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The Zone: Evidence of a Universal Phenomenon for Athletes Across Sports

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ABSTRACT

This paper examines the heightened states of consciousness during participation in sport termed the zone or flow. Theoretical frameworks and studies of the phenomenon are described. The notion of a universal zone in sport is explored with a review of Young's (1999a) comparative analysis of flow experiences of professional tennis players with Jackson's (1993, 1996) elite athletes. Qualitative analyses of tennis players' and elite athletes' narratives of flow support flow theory's posited structure of flow consisting of eight dimensions. No significant differences were found between tennis players and elite athletes on the Experience Questionnaire (Privette, 1984). These analyses suggest that the zone or flow state is a universal phenomenon across sports, although intra-sport and inter-athlete differences are evident.

Introduction

Recent applied sport psychology literature is replete with references to "the zone" (e.g., Clarkson, 1999; Goldberg, 1998). Denoted as the pinnacle of achievement for an athlete, the zone characterises a state in which an athlete performs to the best of his or her ability. It is a is a magical and

> ... special place where performance is exceptional and consistent, automatic and flowing. An athlete is able to ignore all the pressures and let his or her body deliver the performance that has been learned so well. Competition is fun and exciting. (Murphy, 1996, p. 4)

While there is consensus that the zone describes a most highly desirable and much sought state in sport participation, there is little agreement as to the origin of the term. Shainberg (1989) claims that its origin is unknown, whereas the legendary baseballer Ted Williams (Douillard, 1994) and the former Wimbledon Champion Arthur Ashe (Loehr,

1995) are both credited with coining the phrase "in the zone". Notwithstanding its uncertain origins, the zone is "a fairly new development in the lexicon of sports culture" (Cooper, 1998, p.21) and a term used by athletes, researchers and practitioners alike.

As a term denoting an optimal or heightened state of consciousness, the zone can be likened to the diverse range of phenomena covered by the umbrella terms of ecstasy, transcendent or altered states of consciousness in sport participation. Such terms are variously denoted and include the concepts of "peaks", "perfect moments", "mindfulness", "peak experience" and "flow". In the sport psychology literature, the terms zone and flow are in fact used interchangeably and synonymously (Cooper, 1998; Heathcote, 1996).

Theoretical Frameworks for Understanding the Zone

Explanations of the zone or flow state can be gleaned from two psychological theories, flow theory (Csikszentmihalyi, 1975, 1990) and reversal theory (Apter, 1982, 1989). In brief, flow theory denotes the zone as a rare and dynamic state characterised as the experience of self-rewarding and enjoyable involvement. Flow theory states that while the zone can be experienced at varying levels, a phenomenological structure of eight dimensions describes the experience for individuals across occupations, demographic groups and cultures. These dimensions are listed by Csikszentmihalyi (1990) as: (a) clear goals and feedback; (b) balance between challenges and skills; (c) action and awareness merged; (d) concentration on task; (e) sense of potential control; (f) loss of self-consciousness; (g) altered sense of time; and, (h) autotelic (self-rewarding) experience. These dimensions are deemed to constitute the conditions necessary for the occurrence and continuation of the zone.

Reversal theory posits an explanation of the zone in terms of metamotivational states (modes or mental states in which an individual's motives are structured, interpreted and organised within experience) and reversals (switches between modes). Specifically, individuals are thought to experience the zone as an optimal relaxing telic (from the Greek word "telos" meaning goal or end) or exciting paratelic ("para" being the Greek word for beside or alongside) metamotivational state. A range of personal and situational factors is conceptualised to influence telic or paratelic zone states.

Zone Sport Research

Studies of the zone or "zone-like states" include those of Ravizza (1977, 1984), Loehr (1986), Garfield and Bennett (1984), Jackson (1992, 1993, 1995, 1996) and Young (1999a, 1999b, 1999c, 1999d). These studies have investigated both the characteristics and dynamics of the zone or zone-like phenomena.

