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Attribution of attitudes toward physical activity as a function of success

Robert George Driscoll Jr.
Ithaca College

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ATTRIBUTION OF ATTITUDES TOWARD PHYSICAL ACTIVITY
AS A FUNCTION OF SUCCESS

by

Robert George Driscoll, Jr.

An Abstract

of a research project submitted in partial fulfillment
of the requirements for the degree of
Master of Science in the School
of Health, Physical Education
and Recreation at
Ithaca College

July, 1975

Research Project Advisor: Dr. A. Craig Fisher

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ABSTRACT

The purpose of this investigation was to determine if the attribution of attitudes toward physical activity is a function of prior success in physical activity. The subjects involved in this study consisted of 60 high school students, 20 varsity athletes, 20 one-time varsity athletes, and 20 non-athletes. The subjects were selected from various high schools throughout central New York State.

Kenyon's Attitude Toward Physical Activity Inventory was administered to each subject. The hypotheses were tested using a 3x7 analysis of variance for factorial design, an analysis of mean simple main effects, and Tukey's Test. The .05 level of significance was utilized as the level of acceptance or rejection of all hypotheses.

The results indicated that the attitude of athletes differed significantly from those expressed by both the non- and one-time athletes when physical activity is perceived as the "pursuit of vertigo," as an "ascetic" and "aesthetic" experience. The results also revealed that when physical activity is perceived as "health and fitness," the attitudes of athletes were significantly different from those expressed by the one-time athletes. It was noted that the athletes expressed a more favorable attitude toward each dimension of physical activity than did the non- and one-time athletes.

It was concluded that the attitudes of athletes were significantly different from those expressed by both the non-

and one-time athletes. It was also concluded that there were no significant differences between the attitudes expressed by the non- and one-time athletes.

In light of the aforementioned findings it was concluded that the attribution of attitudes toward physical activity is a function of prior success in physical activity.

**ATTRIBUTION OF ATTITUDES TOWARD PHYSICAL ACTIVITY
AS A FUNCTION OF SUCCESS**

A Research Project

**Presented to
the Faculty of the Graduate School
Ithaca College**

**In Partial Fulfillment
of the Requirements for the Degree
Masters of Science**

**by
Robert George Driscoll, Jr.**

July, 1975

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Chapter 1

INTRODUCTION

The concept of attitude and attitude change has received considerable attention in the psychological literature during the past century. Despite its relatively long history, consensus regarding an attitude definition and the causes of attitude change has been subject to a slow evolutionary process. Currently, however, there seems to be a trend in the literature to support a definition that encompasses what attitude theorists view as the three components of attitude. These components are: (a) the cognitive, (b) the affective, and (c) the behavioral.

In a recent book addressed to attitude and attitude change, Triandis (12) presented an attitude definition which includes the essence of such current thinking. He stated that "an attitude is an idea [cognitive] charged with emotions [affective] which predisposes a class of actions [behavioral] to a particular class of social situations" (12:2).

While discussing the topic of attitude change, Triandis (12) proposes that a person's attitude toward an object can be dependent on the pleasantness or unpleasantness associated with the previous experience with that object. He also postulates that positive affect (emotion) is attached to those categories which assist one in reaching his goals and negative affect is attached to those which thwart him. A similar view of attitude change is held by

Freischlag (18). In a study designed to determine some of the causes of changing attitudes toward physical education, Freischlag observed that the "law of effect" can be seen to interact with attitudes about physical activity. He stated that "people tend to repeat those experiences that are perceived as pleasant and in which they found success"(18:21).

Results from studies conducted by Carr (15), Vincent (27), and Reeves (37) seem to support the views of attitude change held by Triandis and Freischlag. These studies sought to determine the relationship between the expressed attitude toward physical education and success in physical education activities. In each of these studies an attitude toward physical education inventory was administered prior to the participation in physical education class and the final mark was utilized as the success factor. The results all indicated a significant relationship between expressed attitudes and success.

In studies conducted by Holbrook (32) and Peterich (36), addressed to the formulation of positive attitudes toward specific sports, i.e., gymnastics and basketball, they concluded that as performance "success" increased so did the attitude toward the sport.

The aforementioned studies (15,27,32,36,37) are subject to three major criticisms. The first criticism is addressed to the findings of Carr (15), Vincent (27), and Reeves (37) which indicated a significant relationship between expressed attitudes and success. The main criticism with these studies is that one

is unable to determine from their findings whether prior positive attitudes toward physical education resulted in success or did prior success in physical education result in the formulation of positive attitudes.

The second major criticism is related to how the term "success" is utilized in the aforementioned studies. In these studies, in order to be considered a "success" in sport or physical activity, one must either participate on a "winning team" or be a "superior performer" in physical education class. In light of the small number of athletes who possess the ability to be a winner or a superior performer, there is a good possibility that for the majority of athletes, "success" has a very different meaning. In fact, many athletes view success in sport simply as their ability to make the team and be considered "one of the guys."

The third criticism is addressed to the studies conducted by Holbrook (32) and Peterich (36). Although they concluded that as performance "success" increased so did the attitude toward that sport, their findings only seem to answer one side of the coin. If according to their findings, the formulation of positive attitudes toward sport were in fact the function of success, one can only make the speculation that if success were taken away the result would be the formulation of negative attitudes.

In light of the criticisms of the aforementioned studies

and since no study has been conducted to determine if the attribution of attitudes toward physical activity is the function of success, the present study was undertaken.

Statement of Problem

The purpose of this study was to determine if the attribution of attitudes toward physical activity is a function of prior success in physical activity.

Scope of Problem

The primary purpose of this investigation was to determine if the attribution of attitudes toward physical activity is the function of prior success in that activity. The subjects in this study consisted of 60 high school students, 20 varsity athletes, 20 one-time varsity athletes and 20 non-athletes. Kenyon's ATPA Inventory was utilized to determine each subject's expressed attitude toward physical activity.

Definition of Terms

For the purpose of this study the following definitions were used:

1. Attitude. An attitude is "an idea charged with emotions which predisposes a class of actions to a particular class of social situations"(12:2).
2. Favorable Attitude. A positive attitude is indicated by a numerical score above four on Kenyon's Attitude Toward Physical Activity Inventory.

3. Unfavorable Attitude. A negative attitude is indicated by a numerical score below four on Kenyon's Attitude Toward Physical Activity Inventory.

4. Non-Athlete. A non-athlete is a male high school student who has never participated on an organized athletic team and is not presently participating in some type of physical activity.

5. One-Time Varsity Athlete. A one-time varsity athlete is a male high school student who played at least one year of varsity level competition and then was dismissed from the team either because of a perceived lack of ability or for disciplinary reasons.

6. Varsity Athlete. A varsity athlete is a male high school student who played one or more years of varsity level competition.

7. Physical Activity as a Social Experience. "Physical activity as a social experience is characterized by those activities whose primary purpose is to provide a medium for social intercourse" (20:99).

8. Physical Activity for Health and Fitness. Physical activity for health and fitness is defined as that portion of physical activity "characterized primarily by its contribution to the improvement of one's health and fitness"(20:99).

9. Physical Activity as the Pursuit of Vertigo. "Physical activity as the pursuit of vertigo is considered to be those physical experiences providing, at some risk to the participant,

an element of thrill through the medium of speed, acceleration, sudden change of direction, or exposure to dangerous situations with the participant usually remaining in control"(20:99).

10. Physical Activity as an Aesthetic Experience.

Physical activity as an aesthetic experience is characterized by those activities which "are conceived of as possessing beauty or certain artistic qualities"(20:99).

11. Physical Activity as a Catharsis. Physical activity as a catharsis is characterized by that "physical activity perceived as providing a release of tension precipitated by tension from some vicarious means"(20:99).

