Coaches' Perceptions of Athletes' Psychobiosocial States: The Case of Three Tennis Coach-Athlete Dyads

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Abstract

Considering the limited attention paid to interpersonal aspects of emotions, this study explored coaches' perceptions of athletes' performance-related states and how they used this information for its regulation. Using a case study approach, three coach-athlete dyads from competitive tennis took part in one-on-one semi-structured interviews. Individualized profiling of psychobiosocial states was used to assess athletes' states in most and least successful performances and as a way of data triangulation. Findings indicated that the coaches interviewed paid attention to bodily, motor-behavioural, and operational components of a performance state, and used this information to appropriately adapt their responses to the players' needs, via the provision of positive reinforcement, and performance-related feedback. The coaches described themselves as calm, patient, and understanding; characteristics that appeared to be vital for the coach-athlete relationship and the coaches' emotional competence. Findings are discussed within the contexts of emotion regulation and coach-athlete relationship, and how they might be useful to help coaches develop emotional competence.

Keywords: athlete emotion state, athlete psychobiosocial state, coach behaviour, coach practice, tennis

Coaches' Perceptions of Athletes' Psychobiosocial States: The Case of Tennis Three Coach-Athlete Dyads

Emotions are an integral aspect of sport performance. Athletes' emotions experienced prior to or during performance can have a direct impact on their behaviour and ultimately their functioning (Jones, 2012). Empirical evidence indicates that emotional regulation is central to success (Lane, Beedie, Jones, Uphill, & Devonport, 2012; Robazza, Pellizzari, & Hanin, 2004; Uphill, McCarthy, & Jones, 2009; Wagstaff, 2014). Previous research has mainly focused on the regulation strategies that athletes typically engage in to enhance their performance (Lane et al., 2012; Lane et al. 2016). Coaches, however, can indirectly influence athletes' emotions and subsequently their performance and wellbeing. Thus, for emotion regulation to be effective, it is important to understand how coaches perceive their athletes' emotions and their role in the emotion regulation process.

One theoretical framework acknowledging individual differences in the experience and interpretation of emotions is the individual zones of optimal functioning (IZOF) model (Hanin, 2007). According to the IZOF model, emotions are conceptualized as the core component of a person's psychobiosocial state, which can be manifested in psychological (i.e., emotional, cognitive, motivational, volitional), biological (i.e., bodily, motor-behavioural), and social (i.e., operational, communicative) modalities (Hanin, 2010; Ruiz, Hanin & Robazza, 2016). Hanin (2000) defined psychobiosocial states as situational, multimodal, and dynamic manifestations of a person's total functioning. Athletes experience a wide range of functional and/or dysfunctional (pleasant and unpleasant) psychobiosocial states associated with their performances. Substantial IZOF-based research has focused on the study of the intra- and inter-individual variability in the content or quality and intensity of athletes' experiences accompanying successful and

unsuccessful performances (for a review, see Ruiz, Raglin, & Hanin, 2017). Much of IZOF-based research has examined athletes' states associated with two qualitatively opposite performance contexts (i.e., success and failure) as they trigger specific content and intensity.

An accurate assessment of athletes' performance-related states is important for emotion regulation. The use of an individualized approach capturing personally relevant and task-specific content of the person's psychobiosocial states has been recommended in the study of athletes' states (Hanin, 2007). Grounded in the IZOF model (Hanin, 2000, 2007, 2010), an Individualized Profiling of Psychobiosocial States (IPPS, Ruiz et al., 2016) was specifically developed for the assessment of athletes' performance-related psychobiosocial states. IPPS explicitly identifies the content and intensity of the idiosyncratic descriptors of athletes' states associated with successful and unsuccessful performances. Extending previous work on the assessment of athletes' experiences, IPPS uses both hedonic tone (i.e., pleasure-displeasure) and functionality (i.e., success-failure) distinctions to assess the eight modalities of athletes' psychobiosocial states related to performance, with the emotional modality including pleasant states, anxiety, and anger. The practical utility of this profiling procedure in the assessment of athletes' performance-related states has been documented. Empirical evidence supports the use of psychobiosocial states profiling to identify the most task- and person-relevant descriptors of athletes' experiences in a nomothetic manner, making it suitable for comparisons at the inter-individual or group level (Ruiz, Robazza, Tolvanen, & Hanin, in press). The IPPS procedure has also been successfully applied in an idiosyncratic manner to assess self-regulation of the whole range of psychobiosocial states in competitive swimmers (Middleton, Ruiz, & Robazza, 2017). An idiographic approach to psychobiosocial states profiling is most appropriate for the purpose of the current study.

Most research attention in the emotion regulation literature has focused on the strategies that individuals use to regulate their own states, a process called intrapersonal emotion regulation (Gross, 2008; Lane et al., 2012; Robazza, Bertollo, Filho, Hanin, & Bortoli, 2016; see also Robazza, Pellizzari, & Hanin, 2004). Yet, no person lives life in utter isolation and recently researchers have started to pay more attention to interpersonal emotion regulation or the deliberate attempts to influence another person's emotions (Campos, Walle, Dahl, & Main, 2011; Friesen et al., 2013; Niven, Totterdell, & Holman, 2009; Rimé, 2007; Van Kleef, 2009). Interpersonal emotion regulation strategies are assumed to serve two goals, namely instrumental, aimed to achieve a particular goal, and hedonic, used to promote pleasant emotions (Tamir, 2009).

A significant interpersonal relationship in the context of sport is the coach-athlete one, which typically involves behavioural, cognitive, and emotional aspects (Lorimer & Jowett, 2009). The coach-athlete relationship is characterized by interpersonal feelings of closeness, thoughts of commitment, acceptance or behaviours of complementarity, and congruence of perceptions, also called co-orientation (Jowett, 2007; Shanmugam & Jowett, 2017). Research evidence indicates that the quality of the interaction between an athlete and the coach can influence athletes' performance, development, and wellbeing (Jowett & Poczwardowski, 2007; Prophet, Singer, Martin, & Coulter, 2017). Central to this relationship is the coach's ability to perceive the psychological state of the athlete and to respond to the athlete's needs.

A theoretical model widely used to study individual differences in regard to how individuals engage in processing information related to one's own and others' emotions, which may explain high levels of co-orientation, is the four-branch model of emotional intelligence (Mayer & Salovey, 1997). The model distinguishes four skills or branches related to how people

pay attention to, use, understand, and manage emotions. Emotional perception requires basic information processing skills, which lead to attending to, and deciphering emotional messages as they are expressed. The second component relates to the use of emotions to facilitate thought for instance. The third component involves understanding emotions or their meaning. The final branch refers to managing emotions in themselves and in others. Emotion intelligence and emotion regulation literatures have been considered relatively independently until recently (Peña-Sarrionandia, Mikolajczak, & Gross, 2015). Emotional intelligence, however, has proven useful to capture individual differences in emotional regulation.