In one of the first studies to address the experiential dimensions of sport, Ravizza (1977) investigated 20 athletes' "greatest moments", which he denoted as sport peak experiences. In findings paralleling those of Maslow's (1962) study of the generic peak experience, Ravizza (1977, 1984) found that the nature of the sport peak experience was: temporary and of relatively short duration; non-voluntary and not induced at will; and, unique and not necessarily associated with a successful performance outcome. He also found that the athletes' mastering of the basic skills of the sport was a pre-condition for

the occurrence of peak experiences. Characteristics of the sport peak experience included focusing on the present moment, effortless merging of action and awareness, loss of personal ego, sense of control, clear feedback, and an intrinsic reward system. Athletes recalled these special moments during sport participation as salient, highly valued and extremely meaningful.

Loehr (1986) examined over 300 athletes' "ideal performance state" by requesting athletes to describe their "finest hour" in sport participation. Twelve categories were identified to reflect the ideal internal climate for performing optimally. These categories were: physically relaxed; mentally calm; low anxiety; energised; optimistic; enjoyment; effortless; automatic; alert; mentally focused; self-confident; and, in control.

Elite athletes in Garfield and Bennett's (1984) study were asked to describe their feelings at "those moments when they were doing something extraordinarily well" (p.158). Eight mental and physical conditions, labelled "peak performance feelings", were identified as being characteristic of these moments. In findings which paralleled those of Loehr (1986), the conditions conducive to optimal performance were the feelings of being mentally alert, physically relaxed, confident and optimistic with a generally positive outlook, focused on the present, highly energised, extraordinary awareness, in control, and in the "cocoon" without fear or anxiety.

Applying a flow theory framework, Jackson (1992, 1993, 1995, 1996) investigated the nature and conditions of flow experiences for 16 former elite figure skaters and 28 elite athletes representing seven sports. Figure skaters and elite athletes endorsed all theoretical flow dimensions (listed above), with the exception of the dimension of loss of self-consciousness for figure skaters. Factors influencing flow states were identified and included those of motivation, focus, arousal control, confidence and positive attitude, physical and mental preparation and response to feedback. The majority of figure skaters and elite athletes considered they could control the onset and maintenance of the flow state. Figure skaters and elite athletes recalled flow as a valued and memorable event that had occurred rarely for figure skaters and several times a year in both competition and training for elite athletes.

In a recent study, Young (1999a) examined flow experiences of 31 Australian professional female tennis players. Adopting dual flow theory and reversal theory frameworks, the study found evidence to support both theoretical conceptualisations of flow. From a reversal theory perspective, there were no significant differences in the frequencies of relaxing telic or exciting paratelic flow states. From a flow theory perspective, characteristics of tennis flow closely corresponded with the theoretical model of inter-related dimensions (described above). In terms of factors influencing flow, the study identified an array of personal and situational factors including those of a player's physical and mental preparation, motivation, concentration, positive mood and experience and control of arousal. In further findings, tennis players reported flow occurred more frequently in training than in competition and preliminary evidence was found to support the notion of a universal sport flow experience. A description of the comparative analyses conducted to examine the universality of flow or zone experiences in sport follows.

Universality of the Sport Zone

Several researchers (e.g., Cooper,1998; Loehr, 1995) have suggested that the zone or flow state is a universal phenomenon for athletes across sports. To examine this, Young (1999a) compared flow experiences of 31 Australian professional female tennis players with similar experiences reported by Jackson's (1993, 1996) 28 elite athletes (14 male and 14 female, with an equal number from Australia and New Zealand, representing seven sports [four athletes per sport], which included track and field, rowing, swimming, cycling, triathlon, rugby and field hockey). To provide the basis for such a comparison, Young replicated a procedure adopted by Jackson and asked tennis players to: (a) relate "an experience of a time that stood out from average, one involving total absorption and which was rewarding in and of itself", and (b) respond to the Experience Questionnaire (Privette, 1984). It was predicted that the tennis players and elite athletes, representing different nationalities, status (professional/non-professional) and sports would describe similar experiences and rate the importance of experiential correlates (e.g., thoughts, feelings, meaning) of flow similarly if such experiences were universal.

