

TALENTED ATHLETES' PERCEPTIONS OF THE ATHLETE-COACH-PARENTS RELATIONSHIPS

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ZAZNAVANJE MEDOSEBNIH ODNOSOV ŠPORTNIK-TRENER-STARŠI S STRANI NADARJENIH ŠPORTNIKOV

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Abstract

The interpersonal perceptions of 265 talented athletes of the relationships between themselves, their coaches, and their parents were studied as a function of athletes' gender, age and athletic experience. Athletes perceived these relationships to be positive and constructive, and, on average, to be free of major conflicts. Stepwise multiple regression and discriminant analysis revealed athletes' gender to be related to the perception of a higher need for emotional support from parents, while athletes' age and athletic experience were associated with perceptions of more distant relationships with parents and coaches. This study revealed not only that talented athletes have a clear perception of the interactions within their primary psychological network, but also that their interpersonal perceptions are related to individual characteristics. Finally, recommendations for further research with regard to the quality of the interpersonal relationships in the athletic triangle are provided.

Key words: interpersonal relationships, athletic triangle, Sport Interpersonal Relationships Questionnaire, parents, coach

Izveček

V študiji smo proučevali, kako nadarjeni športniki zaznavajo medsebojne odnose, odnose s svojimi trenerji ter starši, in sicer kot funkcijo spola, starosti in izkušenosti športnika. Športniki (n=265) so te medosebne odnose zaznavali kot pozitivne in konstruktivne ter v povprečju brez večjih konfliktov. Postopna multipla regresija in diskriminanta analiza sta pokazali povezavo med spolom športnika in večjo potrebo po čustveni podpori staršev, medtem ko je bilo zaznavanje večje razdalje v odnosih s starši in trenerji povezano s starostjo in izkušnostjo športnika. Raziskava je pokazala, da nadarjeni športniki jasno zaznavajo interakcije v svoji primarni psihološki mreži in da je njihovo zaznavanje medosebnih odnosov povezano s posameznimi značilnostmi. V prispevku so podana tudi priporočila za nadaljnjo raziskavo na področju kakovosti medosebnih odnosov v t.i. športnem trikotniku.

Ključne besede: medosebni odnosi, triadni odnosi v športu, Sport Interpersonal Relationships Questionnaire, starši, trener

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INTRODUCTION

Competitive sport has been recognized as a complex social system in which relationships play an important role (Hellstedt, 1995; Kirk, O'Connor, Carlson, Burke, Davis, & Glover, 1997). For example, in a recent study on the importance of social support perceived by high-level sports performers, Rees and Hardy (2000) concluded that there was a need to recognize »that important others can play a crucial role in the life of the performer, and that the consequences of performers being isolated from support are damaging.« (p. 344).

While important to adults, relationships are *significant* to children and youth involved in competitive sports. This significance has been underlined by the fact that specific relationships of young athletes have become known and labeled as one social network, namely the *athletic triangle* (Smith, Smoll, & Smith, 1989), or the *primary family of sport* (Scanlan, 1988) – both of which refer to young athletes' relationships with their parents and coaches, as well as to parents and coaches mutual relationships.

Research into the Quality of Interactions in the Athletic Triangle

Notwithstanding the fact that young athletes' interactions have been acknowledged as going a long way in determining the quality of talented athletes' sport experiences (Brustad, 1993, 1996; Coakley, 1993; DeFrancesco & Johnson, 1997; Smith, Smoll, & Smith, 1989; Weiss, 1993), the research on the influence of the relationships within this triangle remains limited.

Athlete-Parents Relationships

The limited research into the interactions between young athletes and their parents has been linked to the fact that »... research on family influences is complex and difficult, and that a quantitative methodology is often unable to explore the intricacies of the family processes that exist in athlete families« (Hellstedt, 1995, p. 119). Studies show that parental encouragement and support not only enhances athletes' level of enjoyment and perceived competence (Brustad, 1993; Ommundsen & Vaglum, 1993; Power & Woolger, 1994), but may also create a special bond between young elite athletes and their parents (Bakker, De Koning, Van Ingen Schenau, & De Groot, 1993; Carlson, 1988). However,

parents can also be a source of stress or discouragement to young athletes, by worrying about physical injuries, by formulating unrealistic expectations, or by overt »pushing« (Hellstedt, 1995; Lee & MacLean, 1997). Young athletes' competitive trait anxiety was also related to parental expectations and evaluations of performance (e.g., Brustad, 1988). Overzealousness, parental stress, intrusiveness, and extreme and/or maladaptive behavior were some of the negative parental behaviors leading young athletes away from active involvement in competitive sport (Iso-Ahola, 1995; Martens, 1993).