12. Physical Activity as an Ascetic Experience. Physical activity as an ascetic experience is that activity involving "long strenuous, and often painful training and stiff competition demanding a deferment of many gratifications"(20:100).

13. Physical Activity as Games of Chance. Physical activity as games of chance is characterized by those activities "where chance and luck are more important than skill in determining the winner"(33:33).

14. Success. Success is the ability of a high school student to participate on a varsity team.

15. Attribution. Attribution is the process whereby "people attribute characteristics, intentions, feelings, and traits to objects in their social world"(8:47).

Research Hypothesis

The attribution of attitudes toward physical activity

is a function of prior success in physical activity.

Minor Hypotheses

1. There will be significant differences between attitudes toward physical activity possessed by high school varsity athletes and high school non-athletes.

2. There will be significant differences between attitudes toward physical activity possessed by high school varsity athletes and one-time high school varsity athletes.

3. There will be significant differences between attitudes toward physical activity possessed by one-time high school varsity athletes and high school non-athletes.

Null Hypotheses

The attribution of attitudes toward physical activity is not a function of prior success in physical activity.

Minor Hypotheses

1. There will be no significant differences between attitudes toward physical activity possessed by high school varsity athletes and high school non-athletes.

2. There will be no significant differences between attitudes toward physical activity possessed by high school varsity athletes and one-time high school varsity athletes.

3. There will be no significant differences between attitudes toward physical activity possessed by one-time high school varsity athletes and high school non-athletes.

Assumptions

For the purpose of this study the following assumptions have been made:

1. Each subject answered Kenyon's ATPA Inventory and the physical activity questionnaire carefully and honestly.
2. The sample of varsity athletes is representative of the general population of high school athletes participating at the varsity level of competition in central New York State.

Delimitations of Study

The delimitations of this study were as follows:

1. The study involved only male varsity athletes, one-time varsity athletes and non-athletes at the high school level.
2. The attitudes were assessed by the use of Kenyon's ATPA Inventory.

Limitations of Study

1. Generalizations could not be made beyond male varsity athletes, one-time varsity athletes and non-athletes at the high school level.
2. The cognitive component was the only dimension of attitude assessed by Kenyon's ATPA Inventory.

Chapter 2

REVIEW OF RELATED LITERATURE

The following is a review of the related literature pertaining to the present study. The review of literature is divided into the following areas: (1) attitude assessment; (2) description and development of the Kenyon Attitude Toward Physical Activity Inventory; (3) attitude studies involving athletes and non-athletes; (4) attitude studies investigating the relationship between attitudes and success; and (5) summary.

Attitude Assessment

The term "attitude" has been part of the psychological literature for many years. However, despite a relatively long history, consensus among theorists regarding the definition of attitude has been difficult to reach. According to Fishbein (4:8), one of the reasons for a lack of consensus is that

it is not easy to construct a definition sufficiently broad to cover the many kinds of attitudinal determination which psychologists today recognize, and at the same time narrow enough to exclude those types of determination which are not ordinarily referred to as attitudes.

Fishbein concludes that the chief weakness of most attitude definitions lies in their "inability to distinguish between attitudes, which are often very general, and habits, which are always limited" (4:8).

A review of the literature reveals a vast number of attitude definitions. Thurstone (26:40) defined attitude ". . . as the intensity of positive and negative effect for or against a psychological object." Allport (2:810) concluded that "attitude

connotes a neuropsychic state of readiness for mental and physical activity." Droba (17:444) proposes that "an attitude is a mental disposition of the human individual to act for or against a definite object." More recently, Sherif (11:4) referred to attitudes ". . . as the stands an individual upholds and cherishes about objects, issues, persons, groups or institutions."

After surveying the many different attitude definitions advanced in the literature, Greenwald (5) attempted to classify the writers of these definitions into four distinct categories. The four categories are: (a) those who present and justify their own definition while acknowledging that it may be different from others; (b) those who review several definitions and opt in favor of one or offer a new conceptualization; (c) those who acknowledge the multitude of different definitions and conclude that finding consensus or justification in favor of one or another is not practical; and (d) those who attempt to translate various definitions of attitude into a common language and with that language relate to the convergence among the definitions.

Triandis (12) recently proposed a definition which could be classified in the second category and includes the essence of the ideas presented by the attitude theorists. He stated that "an attitude is an idea charged with emotions which predisposes a class of actions to a particular class of social situations"(12:2).

This definition represents the position of current thinking that an attitude consists of three components. These

have been labeled as: (a) the cognitive component which is represented in the definition by "idea"; (b) the affective component which is represented by "charged with emotions"; and (c) the behavioral component which is represented by "predisposes a class of actions." According to Triandis (12), the cognitive component consists of those categories with which the individual associates the attitude object. The affective component is concerned with the emotion aroused by the attitude object. The behavioral component is the intention of an individual to behave in certain ways toward the attitude object.

Fishbein (4), however, does not agree with the component approach to attitude. He argues that if a multidimensional view of attitude is held it implies that the attitude a person holds toward an object may be represented at three different positions on three different dimensions. The measurement of the affective or evaluative "attitude" can, according to Fishbein, be achieved by "considering affective responses to either beliefs (cognitive) or behavioral intentions or by measuring evaluation per se (eg. Semantic Differential)"(4:66). Greenwald (5), on the other hand, maintains that the unitary concept such as Fishbein proposes, is not necessary to account for behavioral consistency. He stated that

the set of habits (behavioral component), cognitions, and emotions identified as attitude would be expected to display substantial internal consistency strictly on the ground that (a) the components all derive from the experience of a single individual, (b) a single learning situation may simultaneously satisfy the conditions, necessary for habit,

cognition, and emotional acquisition, and (c) a certain portion of the residual inconsistency may be removed by the operation of intercomponent organizing process (4:369).

Although there seems to be some disagreement (4,5) on how attitude should be viewed, the majority of the theorists (7,11, 12) seem to support the component approach.

In a recent paper addressed to attitude measurement in physical education, Albinson (1) made a statement which seems to reiterate the aforementioned view. He stated that

while Triandis acknowledges the overlap in information obtained by using similar measuring formats to assess each component, there are also aspects which are unique to each and therefore important to ascertain through a component approach to attitude (1:4).

Description and Development of the Kenyon Attitude Toward Physical Activity Inventory

Coaches have been concerned with the attitude of athletes toward sport for a number of years. The underlying reason for their interest stems largely from the notion that a positive attitude is a prerequisite for success in sport. There are two major criticisms relative to this type of reasoning. The first criticism is related to the fact that coaches may be mistaking the "role" an athlete is playing for attitude. For example, if a quarterback was to stay after practice to throw extra passes, many coaches would classify that individual as possessing a positive attitude toward the game of football. This type of attitude assessment is based solely on subjective observation and "what you see is not always what you get." The quarterback in this example may actually dislike the game of football and he

is simply playing a "role" of which the coach approves. He may be playing this role for a number of reasons, i.e., achievement, affiliation, power, all of which may have nothing to do with his attitude toward the game of football. The second criticism is addressed to the notion that a positive attitude is a prerequisite for success in sport. This is a claim that has been made much too often by both coaches and athletes in light of limited to no research evidence. With the recent development of Kenyon's ATPA Inventory, studies are being conducted with the hopes of providing some empirical evidence relative to the relationship between attitude and success in sport.

