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A study of self-actualization among various groups of male intercollegiate athletes at the University of the Pacific

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A STUDY OF SELF-ACTUALIZATION AMONG VARIOUS GROUPS
OF MALE INTERCOLLEGIATE ATHLETES AT
THE UNIVERSITY OF THE PACIFIC

A Thesis
Presented to
the Faculty of the Graduate School
University of the Pacific

In Partial Fulfillment
of the Requirements for the Degree
Master of Physical Education

by
Peter C. Carroll

July 1977

This thesis, written and submitted by

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ABSTRACT

The purpose of this study was to determine the degree of self-actualization (SA) as measured by the Personal Orientation Inventory (POI) among various groups of male intercollegiate athletes at the University of the Pacific. The subjects (N = 111) were golf (N = 8), tennis (N = 5), swimming (N = 6), baseball (N = 25), basketball (N = 14), and football (N = 53). The subjects were categorized into three sub-groups: (1) individual sport members (golf, tennis, swimming) and team sport members (baseball, basketball, football); (2) good players, regular players, and substitutes; and (3) upper-division athletes and lower-division athletes.

The POI (Shostrom 1963) was administered to measure the degree of SA for all participating subjects. The POI was developed to measure values and behavior hypothesized to be paramount in the development of the self-actualizing person. Initial development of the item pool was based on observed value judgment problems determined by therapists in private practice. Further, these items were agreed to be related to the theoretical formulations and research of leaders in Humanistic, Existential, and Gestalt schools of therapy. Among concepts incorporated in the initial development of the POI were: Maslow's (1962, 1970) hypotheses about self-actualization; Reisman, Glazer, and Denny's (1950) system of inner- and other-directedness; May, Angel, and Ellenberger's (1958), as well as Perls' (1947, 1951) conceptualization of time orientation; and Bach and Goldberg's (1974) theories of acceptance and aggression (Knapp 1976, p. 3).

Raw scores were collected from the support (127 items) and time competence (23 items) scales of the POI. Since these two major scales offered a valid and reliable measure of SA, practicality dictated their use and the exclusion of the available ten sub-scales. These measures of SA were correlated with the various sub-group categories in search of significant relationships.

It was hypothesized that the SA of individual sport participants would be significantly higher than team sport participants. It was hypothesized that the SA of good players would be significantly higher than regular players, and that the SA of regular players would be significantly higher than substitutes. And, it was hypothesized that the SA of upper-division athletes would be significantly higher than lower-division athletes.

The statistical analysis was treated by the University of Pacific Computer Services Department. The Statistical Package for the Social Sciences (SPSS) program was used in determining an analysis of variance for all groups and sub-groups. The level of significance was established at .05 for all statistical procedures.

No significant differences were found when SA raw scores were compared among (1) individual and team sport members, (2) good players, regular players, and substitutes, and (3) upper-division athletes and lower-division athletes.

The POI did not discriminate clearly enough to predict athletic performance group membership. The POI results displayed mathematical differences among all groups tested; however, statistical differences never threatened the critical level of significance. These findings may suggest that SA by itself was not a valid indicator of individual athletic performance. In conclusion, the POI may not be a practical instrument when attempting to discern statistical differences among homogeneous groups in the collegiate athletic setting.

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Chapter 1

INTRODUCTION

Sport competition in all nations of the world is historically unprecedented. Since sport is such a central theme in most cultures of the world, many aspects of it have come under intense scrutiny by sociologists, physiologists, and psychologists. A great number of psychologists as well as sport theorists have analyzed the relationship between behavior and sport. For example, Ogilvie and Tutko (1970) identified personality dimensions which were essential to competitive success. Cratty (1972) suggested that two dimensions of the personality of athletes should be measured: the stable traits and the dynamic components of behavior. Novak (1976) stated that the ultimate competition in sports was not with others but with oneself.

Experts were seeking to understand what makes one athlete better than another athlete. To accomplish this task, they suggested that one must discover the similarities shared by highly successful athletes. Novak has directed his research towards the inner workings of the athlete for such insights (1976), stating that every successful athlete must undergo a process of self-discovery before understanding his own potential:

Each athlete must, sooner or later, cease pretending to be what he is not or cannot be, and rejoice in playing up to the limit given him. Life is not equal. God is no egalitarian. Prowess varies with every individual. (p. 159).

Two questions were brought to the researcher's attention: Are some individuals more capable of undergoing this necessary process of self-discovery? And, what are the contributing variables that make up one's prowess? If it were possible to locate successful athletes that have undergone this process of self-discovery,

and if it were also possible to correlate significant similarities of the athletes who have reached closer to their full potential, then one may better understand some of the components that enhance sport performance. It was the focus of this study to pinpoint an element of the psychological make-up of athletes that was related to the discovery of one's potential.

Statement of the Problem

The purpose of this study was to determine the degree of self-actualization as measured by the Personal Orientation Inventory among various groups of male intercollegiate athletes at the University of the Pacific.