Qualitative analysis

In an analysis of qualitative data, Young (1999a) compared the dimensions of flow endorsed by elite athletes from a variety of sports as being most central to the experience with those dimensions endorsed by tennis players. To derive the data for such a comparison, Young replicated the procedure adopted by Jackson (1996) to analyse descriptive accounts of flow. Raw data themes were identified from tennis players' narratives and deductively analysed these for a fit with one of the eight theoretical dimensions posited by flow theory. Themes not matching with a theoretical dimension were classified in a miscellaneous category. A summary of the results of this procedure, together with those obtained by Jackson, is presented in Table 1.

Table 1.
Theoretical Dimensions of Flow and Miscellaneous Category, Percentage* of Tennis Players and Elite Athletes Citing Themes Within Each Dimension and Percentage of All Raw Data Themes Represented by Each Dimension

Flow Dimension	**Tennis players (Young, 1999a)**		**Elite Athletes (Jackson, 1996)**	
	Percentage of tennis players	Percentage of all raw data themes	Percentage of elite athletes	Percentage of all raw data themes
1. Challenge-skill balance	36 (5)	5 (6)	36 (6)	4 (7)
2. Action-awareness merging	65 (3)	16 (3)	86 (3)	19 (2)
3. Clear goals and feedback	52 (4)	12 (5)	93 (2)	11 (5)
4. Concentration	71 (1)	22 (2)	82 (4)	13 (4)
5. Loss self-consciousness	29 (6)	5 (6)	82 (4)	16 (3)
6. Paradox of control	68 (2)	23 (1)	32 (7)	5 (6)
7. Transformation of time	16 (8)	2 (9)	29 (8)	4 (7)
8. Autotelic experience	24 (7)	16 (3)	96 (1)	25 (1)
9. Miscellaneous	29 (6)	5 (6)	29 (8)	3 (9)

Notes.
1. Numbers in parentheses reflect the relative importance of each dimension for each category.
2. * Participants may contribute more than one theme in each narrative.

With the majority of raw data themes from tennis players (95) and elite athletes from other sports (97) classified into one of the theoretical flow dimensions, and all theoretical dimensions endorsed, Young (1999a) concluded there was a close match of the structure of flow for both tennis players and elite athletes with flow theory's posited structure of flow. Notwithstanding this correspondence, individual differences were evident as to the salience of theoretical flow dimensions for both tennis players and elite athletes. For tennis players, the dimensions of control, concentration and action-awareness contained the highest percentage of raw data themes. In contrast, the dimensions of autotelic experience, action-awareness and clear goals and feedback contained the highest percentage of raw data themes for elite athletes. Young proposed that these findings indicate that some dimensions may be more central to the flow state for individuals in different sports, although the merging of action-awareness is a most telling aspect of the experience.

Quantitative Analysis

One means of examining the notion of the universality of sport zone or flow experiences is a comparative analysis of quantitative data obtained from different, yet comparable groups of athletes on the Experience Questionnaire (Privette, 1984). To conduct such an analysis, Young (1999a) compared tennis players' responses to the Experience Questionnaire items with Jackson's (1993) elite athletes' from a variety of sports responses to the identical items on the same inventory. Twenty-seven items of a total of 47 were adopted in this analysis on the basis of a series of Cronbach alpha coefficients conducted by Young to assess the internal consistency of the inventory. To test the hypothesis that there are no differences between tennis players' and elite athletes' ratings of the importance of experiential correlates of flow, a one-way ANOVA test was conducted using mean item scores. The test revealed there were no significant differences between tennis players and elite athletes on the items overall, $F(1, 52) = 1.16$, $p > .05$, $MSE = 1.04$.