An accurate perception of one's own and other person's emotions might have an impact on the success and effectiveness of sport coaching (Ickes, 2001; Lorimer & Jowett, 2010), while deficiencies in perception may lead to emotion regulation failure (Gross, 2015). People can infer information about the feelings, attitudes, or behavioural intentions of another person via their emotional expression (Van Kleef, 2009). Systematic and recognizable relationships have been found between emotion states, particular body movements, and gesture expressivity (Castellano, Villalba, & Camurri, 2007). Inferences of emotional expressions may be implicit in the way the coach and athlete interact and communicate with each other, leading to emotional or behavioural reactions in the other person (Lorimer & Jowett, 2009). Thus, making accurate inferences of an athlete's emotions or other internal states is an essential skill for the coach, which not only can impact athlete's performance but also their wellbeing. To date, there has been limited research exploring how coaches perceive their athletes' emotional or other performance-related experiences, and how they use such information to self- manage their emotions or to regulate those of their athletes.

In summary, previous research has examined intrapersonal emotion regulation focusing on the strategies athletes use to regulate their own states. The role of others, particularly that of the coach, has received scarce attention. Considering the importance of the coach-athlete relationship for athletic success and the interaction and interdependence manifested in this (Lorimer & Jowett, 2009), athletes' psychobiosocial states cannot paint the entire picture, which makes the coaches' view just as essential. So far, what coaches assess from their perspective and how they attempt to influence athlete emotion regulation processes is not adequately understood. Coaches' perceptions of their athletes' states and how they use this knowledge to influence athletes' emotion regulation processes is crucial and would have important implications for effective interpersonal emotion regulation. The aim of this study was to explore coaches' perceptions of their athletes' performance-related experiences. In particular, we inquired about what they perceived, how they perceived it, and how they acted on these perceptions. We employed Merriam's (1998) case study approach, which allowed us to make meaning of a reality constructed within and by the coach-athlete interaction that of a coach perceiving the athlete and acting on what was perceived. To make meaning of this coach-athlete interaction, the case study design gave us the means to study in-depth three coach-athlete dyads by talking to both parties and collecting data in more than one way. To delve in this coach-athlete interaction via a qualitative approach, a constructionist epistemological position based on our relativist view of reality (i.e., there is no one single truth, Lincoln & Guba, 1985) informed the methodological decisions allowing us to explore the coaches' perceptions of athletes' performance-regulated experiences.

Method

The Three Cases

Merriam (1998) defined a case as "a thing, a single entity, a unit around which there are boundaries" (p. 27). In our study, a coach-player dyad from an individual sport was recognized as a case, a unit of itself with clear boundaries around it. Considering that experienced participants are expected to possess high level of experiential knowledge and awareness (Greenwood, Davids, & Renshaw, 2014), we sought out experienced participants who were involved in high-level competition. Specifically, the criteria for selecting the dyads were: (a) the coach was the main coach of the player, (b) the coach-player dyad were working together for at least one year, (c) the coach was qualified for professional coaching, and (d) the coach-player dyad were involved in international competitions. We also aimed for a balanced representation of gender (i.e., male and female coaches of male and female players). Three high-level tennis coach-player dyads were recruited purposefully from the Swiss national squad and the Swiss Tennis Academy, where most experienced players practice. The dyads had been training together between one and three and a half years (*Mdn* = 3). Coaches' education ranged from License B level (minimum level of professional coaching) to Swiss Olympic License (highest level of professional coaching). The players' ages ranged from 19 to 22 years (*Mdn* = 21). The players had a median of 15 years of playing experience, ranging from 15 to 17 years. All were highly skilled players and had experience playing internationally. The coaches' experience in the job ranged from one to seven years (*Mdn* = 5). All participants at the time of the study resided and trained in Switzerland, while they had variable ethnic/cultural backgrounds coming from central, north, and east Europe countries. Concerning gender representation, the dyads consisted of a male coach coaching a female player, a female coach coaching a female player, and a male coach coaching a male player.

Data Collection

Interviews and Interview Guide. Data were collected via individual semi-structured interviews with each coach and player separately. The first author, a former competitive tennis player, conducted all interviews. Two interview guides, one for coaches and one for players, were developed in two languages (English and German) to accommodate the native languages of the participants. The development of the interview questions was informed by the four-branch model of emotional intelligence (i.e., perceive, facilitate, understand, and regulate emotions) and the eight modalities of performance-related states (i.e., emotional, cognitive, motivational, volitional, bodily, motor-behavioural, operational, and communicative). Before starting to interview the participants, two pilot interviews were conducted, one with a coach and one with a player who were not otherwise involved in the study. This allowed for the wording and sequence of questions to be refined and the development of the research instrument. Following the pilot interviews minor changes were made, mainly to ensure clarity and understanding of the questions.

The interview guides for both coaches and players contained four sections inquiring about: (1) demographic information, (2) the coach-athlete relationship, (3) awareness with regard to player's emotional experiences, ways of expression and regulation strategies, and (4) how the coach and athlete worked together in regards to player's states regulation. In particular, in the first section coaches and players were asked separately about their age, sport/coaching experience, etc. Players were asked about their tennis career (e.g., Could you describe your sports career to the present day?), while coaches were asked to describe their coaching career (e.g., Can you describe shortly your coaching career up to this date?). In the second section, the coach-athlete relationship was explored. Examples of questions asked to both were: Could you

describe your relationship with your coach/player (as appropriate)? What is important in building the coach-athlete relationship? In the third section, we explored awareness of player's performance-related states, the expression of these states, and any strategies the player used in their regulation. Coaches and players were asked questions like: What emotional experiences do you (or the player) usually have on the court? How do you usually express your emotions? How do you regulate them? To facilitate recall for the player, we asked them to identify the most and least successful game performances and to elaborate specifically on these. At this point, IPPS (see next section) was incorporated to the players' interview. IPPS was also used with coaches using the same situations identified by the players. In the fourth and final section, the coaches were asked about their practices for working and supporting athletes' emotion regulation, while the players were asked about any expectations they held for the coach to help with emotion regulation.

Psychobiosocial States. IPPS (Ruiz et al., 2016) is an idiographic profiling procedure to assess the content (type) and intensity of eight modalities of a performance state (i.e., emotional, cognitive, motivational, volitional, bodily, motor-behavioural, operational, and communicative). The procedure uses a stimulus list of 74-adjectives presented in 20 rows, each forming an item. Each modality is represented by two rows of synonym descriptors (3-4 per row), one for functional states and another for dysfunctional states. Six items, namely functional pleasant states, dysfunctional pleasant states, functional anxiety, dysfunctional anxiety, functional anger, and dysfunctional anger, assess the emotional modality. Participants are asked to choose one adjective per item to describe their states prior to performance. Following, participants rate the intensity of their states using a modified Borg's Category Ratio scale (CR-10; Borg, 1982), using the following anchors: 0 = *nothing at all*, .5 = *very, very little*, 1 = *very little*, 2 = *little*, 3 =

moderate, 5 = *much*, 7 = *very much*, 10 = *very, very much*, and • = *maximal possible*. The score of 11 is assigned to *maximal possible*. Then, for each descriptor they rate its perceived functional impact on performance with regard to being helpful (+), harmful (-), or hard to say (0). Examples of items are: "alert, focused, attentive" (cognitive functional modality) and "distracted, overloaded, doubtful, confused" (cognitive dysfunctional modality).