Self-Actualization: Humanistic Psychologists suggested that a person realizes his full potential when he self-actualizes. Maslow (1961) initiated the term self-actualization (SA) to describe a mentally healthy person. He postulated that human growth was a process of self-discovery where the individual progressed through stages seeking to fulfill four categories of basic needs: physiological needs, safety needs, belonging needs, esteem needs, and man's highest need for self-actualization. His hierarchial pattern indicated that each stage must be fulfilled before the following one may be fulfilled. In general terms, the self-actualizing person had satisfied his basic needs, was more fully functioning, and lived a more enriched life than did the average person (Maslow 1961 and Rogers 1961). Such an individual was seen as one who developed and utilized his unique capabilities or potentials; one who was free of inhibitions and emotional turmoil; and one who was primarily living with a strong concern for the present as opposed to the past or future.

Through inquiry and observation, Maslow realized that people may temporarily self-actualize and that SA was not an all-or-nothing state of being as it was often misconceived to be. Rather, he suggested that such a state

should be thought of as a passing change of character, possibly a transcendence, and referred to this state as "moments of self-actualizing (1971, p. 98)." He asserted that not only may self-actualizing moments be the happiest and most thrilling, but that they may also be moments of greatest maturity, individuation, fulfillment--or, one's healthiest moments. When Maslow realized that one may self-actualize momentarily, he redefined the overall concept:

Any episode in which the powers of the person come together in a particularly efficient and intensely enjoyable way, where he is more open for experience, more idiosyncratic, more perfectly expressive or spontaneous, fully functioning, more creative, more humorous, more ego-transcending, and more independent of lower needs, may now be considered moments of self-actualizing. One becomes in these episodes more truly himself, more perfectly actualizing his potentials, closer to the core of his being, more fully human (1968, p. 97).

Maslow has termed such temporary moments of self-actualizing as peak experiences. "What seems to distinguish those individuals I have called self-actualizing people," stated Maslow (1968), "is that in them these episodes seem to come far more frequently, intensely, and perfectly than in average people (p. 99)." Such states can, in theory, come at any time in life to almost any person.

Outside of sport it seemed that one realized his potential and was operating most efficiently when he was self-actualizing. If it were true self-actualizing means to operate more spontaneously, creatively, and effortlessly, may it be possible that athletes self-actualize in sport? Such descriptions were precisely characteristic of the play of highly successful athletes:

In any sport a common expression for this type of play is 'playing out of one's mind,' or 'over one's head.' Both Arthur Ashe and Billie Jean King used these phrases to describe their performances while winning the Wimbledon Tennis Tournament in 1975. In such instances there is a momentary disappearance of conscious thought. The player immerses himself in the action, continually breaking false limits placed on his potential. Awareness become acutely heightened while analysis, anxiety and self-conscious thought are completely forgotten. Enjoyment is at a peak, pure and unspoiled (Gallwey 1976, p. 9).

When the athlete was immersed in such a state, playing spontaneously, creatively, and effortlessly, it might be said that he was actualizing his potentials. At this juncture strong similarities were found in the general characteristics of the actualizing athlete and of Maslow's actualizing person. Both were highly perceptive, creative, spontaneous, capable of intense concentration, and capable of actualizing their potential.

Self-actualization may possibly be the unity of the body and the mind.

~~Many theorists have written about the power of the united body and mind in sport.~~ Novak (1976) stated:

There is a certain point of unity within the self, and between the self and its world, a certain complicity and magnetic mating, a certain harmony, that conscious mind and will cannot direct....Command by instinct is swifter, subtler, deeper, more accurate, more in touch with reality than command by conscious mind....The mind should be no tyrant; will should not be authoritarian. Rather, one listens to the humblest parts of oneself, allows them to express themselves, concentrates quietly, without forcing or pressing, on the desired end, and lets the constituent assembly of the many parts of self and world work their consensual will. When all work together in implicit harmony, the center of the self meets the center of the focused world; the fat of the swing bat meets the inner secret of the ball in unmistakable sweetness and grace, and the inner will of the swing and the inner will of the ball fuse like a single streak of light (p. 164).

It was understandable that Novak (1976) followed with the statement that 'man's ultimate potential lies in his ability to unify hand, heart, and mind... (p. 165).'

Gallwey (1972) concurred with this concept of unity when he stated that when the mind was quieted, the united body and mind may be allowed to achieve its potential. A quieted mind was non-judgmental in that it did not will performance or outcome to be a certain way; rather, it trusted the body's ability to perform. The quieted mind let the body play and did not interfere with performance in any way (Gallwey 1972). This ability to quiet the mind depended upon a high level of concentration and a high degree of confidence. Gallwey (1976) defined concentration:

True concentration is the natural state of mind focused on the present, and it exists whenever the mind isn't wandering off into the past or future, or into the fantasy lands of what should or shouldn't, might or might not, be. The concentration of a child or an animal is an effortless focusing of attention on whatever is relevant in the present. It is only because our minds have become so restless and out of our control that it seems to take effort to achieve the state. But once we are truly concentrated we aren't even aware of it; we are focused only on the object or activity in which we are absorbed. There is no conscious effort to remain in the state; only after we are distracted is effort again required (p. 61).