Finally, although the role of parents has generally been situated during the initiation stage (e.g., Kirk et al., 1997; Régnier, Salmela, & Russell, 1993), research has shown more and more that athletes perceive parental involvement to be salient throughout the athletic lifespan. For example, Hellstedt (1987, 1990) found that 12- and 13-year-old elite ski racers perceived their parents to have a strong influence on their athletic development. Additionally, Ewing and Weisner (1996) interviewed parents of regionally ranked 12- to 15-year-old tennis players and found that parents consistently reported a direct involvement with their children's development as competitive tennis players, even though each child had a coach from one of the in their local clubs. In a study in which 8- to 21-year-old athletes were studied over a 2-year period, Würth (2001) found that athletes who perceived they had a successful transition from one athletic career stage to another reported that their parents provided more sport-related advice and emotional support than did athletes who did not make the transition. These findings confirmed the results reported by Carlson (1988) that parents of successful Swedish elite tennis players had, in comparison to parents of players who did not make it to world level, been supportive by not putting their children under too much pressure to achieve.

Athlete-Coach Relationships

While many studies investigated how coaches interact with their – generally adult – athletes, less has been conducted on coaches' interactions with young athletes. The available research has shown that, similar to parents' influence, coaches' interactions with young athletes are significant to youth's participation in competitive sports. This significance is best illustrated in Smith and Smoll's (1996) coach effectiveness training studies which revealed that young athletes who played for coaches,

who generally rewarded them for the effort they put in rather than for the result itself, were perceived to be more encouraging and more supportive to athletes to remain in sport. Black and Weiss (1992) also found that among 12- to 18-year-old swimmers, a relationship existed between their perceptions of the coach's behaviors and their own self-perceptions, enjoyment, and perceived competence. Martin, Jackson, Richardson, and Weiller (1999) found that 10- to 13- and 14-to-18-year-old athletes preferred coaching behaviors including possibilities for greater participation in making decisions pertaining to group goals, practice methods, and game tactics. They also preferred the coach to develop warm interpersonal relations with team members and create a positive group atmosphere. Alfermann and Würth (2001) conducted a 2-year study of 11- to 15-year-old handball, basketball, and hockey players and found that players, who perceived their coaches to give them instruction and feedback, made a more successful transition into the next athletic stage compared to players coached by less attentive coaches. However, the quality of the coach's behaviors can also be negatively related to athletes' responses such as higher anxiety and burnout, contributing to an unsuccessful transition to the next athletic stage. At the high school level, athlete burnout was related to lower social support, positive feedback, training and instruction, and democratic decision making (Price & Weiss, 2000), whereas at the collegiate level, athlete burnout was primarily due to a lack of coach empathy and praise and a greater emphasis on winning (Vealey, Armstrong, Comar, & Greenleaf, 1998).

Finally, the athlete-coach relationship has also been shown to evolve throughout an athlete's sports career. For example, while during the development stage of the athletic career, coaches are more personally involved, emphasize more the technical proficiency of the young athletes, and expect progress through discipline and hard work, in the mastery stage, coaches place greater demands upon their elite-level athletes (Bloom, 1985). Also Serpa and Damasio (2001) recognized this change in coaching behaviors in their study of 13- to 30-year-old trampoline athletes: although the coach was perceived by athletes to remain friendly toward them, the coach's dominating role was perceived to diminish during the latter stages of the athlete's sport career in favor of a more equal partnership.

Coach-Parents Relationships

This third and final relationship in the athletic triangle has largely been neglected as a topic of study (Wylleman, 2000). One of the very few studies showed that coaches and parents perceived themselves to have a good relationship if coaches worked with their athletes toward reaching a higher level of athletic achievement (Vanden Auweele, Van Mele, & Wylleman, 1994).