Back translation procedures (Brislin, 1986) and expert reviewers (Sperber, 2004) were used to develop a German version of the individualized profiling. Initially, the original English version was translated into German by the first author, a German-English bilingual. Following, a panel of four bilingual experts compared the translated and original versions. The translated descriptors were individually evaluated by each expert who rated the items on a scale with the following anchors: 1 = *no change*, 2 = *change in wording*, and 3 = *retranslation* (with suggestions offered by the expert). The panel of experts extensively discussed the ratings and based on their suggestions changes were made to retain the meaning of descriptors. Then, a bilingual individual, not previously involved, translated the revised German version back to English. This translation was compared to the original profiling procedure and extensively discussed by the researchers who agreed that the meaning of the original items remained the same.

Procedure

Permission from the head of education of the Association of Swiss Tennis to recruit players and coaches was requested and granted after the general purpose of the study was explained. The Swiss Tennis Database was used to recruit most experienced participants for this study. Swiss Tennis, nine Partner Academies of Swiss Tennis, and nine other tennis institutions across the German speaking part of Switzerland were contacted via email. Eight of the invited

institutions replied to the communication and four of them became interested in participating. Players and coaches from their premises were hand out an invitation letter outlining the aim of the study, emphasizing voluntary participation and confidentiality of data. Of the six invited dyads, five accepted and three were interviewed, as most representative with regard to gender (i.e., male and female coaches of male and female players). One on one interviews were first conducted with the players and then with the coaches at separate times. At first, each player was interviewed and asked to identify their most and least successful performances and to assess their psychobiosocial states using the IPPS. Following, the coach of the player was interviewed and asked to assess the player's psychobiosocial states on the profiling procedure using the same most and least successful performance occasions identified by his/her player. The profiling procedure was integrated in the interview. Data collection was conducted in accordance with the American Psychological Association's standards for research and publication, as specified in the Ethical Principles of Psychologists and Code of Conduct (American Psychological Association, 2010). Following ethical guidelines, each participant was informed about the study purpose and the procedures, and assured confidentiality of the responses. A signed informed written consent was obtained regarding study participation and the audio recording of the interviews. The first author conducted all interviews in a mutually convenient time and location. Four interviews were conducted in German and two interviews in English. On average each interview lasted 50 min ranging from 45 to 65 min.

Data Analysis

Interviews were transcribed verbatim and pseudonyms were ascribed to ensure anonymity of the participants. The four interviews conducted in German were translated to English by the first author and checked by a German-English speaking sport psychology

researcher, external to the study and knowledgeable on tennis. According to Merriam (1998), data analysis is "the process of making sense out of the data...[which] involves consolidating, reducing, and interpreting what people have said and what the researcher has seen and read--it is the process of making meaning" (p. 178). For our cases, we worked to make sense out of what coaches and players shared in the interviews while their answers on the individualized profiling procedure revealed descriptors on situation-specific performance-related states that allowed us to have trust in the interview data. Following prolonged engagement and familiarization with the transcripts by the three authors, each interview was inductively and deductively analysed. Specifically, the guidelines of Braun and Clarke (2006) were followed for conducting a thematic analysis. The method was chosen as it is a theoretically flexible one for recognizing and classifying qualitative data patterns (Clarke & Braun, 2013) and has been previously used in sports psychology research (e.g., Arnold & Fletcher, 2012). Data were inductively analysed and organized into emerging patterns and themes. Codes were generated based on their relevance to athlete's emotion expression and regulation in order to organize and reduce the data into meaningful parts. The codes were identified at a semantic level, looking for explicit meaning in what participants shared. At the next step, these codes were organized into themes, which were then reviewed and refined. In this step, we considered the existing literature on the eight modalities of a performance-related state as specified by the IZOF model and the four constructs of the emotional intelligence model, thus, combining the inductive with the deductive approach. Lastly, we defined and named the themes before writing up our findings.

Trustworthiness

To ensure inter-rater reliability and establish trustworthiness, triangulation of analysis was used (Lincoln & Guba, 1985). The first three steps of the analysis were conducted

independently while in the latter ones we worked jointly and discussed theme organization, definitions, and names until consensus was reached. During discussions, some variance became apparent in the organization of the themes into higher-order themes and particularly in the labelling of one higher-order theme. These variances were re-examined bottom up (starting with the raw data that led us to the theme). During this work, we re-classified three themes and re-labelled one higher-order theme. The joint work was deemed especially beneficial in advancing the analysis and improving the interpretation of the data. The first author, a former competitive tennis player, held a research diary that helped increase self-reflection about subjective values and biases, as well as various aspects that arose during data collection and analysis for further reflection among the authors (see thick description, Lincoln & Guba, 1985). To enhance trustworthiness on the retrospective character of the interviews asking players and coaches to reflect and discuss emotions and emotion regulation strategies, we triangulated interview data with data collected via the IPPS. This profiling procedure was used to assess the content and intensity of players' emotional experiences during their most successful performances during the time working with their present coach. The same procedure was followed for the description of athletes' states before least successful performances. The coaches also completed the IPPS to assess their players' experiences regarding the same performance occasions. Data from the IPPS for athletes and coaches were analysed separately. First, individualized profiles were constructed with players' feeling states in most and least successful performances. Second, profiles based on the coaches' descriptors of players' experiences for the same occasions were developed. Third, players' profiles were compared with those identified by their coaches by calculating the degree of content overlap for each modality using the formula proposed by Krahé (1986). Overlap is the ratio between the number of similar descriptors in two conditions and the square root of the

number of descriptors in condition a multiplied by the number of descriptors in condition b. Overlap scores range from 0 (all descriptors are different) to 1 (all descriptors are similar). This formula has been previously used to compare individual perceptions of emotions (Hanin & Stambulova, 2002; Ruiz & Hanin, 2004). Finally, subtractions of intensity values states identified by a player and his or her coach were performed for each state modality to compare player- and coach-generated profiles. Member checking was conducted by providing participants the practical opportunity to acknowledge and/or explore the individualized profiles or graphic representations of psychobiosocial states (Smith & McGannon, 2017).

Results

The following section presents a brief description of the relationship within each coach-player dyad that sets the stage for the content of coaches' perceptions of their players' states and regulation.

The Three Dyads

Tom coaching Lisa. The dyad was working together for three and a half years. The relationship was described by Lisa as close and warm, Tom was perceived as a key supporter of hers as a player and person. Reflecting on the relationship, Tom described it as friendly, reliable, and close both on and off the court, as he stated:

> Our relationship is based on friendship. We have a good and trusting relationship. Lisa comes and talks to me about other problems, not simply tennis-specific issues. I guess you can say that we have a trusting relationship both on and off the court.