As former British Open Golf Champion Tony Jacklin stated:

When I'm in this state everything is pure, vividly clear. I'm in a cocoon of concentration. And if I can put myself in that cocoon, I'm invincible (Doudst 1973, p. 32).

Persons have become supremely self-confident when they were assured that their abilities could successfully meet all challenges. They were relatively unconcerned with their shortcomings and more concerned with exploiting their strengths, and thus were able to act spontaneously and instinctively. Gallwey (1971) maintained that when a person had the necessary confidence and concentration and the subsequent control to quiet the mind, he would conquer the "inner game." The inner game was referred to as the interaction of the mind and body as it related to physical activity. When an athlete has conquered this inner game, his play will be spontaneous, creative, effortless, centered in the here-and-now, and free flowing. This type of play was exemplified by Jacklin at the British Open and Ashe and King at Wimbledon. It was at this point that the athlete fully actualized his potential.

Justification

This study attempted to show the relationship between SA and sport. The study was based on these following questions: If one is a self-actualizer, does he have a greater ability to control and quiet the mind? Does he have the supreme confidence to let his actions flow instinctively and spontaneously?

On the playing fields, is he more able to free himself of discursive mind-body interaction allowing himself to actualize his potential more frequently, intensely, and perfectly?

It was the attempt of this study to discover relationships between successful athletes and their respective levels of SA. The study provided insights into the SA of successful male collegiate athletes at the University of the Pacific. The Personal Orientation Inventory (POI) was administered to measure the degree of SA in all participating athletes. ~~The Support and Time~~ Competence scale scores of the POI were chosen as general indicators of an overall measure of SA.

Subproblems

1. To determine SA differences between individual sport and team sport participants as measured by the POI.
2. To determine SA differences among good players, regular players, and substitutes from all teams as measured by the POI.
3. To determine SA differences between college upper-division male athletes and college lower-division male athletes as measured by the POI.

Hypotheses

1. The SA of individual sport participants will be significantly higher than team sport participants.
2. The SA of good players will be significantly higher than regular players and substitutes.
3. The SA of regular players will be significantly higher than substitutes.
4. The SA of college upper-division athletes will be significantly higher than lower-division athletes.

Limitations

1. The researcher acknowledged the possibility of varying motivational levels from individual to individual.
2. The testing environment was not ideal, in that all tests were not administered in the identical controlled setting (explanation in Chapter 3, p.17).

Delimitation

All subjects were male intercollegiate athletes enrolled at the University of the Pacific.

Basic Assumptions

1. It was assumed that each subject participated with the utmost integrity and honesty.
2. It was assumed that all subjects tested had minimum reading ability as determined necessary by the test makers.

Definitions

The following terms were defined in order to give the reader a better understanding of the study:

1. Self-Actualization. The fulfillment of all one's capabilities.
2. Humanistic Psychology. The study of human behavior where it is believed that the individual will become a rational, socialized being if he is allowed to develop freely. Furthermore, he will become a constructive being, intent on fulfilling not simply his instinctive biological needs, but also some higher vision of his capabilities (Maslow 1971).
3. Good Players. "Team members who were at least definite starters, major contributors to the team, or had received regional or national recognition or possessed definite potential to achieve such in the future (Albaugh 1977)."

4. Regular Players. "They may be starters, first line replacements, definitely figure in game plans, may not see considerable action, but have demonstrated ability to become a bona fide regular or good player (Albaugh 1977)."

5. Substitutes. "They only see action if the game is no longer in doubt; they are squad members with no apparent chance of becoming a regular player (Albaugh 1977)."

6. Individual Sports. Golf, tennis, and swimming.

7. Team Sports. Football, basketball, and baseball.

8. Upper-division Athletes. Subjects beyond their sophomore year in college.

9. Lower-division Athletes. Subjects not having reached their junior year in college.

10. Personal Orientation Inventory. An instrument developed to measure values and behavior hypothesized to be paramount in the development of the self-actualizing person.

Chapter 2

REVIEW OF THE LITERATURE

The review of the literature was divided into six categories designated by the following sub-titles: The Personal Orientation Inventory, POI Scales, Validity of the Instrument, Reliability of the Instrument, Studies Implementing the POI, and Studies that Focused on Sport and the POI.

The Personal Orientation Inventory

The Personal Orientation Inventory (POI) was developed to measure values and behavior hypothesized to be paramount in the development of the self-actualizing person. Initial development of the item pool was based on observed value-judgment problems determined by therapists in private practice. Further, these items were agreed to be related to the theoretical formulations and research of leaders in Humanistic, Existential, and Gestalt schools of therapy. Among concepts incorporated in the initial development of the POI were: Maslow's (1962, 1970) hypotheses about self-actualization; Reisman, Glazer, and Denny's (1950) system of inner- and other-directedness; May, Angel, and Ellenberger's (1958), as well as Perls' (1947, 1951) conceptualization of time orientation; and Bach and Goldberg's (1974) theories of acceptance of aggression (Knapp 1976 p. 3).

POI Scales

The POI was divided into two major scales and ten sub-scales. The support and time competence scales covered two major areas important in personal development and personal interaction. Scores on each of the ten

sub-scales were intended to reflect a facet important in the development of the self-actualizing person.