Over the years a number of studies addressed to the subject of attitudes toward physical activity have appeared in the research literature. According to Kenyon (21), however, these studies have suffered from three major shortcomings: (a) sufficient attention has not been paid to the characterization of "physical activity" in the broadest sense. Efforts to date have usually limited the inquiry to a somewhat restricted domain such as "physical education," "team game competition," or "sports"; (b) instruments seldom were based upon a thorough application of the appropriate test construction procedures so long a part of the measurement literature, such as item analysis and psychological scaling techniques. When such methods were used, too often data were acquired from relatively small samples; (c) where scaling procedures were employed, such as in the development of instruments by Mason and Ventre (22), Richardson (23), and Wear (29), there

has been a failure to account for the possible, and indeed likely, multidimensionality of the domain in question. In an attempt to overcome such problems, Kenyon (20,21) formulated a scale for the assessment of attitudes toward physical activity.

Kenyon's (20) first step was the development of his conceptual model for characterizing physical activity. He utilized three hypothetical models of his inventory, testing randomly selected adults and college students. Intercorrelations and factor analysis of each set of data from the first two models provided little evidence of a meaningful structure. After some revisions due to mathematical and statistical analysis of his data, a third model was formulated. The structural integrity of the model was tested using an incomplete image analysis followed by an oblique rotation of the first six factors. The results indicated that the model consisted of six independent domains. The domains were: (1) physical activity as a social experience, i.e., as a vehicle to meet people; (2) physical activity for health and fitness; (3) physical activity as the pursuit of vertigo, as providing for some danger or risk taking in sport; (4) physical activity as an aesthetic experience, where beauty and artistry are seen; (5) physical activity as a catharsis, providing the release of tensions and frustrations; and (6) physical activity as an ascetic experience, a challenge, a long hard training period. Kenyon utilized college males and females to test the model for construct validity. He also determined the degree of internal validity using Hoyt's analysis of variance approach.

In a follow-up study, Kenyon (21), transformed his model into six scales for assessing attitudes toward physical activity. He developed a Likert-type attitude scale with seven alternatives, using statements thought to be representative of each dimension. These statements were evaluated by judges, revised, and divided into two separate but similar inventories, one for college men and one for college women. The inventories were administered to groups of males and females at the University of Wisconsin. Reliability was established for each domain using Hoyt's procedure. The reliability coefficients ranged from (.72) on the social scale to (.89) on the pursuit of vertigo scale for males, and (.68) on the social scale to (.87) on the aesthetic scale for females. Due to some high correlations with items on the health and fitness (.52) and ascetic experience (.45) scales, validity was not established for physical activity as a catharsis. It should be noted, however, that validity was established for the other five scales.

With the development of a reliable tool to assess attitudes toward physical activity, Kenyon (33) conducted what may be considered his most classic study. He compared the values held for physical activity by selected urban secondary school students in Canada, Australia, England and the United States. The cross-sectional study involved students from upper and lower levels of secondary school. Kenyon used among other instruments, his own scale for assessing attitudes toward physical activity. However, for this study he added a seventh dimension to his original model for

assessing attitudes. The seventh dimension of his model was "physical activity as a game of chance." According to Kenyon, the dimension of "chance" was added to the model in view of its prevalence in the literature dealing with the classification of games and sports.

To assess attitudes toward each of the seven dimensions of physical activity, the semantic differential approach was used, where each "perceived instrumentality" became a "concept." Eight adjectival pairs, each with seven positions were employed for each concept. The eight adjectival pairs were as follows:

good-bad
 worthless-worthwhile
 pleasant-unpleasant
 sour-sweet
 nice-awful
 sad-happy
 clean-dirty
 relaxed-tense

By utilizing the semantic differential approach, Kenyon felt that the reliability of his assessment tool would be increased. According to Kenyon, by making the model more compact with regard to the reading a subject had to do, the possibility of misinterpreting the concepts due to "wordiness" was reduced.

To explore differences among countries, between levels of educational attainment, and between sexes, with regard to attitudes held toward physical activity, Kenyon utilized a number

of different statistical procedures including a three-way factorial analysis of variance. Two of his general findings were that attitude toward physical activity was a function of primary (actual) and secondary (vicarious) involvement in the activity, and it was also associated with the individual's behavioral disposition, i.e., body esteem, self esteem, and need for approval. More specifically, he found sex differences existed with the females expressing a more positive attitude toward physical activity when it is perceived as a social experience, as health and fitness, as an aesthetic experience, and as a catharsis. Males, on the other hand, expressed more positive attitudes than females toward physical activity perceived as the pursuit of vertigo, as an ascetic experience, and as chance. Another significant finding was that the Australian sample of attitudes toward all dimensions of physical activity was considerably lower than those expressed by students from the other three countries. Differences between the two levels of educational attainment were also found with the older students expressing more favorable attitude toward physical activity as an aesthetic experience, and as catharsis. The younger groups expressed a more positive attitude toward physical activity as chance.

Attitude Studies Involving Athletes and Non-Athletes

A review of the literature revealed a number of attitude studies (14,16,31,39,40,41) involving athletes and non-athletes. Some studies (16,31,40) sought to compare the attitudes of athletes

and non-athletes toward physical education or physical activity. Other studies (14,39,41) investigated the attitudes of varsity or champion athletes toward physical activity.

In an interesting study by Dowell (16), the attitudes of high school lettermen and their parents were assessed and compared to the attitudes of non-lettermen and their parents. One hundred ninety-nine students took a modified version of the Army Physical Fitness Test including pull-ups, sit-ups and 200-yard run. A physical activity inventory was constructed (adapted from the Wear Physical Education Attitude Inventory) and administered to students and their parents. The results indicated that students who had earned a high school athletic letter possessed better physical fitness and had more favorable attitudes toward physical activity than did students who had not earned an athletic letter in high school. Mothers and fathers of high school athletes, however, did not possess more favorable attitudes regarding physical activity than did mothers and fathers of high school non-athletes. The findings of this study seem to reiterate the earlier mentioned views of Triandis (12) and Freischlag (18) regarding the topic of attitude change. Since the high school lettermen experienced "success" in physical activity, it is not surprising that they possessed a more positive attitude toward physical activity than did the non-lettermen and both sets of parents.

Floyd (31) conducted a study to determine the attitudes expressed by athletes and non-athletes toward physical education.

Attitudes were determined by administering the Wear PEAI to 180 athletes and 193 non-athletes at selected state universities of Illinois. The results indicated that attitudes toward physical education in the athletic group were distributed significantly higher than those of the non-athletes.

A similar attitude study involving junior high school female athletes and non-athletes was conducted by Stricklin (40). The Wear PEAI was administered to 198 junior high school girls. Scores were so organized that comparisons could be made between grade levels as well as between athletes and non-athletes. The results revealed that attitudes of female athletes were significantly more favorable toward physical education than those of non-athletes and the attitudes of the eighth grade subjects were significantly more favorable than were attitudes of the subjects in the seventh grade. The findings of Floyd (31), and Stricklin (40) are similar in that athletes were found to possess a more positive attitude than non-athletes toward physical education. The reason for this difference might be due to the fact that since athletes experience greater success than non-athletes in physical activity, such activity is viewed in a more positive light.

Simpson (39) utilized Kenyon's ATPA Inventory to assess the attitudes of varsity athletes toward physical activity. The inventory was administered to 73 male athletes participating in collegiate varsity football, basketball, track, tennis, and golf. The results indicated that varsity athletes tended to exhibit positive attitudes toward physical activity. Physical activity

perceived as "an ascetic experience," and as "catharsis" were expressed equally as the strongest positive values. These were followed by equal expressions for the "health and fitness" and "social experience" domains. All athletes, however, responded negatively to physical activity perceived as an "aesthetic experience."

Kenyon's ATPA Inventory was also used by Vanderbilt (41) in his investigation of the attitudes of varsity athletes toward their respective sports. Kenyon's inventory was administered to coaches and athletes in collegiate varsity wrestling, basketball, baseball, football, track, golf, and tennis. The results of this study were similar to Simpson's (39) findings in that both varsity athletes and their coaches ranked the ascetic value of sport as the first choice, and the aesthetic value of sport as their last. Such findings would seem to indicate that for the male athletes, any medium whereby his "masculine image" can be projected is viewed in a positive light, i.e., physical activity of long hard training.

