Self-Actualization Profiles of Male Able-Bodied and Elite Cerebral Palsied Athletes

Claudine Sherrill
Texas Woman’s University

Wanda Rainbolt
Northern Michigan University

Self-actualization profiles were plotted for 265 college-age able-bodied male athletes and 30 elite cerebral palsied male athletes, $M$ age = 24.9, all of whom were international competitors. These profiles were examined in relation to one another and in relation to two normative groups, one consisting of adults and one consisting of college students. Results indicated that college-age able-bodied male athletes and elite cerebral palsied male athletes have similar self-actualization profiles. Elite cerebral palsied male athletes were found to be significantly less self-actualized than normal adults in the areas of time competence, existentiality, self-acceptance, nature of man, and synergy (Shostrom, 1964). Able-bodied college-age male athletes were generally more self-actualized than members of their age-appropriate reference group (i.e., male college students). Implications for sport psychology and counseling are discussed.

Self-actualization, globally defined, refers to “desire for self-fulfillment . . . to become everything that one is capable of becoming” (Maslow, 1970, p. 46). It is “an active process of being and becoming increasingly inner-directed and integrated at the levels of thinking, feeling, and bodily response” (Shostrom, 1976, p. 65). Central to this process is awareness of, and ability to work through, limitations imposed by handicaps (Shostrom, 1976, p. xvi).

Maslow, the innovator of self-actualization theory, postulated that each individual possesses an inner drive for self-fulfillment and personal growth. Psychologically healthy persons, according to Maslow, are internally motivated to seek fulfillment of a hierarchy of needs: physiological, safety, belongingness and love, esteem, and self-actualization. One need is not completely gratified before the next higher one emerges into consciousness, but self-actualizers in general are driven by specific growth motivations over and above basic needs.

Maslow’s research (1968, 1970, 1971), which was largely clinical in nature, focused on the identification of personality characteristics, behaviors, and/or values.
that distinguish self-actualizers from non-self-actualizers. Chief among these were inner-directedness (autonomy); acceptance of self, others, and nature; spontaneity; creativity; deep, profound interpersonal relations; and the capacity to feel peaks in experience (i.e., natural highs of an almost mystic nature). Maslow’s work forms the basis of much of today’s research on motivation, internal locus of control, and perceived competence (Kane, 1980), provides direction for humanistic teaching and coaching (Arnold, 1979; Biehler & Snowman, 1986; Reilly & Lewis, 1983; Sage, 1980), and guides the ongoing development of Sherrill’s (1986a) philosophy of adapted physical education and sport.

The development of a personality inventory specifically to measure self-actualization (Shostrom, 1964) has contributed greatly to the advancement of self-actualization theory. Called the Personal Orientation Inventory (POI), this instrument measures 12 values and/or behaviors believed to comprise self-actualization. Maslow (1971, p. 28) has recommended that self-actualization be operationally defined as what the POI tests.

Magill (1975), the first physical educator to publish research based on the POI, recommended that self-actualization theory be considered a theoretical model for the study of personality in relation to sport. Several researchers subsequently have investigated the self-actualization of able-bodied male athletes: Ibrahim and Morrison (1976), Gundersheim (1982), and Hardy (1986). Although each investigator used different comparison groups and statistical techniques, there appears to be sufficient data to develop a composite self-actualization athlete profile and to examine strengths and weaknesses of athletes in relation to normative groups in Shostrom’s (1974) test manual.

Disabled athletes may have a different constellation of strengths and weaknesses than their able-bodied peers. Sherrill (1986b), after interviewing approximately 200 cerebral palsied athletes, reported that the problems these individuals identified were the same as those experienced by minority groups in general: stigmatization, stereotyping, and prejudice. Many of the athletes interviewed reported that participation in sports was a way of fighting prejudice, demonstrating ability, and gaining increased acceptance. Living with and observing these athletes over a 3-week period (1 week of training camp and 2 weeks of international competition) led Sherrill to believe that self-actualization theory should be applied in the counseling, coaching, and training of cerebral palsied athletes.