For a fuller understanding of the differences between tennis players and elite athletes on the importance of experiential correlates of flow, responses to individual items in the Experience Questionnaire (Privette, 1984) were compared. Following the procedure adopted by Yeagle, Privette, and Dunham (1989) to identify differences between groups on the importance of experiential correlates of the peak experience, a series of t-tests were conducted in which mean item scores for each group of athletes were compared. The results of these tests, after being adjusted by the Bonferroni correction for multiple tests, are reported in Table 2, with items listed in abbreviated form and in the order reported by Jackson (1993).

Table 2.
Mean Scores and t-values for Young's (1999a) Tennis Players and Jackson's (1993) Elite Athletes From Other Sports on Experience Questionnaire (Privette, 1984) Items

Item	**Tennis players (Young, 1999a)**	**Elite Athletes (Jackson, 1996)**	**t-value**
Clear inner process	4.50	4.64	-1.05
Felt all together	4.61	4.89	-2.51
Awareness of power	4.23	4.50	-1.89
Clear focus	4.77	4.93	-2.04
Strong sense of self	4.52	4.25	2.19
Free from outer restrictions	4.18	3.65	4.65*
Need to complete	4.39	4.82	-3.00
Absorption	4.68	5.0	-3.32*
Intention	4.61	4.86	-2.46
Personal responsibility	3.32	4.21	-4.04*
Overwhewlmed other senses, thoughts	4.06	4.29	-1.41
Process "clicked"	4.52	4.50	0.11
Personal understanding, expression	3.23	3.26	-0.16
Actions, thoughts spontaneous	4.58	3.70	7.90*
Event was practiced	3.13	4.46	-5.45*
Performance	6.44	6.57	-1.44
Fulfillment	4.87	4.93	-0.97
Intrinsic reward	4.52	4.57	-0.41
Loss of self	1.83	2.00	0.93
Spiritual	2.71	2.86	-0.59
Loss of time and space	2.74	3.46	-2.42
Unity of self and environment	3.38	3.86	-1.96
Enjoyed others	2.03	2.57	-2.21
Prior related involvement	2.90	4.86	-7.71*
Fun	4.29	4.04	1.49
Action or behavior	4.06	5.00	-4.76*
Goals and structure	3.52	5.00	-6.55*

Notes.
1.Values of 3.5 or more indicate endorsement.
2. *Significant at an alpha level of .05 divided among 27 comparisons (Bonferroni correction for multiple tests).

With no significant differences between tennis players and elite athletes from other sports on the Experience Questionnaire (Privette, 1984) items overall and the majority of individual items, and strong endorsement from each group of athletes for the key theoretical characteristics of flow (clear inner process and focus, fulfilment, intention, fun, high performance, and intrinsic reward), Young (1999a) suggested that tennis players and elite athletes from other sports experience flow in qualitatively similar manners. Notwithstanding this notion of a common flow experience, Young proposed that the finding of significant differences between tennis players and elite athletes on approximately one quarter of 27 items contained in the Experience Questionnaire is evidence of individual differences for athletes across sports in the phenomenology of flow. Further, it was noted that the fact that many of the items of the inventory had to be discarded due to inadequate Cronbach apha coefficient values was indicative that tennis players as a group display variation in the experience of flow.

Summary

Young's (1999a) comparative analysis of flow experiences of tennis players and elite athletesfrom other sports, together with studies that have produced descriptive accounts of the characteristics of the zone or zone-like states in sport, support the notion of a universal phenomenon in sport. Athletes describe salient features of the experience - total concentration and involvement, control, a unity of mind and body and a sense of personal fulfilment at an optimal level of performance - with remarkable similarity when asked to reflect on how it feels when their experiences are most positive. Qualitative differences in athletes' reports of such states suggest these unique and extraordinary moments in sport participation are experienced at varying levels of intensity and complexity by individuals across sports. The time is ripe for research to further explore the pinnacle of performance and enjoyment for athletes of varying skill levels across a range of sports.

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