A study of the attitudes of champion athletes by Alderman (14) revealed findings which are contradictory to those of both Simpson (39) and Vanderbilt (41). In using Kenyon's model, Alderman found that male and female attitudes were similar among champion athletes and that males scored surprisingly high on the "aesthetic" scale. He found a low favorability toward physical activity as an ascetic experience. Perhaps this unfavorability was because long training and competition, even though a great part of a competitor's life,

may not be the part of his activity he enjoys the most.

Attitude Studies Investigating the Relationship between Attitudes and Success

The relationship between expressed attitudes and success in a particular sport or physical activity would seem to be of significant interest to both researchers and coaches alike. A thorough review of the literature revealed that only a few studies (15,25,27,31,36,37) have been conducted to determine the relationship between attitudes and success. Although some of these studies (15,27) utilized females, they were considered pertinent to this investigation in view of Alderman's (14) findings that male and female athletes's possess similar attitudes toward physical activity. These studies were also considered to be pertinent in light of the small number of studies addressed to the relationship between attitudes and success.

Smith (25) conducted a study a number of years ago utilizing high school football players to determine the effect success had on their level of aspiration. Smith found that an individual's level of aspiration rose with success and dropped with failure in a football situation. The failure group also tended to escape from the failure-producing situation by quitting the team. If Smith's "level of aspiration" could be considered an expression of attitude, one may have some valuable information regarding the relationship between attitudes and success in an athletic situation.

Carr (15) conducted an investigation to determine the

relationship between success in physical education and selected attitudes of high school freshmen females. During the first week of classes, 335 freshmen females were administered an attitude-rating scale devised by Carr. At the completion of the physical education course, each female's score on the attitude-rating scale was compared to her final mark in the class. From an analysis of the data collected, it was concluded that the attitudes held by entering freshmen females may influence their success in physical education class.

In a similar study, Vincent (27) investigated the relationship between expressed attitudes of college women toward physical education and success in a variety of physical education activities. The Wear PEAI was administered to 188 college women in a variety of physical education activities. The final grade received for the activity course was used as the success factor. The results indicated that there was a significant relationship between attitude and success. In other words, college females who possessed the more positive attitude toward physical education tended to perform better in physical education activities. This finding seems to be consistent with the aforementioned results of Carr (15). However, both studies fail to answer a significant question relative to whether prior positive attitudes toward physical education resulted in success or did prior success in physical education result in the formulation of positive attitudes.

Reeves (37) conducted a study with freshmen college students to determine if their attitude toward physical education changed

after participating in a semester of physical activity courses. Each subject was administered the Wear PEAI in the first and last week of the semester. The results indicated that there was a significant change in the stated attitudes of all freshmen students toward physical education. The interpretation of such findings would seem to indicate that as a result of experiencing some degree of "success" in physical activities, the attitude toward that activity increased. Findings such as these must be viewed cautiously in light of the difficulty in measuring change over time. There are a number of influencing factors, i.e., reliability of the testing instrument, regression to the mean, ceiling effect, all of which can cause change, therefore making it difficult to attribute such change to the actual treatment utilized.

Holbrook (32) investigated the relationship between attitude toward and performance in gymnastics of college physical education majors. One hundred twenty-seven physical education majors took a pre- and post-gymnastics attitude inventory and a pre- and post gymnastics skill test. The results indicated that pre-gymnastics attitude was related to pre-gymnastics skill and post-gymnastics skill. Pre-gymnastics attitude was related to post-gymnastics attitude. Both attitude and performance in gymnastics increased as a result of instruction.

Peterich (36) conducted a study with 39 tenth grade boys to determine if negative attitudes toward basketball could be changed after six weeks of instruction in fundamental skills.

Each subject was given a revised version of the semantic differential attitude test prior to and after the six weeks of instruction. The results indicated that all 39 subjects showed a significant increase in basketball skill and definite change from negative to positive attitudes toward basketball.

Summary

Consensus among theorists regarding an attitude definition and the causes of attitude change has been subject to a slow evolutionary process. Although there seems to be some disagreement (2,4,5,7,11,12,26) on how attitude should be viewed, the majority of the theorists seem to support the component approach.

With the recent development of Kenyon's ATPA Inventory, studies are being conducted with the hopes of providing some empirical evidence relative to the relationship between attitude and success in a sport situation. While developing the ATPA Inventory, Kenyon (20,21) utilized three hypothetical models, testing randomly selected adults and college students. An analysis of the data revealed that the model consisted of six independent domains. The domains were: (1) physical activity as a social experience; (2) physical activity for health and fitness; (3) physical activity as the pursuit of vertigo; (4) physical activity as an aesthetic experience; (5) physical activity as a catharsis; and (6) physical activity as an ascetic experience. Reliability was established for each domain using Hoyt's analysis of variance approach.

Some studies (14,39,41) have assessed and compared the

expressed attitudes of athletes and non-athletes toward physical activity. Other studies (16,31,40) have assessed and compared the expressed attitudes of athletes and non-athletes toward physical education. All of the aforementioned studies indicated that the attitudes of athletes toward physical activity or physical education were more favorable than those expressed by the non-athletes.

A number of studies (15,25,27,31,36,37) have been conducted to determine the relationship between attitude and success. Although all of the aforementioned studies revealed a significant relationship between expressed attitudes and success in a sport situation, they are subject to three major criticisms. The first criticism is addressed to the findings of Carr (15), Vincent (27), and Reeves (37) which indicated a significant relationship between expressed attitudes and success in physical education. The main criticism with these studies is that one is unable to determine from their findings whether prior positive attitudes toward physical education resulted in success or did prior success in physical education result in the formulation of positive attitudes.

The second major criticism is related to how the term "success" is utilized in the aforementioned studies. In these studies, in order to be considered a "success" in sport or physical activity, one must either participate on a "winning team" or be a "superior performer" in physical education class. In light of the small number of athletes who possess the ability to be a winner or a superior performer, there is a good possibility that

for the majority of athletes, "success" has a very different meaning. In fact, many athletes view success in sport simply as their ability to make the team and be considered "one of the guys."

The third criticism is addressed to the studies conducted by Holbrook (32) and Peterich (36). Although they concluded that as performance "success" increased so did the attitude toward that sport, their findings only seem to answer one side of the coin. If according to their findings, the formulation of positive attitudes toward sport were in fact the function of success, one can only make the speculation that if success were taken away the result would be the formulation of negative attitudes.

In light of the aforementioned criticisms, there appears to be a need for further investigation of the relationship between attitude and success in a sport situation.

Chapter 3

METHODS AND PROCEDURES

This chapter is divided into the following areas: (1) selection and classification of subjects; (2) testing instrument; (3) method of data collection; (4) scoring of data; (5) treatment of data; and (6) level of significance.

Selection and Classification of Subjects

The subjects for this investigation consisted of 60 male high school students between the ages of 15 and 17 years. Of these subjects, 20 were selected from high school varsity athletic teams and were classified as "varsity athletes." The remaining 40 subjects were selected according to their ability to meet a specified set of criteria. Twenty subjects were selected and classified as "one-time varsity athletes." The subjects in this classification played at least one year of varsity level competition and then were dismissed from the team either because of a perceived lack of ability or for disciplinary reasons. It should be noted that none of the individuals in this classification either quit or left the team by their own accord. They were dismissed from the team either by the coach or principal. The remaining 20 subjects were selected and classified as "non-athletes." Subjects who were classified as "non-athletes" had never participated on an organized athletic team and were not involved in any recreational or sport pursuit.