Needs in Interpersonal Research

After analyzing the available research on interpersonal relationships in competitive sports, Wylleman (2000) concluded that relationships in the athletic setting had as yet not been approached in a systematic and structured way. This was largely attributed to an insufficient delineation of interpersonal relationships, as well as a lack of conceptualization and research methodology. In particular, Wylleman noted:

- the almost exclusive use of a uni-directional perspective - for example, most researchers focused on the *coach-to-athlete* interactions, largely neglecting the *athlete-to-coach* interactions;
- a heavy emphasis on the coach-athlete relationship with an under-emphasis on the parents-athlete and the coach-parents relationships;
- a focus on one particular relationship of the athletic triangle (i.e., athlete-coach relationship), without any link to the two other legs of the triangle (athlete-parents and coach-parents relationships);
- the operationalization of interpersonal behavior in terms of generally task-oriented behaviors, largely neglecting relationship- or socio-emotionally oriented interpersonal behaviors which deal with the mutual affective-emotional influences experienced by the actors in a relationship.

In line with these needs for future research, the current study aimed at investigating how young athletes perceive all *three* relationships in the athletic triangle, using a *bi-directional* perspective. In particular, the question was asked how young athletes perceive the quality of the athlete-to-parents, parents-to-athlete, athlete-to-coach, coach-to-athlete, coach-to-parents, and parents-to-coach interactions.

Methods

Subjects

Participants were 265 athletes¹ (51.4% male; 48.4% female; *M* age = 17.5 years, *SD* age = 3.6), recognized as talented athlete by their sports federation (track and field, judo, kayak, swimming, tennis, triathlon, squash, rowing, cycling, golf, gymnastics, powerlifting, sailing, wu-shu) and/or Belgian Olympic and Interfederal Committee, and competing at national (66.4%) or international (33.6%) level for at least two consecutive seasons. Athletes competed in their sport for an average of 7.4 years (*SD*=3.6), trained on average 10.7 hours (*SD*=5.4) per week, and participated on average in 7.4 (*SD*=3.6) competitions per season.

Instruments and Procedure

A general information questionnaire gathered data on participants' age, gender, sport discipline, athletic (i.e., years of participation in their sport, hours of training per week), and competitive experience (i.e., number of competitions per season, current competitive level). Participants' interpersonal perceptions were measured using three forms of the Sport Interpersonal Relationships Questionnaire (SIRQ; Wylleman, Vanden Auweele, De Knop, Sloore, & De Martelaer, 1995): the »Athlete-Coach« (SIRQ-AC), »Athlete-Parents« (SIRQ-AP), and »Athlete on Parents-Coach« (SIRQ-Apc) forms. The SIRQ is a sport-specific self-report questionnaire, developed upon a three facet-analytical framework, closely related to Schutz's (1958) three dimensional theory of interpersonal behavior. It enables athletes to rate their own perceptions of the bi-directionally interpersonal behaviors in one particular relationship of the athletic triangle. SIRQ-items were generated and made sport-specific from relationship-specific instruments, complemented with items stemming from qualitative data (i.e., interviews with athletes, parents, coaches) (Wylleman, 1995). Exploratory factor analyses revealed factor-solutions explaining a percentage of total variance ranging between 34.19% and 49.40%, and resulted in scales with acceptable to good indices of homogeneity ($\alpha = .62 \sim .93$). Content validity was shown to be adequate in that a strong correspon-

dence was found between SIRQ scales and subjects' responses to open-ended questions. Convergent validity was established via confirmation of hypothesized correlations between SIRQ scales, and existing measures on relationships in sport (e.g., Leadership Scale for Sports [LSS; Chelladurai & Saleh, 1980]), as well as two measures on the quality of relationships ($r = -.44 \sim .76$). Divergent validity was shown to exist as hypothesized low, non-significant correlations between SIRQ-scales and the Anxiety Thermometer (Houtman & Bakker, 1989) ($r = -.08 \sim .19$) were confirmed. Four-week test-retest correlations revealed acceptable external reliability for all SIRQ scales ($r = .52 \sim .95$). Athletes rate items, which reflect a particular interpersonal behavior for a specific relationship, on two Likert-type scale (*never*=1; *always*=5): as it really or actually occurs, as well as athletes would prefer that behavior to occur. As athletes are able to indicate how they would like a specific type of behavior in a relationship to change toward a personal or social desirable level, it was deemed that this procedure would reduce a social desirability answering tendency (Wylleman, 1995). Questionnaires were presented, individually or in group, during a two hour session before or after a training session at a national training camp². Participation was voluntary. Athletes completed the questionnaires without coaches or parents being present. Participants were assured that their answers would be kept strict confidential, more particularly, that their answers would not be shared with parents or coaches, or that they would not be used for selection purposes). Table 1 summarizes content, number of items, internal consistency and test-retest indices for each SIRQ.