The support scale (127 items) was designed to measure whether an individual's mode of perception was characteristically "self" oriented or "other" oriented. Inner, or self-directed individuals were directed from within based on one's own principles and motivation; other-directed persons were directed by forces outside of themselves such as fears, peer pressures, parental expectations, etc. ~~The time competence scale (23 items) measured~~ the degree to which the individual lived in the present as contrasted with the past or future. The time competent person lived in the present, fully aware and in touch with his needs, while the time incompetent person lived primarily in the past, with regrets and resentments, and/or in the future, with idealized goals, dreams, predictions, and fears. Growth toward personal self-actualizing was said to involve the development of time competency and the development of inner-directedness of support (Knapp, 1976).

The ten sub-scales available for evaluation and their respective number of items were as follows: Self-actualizing value (26), Existentiality (32), Feeling Reactivity (23), Spontaneity (18), Self-Regard (16), Self-Acceptance (26), Nature of Man (16), Synergy (9), Acceptance of Aggression (25), and Capacity for Intimate Contact (28).

Shostrom (1974) stated that an accurate measure of an individual's level of actualizing may be obtained by scoring only the support and time competence scales. Danm (1969, 1972) confirmed the conclusion that a sample combination of support and time competence raw scores was the best prediction of an overall measure of the POI. Since the two major scales offered a valid and reliable measure of SA, practicality dictated their use.

Validity of the Instrument

At the outset of validity investigation, authors of the POI decided that the test should discriminate between the individuals who have been observed in their life behavior to have attained a relatively high level of self-actualizing from those who have not evidenced such development. To test the POI's effectiveness in making this discrimination, the Inventory was administered to two groups; one of "relatively self-actualizing" adults and the other of relatively "non-self-actualizing" adults. Persons in these two groups were carefully selected, each group being nominated by practicing, certified clinical psychologists. The number of subjects were 29 and 34, respectively. Results indicated that the Inventory significantly discriminated between self-actualizers and non-self-actualizers (Knapp, 1976).

Reliability of the Instrument

Development of the POI was based on concepts of dynamic traits of personality thus making traditional concepts of reliability inappropriate in many instances. This was particularly true in the case of estimates of stability based on repeated administrations over given periods of time. The POI was highly sensitive to intervals between administrations as Bloxom (1972) noted:

The reliability coefficients range from a moderate .55 to a good .85. Only three sub-scales have coefficients that might be regarded as sub-standard (less than .70). These sub-scales measure variables that are effect-related and, as such, may be measuring fluctuation in mood states from test to retest (p. 291).

POI authors placed a precautionary note in regards to sub-scale fluctuation. However, the two major scales for support and time competence have consistently displayed adequate coefficients. Klavetter and Mogar (1967) found reliability coefficients of .77 and .71, respectively, for support and time scales, based on test-retest administration. In a study administered to 172

university students, Wise and Davis (1975) report test-retest coefficients of .35 and .75, respectively, for the support and time scales.

Studies Implementing the POI

Self-actualization studies implementing the POI as the primary instrument have been administered to groups ranging from psychopathic felons (Fisher 1968) to student nurses (Ilardi and May 1968) to management supervisors (Landenberger 1971). Murray (1966) investigated the relationship of teacher success and SA as measured by the POI. A marked difference in the degree of SA was found between teachers with high success ratings and low success ratings with more successful teachers being more self-actualizing.

The POI has been used extensively in counseling settings as a counseling technique, and some very important findings have been reported from research data generated under these conditions. Counselor level of self-actualizing, and the effect of this as an overall concept in the counseling process, has presented new implications for the theory of counseling (Knapp, 1976). Leib and Snyder (1967), in a study of group counseling with college underachievers, examined the interaction of underachievement and scores derived from pre- and post-course administration of the POI.

A great number of studies involving the effects of "encounter group" sessions have implemented the POI. Seeman, Nidich, and Banta (1972) supported other findings stating that the more self-actualizing person, rather than the "disturbed" individual, was likely to seek encounter therapy.

Evidence concerning trends in POI scores with age were available from a number of sources. From a theoretical standpoint it has been hypothesized that peaks of actualizing cannot be reached until full maturity is attained. Maslow (1970) stated that in searching a college campus for self-actualizing

persons, "I had to conclude that SA of the sort I had found in my older subjects was not possible in our society for young developing people" (p. 150). Shostrom, Knapp, and Knapp (1976) have further developed this theoretical position.

Empirical data based on administration of the POI have supported this contention. Mean scores for adult samples tended to be higher than those based on high school student samples. Advanced college student samples were higher than entering college students', and samples from both of these populations were higher than high school student samples (Knapp, 1976).

Studies Focused on Sport and the POI

Cratty (1972) made reference to the relevance of SA in contemporary sport suggesting that some human needs may be fulfilled in sport such as needs for belonging, self-esteem, and possible self-actualization. Even though it has drawn the attention of some sport theorists, only one research effort has been attempted correlating SA and athletes.