In an attempt to elicit controls on the sampling procedures,

equal numbers of subjects in each classification were selected from the various schools. For example, if two "one-time varsity athletes" were selected from a school then two "varsity athletes" and two "non-athletes" would also be randomly selected from the same school. In fact, if two "one-time varsity athletes" were dismissed from the football team, the two "varsity athletes" selected would also be members of that football team.

Testing Instrument

The testing instrument utilized in this investigation was the Kenyon Attitude Toward Physical Activity Inventory, semantic differential approach (33). Kenyon's ATPA Inventory was selected because of its established reliability, validity (20,21,33), ease of administration and pertinence of the concepts to the testing of the stated hypotheses.

Kenyon (20,21) validated the ATPA Inventory by comparing the scores of persons who responded to the inventory with the results of persons who were known to possess each of the six qualities measured. The structural integrity of the model was established by using an incomplete image analysis followed by an oblique rotation of the first six factors. Reliability was established for each domain using Hoyt's procedures. The reliability coefficients were lowest (.72) for the social domain and highest (.89) for the pursuit of vertigo domain.

Method of Data Collection

Physical education teachers and coaches at various high

schools throughout central New York State were contacted by telephone to determine if they would assist the investigator in securing subjects for the present study. The teachers and coaches who rendered their assistance were contacted in person by the investigator and personally interviewed. The interview was utilized to acquaint the teacher with the purposes of the investigation and to determine if there were any individuals in the school who could fit the criteria necessary to be classified as a "varsity athlete," "one-time varsity athlete" or non-athlete." The subjects who met the criteria were contacted either by phone or in person to determine if they would take part in the investigation. The data were collected during one testing session at each high school from which the subjects had been selected. The instructions given to the subjects were the same for each testing session and were read by the investigator (Appendix B).

Scoring of Data

Each of the eight scales addressed to the seven dimensions of physical activity were assigned Likert-type values ranging from one through seven. The values assigned to each domain were calculated for each subject resulting in a separate score for each domain. The data were then transferred to data cards for computer analysis.

Treatment of Data

A 3x7 analysis of variance factorial design program

BMD02V (3) was utilized to determine if statistically significant differences existed between groups, between scales, and between groups x scales. In the event that a significant interaction existed between groups x scales, an analysis of variance of mean simple main effects was computed. If a significant F ratio was found between groups, or between scales, Tukey's test (13) was utilized to determine where the differences were located.

Level of Significance

The .05 level of significance was selected for the present study as the level of acceptance or rejection of all hypotheses.

Chapter 4

ANALYSIS OF DATA

The results of the investigation are presented in this chapter. The chapter is divided into the following areas: (1) means for athletes, non-athletes, one-time athletes, and totals across scales of Kenyon's ATPA Inventory for subjects selected from high schools throughout central New York State; (2) analysis of variance for factorial design of means for athletes, non-athletes, and one-time athletes physical activity attitude differences between groups, scales, and groups x scales; (3) Tukey's test applied to athletes', non-athletes', and one-time athletes' total attitude mean scores; (4) Tukey's test applied to athletes', non-athletes', and one-time athletes' attitude mean scores across scales; and (5) summary.

Means for athletes, Non-Athletes, One-Time Athletes, and Totals Across Scales of Kenyon's ATPA Inventory for Subjects Selected from High Schools Throughout Central New York State

The means for athletes, non-athletes, one-time athletes and totals across scales are presented in Table 1. These means are the basis of all treatments.

Analysis of Variance for Factorial Design of Means for Athletes, Non-Athletes, and One-Time Athletes Physical Activity Attitude Differences Between Groups, Scales, and Groups X Scales

The analysis of variance for factorial design revealed an F ratio of 15.29 for subjects between groups (Table 2). Since the obtained F ratio value exceeded that required for significance

TABLE 1
 MEANS FOR ATHLETES, NON-ATHLETES, ONE-TIME ATHLETES, AND TOTALS ACROSS
 SCALES OF KENYON'S ATPA INVENTORY FOR SUBJECTS SELECTED FROM
 HIGH SCHOOLS THROUGHOUT CENTRAL NEW YORK STATE

	Social	Health and Fitness	Pursuit of Vertigo	Aesthetic	Cathartic	Ascetic	Chance
	1	2	3	4	5	6	7
ATHLETES	46.75	46.20	43.29	45.70	45.59	39.04	34.39
NON-ATHLETES	41.20	41.39	34.59	38.39	40.59	27.84	37.54
ONE-TIME ATHLETES	42.39	38.89	36.75	37.54	40.09	28.84	34.29
TOTALS	43.45	42.16	38.21	40.54	42.09	31.71	35.08

at the .05 level, it was concluded that significant attitude differences toward physical activity existed between athletes, non-athletes and one-time athletes.

The obtained F ratio for scales within subjects was 16.12' (Table 2). Since the F ratio value exceeded that required for significance, it was concluded that significant scale differences discriminated the athletes', non-athletes' and one-time athletes' expressed attitudes toward physical activity.

An F ratio value of 1.74 for groups x across scales within subjects was not significant at the .05 level (Table 2). This finding indicated that there were no significant interactions between these two variables.

Tukey's Test Applied to Athletes', Non-Athletes' and One-Time Athletes' Total Attitude Mean Scores

To determine where significant differences existed between athletes', non-athletes' and one-time athletes' total attitude mean scores, Tukey's test was computed. A summary of the results is presented in Table 3.

Although the analysis of variance for factorial design revealed significant attitude differences toward physical activity between athletes, non-athletes and one-time athletes, Tukey's Test failed to determine where these differences existed.

Tukey's Test Applied to Athletes', Non-athletes' and One-Time Athletes' Attitude Mean Scores Across Scales

To determine where significant attitude differences existed across scales between athletes', non-athletes' and one-time

TABLE 2

ANALYSIS OF VARIANCE FOR FACTORIAL DESIGN OF MEANS FOR ATHLETES, NON-ATHLETES, AND ONE-TIME ATHLETES PHYSICAL ACTIVITY ATTITUDE DIFFERENCES BETWEEN GROUPS, SCALES, AND GROUPS X SCALES

Source of Variation	SS	df	MS	F
<u>Between Subjects</u>				
Groups	3229.59	2	1614.79	15.29*
Ss within groups	6019.85	57	105.61	
<u>Within Subjects</u>				
Scales	6497.30	6	1082.88	16.12*
Groups X Scales	1407.99	12	117.33	1.74
Scales X Ss within groups	22966.23	342	67.15	

*Significant at the .05 level.

TABLE 3

TUKEY'S TEST APPLIED TO ATHLETES*, NON-ATHLETES* AND ONE-TIME ATHLETES* TOTAL ATTITUDE MEAN SCORES

	Total Attitude Mean Score	Mean Difference Between Athletes and One-Time Athletes	Mean Difference Between Athletes and Non-Athletes	Mean Difference Between Non-Athletes and One-Time Athletes
ATHLETES	42.99	6.10	5.62	.48
NON-ATHLETES	37.37			
ONE-TIME ATHLETES	36.89			

*Significant at the .05 level.

athletes', Tukey's test was utilized.

The results indicated that when physical activity is perceived as "health and fitness," the attitudes of athletes were significantly different from those expressed by the one-time athletes (Table 4). There were no significant differences, however, between the attitudes expressed by the non-athletes and one-time athletes.

Tukey's test also revealed that the attitude of athletes differed significantly from those expressed by both the non- and one-time athletes when physical activity is perceived as the "pursuit of vertigo," (Table 5) as an "ascetic" (Table 6) and "aesthetic" experience (Table 7). The athletes tended to express a more positive attitude toward these three dimensions of physical activity.

