seeks peace and quiet to reduce the stimulation. It is therefore of interest to
understand the kind of relationship between motor performance and the anxiety which it transiently generates. This type of relationship has not been receiving adequate attention in Nigeria.”

Slevin (1970) “who conducted study on 80 high school non-athletes by using Spielberger's STAI reported that individual with low levels of trait anxiety performed better in rival skills than those having high levels of trait anxiety.”

Weinberg and Genuchi (1980) “emphasized the need for testing the anxiety-motor performance relationship in a situation which is ego-involved, important and evaluative.” Powell and Verner (1982) also stressed the importance of assessing anxiety only after the skill has been learned so that the task itself becomes the stressor and that performance in skilled tasks recedes under conditions of excessive anxiety. The researchers further argued that the best experimental situation occurs when subjects have reached a reasonable degree of performance consistency as a result of task practice.”

These results suggest that there is no relationship between anxiety and performance. This finding supports the finding of “Morgan and Purvis (1978) but contradicts that of (Powell and Verner, 1982; Wankel, 1977; Weinberg and Ragan 1976) which found that subjects with moderate
anxiety performed better than subjects with high and low anxieties on motor skills. The finding of the present study seems logical from the point of view of Martens (1977) who contended that anxiety in the early skill learning stage impairs performance but that when skills is well learned, increase in anxiety facilitates performance. It is worthy of note to state that subjects have just completed an intensive 12 week basketball class and could have learned the skills well enough.

The result of this study can also be explained from the fact that if the quality of instruction of skill learning is high, the perceived stress of a stressful situation is correspondingly reduced hence no relationship will exist between anxiety and performance (Powell & Verner, 1982).”

It is also possible that subjects under study have learned to control their anxiety level so as to get it near and right on optimal level required for motor performance. According to “Silverman (1974), there are optimum levels of anxiety for each sport skill. Another justification for the result of this study could be found from the contention of Hall and Purvis (1980) that skill level may be an important mediating factor between A-State and performance. It is quite possible that subjects have attained that skill level which will reduce the negative effect of anxiety on their performance.”
The problem of anxiety has been considered important in all areas of human activity including sports. The study of the effect of anxiety on motor performance has become a topic of interest to sports psychologists. Nearly every concern of human endeavour is thought to be affected somehow by anxiety (Levitt, 1967). “A number of theories exist concerning the effects of anxiety on performance. Without denying the interactive effect of anxiety on the performance of certain specific tasks, all theories seem to agree that maximum performance is reduced by too much anxiety (Duffy, 1962; Hull, 1943; and Weiner, 1965).”

“Anxiety is a complex emotional state characterised by a general fear usually accompanied by tension. It is related to apprehension of fear and is frequently associated with failure either real or anticipated (Frost, 1971).” The aim of this study was to investigate the level of competitive anxiety of male and female Handball players of Inter-varsity level.

According to Schmidt (1964) individuals exhibiting “A high level of anxiety are assumed to function at a chronically increased drive level which would affect performance.”