Ibrahim and Morrison (1976) conducted a study to compare self-concept and SA of male athletes and non-athletes on the high school and college level. To measure SA, Shostrom's POI was used. Various group pairings were established and a series of t-tests were conducted by scoring all twelve scales of the POI. Out of the twelve traits from the POI, four significant differences were found between high school male athletes and non-athletes, and one between the college group. Ibrahim and Morrison found no significant difference between male athletes and male non-athletes at the college level in self-concept and SA. In general, athletes were found to be below average in their self-concept and average in their self-actualizing traits. Ibrahim and Morrison found the results of their study supported the bulk of their hypotheses

that stated there would be no significant difference among the groups tested.

In an essay entitled Yoga and Western Sport, Murphy (197) suggested that athletes experienced states of consciousness similar to those experienced by individuals practicing yoga.

I am led to believe that for some people sport is a liberating discipline of sorts, a kind of yoga or sadhara in the making... (p. 4).

Murphy's discoveries might be referred to as peak experiences. The writings of Gallwey (1975), Leonard (1975), and Spino (1976) have supported those of Murphy's. Their findings suggested that self-actualizing may be facilitated in individual sport settings. Examples of these settings were golf, tennis, martial arts, long distance running, and track and field. These writers did not exclude the occurrence of such experiences in the team sport setting; however, they implied that individual sports enhanced the occurrence of peak experiences or self-actualizing moments. The bulk of their study was done by investigation and personal interview. Highly skilled amateur and professional athletes have served as the sources of the investigations.

Summary

The POI has been used in a wide range of settings, outside of the sport environment. It has rarely been used in relation to performance group membership. Murray (1966) showed that teachers with high success ratings were higher self-actualizers. Age has been shown to be a significant factor in terms of SA. Age seems to enhance SA traits as shown by Maslow (1970) and Shostrom, Knapp, and Knapp (1976). Murphy (1975), Leonard (1975), and Spino (1976) have suggested that the individual sport setting facilitated the occurrence of self-actualizing moments. In conclusion, Ibrahim and Morrison have conducted the lone study relating the POI and athletes. Their results

showed athletes and non-athletes to be average in their degree of SA at the high school and college level when measured by the POI.

Chapter 3

RESEARCH METHODOLOGY

The procedures used in gathering and interpreting the data in this study are described in this chapter. All statistical analysis was handled by the University of the Pacific Computer Services Department.

Sources of Data

The subjects consisted of male intercollegiate athletes (N = 111) at the University of the Pacific. Members from individual and team sports were included. The specific teams represented were golf (N = 8), tennis (N = 5), swimming (N = 6), baseball (N = 25), basketball (N = 14), and football (N = 53).

All athletes involved in this study were evaluated for athletic ability by their coach. Each coach placed his respective athletes in one of three categories defined as good players, regular players, and substitutes. The status groups were clearly defined for the coaches (Chapter 1, p. 7-8). The reliability of the coaches' evaluations was based on their established expertise in their respective field.

Instrument for Data Collection

The Personal Orientation Inventory (POI) was administered to all subjects. The POI consisted of 150 two-choice comparative value and behavior judgments. The tests were scored for two basic determinants of self-actualization: inner-directed support (127 items) and time competence (23 items).

Administration of the Test

The POI was essentially self-administering. The items were printed in re-usable test booklets and the subjects recorded their answers on the standard POI answer sheet for hand scoring. Subjects were instructed to print their name, age, year in school, sport, and playing position (if applicable) on the answer sheet. The subjects then read the instructions on the test booklet and all questions were fielded by the examiner. In accordance with the POI Manual the examiner answered questions regarding definitions of words. Questions dealing with concepts or interpretations of test items were responded to by encouraging the examinee to use his own judgment in choosing the most appropriate alternatives.

All tests were not administered in the classroom setting by the researcher. Practicality dictated administrations outside this setting in two instances. The test for the baseball team was administered by the baseball coach following a detailed briefing of administration procedures. The team club house was used for the test setting. A member of this thesis committee administered the test to the tennis team following a detailed briefing of administration procedures.

Test Scoring and Interpretation

All tests were hand scored from standard POI answer sheets. The raw scores for the support and time competence scales were obtained by placing a scoring template over the answer sheet and counting the number of blackened areas showing through the holes in the key.

Raw scores for the support and time competence scales were used to provide a general measure of SA. All comparisons were based on these raw scores for all groups and sub-groups.

Analysis of the Data

In the analysis of the data the following statistical procedures were used:

1. The Statistical Package for the Social Sciences (SPSS) computer program on file at the University of the Pacific Computer Services Department was employed for all statistical analysis. The SPSS condescriptive procedure enabled the researcher to obtain the means and standard deviations for any number of variables. An analysis of variance (ANOVA) was automatically run for all entered statistical breakdowns (Pacific 1977).

2. ANOVA was employed to determine differences among and/or between group mean scores. If a significant F ratio was found appropriate, post hoc tests were used (Weber and Lamb 1970).

3. Level of significance was established at .05 for all statistical procedures.

4. Each of the above-mentioned statistical procedures was used in the analysis of the data for each major group and sub-group tested.