During the 1984 cerebral palsy sports training camp, a sport psychologist conducted two 3-hr large-group sessions and daily small-group and individual sessions with the athletes. This was the first sport counseling that most of the athletes had experienced. Seeing this sport psychologist in action convinced Sherrill that sport psychology should be a part of every athlete’s training. Other researchers have also emphasized the importance of sport psychology for athletes with disabilities (Asken & Goodling, 1986; Ogilvie, 1985; Rieder, 1979).

Self-actualization theory seems particularly well suited to sport counseling because it is a mental health rather than a deficit approach (Shostrom & Knapp, 1966). Particular strengths of self-actualization theory are its evolution as a counseling science and its reliance on profiles to help individuals understand their strengths and weaknesses and set goals for further growth (Knapp, 1976; Shostrom, 1974, 1976).

The purpose of this study, therefore, was to increase awareness of self-actualization theory as a counseling science and as an approach to the study of
personality and sport, to examine athlete profiles based on existing research, and to extend this research to male cerebral palsied athletes. The following specific questions were asked: (a) Are the POI profile patterns of able-bodied and cerebral palsied athletes similar? (b) What are the personality strengths and weaknesses of athletes in relation to normative groups?

Method

Subjects

Two populations of male athletes were studied: able-bodied athletes and cerebral palsied athletes. The able-bodied sample ($N=265$) was drawn from the research of Magill (1975), Ibrahim and Morrison (1976), Gundersheim (1982), and Hardy (1986). The cerebral palsied sample ($N=30$) consisted of male competitors in the 1984 International Games for the Disabled, the most elite cerebral palsied athlete group available. The goal was to obtain data from all members of the cerebral palsied population who would consent to being involved in the study. The resulting sample comprised 81% of the population. The ages of the cerebral palsied athletes in the sample ranged from 17 to 44 years, $M=24.9$. All eight sport classifications were included in the sample; 15 athletes were wheelchair users (Classes 1–4) and 15 were ambulatory (Classes 5–8). The classification system used was that of the National Association of Sport for Cerebral Palsy (Sherrill, 1986a), now known as the United States Cerebral Palsy Athletic Association.

Instrument

Shostrom’s (1964) Personal Orientation Inventory (POI) was used to measure self-actualization. Of the many personality inventories available, the POI is the only one that purports to measure self-actualization (Knapp, 1976; Tosi & Lindamood, 1975). The POI consists of 150 bipolar statements of values and behaviors derived from the self-actualization theory of Maslow (1968, 1970, 1971).

The POI is scored for two major scales and 10 subscales. The major scales (time competence, 23 items, and inner-directedness, 127 items) measure the most important constructs of Maslow’s self-actualization theory. Items for these scales were derived from the writings of Maslow and other humanistic, existential, or Gestalt therapists as well as from clinical observations of healthy and troubled persons (Shostrom, 1964); thus the inventory has strong content validity. The subscales were developed to give individuals insight into their current level of positive health in specific dimensions of self-actualization, to suggest directions for growth, and to provide quantitative measures of this growth. The assignment of items to subscales was based on the clinical judgment of Shostrom in association with Maslow (Knapp, 1976). Each subscale consists of 9 to 23 items taken from the major scales. Several of these items overlap because Shostrom believed that self-actualization constructs were not necessarily independent of one another. The POI scales are defined in Table 1.

Extensive research has been completed on the content, construct, factorial, concurrent, and predictive validities of the POI. Findings are summarized and critiqued by Bloxom (1972) and Tosi and Lindamood (1975), who indicate that the POI has good validity. Studies of construct validity document the ability of this instrument to statistically discriminate between groups clinically nominated
Table 1
Definitions of POI Scales

1. **Time Competence** measures tendency to live in the present rather than the past or future. Time-competent people are able to tie the past and present together in meaningful continuity and are not burdened by guilt, resentments, and regrets from the past. Their aspirations are related to present goals, and they have faith in the future without being rigid or over-idealistic. (23 items)

2. **Inner-Directedness** measures the extent that persons are guided by internal motivations rather than external influences. Such persons are autonomous or independent; they have liberated themselves from rigid adherence to social pressures and expectations. (127 items)