Lisa felt safe with her coach because she knew that she could fully trust Tom, as she indicated:

Tom and I have a pretty good relationship. He supports me as a coach but he is also there for me if I have problems in my private life. I can talk with him about almost anything. There is this special bond between us. I trust him very much.

Sue coaching Maria. Sue and Maria were working together for a year. The relationship was described by Maria as exceptionally close, inspiring, and empathic. She felt safe and comfortable with her coach on and off the court, which allowed her to be herself. As Maria mentioned:

I played really bad tournaments back to back. So, when I came back I was down. After such a hard time you need a person who encourages you to keep working and to see the situation from a more optimistic point of view… and she was that person. She took care of me. We had so many talks and I realized that I can be the real me with her. She gets me… I am not scared to tell her what I did good or bad, whether it is on or off the court. She takes me for the person I am. I am glad that I don't feel afraid to be myself.

Sue described the relationship as very deep, trusting, and friendly both on and off the court, as she stated:

We have a very, very close relationship. She knows that she can rely on me. She knows that I do anything possible to support her… and I guess, she knows that she can trust me when it comes to tennis-specific aspects… Last season she struggled a lot. She needed a lot of attention, encouragement, and appreciation. I took the time and energy to help her realize that development on and off the court is possible and valuable. I wanted to help her to feel at ease again.

Ron coaching Nick. The dyad was working together for three years. Nick described the relationship as respectful, well-balanced, and effective considering their achievements. He

appreciated sharing the same goals with his coach and having a good basis for goal-oriented communication, as the following quote exemplifies:

> We work really well together on the court. I can improve my tennis with him and we can also have fun together on the court. I think we have a good connection. We understand how we have to work together to bring the best effort on the court. I think it is important that you share the same goals and work ethic. You need to have an understanding for each other.

Ron described the relationship as task-oriented and trusting while he pointed out of some challenges when dealing with the player's anger. The following quote depicts this:

> I would not say that our relationship is like a friendship. I pay attention that the relationship does not get too close. I want to keep a certain distance. But of course, if you spend so many weeks a year together, you need to get along on and off the court. Nick and I get along pretty well. Of course, we sometimes have our differences in opinion but we can talk it through and find a solution.

The main themes identified in the interview data on coaches' perceptions of their athletes and how they used this information, are presented in Figure 1. While the focus of the study was on coaches' perceptions, extracts from the athletes' interviews are embedded throughout the results section as they enrich our understanding of the coaches' data and of how the coach-athlete dyad interacts.

< Insert Figure 1 here >

Coaches' Perceptions about their Athletes

The three interviewed coaches elaborated on cues they used to recognize the players' emotional states based on the players' actions and reactions. They all perceived the emotional states of the player via (1) *bodily cues*, (2) *motor-behavioural cues, and* (3) *verbal cues* to a lesser extent. Tom and Ron also talked about paying attention to *operational cues* (4) in perceiving the player's states. Paying attention to bodily cues, meant looking closely at their players' body-posture (e.g., tensed posture, shoulder position) and facial expression (e.g., eyes rolling, smiling). The motor-behavioural cues encompassed elements like throwing the racket, slapping one's leg with the racket, brisk walking between games, and lack of coordination, among other things. Regarding verbal cues as signals of emotional expressions, the coaches paid attention to incidents such as cursing or shouting. Lastly, the operational cues involved their player's offensive playing style and changes in the technical and/or tactical aspects of the game. For instance, if the player was moving slower than usual between points or became more introverted than usual, these indicated to the coach an increase of unpleasant emotions. Sue exemplified what she perceived as follows:

> Her body language during and between points. If she feels down then her energy level drops, her body posture changes. If she doesn't feel well, if she is carrying a lot on her shoulders, if she is heavy-hearted, she still fights but she cannot disconnect. She takes a lot on the court... She is very sensitive, she knows what is going on around her. You see it in her facial expression, her look…

From the players' point of view, all three were well aware that they sent information about their emotional states via multiple cues to their coaches. They talked about the bodily signals they sent to the coach via body posture (e.g., head down, tension) and facial expressions (e.g., gazed look, smiling), as well as via motor-behavioural cues

(e.g., coordination, throwing racket or towel, clapping on laps), and operational ones (e.g., making more mistakes, ineffective task-execution). They are aware that these serve their coaches as hints for perceiving their emotions and thoughts. Following is an example from Lisa:

> I guess it is mainly my body-posture… I guess I show it very openly. If I am playing poorly, I am very nervous, I tense up, and I swear. I start playing like I don't care. I just hit as hard and not as smart as I can. If I feel good, then I fire myself up after points by shouting c'mon or allez… and I guess he can also know how I feel by my facial expression. My look is different when I am demotivated or when I am fighting.

Coaches Responses to their Perceptions about Athletes

The interviewed coaches reported using a variety of interpersonal regulation strategies as a follow-up to what they perceived in the athlete aiming to help the player regulate present-moment states. The most common and frequently employed strategies (described by all coaches occurring prior, during, and after practices and matches) were: (1) *adapting their own emotional and behavioural responses*, (2) *providing verbal and non-verbal positive reinforcement*, and (3) *giving performance-related feedback*.

The coaches elaborated on how they adapted their emotional and behavioural responses according to the players' states and performances to help them regulate their states. The following quote from Ron exemplifies this practice:

> If he is close to losing his head during practice, I take him out and we sit down for a short time. I tell him to relax, I ask him what the problem is, what is going on in his mind. He starts telling me that it's s**t… I give him some time. I do this on purpose… but of

course, I will address it and explain that this [player's behaviour] doesn't work. But not before he has calmed down. I stay positive and calm when he is having trouble.

The coaches were aware of the influence their own emotions could have on the players, and considered this knowledge when responding to players' needs. An illustration of this is provided by Tom:

I believe that my emotions can influence a player. With women more than with men... If you get on the court and you are in a bad mood or stressed out, women will recognize it instantly while guys are less perceptive… and often, they are then directly more stressed out or tense. So, you have to be extremely careful, especially with women. Over time you get to know each other, and I also start realizing immediately if something is wrong. Therefore, I try not to show my emotions openly.

All coaches emphasized adapting their emotional and behavioural reactions to the players' needs, as every player has a unique way to be approached. For instance, Ron said, "With another player I had to show more emotions. Some players like it when coaches are charged with emotions and experience the players' performances vividly. Nick does not need it." Tom explained that his player, Lisa, needed his coach to be positive but not to overwhelm her with positive and motivational speeches, as these do not work for her.