The aforementioned finding that the attitudes of athletes were significantly different from those expressed by both the non- and one-time athletes led to the acceptance of minor research hypotheses one and two. However, since Tukey's test revealed that there were no significant differences between the attitudes expressed by the non- and one-time athletes, minor research hypothesis number three was rejected.

In light of the aforementioned findings the major research hypothesis which stated that the attribution of attitudes toward physical activity is a function of prior success in physical activity was accepted.

TABLE 4

TUKEY'S TEST APPLIED TO ATHLETES*, NON-ATHLETES* AND ONE-TIME ATHLETES* ATTITUDE MEAN SCORES FOR THE HEALTH AND FITNESS SCALE

	Total Attitude Mean Score for Health & Fitness	Mean Difference Between Athletes and One-Time Athletes	Mean Difference Between Athletes and Non-Athletes	Mean Difference Between Non-Athletes and One-Time Athletes
ATHLETES	46.20			
NON-ATHLETES	41.39	7.51*	4.81	2.50
ONE-TIME ATHLETES	38.89			

*Significant at the .05 level.

TABLE 5
 TUKEY'S TEST APPLIED TO ATHLETES', NON-ATHLETES', AND
 ONE-TIME ATHLETES' ATTITUDE MEAN SCORES
 FOR THE PURSUIT OF VERTIGO SCALE

	Total Attitude Mean Score for the Pursuit of Vertigo	Mean Difference Between Athletes and One-Time Athletes	Mean Difference Between Athletes and Non- Athletes	Mean Difference Between Non- Athletes and One- Time Athletes
ATHLETES	43.29			
NON-ATHLETES	34.59	6.54*	8.70*	2.16
ONE-TIME ATHLETES	36.75			

*Significant at the .05 level.

TABLE 6

TUKEY'S TEST APPLIED TO ATHLETES*, NON-ATHLETES* AND
ONE-TIME ATHLETES* ATTITUDE MEAN SCORES
FOR THE ASCETIC SCALE

	Total Attitude Mean Score for the Ascetic Scale	Mean Difference Between Athletes and One-Time Athletes	Mean Difference Between Athletes and Non- Athletes	Mean Difference Between Non- Athletes and One- Time Athletes
ATHLETES	39.04			
NON-ATHLETES	27.84		11.20*	.41
ONE-TIME ATHLETES	28.25	10.79*		

*Significant at the .05 level.

Summary

An analysis of variance for factorial design was utilized to determine if the attitude of athletes, non-athletes and one-time athletes differed significantly between groups, scales and groups across scales. The results indicated that significant attitude differences toward physical activity existed between groups and between scales, however, no significant interactions were found between groups across scales.

To determine where significant differences existed between groups and between scales, Tukey's test was computed. Although the analysis of variance for factorial design revealed significant attitude differences toward physical activity between athletes, non-athletes and one-time athletes, Tukey's test failed to determine where these differences existed. However, Tukey's test did indicate that when physical activity is perceived as "health and fitness," the attitudes of athletes were significantly different from those expressed by the one-time athletes. Tukey's test also revealed that the attitudes of athletes differed significantly from those expressed by both the non- and one-time athletes when physical activity is perceived as the "pursuit of vertigo," as an "ascetic" and "aesthetic" experience.

The aforementioned finding that the attitudes of athletes were significantly different from those expressed by both the non- and one-time athletes led to the acceptance of minor hypotheses one and two. However, since Tukey's test revealed that there were no significant differences between the attitudes expressed by the non-

and one-time athletes, minor research hypothesis number three was rejected.

In light of the aforementioned findings the major research hypothesis which stated that the attribution of attitudes toward physical activity is a function of prior success in physical activity was accepted.

Chapter 5

DISCUSSION OF RESULTS

This chapter deals primarily with a discussion of the results as reported in Chapter 4. This chapter is divided into the following areas: (1) a discussion of the total attitude differences between athletes, non-athletes and one-time athletes; (2) a discussion of the scale attitude differences between athletes, non-athletes and one-time athletes; and (3) summary.

Discussion of the Total Attitude Differences between Athletes, Non-Athletes and One-Time Athletes

The results of this investigation indicated that the attitudes of athletes differed significantly from those expressed by both the non- and one-time athletes when physical activity is perceived as the "pursuit of vertigo," as an "ascetic" and "aesthetic" experience. The results also revealed that when physical activity is perceived as "health and fitness," the attitudes of athletes were significantly different from those expressed by the one-time athletes. The athletes tended to attribute more importance to each dimension of physical activity. This finding seems to indicate that the attitudes of athletes toward physical activity were more favorable than those expressed by both the non- and one-time athletes.

A number of studies (16,31,40) seem to support one part of the aforementioned finding that the attitudes of athletes toward physical activity were more favorable than those expressed by the non-athletes. Dowell (16) conducted a study in which the attitudes

of high school letermen were assessed and compared to the attitudes of high school non-lettermen. The results indicated that the students who had earned a high school athletic letter expressed more favorable attitudes toward physical activity than did the students who had not earned an athletic letter in high school.

Floyd (31) conducted a study to determine the attitudes expressed by athletes and non-athletes toward physical education. It was concluded that the attitudes toward physical education in the athletic group were distributed significantly higher than those of the non-athletes.

In a similar study conducted by Stricklin (40), the attitudes of athletes and non-athletes toward physical education were assessed and compared. The results revealed that the attitudes of athletes were significantly more favorable towards physical education than those expressed by the non-athletes.

Although the aforementioned studies (16,31,40) support the finding that the expressed attitudes of athletes were more favorable than those of the non-athletes, they cannot account for the significant attitude differences which were found to exist between the athletes and one-time athletes in this investigation. In light of the fact that no previous study has assessed and compared the attitudes of athletes, non-athletes and one-time athletes, an interpretation of these findings is in order.

While discussing the topic of attitude change, Triandis (12), and Freischlag (18) recently made statements which may account for the findings of this investigation. Triandis (12) proposed that

a person's attitude toward an object can be dependent on the pleasantness or unpleasantness associated with the previous experience with that object. He also postulated that positive affect (emotion) is attached to those categories which assist one in reaching his goals and negative affect is attached to those which thwart him. A similar view of attitude change is held by Freischlag (18). He stated that "people tend to repeat those experiences that are perceived as pleasant and in which they found success"(18:21).

If one were to apply either Triandis' (12) or Freischlag's reasoning to the findings of this investigation, one might speculate that since the athletes experienced some degree of "success" in sport or physical activity, it seems logical that they would express a favorable attitude toward such activities. On the other hand, since the non-athletes in this investigation did not participate in sports or physical activities, they never had the opportunity to experience success in these activities. Consequently, they do not view physical activity in such a positive light. The finding that the one-time athletes attitude differed significantly from those expressed by the athletes might be attributed to the fact that they, like the non-athletes, did not experience success in physical activities. One can only speculate that when the one-time athletes were dismissed from their particular sport endeavor, they no longer considered themselves successful in sport or physical activity. The result of their dismissal or "failure" in sport was the formulation of negative attitudes toward physical

activity.

In light of the aforementioned findings, one might conclude that the attribution of attitudes toward physical activity is a function of prior success in physical activity.

Discussion of the Scale Attitude Differences between Athletes, Non-Athletes and One-Time Athletes

When physical activity is perceived as "health and fitness," the attitudes of athletes were significantly different from those expressed by the one-time athletes. It was noted that the athletes expressed a more favorable attitude toward this component of physical activity. This finding might be attributed to the fact that since athletes spend a great deal of time participating in various sports and physical activities, it seems sensible that they would express favorable attitudes toward activities concerning their health and fitness. On the other hand, since one-time athletes have reduced opportunities to participate in sports or physical activities, it is not surprising that they do not attribute much importance to activities involving their health and fitness. One might speculate that if the one-time athletes were still participating in their particular sport endeavor, their attitudes would probably be similar to those expressed by the athletes when physical activity is perceived as "health and fitness."