3. **Self-Actualizing Value** measures affirmation of the primary values of self-actualizing people. (26 items)

4. **Existentiality** measures ability to react situationally without rigid adherence to principles. (32 items)

5. **Feeling Reactivity** measures sensitivity of responsiveness to one's own needs and feelings. (23 items)

6. **Spontaneity** measures freedom to react spontaneously to one's own needs and feelings and the ability to be oneself. (18 items)

7. **Self-Regard** measures affirmation of self because of worth or strength. (16 items)

8. **Self-Acceptance** measures affirmation or acceptance of self in spite of weaknesses or deficiencies. (26 items)

9. **Nature of Man** measures the degree of the constructive view of the nature of masculinity/femininity. (16 items)

10. **Synergy** measures the ability to transcend dichotomies, to see opposites of life (like work and play, winning and losing) as meaningfully related. (9 items)

11. **Acceptance of Aggression** measures the ability to accept one's natural aggressiveness as opposed to defensiveness, denial, and repression of aggression. (25 items)

12. **Capacity for Intimate Contact** measures the ability to develop contactful, intimate relationships with other human beings. These relationships are unencumbered by expectation or obligation. (28 items)

*Note. Adapted from Shostrom, 1974.*

as self-actualized, normal, and non-self-actualized (Fox, Knapp, & Michael, 1968; Shostrom, 1964; Shostrom & Knapp, 1966). Concurrent validity studies have substantiated expected relationships between selected POI scales and such measures as composite ratings of self-actualization by staff members (McClain, 1970), the Edwards Personal Preference Schedule (LeMay & Damm, 1969), the Minnesota Multiphasic Personality Inventory (Shostrom & Knapp, 1966), the Minnesota Teacher Attitude Inventory (Dandes, 1966), the California Psychological Inventory (Martin, Blair, & Cash, 1981), and the Eysenck Personality Inventory (Karle, Corriere, Hart, & Klein, 1981).

Several investigators have examined the test–retest stability of the POI. Ilardi and May (1968) stated that test–retest coefficients found on the 12 POI
scales were well within the ranges reported for the Edwards Personal Preference Scale and the Minnesota Multiphasic Personality Inventory. Wise and Davis (1975) reported stability coefficients above .75 for all scales except Self-Actualizing Value (.74), Nature of Man (.69), and Synergy (.50).

A particular strength of the POI is the availability of sample profiles for persons in different professions or representing polar mental health states. Knapp (1976) presents 31 illustrative profiles (including teachers, educational consultants, business executives, priests, alcoholics, and drug abusers). No profiles were included for athletes and persons with disabilities, however.

Data Collection

The POI was administered to each subject individually. Athletes whose fine motor coordination enabled them to hold their own test booklets, read, and do their own writing did so. When necessary, the investigator read the test items and recorded the subject’s oral responses. Some Class 1 and Class 2 athletes, whose speech was not easy to understand, used Canon communicators to indicate answers. Data were collected at each athlete’s convenience during the 2-week duration of the International Games competition. No attempt was made to control test administration in relation to time of competition or to examine the effects of winning or losing on responses.

Profiling

According to Shostrom (1974), the POI can best be interpreted by plotting scores on a standardized profile sheet and examining the results in relation to reference-group profiles. The commercially available profile sheet is based on the scores of the normative group of adults (N= 158) in Shostrom’s first study. Use of this standardized form automatically converts raw data to standard scores (i.e., T scores). The mean standard score for each scale is 50, with a standard deviation of 10. Developing a group profile requires computing means for each POI scale and then plotting the means on the profile sheet.

Group profiles in this study were developed for the cerebral palsied athletes and for the able-bodied athletes studied by Magill (1975), Ibrahim and Morrison (1976), Gundersheim (1982), and Hardy (1986). The composite able-bodied athlete sample comprised 265 college-age males, and the cerebral palsied athlete sample comprised 30 males, ages 17 to 44 years, $M=24.9$. Means on which these profiles were based are presented in Table 2.