Results

Athletes' Perceptions of the Interpersonal Behaviors

High scale scores on Acceptance and Caring, as well as low scores on Closed and Criticizing, reflected athletes' perceptions of having open and constructive relationships with their coach, generally free of major conflicts (Table 1). The low discrepancy between actual and preferred scale scores, showed athletes to be satisfied with the current

1 Of the original pool of participants solicited to participate in this study fourteen declined due to (a) negative experiences while participating as a subject in earlier studies ($N=2$), (b) wanting to use the time scheduled for the testing, as time to consult the physiotherapist ($N=6$), (c) interdiction by the personal coach to participate ($N=2$), and (d) sudden illness or injury ($N=4$).

2 Participants were asked to assess their relationship with the coach with whom they interacted most frequently, while athletes who had no living parent(s), only one, or step-parents, or who were coached by a parent were excluded from further analysis.

Table 1: Psychometric characteristics, means and standard deviations for actual and preferred scores of SIRQ-AC, SIRQ-AP, SIRQ-APC scales

Scale	Content (a) Example of item	Items	Cronbach alpha	Test - retest	Actual Behaviors M (SD)	Preferred Behaviors M (SD)
	SIRQ-AC: Athlete on Athlete-Coach					
Closed (CA)	Athlete behaves in negative, detached way, possibly avoiding contact due to feelings of distrust or inferiority. Example: »I am very negative towards my coach«	14	.88	.72*	1.75(.57)	1.60(.58)
Acceptance (AC)	Athlete behaves in attentive way, trusting and following closely coach's advice, asking for more advice if in doubt. Example: »I do exactly what my coach asks of me«	8	.83	.69*	4.23(.53)	4.35(.57)
Assertive (AS)	Athlete behaves in assertive way, speaking freely his/her mind, remaining on point of view in discussions. Example: »I always want to be right when I argue with my coach«	5	.66	.79*	2.40(.61)	2.99(.72)
	SIRQ-AC: Athlete on Athlete←Coach					
Caring (CB)	Coach shows interest in, appreciation for, and active willingness to help. Example: »The coach is very concerned about me«	16	.91	.83*	3.95(.67)	4.12(.58)
Criticizing (CN)	Coach behaves very critically toward athlete, sometimes becoming angry, possibly resulting in conflict. Example: »The coach can be very mad at me«	7	.79	.63*	1.36(.63)	1.48(.64)
Permissive (PR)	Coach behaves in permissive, indulgent, and easy way. Example: »The coach easily gives in«	9	.69	.77*	2.70(.55)	2.73(.57)
	SIRQ-AP: Athlete on Athlete → Parent (Father/Mother) (c) (d)					
Need support (NS)	Athlete expresses need for parental emotional support and advice. Example: »I ask my parent to encourage me during a match«	Athlete → Father	.87	.81*	2.55(.73)	2.58(.72)
		Athlete → Mother	.86	.86*	2.73(.71)	2.88(.77)
Open (OC)	Athlete behaves in trustful and positive way toward parent, discussing personal problems or point of view. Example: »I easily confer with my parent about my sport«	Athlete → Father	.90	.77*	3.43(.70)	3.64(.66)
		Athlete → Mother	.85	.84*	3.68(.82)	3.89(.77)
Animosity (AN)	Athlete behaves as feeling unfairly treated or let down by parent, argues with, or even avoids parent with regard to competitions. Example: »I try to keep out of the way of my parent«	Athlete → Father	.77	.79*	1.58(.58)	1.43(.63)
		Athlete → Mother	.79	.57*	1.60(.52)	1.48(.60)
Assertive (AS)	Athlete behaves in assertive way, speaking freely his/her mind to the mother, remaining on point of view in discussions. Example: »I do what I like to do irrespective of what my mother thinks I should do«	Athlete → Father	/	/	/	/
		Athlete → Mother	.69	.59*	3.39(.76)	3.38(1.02)
	SIRQ-AP: Athlete on Athlete ← Parent (Father/Mother) (d)					
Supportive (PS)	Parent behaves supportive towards athlete's sport involvement, showing interest for training sessions and competitions. Example: »My parent encourages me to participate in competitive sport«	Athlete ← Father	.92	.88*	3.57(.82)	3.63(.75)
		Athlete ← Mother	.89	.79*	3.11(.76)	3.21(.77)
Restrictive (RP)	Parent behaves in restrictive, authoritarian, hard-nosed way. Example: »My parent is hard-nosed when criticizing me«	Athlete ← Father	.79	.81*	2.38(.54)	.04(.52)
		Athlete ← Mother	.83	.75*	2.28(.56)	1.97(.51)