The players appeared to know that the coaches adapted to their emotions to help them regulate their current states. They reported experiencing the coaches' adaptive behaviour as helpful for regaining an optimal performance state during practice and competition. The following quote by Lisa is indicative of this:

I think that he adapts to my performance. If I am playing poorly then he doesn't pull me down. He regulates his emotions so that he can help me… Actually, Tom

436 does not show his emotions. He always claps after a good point and he says 'super',
437 'well done', or 'it does not matter, keep playing'… When he recognizes that I am
438 getting angry or nervous, he stays calm, he is not that kind of coach, who jumps up
439 and shouts 'yes', 'very good', he stays calm … after a good point he praises and
440 fires you up. So, he calms me and supports so I can get myself back together.

441 All players acknowledged the positive impact of the coaches' adaptation to their emotional
442 states. They perceived their coaches as a key resource for regulating their psychological
443 and behavioural states in practices and competitions. They emphasized how coaches helped
444 them to calm down when emotions were too intense on the court. As Maria said:

445 In some situations, she smiles while she tells me what I need to do differently. She
446 can say it in a nice way when I am in a good mood. Then, I understand what I need
447 to do, but when I am in a bad mood… Then I need someone who tells me directly
448 and in a strong tone what I need to do. If she sees that I am in such a bad mood, she
449 picks me up. She would tell me that we leave this 'bad mood planet' and go to
450 another planet and play tennis again. She adapts her behavior because she cares.

451 The second interpersonal emotion strategy identified in the data was providing
452 verbal and non-verbal positive reinforcement, which was employed by all coaches. They
453 all were aware that they influenced the players' beliefs and emotions by encouraging and
454 reinforcing them. As Tom indicated, "Generally said, the most important thing is that a
455 coach believes in his player. You should not use negative gestures; show consciously that
456 you believe in your player, say stuff like, come on!" The coaches also pointed out how
457 important it was to remind the players of their strengths and of past occasions they played
458 and/or responded well. Positive reinforcement was used to put performance into

perspective and to reflect on the situation to deal with or avoid irrational thoughts and boost the player's confidence. The following quote from Ron exemplifies this:

> I always try to support him and to verbally encourage him ... As a coach you listen, you try to put the performance into perspective; you outline the positive aspects; you tell him that it is not as bad as he thinks; you try to give him back some confidence... you highlight the good aspects.

Aside from verbal reinforcement, non-verbal boosts appeared to be also essential, considering that in tennis during competition (and in some practice conditions) there is no time and place for discussions. Therefore, positive looks and gestures (e.g., showing a fist, thumbs up) were aids that could help players with their up-regulation. Tom said on this:

> We are always in a certain contact on the court. If I am close enough, I can give her some short inputs such as "Come on!" But sometimes it doesn't work; sometimes you are too far away and in such occasions you try to support the player with positive gestures.

The players perceived coaches reinforcement to be helpful and supportive. They believed that positive gestures and encouraging remarks positively affected both their emotional states and motivation. As Lisa said:

> He encourages from the sideline, this is very important. If you do not believe in yourself, you have the feeling that there is somebody who believes in you... He is usually next to the court saying things like 'c'mon', 'move'. He tells you what to do because you can get lost in tennis. He tells you 'it is possible', 'I believe in you', 'just stick to this or that...' This helps you to believe in yourself again.

Another strategy reported by the coaches was giving performance-related feedback. Immediate and clear feedback during and after performances was described as valuable and effective for the athletes to regulate their states. The coaches explained that during practices they interfered either after a point or during breaks to discuss mistakes and struggles. The purpose of this feedback was related to technical and tactical errors, while at the same time they paid attention to the content and form of feedback delivery to minimize or avoid players' emotional reactions such as frustration. The coaches agreed on keeping feedback positively toned, while negative aspects of the performance were not ignored; instead they focused on correct task-execution rather than mistakes. The following account from Tom exemplifies this:

> I pick out aspects, which are, to some extent, good and emphasize the positives [in her game]. I explain to her what she needs to do differently next time to get better. After we talk about the positive aspects, I illustrate the ones that are not so good. But I try to stay positive; I point out what we need to keep working on.

Sue commented on the type of feedback and how she conveyed it:

> I try to convey the things to improve in a positive manner. I do not tell her that she performed badly. I tell her that we will integrate this aspect in the next training sessions and work on it… I point out her potential and I try to emphasize the aspects we can work on and the aspects we can improve. This gives her a good feeling… during practice sessions, I immediately point out what she has to do. We always try to talk with each other in a positive way. But, of course, she needs to know that she has to work … but no criticizing, never! This does not work with girls.

The players were conscious of the coaches' use of feedback for technical, tactical, and mental aspects. They also pointed out that they perceived feedback as encouraging, regardless of its content. Below is an example from Lisa:

> If he [coach] asks me to change my game or strategy and I just stick to the old way, then he gets angry. He takes me out and explains what I did wrong. But I know that, even if I play poorly, there is always something I can improve. … If I make a mistake, which is pretty normal in tennis, I get nervous. But then he says things like 'it doesn't matter', 'keep playing', 'focus on the next hit!' This is very helpful, it gives me security, and it helps me believe in myself again.

Who Are These Coaches?

With all that coaches and athletes talked about, we identified certain characteristics commonly shared by these coaches and viewed as key for building and maintaining a close, trusting, and supportive coach-player relationship. These were: (1) *being calm*, (2) *communicating their care for the player*, and (3) *working to build trusting relationships while demanding high standards of performance*.

The three coaches described themselves as being calm. They highlighted that tennis players often become emotional on the court, which requires from coaches to be patient. They shared the intention to radiate a sense of calmness before, during, and after performances and view this as a strength and key element for creating a close relationship with the player. The following quote from Ron describes the benefit of being calm:

> It comes naturally to me to stay calm and patient. I bring back the balance. When I see that he [the player] is on the edge to explode and I could get angry too, then everything would blow off. Instead, I keep calm and try to calm him down.

The players also talked about their coaches being calm and further described them as well balanced. They experienced the coaches' calmness on and off the court as beneficial and helpful for their own performance and psychological states. As Nick said:

> I think he is calm and he can stay very calm. Sometimes I get a little angry on the court. I think we are a good mix there; he brings the calmness on the court. That is really good part of him. … I think his calmness is the best thing… he brings me down.

Concerning this calmness, the coaches said that they normally do not have trouble in maintaining it, even if a player was performing poorly or losing the match. Particularly Sue said:

> [At the tournaments] I never had the impression that I got upset. I rather felt sorry for her after defeats because I knew how important it had been for her and her family, for her self-confidence. I can calm myself down. I focus on her. I try to stay calm and be positive. I always try to stay in the green zone with Maria. But I never had the feeling that I had to pull myself together.

The coaches agreed that when reaching a certain point, they could also change the tone of voice and reprimand the players. Two of them pointed out the importance of personal time to regain their emotional balance. A tough match or a stressful day also has an impact on the coach's psychological states; who may feel tired, stressed out or frustrated by the situation. In order for their emotions not to trigger dysfunctional reactions in the player and to maintain a supportive interaction with the player, these coaches took a step back. As Tom shared:

> If I realize that there is generally too much going on – it doesn't really matter if it is stress, tiredness or something else, I try to get some rest. I am a person that needs

> rest to recharge my batteries. I back out. I might do some computer work, some exercise, go for a walk or get some fresh air.