The findings revealed that the attitudes of athletes differed significantly from those expressed by both the non- and one-time athletes when physical activity is perceived as the "pursuit of vertigo." The athletes attributed more importance

toward this scale of physical activity than did the non- and one-time athletes. Physical activity as the "pursuit of vertigo" was earlier defined as those "physical experiences providing, at some risk to the participant, an element of thrill through the medium of speed, acceleration, or sudden change in direction"(20:99). One might speculate that since athletes participate in physical activities involving risk, i.e., sky-diving, motorcycling, ski-jumping, hockey and football, it is not surprising that they attribute more importance to these activities than do non- and one-time athletes. The athletes in this investigation ranked physical activity as the "pursuit of vertigo" fifth. This finding is identical to that of Alderman's (14) investigation of the attitudes of champion athletes.

The attitudes of athletes toward physical activity as an "ascetic" experience were found to be significantly different from those expressed by the non- and one-time athletes. The athletes attributed more importance toward this scale of physical activity than did the non- and one-time athletes. This finding might be attributed to the fact that since the "success" of an athlete in sport often depends on periods of long and hard training, such activity is viewed as an important component in an athletes life. Since the non-athletes never participated in physical activity involving long and hard training, one might speculate that they are unable to perceive the intrinsic values of such activity. Consequently, they do not attribute much importance to activities involving long and hard training. It was earlier

speculated that the "success" of an athlete in sport may be dependent upon periods of long and hard training. If this were in fact true, one might further speculate that if the one-time athletes had attributed more importance to physical activity as an "ascetic" experience, perhaps they would have experienced more success in sport. Physical activity as an "ascetic" experience was ranked sixth by the athletes in this investigation. Alderman's (14) champion athletes also ranked this scale sixth in importance. On the other hand, studies by Simpson (39), and Vanderbilt (41) indicated that the athletes in their investigations ranked the ascetic value of sport as their first choice.

When physical activity is perceived as an "aesthetic" experience, the attitudes of athletes were significantly different from those expressed by the non- and one-time athletes. It was found that the athletes invested a somewhat stronger feeling toward physical activity providing movement pleasing to the eye than did the non- and one-time athletes. One might speculate that a well-executed movement in sport of physical activity is often appreciated more by those individuals who know what the movement entails, i.e., athletes. On the other hand, individuals who are not cognizant of the difficulty involved in such movements, i.e., non- and one-time athletes, may perceive the activity in a completely different light. For example, an artist may perceive his painting as a masterpiece of originality simply because he is aware of the time, effort, and difficulty involved in his work.

However, an individual who is not cognizant of the difficulty involved in such work may view the same painting as a series of colored spots placed at random on a piece of canvas. In the few studies (14,39,41) that have assessed the attitude of athletes toward physical activity, the ranking of the aesthetic scale has yielded conflicting results. The athletes in both Simpson's (39), and Vanderbilt's (41) investigations ranked physical activity as an "aesthetic" experience last. In Alderman's (14) study of champion athletes, physical activity as an "aesthetic" experience was ranked first. The findings of this investigation differ from the aforementioned results in that physical activity as an "aesthetic" experience was ranked third by the athletes in this study.

Summary

The results of this investigation indicated that the attitudes of athletes differed significantly from those expressed by both the non- and one-time athletes when physical activity is perceived as the "pursuit of vertigo," as an "ascetic" and "aesthetic" experience. The results also revealed that when physical activity is perceived as "health and fitness," the attitude of athletes were significantly different from those expressed by the one-time athletes. It was noted that the athletes attributed more favorable attitudes toward each dimension of physical activity than did both the non- and one-time athletes.

It was speculated that since the athletes experienced some

degree of "success" in physical activity, it seemed logical that they would express a favorable attitude toward these activities. On the other hand, since the non-athletes did not participate in sports or physical activities, they never had the opportunity to experience success in these activities. Consequently, they did not view physical activity in such a positive light. The finding that the one-time athletes attitude differed significantly from those expressed by the athletes was attributed to the fact that they, like the non-athletes, did not experience success in physical activities. The results of their dismissal or "failure" in sport was the formulation of negative attitudes toward physical activity. In light of the aforementioned findings, it was concluded that the attribution of attitudes toward physical activity is the function of prior success in physical activity.

The findings of this investigation seem to be of interest in that the attitudes of athletes differed significantly from those expressed by both the non- and one-time athletes when physical activity is perceived as the "pursuit of vertigo," as an "ascetic" and "aesthetic" experience. Interesting also is the finding that when physical activity is perceived as "health and fitness," the attitudes of athletes were significantly different from those expressed by the one-time athletes. Finally, the findings of this investigation seem to answer a very important question relative to the relationship between expressed attitudes and success in a sport situation.

Chapter 6

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this investigation was to determine if the attribution of attitudes toward physical activity is a function of prior success in physical activity. The subjects involved in this investigation consisted of 60 high school students, 20 varsity athletes, 20 one-time varsity athletes and 20 non-athletes. The subjects were selected from various high schools throughout central New York State.

The data were obtained through the administration of Kenyon's Attitude Toward Physical Activity Inventory, semantic differential approach. The data were analyzed through a 3x7 analysis of variance for factorial design, an analysis of mean simple main effects, and Tukey's test. The .05 level of significance was utilized as the level of acceptance or rejection of all hypotheses.

The results indicated that the attitude of athletes differed significantly from those expressed by both the non- and one-time athletes when physical activity is perceived as the "pursuit of vertigo," as an "ascetic" and "aesthetic" experience. The results also revealed that when physical activity is perceived as "health and fitness," the attitudes of athletes were significantly different from those expressed by the one-time athletes. The athletes tended to express a more favorable attitude toward each

dimension of physical activity.

The finding that the attitudes of athletes were significantly different from those expressed by both the non- and one-time athletes led to the acceptance of minor research hypotheses one and two. However, since there were no significant differences between the attitudes expressed by the non- and one-time athletes, minor research hypothesis number three was rejected.

In light of the aforementioned findings the major research hypothesis which stated that the attribution of attitudes toward physical activity is a function of prior success in physical activity was accepted.

Conclusions

Within the limitations of this study, the following conclusions were drawn:

1. The attribution of attitudes toward physical activity is a function of prior success in physical activity.
2. The attitudes of athletes are significantly different from those expressed by both the non- and one-time athletes when physical activity is perceived as the "pursuit of vertigo," as an "ascetic" and "aesthetic" experience. The athletes attributed more importance toward these dimensions of physical activity than do the non- and one-time athletes.
3. The attitudes of athletes are significantly different from those expressed by the one-time athletes when physical activity is perceived as "health and fitness." The athletes attributed

more importance toward this dimension of physical activity than do the one-time athletes.

Recommendations for Further Study

Upon completion of this investigation the following recommendations were made for further study:

1. A study utilizing larger numbers of subjects should be conducted.
2. Investigations involving athletes, non-athletes, and one-time athletes at the college level.
3. The development of an attitude scale designed to assess the affective component of attitude.

APPENDICES

Appendix A. Physical Activity Questionnaire

Please answer the following questions to the best of your knowledge by checking either Yes, or No beside the question.

- | | <u>YES</u> | <u>NO</u> |
|--|------------|-----------|
| 1. Have you ever participated on an organized athletic team (one that had organized regular practices with scheduled contests against other teams) at any level? | — | — |
| If yes, what level? | | |
| If yes, what sport, or sports? | | |
| 2. Are you now participating in some athletic activity at least twice a week? | — | — |
| For example: If you play tennis, ski, or jog at least twice a week check Yes.
If you are not participating in anything, check No. | | |
| 3. Would you be willing to participate in a study for a research project that would involve no more than 20 minutes of your time? | — | — |

Name: _____

School: _____

Address: _____

Telephone: _____

Thank you for your time and cooperation in filling out this questionnaire.