Scale	Content (a) Example of item	Items	Cronbach alpha	Test - retest	Actual Behaviors M (SD)	Preferred Behaviors M (SD)
Punishing (PU)	Parent behaves very critically, sometimes punishing, regarding performances at competitions, deciding what is best for athlete. Example: »My parent forces me to compete« Athlete ← Father Athlete ← Mother	4	.62	.70*	1.27(.46)	1.27(.65)
		8	.83	.68*	1.43(.52)	1.42(.69)
Incompetent (IN)	Father behaves in an incompetent way with regard to athlete's sport, without qualities or time to assist athlete. Example: »My parent feels incompetent to help me in my sport« Athlete ← Father Athlete ← Mother	6	.74	.65*	1.98(.67)	1.83(.75)
		/	/	/	/	/
SIRQ-APC: Athlete on Parent (Father/Mother) → Coach						
Consultative (MC)	Parent behaves in confidential and helpful way towards the coach. Example: »My parent discusses my problems with my coach« Father → Coach Mother → Coach	16	.93	.92*	2.70(.77)	2.90(.66)
		16	.92	.89*	3.11(.91)	3.46(.84)
Inferior (IF)	Parent behaves in inferior way, is manipulated by coach. Example: »My parent feels kept under tutelage by my coach« Father → Coach Mother → Coach	5	.72	.62*	1.47(.57)	1.48(.71)
		5	.65	.41	1.56(.64)	1.48(.69)
Independent (ID)	Parent behaves in assertive and independent way, telling coach what to do. Example: »My parent decides what is good for my sport participation irrespective of my coach« Father → Coach Mother → Coach	7	.72	.73*	1.99(.68)	1.48(.71)
		4	.74	.58*	2.17(.75)	2.29(.81)
Negative (NA)	Parent does not agree with coach, gets tired of coach's remarks, have arguments with coach. Example: »My parent openly criticizes my coach« Father → Coach Mother → Coach	9	.87	.77*	1.53(.58)	1.50(.68)
		10	.88	.80*	1.38(.53)	1.33(.60)
SIRQ-APC: Athlete on Coach → Parent (Father/Mother) (e)						
Consultative (MC)	Coach consults with, and feels supported by parent. Example: »My coach feels supported by my parent« Coach → Father Coach → Mother	16	.93	.52*	2.99(.93)	3.16(.87)
		17	.93	.95*	2.94(.89)	3.15(.86)
Inferior (IF)	Coach behaves in inferior way, is suspicious of parent. Example: »My coach feels inferior with regard to my parent« Coach → Father Coach → Mother	13	.88	.80*	1.48(.57)	1.43(.59)
		7	.81	.72*	1.41(.54)	1.40(.64)
Independent (ID)	Coach behaves in assertive and independent way, keeping to point of view and principles in discussion with parent. Example: »My coach keeps to his/her principles when in discussion with my parent « Coach → Father Coach → Mother	6	.74	.81*	2.80(.83)	2.84(.80)
		4	.67	.44	3.54(.95)	3.66(.90)
Negative (NA)	Coach does not agree, and easily gets in row with mother. Example: »My coach takes a stand towards to my parent« Coach → Father Coach → Mother	/	/	/	/	/
		10	.81	.76*	1.53(.55)	1.50(.56)

(a) Description Based On Highest Loading Items.

(b) 1 = Never; 5 = Always.

(c) Scale »Assertive« Exclusive To Athlete→Mother relationship.

(d) Scale »Incompetent« Exclusive To Athlete←Father relationship.

(e) Scale »Negative« Exclusive To Coach→Mother relationship.