Two test-manual profiles were selected as the criterion groups against which the cerebral palsied and able-bodied athlete profiles would be visually compared. The first was the normative group of adults (N= 158) on which the POI profile sheet was based. The profile of this group is the horizontal straight line at the 50 standard score mark in the center of the page (i.e., the group’s score on each scale was 50). The other profile selected for use as a reference group was based on the scores of 1,254 male college freshmen (see Figure 1).

Interpretation was based on examination of the overall profile elevation of each group. According to Shostrom (1974), mean standard scores of 50 to 60 are interpreted as self-actualizing for adults. Excessively high profiles (all T scores over 60) indicate pseudo-self-actualizers (i.e., individuals knowledgeable about the POI and/or humanistic psychology and eager to score well). Knapp
Table 2

Means of Elite Cerebral Palsied Athletes
and Four Samples of College-age Able-bodied Athletes on POI Scales

<table>
<thead>
<tr>
<th>POI scales</th>
<th>CP males N=30</th>
<th>Magill N=42 males</th>
<th>Gundersheim N=123 males</th>
<th>Ibrahim &amp; Morrison N=25 males</th>
<th>Hardy white athletes N=75 males</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time competence</td>
<td>16.6</td>
<td>16.2</td>
<td>15.1</td>
<td>15.6</td>
<td>13.7</td>
</tr>
<tr>
<td>Inner-directed</td>
<td>84.4</td>
<td>82.6</td>
<td>81.6</td>
<td>80.7</td>
<td>77.0</td>
</tr>
<tr>
<td>Self-act. values</td>
<td>20.4</td>
<td>20.2</td>
<td>20.4</td>
<td>19.3</td>
<td>20.0</td>
</tr>
<tr>
<td>Existentiality</td>
<td>18.2</td>
<td>19.5</td>
<td>18.6</td>
<td>18.3</td>
<td>16.0</td>
</tr>
<tr>
<td>Feel. reactivity</td>
<td>16.1</td>
<td>15.8</td>
<td>14.7</td>
<td>15.0</td>
<td>15.5</td>
</tr>
<tr>
<td>Spontaneity</td>
<td>12.6</td>
<td>12.8</td>
<td>12.5</td>
<td>12.0</td>
<td>12.0</td>
</tr>
<tr>
<td>Self-regard</td>
<td>13.3</td>
<td>12.5</td>
<td>11.9</td>
<td>12.4</td>
<td>12.0</td>
</tr>
<tr>
<td>Self-acceptance</td>
<td>14.7</td>
<td>14.5</td>
<td>14.1</td>
<td>14.3</td>
<td>11.3</td>
</tr>
<tr>
<td>Nature of man</td>
<td>11.8</td>
<td>11.6</td>
<td>11.3</td>
<td>11.6</td>
<td>11.4</td>
</tr>
<tr>
<td>Synergy</td>
<td>6.7</td>
<td>6.7</td>
<td>6.6</td>
<td>6.6</td>
<td>6.3</td>
</tr>
<tr>
<td>Accept. aggress.</td>
<td>16.3</td>
<td>16.5</td>
<td>16.0</td>
<td>16.0</td>
<td>16.1</td>
</tr>
<tr>
<td>Capacity for intimate contact</td>
<td>18.1</td>
<td>17.9</td>
<td>17.0</td>
<td>17.1</td>
<td>15.9</td>
</tr>
</tbody>
</table>

(1976) points out that mean scores for adult samples tend to be higher than those based on college-age and high school samples. Scores in the high 40s may therefore indicate self-actualizing in college students (i.e., if scores are higher than the means of the normative college age group).