Appendix B. Attitude Toward Physical Activity Inventory

INTRODUCTION

The following is part of a research project designed to learn more about the attitude of high school students toward physical activity. On the following pages you will be asked to express your personal attitude toward seven dimensions of physical activity. This is not a test, there are no right or wrong answers and you will not be given a grade for your responses. In fact, you will not even be required to put your name on the inventory. Please turn to the next page for the instructions on how to take the inventory.

INSTRUCTIONS

The purpose of this inventory is to measure the meaning for you of certain concepts of physical activity by judging them against a series of descriptive scales. In taking this inventory, please make your judgements on the basis of what these things mean to you. On each page of the booklet you will find a different idea or concept to be judged and beneath it a set of scales. You are to rate the concept on each of these scales in order in which they are given.

Here is how you are to use these scales:

If you feel that the concept in the box at the top of the page, for example "REFEREE," is very closely related to one end of the scale, you should place your check-mark as follows:

REFEREE

fair $\frac{X}{1}$: $\frac{\quad}{2}$: $\frac{\quad}{3}$: $\frac{\quad}{4}$: $\frac{\quad}{5}$: $\frac{\quad}{6}$: $\frac{\quad}{7}$ unfair

or

fair $\frac{\quad}{1}$: $\frac{\quad}{2}$: $\frac{\quad}{3}$: $\frac{\quad}{4}$: $\frac{\quad}{5}$: $\frac{\quad}{6}$: $\frac{X}{7}$ unfair

If you feel that the concept is quite closely related to one or the other end of the scale (but not extremely), you should place your check-mark as follows:

fair $\frac{\quad}{1}$: $\frac{X}{2}$: $\frac{\quad}{3}$: $\frac{\quad}{4}$: $\frac{\quad}{5}$: $\frac{\quad}{6}$: $\frac{\quad}{7}$ unfair

or

fair $\frac{\quad}{1}$: $\frac{\quad}{2}$: $\frac{\quad}{3}$: $\frac{\quad}{4}$: $\frac{\quad}{5}$: $\frac{X}{6}$: $\frac{\quad}{7}$ unfair

If the concept seems only slightly related to one side as opposed to the other side (but is not neutral), then you should check as follows:

fair $\frac{\quad}{1}$: $\frac{\quad}{2}$: $\frac{X}{3}$: $\frac{\quad}{4}$: $\frac{\quad}{5}$: $\frac{\quad}{6}$: $\frac{\quad}{7}$ unfair

or

fair $\frac{\quad}{1}$: $\frac{\quad}{2}$: $\frac{\quad}{3}$: $\frac{\quad}{4}$: $\frac{X}{5}$: $\frac{\quad}{6}$: $\frac{\quad}{7}$ unfair

Instructions (Continued)

The direction toward which you check, of course, depends upon which of the two ends of the scale seem most characteristic of the thing you are judging. If you consider the concept to be neutral on the scale (that is, both sides of the scale seem equally associated with the concept), or if the scale makes no sense, (that is, it is unrelated to the concept) then you should place your check-mark in the middle space:

safe | | | X | | | dangerous
 1 2 3 4 5 6 7

IMPORTANT: (1) Place your check-mark in the middle of spaces, not on the boundaries:

 THIS NOT THIS
 _____ | _____ | X | _____ | _____ | _____

- (2) Be sure you check every scale for every concept do not omit any.
- (3) Never put more than one check-mark on a single scale.
- (4) The numbers under each scale are merely to assist in analysis of the data by computers. You do not need to pay any attention to them.

Sometimes you may feel as though you've had the same item before on the test. This will not be the case, so do not look back and forth through the items. Do not try to remember how you checked similar items earlier in the test. Make each item a separate and independent judgement. Work at a fairly high speed through the test. Do not worry or puzzle over individual items. It is your first impressions, the immediate "feelings" about the items, that we want. On the other hand, please do not be careless because we want your true impressions.

Using the Scales Below, Express What
the Concept in the Box Means to You

PHYSICAL ACTIVITY FOR HEALTH AND FITNESS
Participating in physical activity
primarily to improve one's health
and physical fitness.

As you proceed, always be thinking about the idea or concept
in the box.

1. good 1 | 2 | 3 | 4 | 5 | 6 | 7 bad
2. worthless 1 | 2 | 3 | 4 | 5 | 6 | 7 worthwhile
3. pleasant 1 | 2 | 3 | 4 | 5 | 6 | 7 unpleasant
4. sour 1 | 2 | 3 | 4 | 5 | 6 | 7 sweet
5. nice 1 | 2 | 3 | 4 | 5 | 6 | 7 awful
6. sad 1 | 2 | 3 | 4 | 5 | 6 | 7 happy
7. clean 1 | 2 | 3 | 4 | 5 | 6 | 7 dirty
8. relaxed 1 | 2 | 3 | 4 | 5 | 6 | 7 tense

Using the Scales Below, Express What
the Concept in the Box Means to You

PHYSICAL ACTIVITY FOR THE RELEASE OF TENSION

The participation (or watching
others participate) in physical
activities to get away from the
problems of modern living; or
to provide a release from "pent-
up emotions."

As you proceed, always be thinking about the idea or concept
in the box.

1. good 1 | 2 | 3 | 4 | 5 | 6 | 7 bad
2. worthless 1 | 2 | 3 | 4 | 5 | 6 | 7 worthwhile
3. pleasant 1 | 2 | 3 | 4 | 5 | 6 | 7 unpleasant
4. sour 1 | 2 | 3 | 4 | 5 | 6 | 7 sweet
5. nice 1 | 2 | 3 | 4 | 5 | 6 | 7 awful
6. sad 1 | 2 | 3 | 4 | 5 | 6 | 7 happy
7. clean 1 | 2 | 3 | 4 | 5 | 6 | 7 dirty
8. relaxed 1 | 2 | 3 | 4 | 5 | 6 | 7 tense

Using the Scales Below, Express What the Concept in the Box Means to You

PHYSICAL ACTIVITY AS PROLONGED AND STRENUOUS TRAINING
 Physical activities which require long periods of strenuous and often painful training; which involve stiff competition and demands that the individual give up a number of pleasures for a period of time.

As you proceed, always be thinking about the idea or concept in the box.

1. good 1 | 2 | 3 | 4 | 5 | 6 | 7 bad

2. worthless 1 | 2 | 3 | 4 | 5 | 6 | 7 worthwhile

3. pleasant 1 | 2 | 3 | 4 | 5 | 6 | 7 unpleasant

4. sour 1 | 2 | 3 | 4 | 5 | 6 | 7 sweet

5. nice 1 | 2 | 3 | 4 | 5 | 6 | 7 awful

6. sad 1 | 2 | 3 | 4 | 5 | 6 | 7 happy

7. clean 1 | 2 | 3 | 4 | 5 | 6 | 7 dirty

8. relaxed 1 | 2 | 3 | 4 | 5 | 6 | 7 tense

Using the Scales Below, Express What
the Concept in the Box Means to You

PHYSICAL ACTIVITY AS GAMES OF CHANCE
Games and sports where chance
and luck are more important than
skill in determining the winner,
such as dice or horse racing.

As you proceed, always be thinking about the idea or concept
in the box.

1. good | | | | | | bad
2. worthless | | | | | | worthwhile
3. pleasant | | | | | | unpleasant
4. sour | | | | | | sweet
5. nice | | | | | | awful
6. sad | | | | | | happy
7. clean | | | | | | dirty
8. relaxed | | | | | | tense

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