* p<.0001

Table 2: Inter-scale correlations for the SIRQ-AC, SIRQ-AP, and SIRQ-APC

SIRQ-AC		Athlete → Coach			Athlete ← Coach				
		CA	AC	AS	CB	CN	PR		
Athlete → Coach	CA	-							
	AC	-.56*	-						
	AS	.17	-.19	-					
Athlete ← Coach	CB	-.72*	.62*	.03	-				
	CN	.50*	-.44*	.22	-.37*	-			
	PR	-.05	-.18	.03	-.02	-.05	-		
SIRQ-AP		Athlete → Parent (Father/Mother)				Athlete ← Parent (Father/Mother)			
		NS	OC	AN	AS	PS	RP	PU	IN
Athlete → Parent (Father/Mother)	NS	-							
	OC	.64*/.55*	-						
	AN	-.22/.04	-.53*/-.29*	-					
	AS	-/.47*	-/.28*	-/.01	-				
Athlete ← Parent (Father/Mother)	PS	.80*/.79*	.65*/.55*	-.18/-.02	-/.35*	-			
	RP	-.18/-.17	-.51*/-.42*	.66*/.58*	-.22/.12	-.22/-.22	-		
	PU	.05/-.10	-.23/-.43*	.54*/.71*	-/.02	.01/-.20	.41*/.62*	-	
	IN	-.48*/-	-.62*/-	.51*/-	-	-.54*/-	.39*/-	.20/-	-
SIRQ-APC		Parent (Father/Mother) → Coach				Coach → Parent (Father/Mother)			
		MC	IF	ID	NA	MC	IF	ID	NA
Parent (Father/Mother) → Coach	MC	-							
	IF	.19/.14	-						
	ID	.52*/.40*	.20/.26*	-					
	NA	-.05/-.08	.19/.20	.31*/.26	-				
Coach → Parent (Father/Mother)	MC	.87*/.90*	.14/.15	.53*/.44*	-.09/-.07	-			
	IF	.16/.06	.34*/.23*	.52*/.31*	.66*/.53*	.15/.09	-		
	ID	.48*/.50*	.34*/.14	.45*/.21	.30*/.15	.43*/.51*	.35*/.01	-	
	NA	-.27*	-.41*	-.38*	-.59*	-.29*	/.52*	-.34*	-

* $p < .0001$.

quality of athlete-coach interactions. Strong and significant inter-scale correlations (Table 2) revealed a positive athlete-coach relationship to consist of (a) athletes behaving in an accepting way toward their coaches, (b) coaches being perceived to care for their athletes, and (c) athletes and coaches avoiding closed or criticizing attitudes. Athletes perceived themselves as having open and supportive relationships with both parents. Athletes' need for parental emotional support was perceived by athletes to be provided for, as reflected in the high interscale correlations with fathers and mothers providing support (Table 2). Athletes assessed emotional parental support provided to be adequate. High scale scores reflected athletes' perceptions of behaving in an assertive way toward their mothers.

Strong significant interscale correlations were found between athletes' perceived animous behavior toward both parents, and their perceptions of parents' restrictive or punishing behaviors. Athletes perceived parents and coaches to behave generally in a mutual consultative way. The small discrepancy between actual and preferred scores indicated athletes' satisfaction with these interactions. While coaches were perceived to behave in an independent way toward both parents, athletes also assessed coaches to act more independently toward the mothers. It should be noted that interscale correlations showed that these consultative and independent interpersonal behaviors were not perceived as being opposite or mutually exclusive. Strong and significant interscale correlations were

also found between a strong parental negative attitude and coaches behaving in an inferior way toward both parents.

Associations Between Athletes' Characteristics and Perceptions of Interpersonal Behaviors

Stepwise multiple regression and stepwise discriminant analysis (forward estimation method) (Hair, Anderson, & Tatham, 1987) were used to select step-by-step (at significance level of .05) the contribution of each SIRQ-scales as a function of athletes' gender, age, athletic, and competitive experience. Three scales were found to have the most discriminating power regarding athletes' gender (Table 3). This analysis revealed female athletes to perceive significantly more than male athletes, a need for emotional parental support, while male athletes perceived more than female athletes their fathers to behave in an inferior way toward the coach. A stepwise multiple regression model on athletes' age (33% explained variance) showed that the older athletes, the less they perceived their fathers to provide them with emotional support, and behaving in a less restrictive way (Table 4). Older athletes also perceived their fathers to behave less in a consultative way toward the coach, while the coach was perceived to behave in a more independent way toward mothers. A stepwise multiple regression model on athletes' years of participation in their sport (15% explained variance), revealed that the more years athletes had trained, the less they perceived their coaches to behave in a caring way toward them, while their mothers were perceived on the one hand to provide less emotional support, but on the other hand to be also less restrictive toward their children (see Table 4). As athletes' level of athletic experience increased, the stronger