Results and Discussion

Table 2 presents the group means of the cerebral palsied males and four able-bodied samples on the POI scales. The similarity of the means across samples is interesting in that the term athlete was defined differently in every study. Magill (1975) studied 42 members of the Florida State University baseball team. Gundersheim (1982) defined athletes as members of a local university team who had won three varsity letters in their sport during college and/or high school; his male athletes (N=123) included gymnasts, wrestlers, lacrosse players, baseball players, and track and field participants. Gundersheim reported no significant differences in self-actualization by sport, thus justifying the combined grouping. Ibrahim and Morrison (1976) reported that their male college-age athletes (N=25) were members of varsity teams at a private liberal arts college. Hardy (1986) studied both white (n=75) and black (n=234) football players from four state universities in Louisiana. Because the self-actualization scores of Hardy’s black sample were significantly lower than those of the white sample, only the latter were used in the development of the composite athlete profile. Mean ages of the Magill and Hardy subjects were 19.45 and 19.44, respectively. Neither Gundersheim nor Ibrahim and Morrison reported mean ages.
Figure 1 — Self-actualization profiles of elite male cerebral palsied athlete sample (dashes), male college age able-bodied athletes composite sample (dots), and male college freshmen normative group from POI test manual (solid line).
The profiles in Figure 1 show that the profile patterns of able-bodied and cerebral palsied athletes are similar except for time competence, self-regard, and self-acceptance. Use of individual $t$ tests indicated that these differences were all statistically significant, $p < .01$. Individual $t$ tests, rather than a multivariate procedure, were used because of the item overlap among scales (i.e., the data did not meet the multivariate requirement of independence). On each POI scale, the cerebral palsied athletes scored higher, indicating a greater trend toward self-actualization than among the able-bodied athletes.

The differences between these two groups may be partly a function of age. The cerebral palsied athletes ranged in age from 17 to 44 years, $M=24.9$, whereas the able-bodied athletes were all of college age. Shostrom (1974, 1976) indicates that few individuals demonstrate self-actualization before reaching adulthood. This would be particularly true in regard to time competence because most college students are focusing on goals for the future, acquiring the knowledge and skills that will enable them to gain optimal employment and to maintain a desired lifestyle.

One plausible hypothesis for this trend toward greater self-actualization by cerebral palsied athletes might be that the more elite an athlete is, regardless of whether able-bodied or disabled, the more self-actualizing he or she will be. The cerebral palsied athletes in this study were international competitors, selected because they were the most skilled in their particular sport classification in the United States. When POI scores of this group of elite athletes were compared with those of less elite cerebral palsied athletes, a $2 \times 2$ (Gender $\times$ Skill) multivariate analysis revealed significant differences for skill, favoring the more elite (Sherrill & Rainbolt, 1987b). However, there were no significant differences for gender or interaction. Studies are needed on self-actualization of able-bodied international competitors, so that degree of elitism is held constant in future comparisons of disabled and able-bodied athletes.

In this study, several common strengths and weaknesses of the athlete samples are evident. Athletes, whether able-bodied or disabled, appear to self-actualize most in the areas of spontaneity and self-regard. The weakest areas appear to be existentiality (i.e., flexibility in application of values), self-acceptance, nature of man, and synergy. These weaknesses all indicate a tendency toward conceptual rigidity. Athletes appear to have difficulty in accepting themselves, others, and the world in general within a holistic context in which everything is meaningfully related. Athletes seem to feel good about themselves only when they are winning and/or performing at their best; they seem not to understand that self-regard should extend to all dimensions of life and that self-acceptance should be unconditional. These findings provide direction for further research and offer insights that may be helpful in developing sport psychology counseling services.

Visual comparisons of athlete groups with their appropriate normative reference group in the POI test manual revealed many dissimilarities. In general, cerebral palsied athletes were less self-actualized than the normative adult group, whereas able-bodied college athletes were more self-actualized than the normative college-age group.

The most appropriate reference group for the cerebral palsied athletes, because of age similarity, was Shostrom's adult normative group, represented
by the straight line at the 50 mark on the profile sheet (see Figure 1). Visual inspection reveals that the cerebral palsied athletes are not functioning at the level of the normative adult group on the two major POI scales, time competence and inner-directedness. In this regard they may be described as "time incompetent" or as living "primarily in the past—with guilt, regrets, and resentments—and/or in the future—with idealized goals, plans, expectations, predictions, and fears" (Knapp, 1976, p. 5). The cerebral palsied athletes also appear to be less inner-directed (i.e., more influenced by their peer group and external forces) than the normative adult group. Application of the t test of significance to these observations revealed that the difference between groups on time competence was statistically significant \( p < .01 \) whereas the difference on inner-directedness was not.