5. The hypotheses were converted to the null form for all statistical procedures.

Chapter 4

PRESENTATION, TREATMENT, AND ANALYSIS OF DATA

This chapter includes the data gathered from the POI and discussions of the treatment and analyses. The data represents results from the support and time competence scales from the POI for each group and sub-group. The support and time competence scales were analyzed separately and treated individually as shown in Table 1 and Table 2.

An analysis of variance (ANOVA) was run with (1) individual and team sports, (2) good players, regular players, and substitutes, and (3) upper-division and lower-division athletes as the groups to be analyzed. The level of significance was established at .05.

Data Analysis

Hypothesis 1: The SA of individual sport participants will be significantly higher than team sport participants.

ANOVA was used to determine significant differences among these groups. Table 1 shows the results for the support scale. No significant difference was found between individual sport participants and team sport participants. Table 2 shows the results for the time competence scale. Results showed no significant F-ratio between individual sport participants and team sport participants on either scale. Therefore, the hypothesis as stated in the null form was accepted. See Appendix A for mean scores and standard deviations.

Hypothesis 2: The SA of good players will be significantly higher than regular players and substitutes.

Table 1

ANOVA Table of Individual and Team
Sport Participants for Support

	SS (Sum of Squares)	df (Degrees of Freedom)	MS (Mean Squared)
Between Groups	144.7729	(1)	144.7729
Within Groups	11568.9748	(109)	106.1374
Total	11713.7478	(110)	

$$F = 1.3640$$

To be significant at .05 level $F \geq 3.94$

Table 2

ANOVA Table of Individual and Team Sport
Participants for Time Competence

	SS	df	MS
Between Groups	0.9048	(1)	0.9048
Within Groups	848.5727	(109)	7.7851
Total	849.4775	(110)	

$$F = 0.1162$$

To be significant at .05 level $F \geq 3.94$

Hypothesis 3: The SA of regular players will be significantly higher than substitutes.

The analysis of the data for hypotheses 2 and 3 was computed jointly. ANOVA was used to determine significant differences among these groups. Table 3 shows the results for the support scale. No significant differences were found among the good players, regular players, and substitutes. Table 4 shows the results for the time competence scale. No significant differences were found among the good players, regular players, and substitutes. Results showed no significant F-ratios for good players, regular players, and substitutes on either scale. Therefore, hypotheses 2 and 3 as stated in the null form were accepted. See Appendix B for means and standard deviations.

Hypothesis 4: The SA of college upper-division athletes will be significantly higher than lower-division athletes.

ANOVA was used to determine significant differences between these groups. Table 5 shows the results for the support scale. No significant difference was found between upper-division athletes and lower-division athletes. Table 6 shows the results for the time competence scale. No significant difference was found between upper-division athletes and lower-division athletes. Results showed no significant F-ratio between upper-division athletes and lower-division athletes on either scale. Therefore, the hypothesis as stated in the null form was accepted. See Appendix C for means and standard deviations.

Table 3

ANOVA Table of Good Players, Regular Players,
And Substitutes for Support

	SS	df	MS
Between Groups	199.3019	(2)	99.6510
Within Groups	11514.4458	(108)	106.6152
Total	11713.7478	(110)	

$$F = 0.9347$$

To be significant at .05 $F \geq 3.09$

Table 4

ANOVA Table of Good Players, Regular Players,
And Substitutes for Time Competence

	SS	df	MS
Between Groups	27.5094	(2)	13.7547
Within Groups	821.9680	(108)	7.6108
Total	849.4775	(110)	

$$F = 1.8073$$

To be significant at .05 $F \geq 3.09$

Table 5

ANOVA Table of Upper-Division Athletes And
Lower-Division Athletes for Support

	SS	df	MS
Between Groups	77.1171	(1)	77.1171
Within Groups	11636.6306	(109)	106.7581
Total	11713.7478	(110)	

F = 0.7224

To be significant at .05 $F \geq 3.94$

Table 6

ANOVA Table of Upper-Division and Lower-Division
Athletes for Time Competence

	SS	df	MS
Between Groups	1.4424	(1)	1.4424
Within Groups	848.0351	(109)	7.7801
Total	849.4775	(110)	

F = 0.1854

To be significant at .05 $F \geq 3.94$

Findings

1. No significant difference existed between individual and team sport participants for the support and time competence scales.
2. No significant difference existed between good players and regular players for the support and time competence scales.
3. No significant difference existed between good players and substitutes for the support and time competence scales.
4. No significant difference existed between regular players and substitutes for the support and time competence scales.
5. No significant difference existed between upper-division subjects and lower-division subjects for the support and time competence scales.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to determine the degree of self-actualization (SA) as measured by the Personal Orientation Inventory (POI) among various groups of male intercollegiate athletes at the University of the Pacific. The subjects (N = 111) were male intercollegiate athletes at the University of the Pacific, and included members from both individual and team sports. The specific teams were golf (N = 8), tennis (N = 5), swimming (N = 6), baseball (N = 25), basketball (N = 14), and football (N = 53). The subjects were categorized into three sub-groups: (1) individual sport members (golf, tennis, swimming) and team sport members (baseball, basketball, football); (2) good players, regular players, and substitutes; and (3) upper-division athletes and lower-division athletes.