The coaches also elaborated on the value of communicating their care for the player, and emphasized the importance of listening and being genuinely interested in them. In their view, to build a successful and effective coach-athlete relationship, the coach ought to invest time on and off the court to listen to the player's concerns, desires, and needs and to take these seriously. For instance Sue stated:

> She is a very emotional person. From time to time, she needs praise, appreciation, and attention. She needs a lot of affection. I invested time and energy and I showed her that it is important to me that she can succeed and develop as a person both on and off the court, and that she feels comfortable. She needs to feel good to function.

The coaches described themselves as passionate about the job and aware of the necessity to be empathic and caring when interacting with the player. The value of bi-directional communication was pointed out when coaches talked about the importance of communicating with the players and developing shared language and values. Coaches and players working in the same direction and for the same goals, facilitated the development of trust, the feeling of mutual commitment and understanding. The following quote shows Sue's take on this:

> Players need to have the feeling that we care for them. As coaches, we need to show players our respect and interest, and players need to feel understood. Above all, we have to engage with each player individually, we have to provide personal conversations and invest time in them.

The players perceived their coaches' care via the use of feedback, which they viewed as a sign of interest and care from the coach and as a mean to merely correct mistakes. When on the court, coaches were seen as focusing on the player unconditionally while avoiding distractions. Players perceived their coaches' undivided interest as an essential gesture of care and a key source for building trust and commitment between them. As Lisa indicated:

> His key characteristic is his character. He is very understanding, he listens and he gives tips. He doesn't pull you down, he supports you. He feels with you. As soon as something is bothering me, he directly asks me about it; he wants to help me. He notices immediately when I am not feeling well.

Lastly, the coaches shared a common approach for building relationships of trust. In particular, they talked about facilitating a non-judgmental atmosphere that supports and encourages players to open up and feel comfortable talking about emotions and thoughts with the coach. The following quote from Sue exemplifies this:

> As a coach, you need to convey that you care for your players and that you trust them. It is important that the players feel we [coaches] care for them, that we trust them, that they are understood and that they are responded to. Overall, they need to feel that you are dealing with them individually, and that the coach also has personal conversations and really takes time for this.

The interviewed coaches also pointed out the importance of keeping a 'healthy' distance on and off the court from the player. The coaches indicated that being a coach was a job where they needed to know how to separate hard work from fun. Tom described his practice as "the carrot and stick approach," where sometimes he would joke with the player but at the same time demanded complete and serious effort in practice. Sues' account describes her approach:

> In my opinion, players should have fun with what they do. They have to love it… As a player, you have to motivate yourself every day. Therefore, as a coach you should find a way to help players get motivated and to experience fun. Of course, it is hard work, but from time to time you should have time for some fun, time to take it easy. You need to be able to switch from being serious to being easy to being serious again. Finding a balance is important to be successful in the long run.

The players described their coaches as trustworthy and loyal, which facilitated and encouraged them to share performance-related and/or personal concerns. They talked about having faith in the coaches and trust they would help them develop as players and persons. Maria shared with us her view:

> I am not scared to tell her what I did well or badly on and off the court. She takes me for the person I am. I am glad that I don't need to be scared to be myself. I can be really open and share anything without being nervous.

The players also acknowledged and welcomed that a line existed between being amicable with the coaches and following their instructions at practices and matches, which were demanding of high standards. They viewed coaches demanding approach as beneficial and crucial for their development as athletes. As Lisa said:

> When I am not moving enough during an exercise it is enough for her to say in a resolute tone 'Come on, move now!' The second I hear it, something in my mind changes. I start moving. When I am in a bad mood, he stays very positive. But if I say stuff like 'today everything is s**t', then he can get angry and tells me in a clear tone 'well, then just play how you should play!' This wakes me up. It is like a reminder that helps you realize that you are playing badly.

Accuracy of Coaches' Perceptions

Table 1 presents extracts from what participants shared in the interviews and what they identified on the IPPS with regard to their most and least successful performances. These data indicated accuracy between what athletes experienced and what coaches perceived.

< Insert Table 1 here >

The coaches' accuracy in perceiving their players' emotional states is supported by the coaches' accuracy in assessing players' performance states via the IPPS. Regarding the content of performance-related experiences, a high overlap was found for all descriptors identified by the coaches and players in each dyad with overlap scores ranging from 0.4 to 0.6 for most successful performances and from 0.3 to 0.5 for least successful performances. Highest overlap scores were found for functional motivational and cognitive states, while dysfunctional motor-behavioural and volitional revealed lowest overlap scores.

Figure 2 shows player and coach intensity ratings of the player's psychobiosocial states before most and least successful performances. As it can be seen, the coach was rather accurate in assessing the intensity of most state modalities, deviating a maximum of 3 points (out of 11 possible points), with the exceptions of the dysfunctional operational modality in most successful performance, and functional volitional modality in least successful performance, for which there was a 5-point mismatch. Similar results were found in the other two dyads. Taken together, contrasts between coaches' and players' intensity ratings in most successful performances indicated highest accuracy for dysfunctional anger with differences in intensity ratings ranging from zero to half point across dyads. Lowest accuracy was found in intensity of dysfunctional operational and dysfunctional communicative modalities, with a discrepancies ranging from two to five points. In contrast, regarding the least successful performances, highest accuracy was seen

in functional pleasant, dysfunctional anxiety, dysfunctional anger, and dysfunctional volitional with differences in intensity ratings ranging from zero to one point across all dyads. Lowest accuracy between coaches' and players' ratings was found for the intensity of dysfunctional communicative (differences ranging from one to seven points) and functional anger (zero to six points difference).

< Insert Figure 2 here >

Discussion

The study aimed to explore an important ability for coaches, which is that of perceiving athletes' performance-related states in the effort to support them via helping them regulate their states. We focused the exploration on what coaches perceived and what they did with this information. Three high performance tennis coach-athlete dyads helped us pinpoint the following: (i) the coaches paid attention to athletes' bodily, motor-behavioural, verbal cues, and operational components of a performance state; and (ii) they used this information to adapt their own emotional and behavioural responses, to provide verbal and non-verbal positive reinforcement, and to give performance-related feedback. Furthermore, the data revealed that certain characteristics of the coaches were key for the coaches' perception ability and consequently coach-athlete relationship. The coaches were calm, communicated their care for the player, and worked hard to build trusting relationships, while keeping a distance and demanding high standards of performance. We situate the interpretation and discussion of these findings within the context of effective emotion regulation practices and the coach-athlete relationship, as these are key for athletic performance.