athletes' perceptions of their coaches to take on a more independent attitude toward their mothers. A four-scale model (15% explained variance) showed that, as training intensity increased, athletes perceived themselves to solicit less support from their mothers, as well as to behave in an assertive way toward their coach. Furthermore, the coach was perceived to take on a more permissive attitude toward them while their fathers were perceived to be less consultative with the coach (see Table 4). A stepwise regression model (12% explained variance) showed that the more athletes competed, the less they perceived to solicit their mothers for emotional support (see Table 4). These highly involved athletes also perceived their fathers to act in a more independent, and in a less inferior way toward their coaches, while the coaches behaved more independently, especially toward athletes' mothers. Finally, a stepwise discriminant model revealed that athletes, who had not yet reached international level, perceived themselves to solicit more support from their mothers in comparison to those who competed already at international level. The latter assessed themselves to behave more in an accepting, and yet at the same time, more assertive way toward their coaches than the former (see Table 3).

Discussion

Taking into account that the current findings are discussed on the basis of group averages, it can be concluded that the talented athletes in this study perceive the interactions within the athletic triangle to be positive and constructive, and generally free of major relationship-related conflicts. While

Table 3: Stepwise discriminant analyses for SIRQ scales and athletes' gender, and athletes' competitive level

Step No.	Relationship: Scale entered	Partial	R ²	F	p	Wilks' Lambda	p	Class Means	Scales	
<i>Athletes' Gender (a)</i>										
								Male	Female	
1	A→M: Need Support	.09	24.72	.0001	.912	.0001	3.73	4.24		
2	A→F: Need Support	.03	7.49	.0066	.886	.0001	2.35	2.74		
3	F→C: Inferior	.02	6.56	.0110	.864	.0001	1.53	1.37		
<i>Athletes' Competitive Level (b)</i>										
								Sub-national	National	International
1	A→M: Need Support	.03	4.05	.0186	.967	.0186	2.87	2.80	2.57	
2	A→C: Acceptance	.03	4.18	.0163	.939	.0028	4.17	4.20	4.34	
3	A→C: Assertive	.03	3.81	.0234	.911	.0006	2.27	2.35	2.52	

(a) Male: N = 133, Female: N = 126; Wilks' Lambda = .864, F(3,255) = 13.372, p < .0001.

(b) Sub-national: N = 27, National: N = 147, International: N = 86; Wilks' Lambda = .911, F(6,510) = 4.029, p < .0006.

Table 4: Stepwise regression analyses for SIRQ scales and athletes' age, years of participation, training intensity, and number of competitions per year

Step No.	Relationship: Scale entered	Partial R^2	Model R^2	F	p	Model estimates	
						Parameter (B)	Standardized (b)
<i>Age (a)</i>							
1	A←F: Supportive	.15	.15	43.9	.0001	-.11	-.34
2	A←F: Restrictive	.05	.20	16.2	.0001	-.13	-.21
3	A→M: Assertive	.03	.23	9.2	.0026	.12	.14
4	F→C: Consultative	.02	.25	5.7	.0017	-.18	-.42
5	C→M: Independent	.04	.29	14.6	.0002	.26	.25
6	C→F: Consultative	.02	.31	6.2	.0138	.06	.22
7	C→M: Negative	.01	.32	4.6	.0327	-.08	-.12
<i>Years of participation (b)</i>							
1	A←M: Supportive	.04	.04	11.8	.0007	-.09	-.23
2	C→M: Independent	.04	.08	12.1	.0006	.29	.28
3	A←C: Caring	.04	.12	13.7	.0003	-.09	-.24
4	A←M: Restrictive	.02	.14	5.6	.0190	-.08	-.14
<i>Hours per week training (c)</i>							
1	A→M: Need Support	.08	.08	21.0	.0001	-.15	-.20
2	F→C: Consultative	.03	.11	8.7	.0033	-.07	-.18
3	A→C: Assertive	.03	.14	7.8	.0057	.32	.18
4	A←C: Permissive	.01	.15	4.3	.0385	.14	.12
<i>Competitions per season (d)</i>							
1	F→C: Independent	.05	.05	10.9	.0011	1.82	.25
2	C→M: Independent	.03	.08	7.27	.0076	1.54	.19
3	A→M: Need Support	.02	.10	5.02	.0261	-.58	.15
4	F→C: Inferior	.02	.12	4.83	.0291	-1.58	-.14