The POI (Shostrom 1963) was administered to measure the degree of SA for all participating subjects. Raw scores were collected from the support (127 items) and time competence (23 items) scales of the POI. Since these two major scales offered a valid and reliable measure of SA, practicality dictated their use and the exclusion of the available ten sub-scales. These measures of SA were correlated with the various sub-group categories in search of significant relationships.

It was hypothesized that the SA of individual sport participants would be significantly higher than team sport participants. It was hypothesized that the SA of good players would be significantly higher than regular players, and that the SA of regular players would be significantly higher than

substitutes. And, it was hypothesized that the SA of upper-division athletes would be significantly higher than lower-division athletes.

The statistical analysis was treated by the University of the Pacific Computer Services Department. The Statistical Package for the Social Sciences (SPSS) program was used in determining an analysis of variance for all groups and sub-groups. The level of significance was established at .05 for all statistical procedures.

No significant differences were found when SA raw scores were compared among (1) individual and team sport members, (2) good players, regular players, and substitutes, and (3) upper-division athletes and lower-division athletes.

The POI did not discriminate clearly enough to predict athletic performance group membership. The POI results displayed mathematical differences among all groups tested; however, statistical differences never threatened the critical level of significance. These findings may suggest that SA by itself was not a valid indicator of individual athletic performance. In conclusion, the POI may not be a practical instrument when attempting to discern statistical differences among homogeneous groups in the collegiate athletic setting.

Discussion of the Conclusions

Results were presented below in relation to the hypotheses presented in Chapter 1.

It was hypothesized that the SA of individual sport participants would be significantly higher than team sport participants. This prediction stemmed from writings of Murphy (1975), Leonard (1975), and Spino (1976). They suggested that self-actualizing may be facilitated in the individual sport setting as compared to the team sport setting. Results showed no significant difference; therefore, the directional hypothesis was rejected.

It was hypothesized that the SA of good players would be significantly higher than regular players and substitutes. Previous writings by Gallwey (1974, 1976), Murphy (1975), Maslow (1961, 1962, 1963, 1970), Novak (1976), and Trungpa (1973) suggested that a person operated closer to his potential when he was in a self-actualizing state. Maslow (1970) established the premise that self-actualizers experience moments of self-actualizing or peak experiences more frequently, intensely, and perfectly than lesser self-actualizers. Based on this premise, it was predicted that the SA of good players would be higher than regular players and substitutes. The results showed no significant differences; therefore, the directional hypothesis was rejected.

It was hypothesized that the SA of regular players would be significantly higher than substitutes. This prediction was based on the same premise as the second hypothesis. The results showed no significant difference, and therefore the directional hypothesis was rejected.

It was hypothesized that the SA of upper-division athletes would be significantly higher than lower-division athletes. Maslow (1970) and Shostrom, Knapp, and Knapp (1976) developed the theoretical position that age was a significant factor with regards to SA. Knapp (1976) found advanced college student samples higher than entering college students as did Lee (1965). The statistical results from this sample did not support their conclusions. The results showed no significant difference; therefore, the directional hypothesis was rejected.

Results of the POI failed to support the hypothesis that the SA of individual sport participants would be higher than team sport participants. Scores for the groups were very close on both scales of the POI, suggesting that the level of SA for all sport participants in this study were very similar. See Appendix A for means and standard deviations.

Differences based on good players, regular players, and substitutes were not statistically significant. This rejected the directional hypothesis that the SA of good players would be higher than regular players and substitutes. This also rejected the directional hypothesis that the SA of regular players would be higher than substitutes. The mean score for the support scale for good players was 83.4 as compared to 81.9 for regular players and 79.2 for substitutes on the same scale, which indicated that groups scored in order of their performance evaluation. See Appendix B for means and standard deviations. This suggested a number of possibilities: There was a possibility that, based on this sample ($N = 111$), the POI did not discriminate clearly enough to predict athletic performance group membership. These findings may also suggest that SA by itself was not a valid indicator of individual athletic performance. The findings of this sample may indicate that performance may be more accurately determined by other variables such as strength, speed, agility, coordination, etc. In summation for this sample, group membership related to athletic performance could not be predicted by the POI.

Differences based on age were not significant between upper-division and lower-division athletes for SA as measured by the POI. This rejected the directional hypothesis that the SA of upper-division athletes would be higher than lower-division athletes. These findings displayed that the level of SA was very similar for upper-division and lower-division athletes in this study. These findings did not support those of other studies measuring similar variables. This result may be caused by the breakdown of the two groups, in that the age difference of the groups of juniors and seniors and freshmen and sophomores was not great enough to allow for significant differences. See Appendix C for means and standard deviations.

No significant difference was found between any of the groups tested. Therefore, the four hypotheses when stated in the null form for statistical purposes were accepted.

The POI results displayed mathematical differences among all groups tested; however, statistical differences never threatened the critical level of significance. The POI may not be a practical instrument when attempting to discern precise differences among homogeneous groups in the collegiate athletic setting.