The coaches in this study paid most attention to athletes' specific bodily and motor-behavioural cues including facial expressions, body posture and gestures. Verbal expressions

were also used to identify players' states. These findings are in line with previous research on the relationships between emotion states, body movements and gesture expressivity (Castellano, et al., 2007). Our findings highlight the role of the body in expressing and perceiving emotions, supporting the idea that one's perception of facial emotional expressions may depend on bodily expressions (Aviezer, Trope, & Todorov, 2012). The athletes in our study were aware that their coaches perceived their performance-related state displays and used this information to infer athletes' experiences.

Our findings revealed that coaches were aware of how their own states could influence those of the players. Therefore, they actively adapted their own emotional and behavioural responses depending on what they thought the athletes needed at that time. Verbal and non-verbal positive reinforcement provided by the coaches as attentional deployment emotional regulation strategies, which are aimed to direct player's attention towards positive aspects of their performance (Gross, 2015). The coaches expressed nonverbal behaviours to their players sometimes together with verbal reinforcement. These behaviours were positive emotional displays, which were useful in modifying players' appraisals of a situation in order to change its impact. For instance, based on players' reports, coaches' gestures were effectively used to up-regulate the players' emotional experiences and increase their motivation. The coaches also reported providing feedback related to performance, including correction of technical or tactical aspects of performance. Although this would not be considered a direct emotion regulation strategy per se, the consequences of the modification of performance may trigger pleasant emotions. Coaches' interpersonal emotional regulation strategies served both hedonic and instrumental goals (Tamir, 2011).

Coaches and players highlighted the importance of trusting each other, sharing language, values, and common goals, as well as being appreciative, all of which are characteristic of an effective coach-athlete relationship. The coaches' ability to perceive and respond appropriately to players' emotional states reflects empathic understanding (Jowett & Poczwardowski, 2007). Based on players' accounts, the coaches' understanding of their feeling states and behaviours results in positive interactions and satisfaction (Lorimer & Jowett, 2009). All in all, our findings provide support to the notion that a coach-athlete relationship is characterized by closeness, commitment, complementarity, and co-orientation (Jowett, 2007; Shanmugam & Jowett, 2017). Being able to perceive and to alter their own behaviour so that it is congruent to the players' needs reflects a high level of emotional intelligence. In fact, emotion perception is the core component of the four-branch model of emotional intelligence (Mayer & Salovey, 1997). This exploratory study presents valuable preliminary information about what coaches perceived, and how this information was used for regulation, which can be used to promote further study of the underlying individual differences in the coaches' perceptions of their athletes' emotions.

Results from the IPPS data, indicated that coaches reported somewhat accurately the type of experiences of their players in most successful and most unsuccessful performances, with highest overlap score values of 0.6 (with 1 indicating maximum accuracy). It is important to note that IPPS includes a stimulus list of 3-4 descriptors for each state modality, and an overlap of 0.6 would indicate that the coaches are exact in reporting 60% of the adjectives the players used to describe their states, which in this case indicates fairly good accuracy. This accuracy may be explained by the fact that feeling states associated with such memorable situations (i.e., best and worst performances) may reflect functional and dysfunctional experiences that the coach-athlete dyad may be working on to reproduce or deal with, respectively. The accuracy of coaches in

perceiving some of the players' state modalities may be challenged by the fact that some of the modalities may only be subtly expressed or the athletes have learned to suppress the expressions.

Limitations and Future Research

A limitation of the present study was the specific target group. It may be that coaches were familiar with the particular elements of emotional expression in tennis, which may have resulted in high perception accuracy. Future research targeting other sports can help ascertain whether or not the findings were characteristic of tennis coach-player dyads. A second limitation is the use of recall, which may be criticized on the basis of reliance on memory. An advantage of recalled experiences, however, is that the examination of the athletes' past performance history allows gathering information about functional and dysfunctional experiences associated with extreme situations (i.e., most successful and least successful performances), which would not be feasible to measure otherwise. Nevertheless, the coaches and players' interview data was triangulated with data collected via the use of the IPPS, which supported coaches' accuracy in perceiving athletes' states. The context of success and failure has been previously used in the study of performance-related states in the past as it allows for the exploration of the whole range of possible experiences an athlete can feel. Moreover, these situations are very significant for the athletes and coaches, who may recall their feelings long after they happened. Future research examining the coaches' perceptions of athletes' actual experiences is warranted. By using a small, homogeneous sample, these results might only provide in-depth insights into the perceptions and experiences of selected high performance tennis coach-athlete dyads. Although this may be considered a limitation of the study, it can also be considered its strength, emphasizing the results in terms of their theoretical transferability instead of their empirical generalizability. A final, yet important limitation is related to the gender representation of the

dyads included in the study. A female coach - male player dyad, which is unfortunately still exceptional in the realm of sports, was not included in the study. Thus, future research should look into gender variations with regard to intrapersonal and interpersonal emotion regulation strategies.

Applied Implications

This study extended previous emotion literature by examining the coaches' ability to perceive athletes' emotional states, an area of research important for interpersonal emotion regulation that has received scarce attention. The findings have important implications from an applied perspective. Our findings revealed that the coach has an important role in emotion regulation process. The findings can be used in coach education programs aiming to develop effective support for athlete emotions regulation. For instance, the knowledge regarding particular cues signalling athletes' emotional states is useful for the development of skills in novice and inexperienced coaches. Because the inability to understand, experience, or express emotions effectively leads to loss of social support or disintegration of groups (Niedenthal & Brauer, 2012), it can be assumed that development of such skills in coaches can lead to strengthening coach-athlete relationships. An effective perception of athletes' feeling states and understanding of the impact on their performance is also helpful in the development of athletes' meta-experiences (i.e., preferences, attitudes). As such, coaches, with the assistance of sport psychology practitioners, can help athletes develop effective beliefs and attitudes towards their own experiences instead of focusing directly on changing their emotions. Overall, coaches can be instrumental in the facilitation of an optimal emotional climate. Guiding coaches direct their attention to specific aspects of emotion expression in their athletes may improve their perception, and thus, increase the effectiveness of the inferences about their athletes' internal states. This in

754 turn, may enhance coaches' communication and connectedness with their athletes. Our findings
755 indicated that coaches self-managed their emotions to regulate their players' emotions. This is an
756 important aspect of interpersonal regulation. Increasing novice coaches' awareness of the impact
757 of their own emotions on others may be helpful for a successful and effective coaching
758 relationship.