(a) $N = 242$; $F(7,242) = 16.523$, $p < .0001$; $R = .57$, $R^2 = .329$, adjusted $R^2 = .309$

(b) $N = 263$; $F(4,259) = 11.396$, $p < .0001$; $R = .39$, $R^2 = .149$, adjusted $R^2 = .136$

(c) $N = 256$; $F(4,256) = 10.971$, $p < .0001$; $R = .38$, $R^2 = .148$, adjusted $R^2 = .135$

(d) $N = 256$; $F(4,215) = 7.291$, $p < .0001$; $R = .35$, $R^2 = .119$, adjusted $R^2 = .103$

these results are in line with recommendations for interpersonal relationships to enhance talented athletes' psychological development (ASEP, 1994; European Federation of Sport Psychology, 1995; Rotella & Bunker, 1987), they do go into the grain of reports that the relationships in the athletic triangle are characterized by exploitation by adults, adults' personal gain, and abuse (Hellstedt, 1990; Ryan, 1988). One possible explanation may be found in the socio-cultural variability between the European and North-American competitive sport setting, in which the latter is more confronted with (extreme) negative types of interactions in the athletic triangle. It can also be hypothesized that the participants in the current study may have already solved major interpersonal conflicts earlier in their athletic career. Methodological issues may also be pointed out, such as, the averaging out of negative interpersonal behaviors when using group scores, or the »selective« nature of the participants (i.e.,

athletes experiencing severe interpersonal problems may already have dropped out from competitive sports).

This study provides insight into the importance awarded by talented athletes to the interpersonal relationships in the athletic triangle, and more particularly, to parents' involvement. Generally situated during the initiation phase of the athletic career (Régnier, Salmela, & Russell, 1993), current findings show, in concurrence with other research on talented young athletes (e.g., Feltz, Lirgg, & Albrecht, 1992), that talented athletes perceive parental involvement to remain salient throughout the development and perfection phases of the athletic career. Once athletes perceive the significance of their parents to reduce, athletes assess themselves to behave in a rather assertive way toward one parent, namely, the mother. It could be hypothesized that talented athletes experience the separation-individuation process, in comparison to their non-

athletic peers, later during their psychosocial development (Dusek, 1987). Moreover, athletes' search for autonomy and detachment from their parents seems to be translated or »channeled« via assertive behavior directed toward the parent who generally has been, on a day-to-day basis, the most actively involved parent since athletes' initiation in competitive sports – in this case, athletes' mothers. While parents and coaches' interaction are perceived to become less consultative, and more independent, as athletes become older and gain more competitive experience, they do also perceive the parent-coach relationships generally to be mutual consultative in nature – an interaction pattern deemed to improve the quality of athletes' sport experience (Byrne, 1993; Rowley, 1986; Smoll, 1993). While this decrease in consultative interactions may seem to reflect a deterioration in the quality of the parent-coach relationships (e.g., due to power struggles over the athlete) (Hellstedt, 1995; Lee & MacLean, 1997), it is argued that this is also a reflection of a quantitative change in the parent-coach interactions: as athletes mature and gain, or, are awarded, more and more responsibility for their own sport involvement, the need for highly frequent parent-coach interactions may decrease—a decrease which may then be perceived by athletes as an increase in independent behavior, and a decrease of mutual consultative interactions.

In view of the delimitations of the current study (e.g., the use of group average scale scores) future research needs, not only to confirm current findings, but also to verify the different hypotheses and explanations offered. More attention should be paid to other groups of athletes (e.g., girls vs. boys, team players, non-competitive athletes). Further analyses, which take into account the cognitive, social, and emotional periods of development, need to be conducted to determine developmental differences in athletes' perceptions of their relationships with parents and coaches relative to age-related periods (e.g., puberty, early adolescence, later adolescence, young adulthood). Finally, the grounding of research into broader conceptual frameworks, such as, Ames' achievement goals (Ames, 1992) or Eccles' expectancy-value approach (Eccles, Adler, Futterman, Goff, Kaczala, Meece, & Midgley, 1983), could increase the understanding of how, among others, the motivational climate impact, and is impacted by, athletes' interpersonal perceptions. Taking into account these delimitations, it is deemed that with this study, an ini-

tial step has been taken in making more visible the interactions in the relationships of the athletic triangle in competitive sports for youth and adolescents.

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