When the total sample results of this study were compared to those of Ibrahim and Morrison (1976) and Lee (1965), both who measured male college students in similar sized samples, (N = 100) and (N = 150), respectively, raw scores for the support and time competence scale were strikingly similar. As an entire population, results showed the sample in this study to be average for SA when compared to norms presented by Knapp (1976). These norms were based on a sampling of (N = 2,196) college students.

In search of other possible significant correlations, mean scores for each team were compared. Results showed no significant differences among any of the six teams in this study. These results suggested that for this sample SA was not dependent upon any particular sport. Means and standard deviations by teams are presented in Appendix D.

Recommendations for Further Study

1. Further studies need to be conducted to determine whether the sporting environment enhances the process of SA. It would be of value to administer pre and post tests over the duration of one season comparing differences among athletes and non-athletes.

2. Further studies need to be conducted among athletes and non-athletes to determine whether sport attracts or rejects higher self-

actualizing individuals.

3. A longitudinal study should be conducted using the POI and the same sample to determine changes in SA among ex-college athletes and comparing effects of age based on test-retest administrations over certain periods of time.

4. A follow-up study employing interviews and further POI applications of those individuals who scored exceedingly low or high could help determine the make-up of the college athletes of tomorrow.

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Appendix A

MEANS AND STANDARD DEVIATIONS FOR INDIVIDUAL
AND TEAM SPORT PARTICIPANTS FOR
THE TIME COMPETENCE SCALE

	Sum	Mean	Standard Deviation	N
Individual Sport Participants	310.000	16.316	2.562	(19)
Team Sport Participants	1479.000	16.076	2.833	(92)
Total	1789.000	16.117	2.779	(111)

MEANS AND STANDARD DEVIATIONS FOR INDIVIDUAL
AND TEAM SPORT PARTICIPANTS FOR
THE SUPPORT SCALE

	Sum	Mean	Standard Deviation	N
Individual Sport Participants	1507.000	79.316	11.809	(19)
Team Sport Participants	7576.000	82.343	9.977	(92)
Total	9083.000	81.829	10.319	(111)

Appendix B

MEANS AND STANDARD DEVIATIONS FOR GOOD PLAYERS,
REGULAR PLAYERS, AND SUBSTITUTES FOR THE
TIME COMPETENCE SCALE

	Sum	Mean	Standard Deviation	N
Good Players	466.000	16.643	2.656	(28)
Regular Players	1036.000	16.188	2.343	(64)
Substitutes	287.000	15.105	3.085	(19)
Total	1789.000	16.117	2.779	(111)

MEANS AND STANDARD DEVIATIONS FOR GOOD PLAYERS,
REGULAR PLAYERS, AND SUBSTITUTES FOR
THE SUPPORT SCALE

	Sum	Mean	Standard Deviation	N
Good Players	2335.000	83.393	10.785	(28)
Regular Players	5243.000	81.922	10.856	(64)
Substitutes	1505.000	79.211	7.262	(19)
Total	9083.000	81.829	10.319	(111)

Appendix C

MEANS AND STANDARD DEVIATIONS FOR UPPER-DIVISION
AND LOWER-DIVISION ATHLETES FOR
THE TIME COMPETENCE SCALE

	Sum	Mean	Standard Deviation	N
Upper-Division Athletes	864.000	16.000	2.842	(54)
Lower-Division Athletes	925.000	16.228	2.739	(57)
Total	<u>1789.000</u>	<u>16.117</u>	<u>2.779</u>	<u>(111)</u>

MEANS AND STANDARD DEVIATIONS FOR UPPER-DIVISION
AND LOWER-DIVISION ATHLETES
FOR THE SUPPORT SCALE

	Sum	Mean	Standard Deviation	N
Upper-Division Athletes	4465.000	82.685	10.617	(54)
Lower-Division Athletes	4618.000	81.018	10.056	(57)
Total	<u>9083.000</u>	<u>81.829</u>	<u>10.319</u>	<u>(111)</u>

Appendix D

MEANS AND STANDARD DEVIATIONS FOR ALL TEAMS
FOR THE TIME COMPETENCE SCALE

	Sum	Mean	Standard Deviation	N
Swimming	88.000	14.667	2.160	(6)
Golf	140.000	17.500	1.195	(8)
Tennis	82.000	16.400	3.782	(5)
Baseball	393.000	15.720	3.361	(25)
Basketball	229.000	16.357	3.003	(14)
Football	857.000	16.170	2.548	(53)
Total	1789.000	16.117	2.779	(111)

MEANS AND STANDARD DEVIATIONS FOR ALL TEAMS
FOR THE SUPPORT SCALE

	Sum	Mean	Standard Deviation	N
Swimming	486.000	81.000	8.075	(6)
Golf	650.000	81.250	5.676	(8)
Tennis	371.000	74.200	21.100	(5)
Baseball	2041.000	81.640	11.094	(25)
Basketball	1145.000	81.786	12.644	(14)
Football	4390.000	82.830	8.768	(53)
Total	9033.000	81.8288	10.3193	(111)