Several dissimilarities between groups were apparent on the subscales. Calculation of independent \( t \) tests indicated that the cerebral palsied athlete group was significantly inferior \( (p < .01) \) to the adult normative group on existentiality, self-acceptance, nature of man, and synergy. These appear to be areas in which counseling is needed to help cerebral palsied athletes achieve normal levels of healthful function. In contrast, the cerebral palsied athlete group was significantly superior \( (p < .01) \) on spontaneity and self-regard, strengths upon which further growth can be based. On the other four subscales (self-actualizing values, feeling reactivity, acceptance of aggression, capacity for intimate contact), there were no statistically significant differences between the cerebral palsied athletes and normally functioning adults.

The most appropriate reference group for the male able-bodied athletes, who were all college students, was the male college sample \( (N=1,254) \) in the POI test manual. Figure 1 shows that, in general, the profile pattern of the athletes was more self-actualizing than that of the college sample. Calculation of \( t \) tests revealed significant difference at the .01 level, favoring the athletes, on inner-directedness and 8 of 10 subscales. There was no significant difference between groups on time competence, self-acceptance, and nature of man.

The able-bodied athletes were in the self-actualizing rather than the normal range for their age on several personality dimensions. Able-bodied athletes had \( T \) scores above 50 on feeling reactivity, spontaneity, and self-regard and were close to 50 on self-actualizing values and acceptance of aggression. Longitudinal research is needed to follow college-age athletes into adulthood to determine if this trend is maintained or heightened with increasing maturity.

In regard to the findings of this study, it is important to emphasize that no causal relationships are implied; such inference would be inappropriate. The purpose of this study was only to examine and describe, not to explain. More information is needed about the basic characteristics of cerebral palsied athletes as well as other groups of disabled athletes. Many misconceptions still exist concerning whether disabled persons can really be athletes (Sherrill, 1986b), and such research helps to combat stigmatization, stereotyping, and prejudice.

The findings of this study can perhaps be considered beginning building blocks in the development of the theoretical model for the study of personality and sport recommended by Magill (1975). Although there are athlete profiles for other personality inventories (Henschen, Horvat, & French, 1984; Kroll &
Peterson, 1965), none has been constructed for the POI (Knapp, 1976; Shostrom, 1974). It is to be hoped that the profiles presented in Figure 1 will serve as the basis for future study and that they will ultimately aid in decision-making about whether there is a need for separate POI profiles for able-bodied and disabled athletes. In this regard, several studies are currently under way (Gilstrap & Sherrill, in progress; Sherrill & Rainbolt, 1987a; Silliman & Sherrill, in progress). Many more are needed.

Conclusion

Elite cerebral palsied athletes and able-bodied college-age male athletes on varsity and intercollegiate teams have similar self-actualization profiles. Common strengths appear to be self-regard and spontaneity. Elite cerebral palsied male athletes are significantly less self-actualized than normal adults are in the areas of time competence, existentiality, self-acceptance, nature of man, and synergy. In general, able-bodied male college athletes are more self-actualized than their age-appropriate reference group.

References


---

**7th International Symposium**

*"Adapted Physical Activity—An Interdisciplinary Approach"*

**Berlin (West), June 21–24, 1989**

Professionals of different fields from around the world are called together to discuss research and model programs concerned with people who are disabled in various ways.

Topics will include, but not be limited to, physical education and sport; recreation; remediation and therapy; psychomotor learning; biomechanics; cardiology; physiology; sports medicine; music, drama, and dance; intellectual disability; physical disability; developmental–motor delays; psychiatric disorders; old-age syndromes; mental retardation; cardiac disorders; blindness; deafness; obesity; asthma.

Hosted by: Freie Universität Berlin, Institut für Sportwissenschaft, Vereinigung zur Förderung von Bewegung, Spiel und Sport in Prävention und Rehabilitation i. Gr.

For further information, contact:

7th ISAPA Berlin ’89
Secretary
Institut für Sportwissenschaft
Freie Universität Berlin
Rheinbabenallee 14
D-1000 Berlin 33
(Phone 030/824 37 31)