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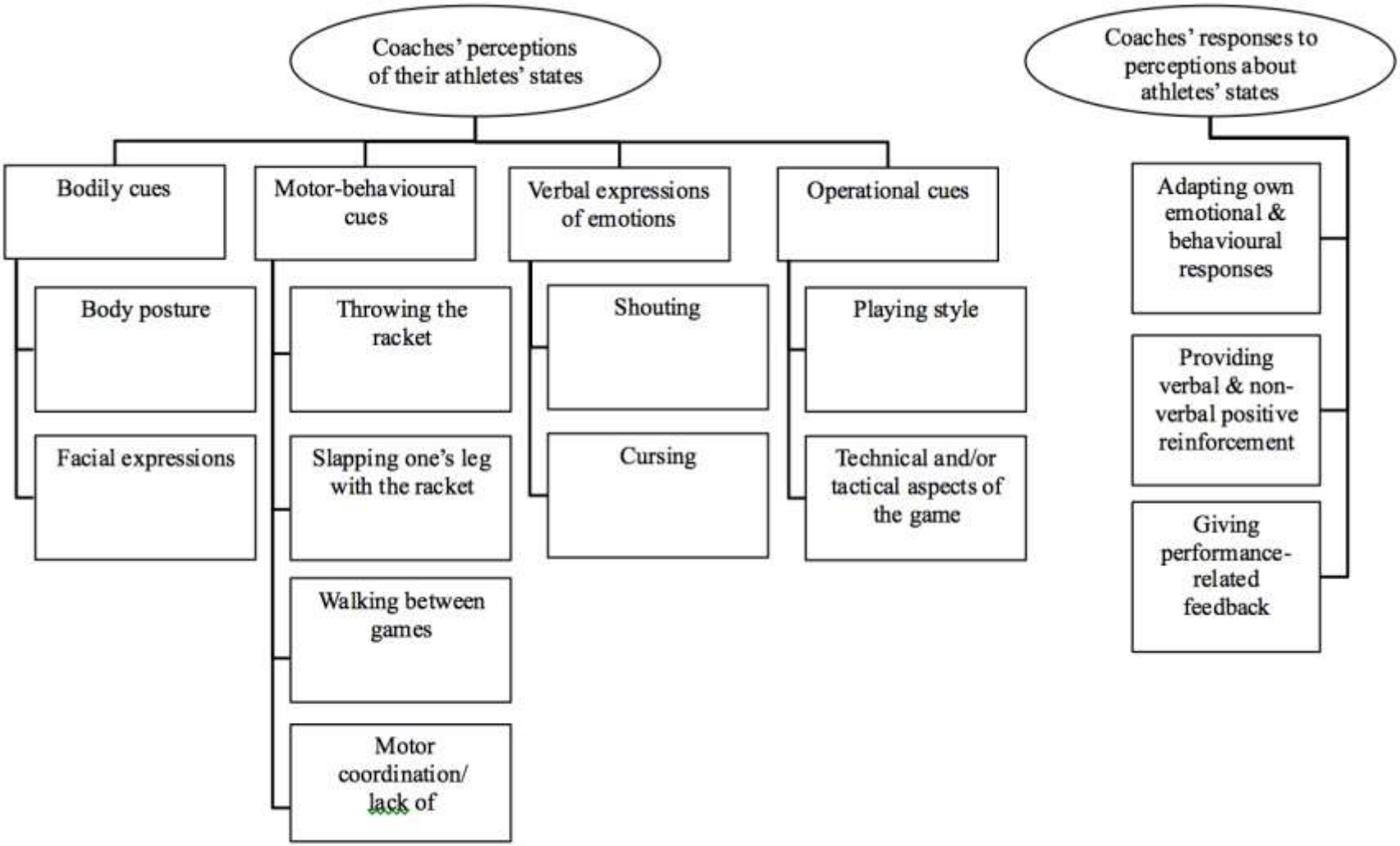
Table 1

Athletes' experiences, and coaches' perceptions in most and least successful performances identified by the players.

Dyad	Most successful performance		Least successful performance	
	What the player felt	What the coach perceived	What the player felt	What the coach perceived
1	I was very self-confident and motivated. My hits were smooth and controlled. *Focused, confident, fighting spirit, nervous, pleased, worried, resentful, motivated, purposeful, energetic, powerful movement, powerless, effective, outgoing*	She was very self-confident what is unusual. Normally, she has self-doubts. … She played very efficiently. She was motivated and purposeful. *Focused, confident, fighting spirit, nervous, complacent, anxious, motivated, purposeful, energetic, physically tense, relaxed movement, effective, unskilful, outgoing*	I had trouble with breathing, I was very nervous, tensed up. I did not play well; I made a lot of mistakes. I was not carefree and not excited. I was only a bit confident and not very coordinated. *Overloaded, attentive, fighting spirit, discontent, satisfied, troubled, irritated, uninterested, motivated, purposeful, unwilling, vigorous, physically tense, coordinated, powerless, skilful, inconsistent, uncommunicative, communicative*	Her preparation and arrival were poor. She was very stressed when we arrived. From the start on she was not confident, with no fighting spirit. She had doubts, was nervous, frustrated, sluggish and not engaged nor interested. Physically she was charged but in a negative way. She was angry, uncoordinated and clumsy. She didn't manage to calm down. *Doubtful, focused, aggressive, nervous, pleased, troubled, irritated, uncommitted, motivated, undetermined, physically charged, physically tense, inconsistent, clumsy, inconsistent, withdrawn, outgoing*
2	I was very confident and I was first seated. The way I was walking, I did not care	She was very enthusiastic and joyful. She had a high fighting spirit but was relaxed	I remember I was worried, I was thinking what my parents would say. I was confused; I	She had a fighting spirit, but the rest was not so good. *Overloaded, focused,*

	what others might say. I was walking relaxed. Anyway, it felt like I will win 6-1, 6-1. I knew that the ball can't fly stronger and faster than I can imagine. *Confused, focused, confident, fighting spirit, nervous, satisfied, worried, annoyed, unmotivated, motivated, purposeful, unwilling, energetic, tired, powerful, clumsy, effective, ineffective, alone, connected*	at the same time. During the match there was a situation with the crowd where she got very annoyed and a bit distracted. *Distracted, focused, enthusiastic, fighting spirit, nervous, satisfied, concerned, annoyed, unmotivated, motivated, determined, indecisive, vigorous, physically tense, powerful, sluggish, consistent, inconsistent, alone, outgoing*	didn't really know what to do. I was confident in the first 10min. Then realized there was no confidence. I was not aggressive, not pushing the ball exactly. *Confused, focused, confident, aggressive, nervous, overjoyed, worried, annoyed, unmotivated, motivated, persistent, unwilling, energetic, tired, coordinated, clumsy, effective, ineffective, disconnected, outgoing*	*confident, fighting-spirit, nervous, satisfied, worried, resentful, uncommitted, motivated, determined, undetermined, energetic, physically tense, coordinated, uncoordinated, effective, ineffective, disconnected, outgoing*
3	I knew already before the match that I have good chances ... I was not confident before the match that I am going to win for sure, but I had good chances. I was OK confident, but not really. *Focused, doubtful, confident, fighting spirit, nervous, complacent, concerned, irritated, motivated, decisive, physically tense, physically charged, coordinated, effective, unreliable*	He was worried and concerned. But then he became confident and carefree. … He was looking forward to the match. *Focused, doubtful, confident, aggressive, nervous, satisfied, worried, annoyed, uninterested, motivated, determined, indecisive, energetic, physically tense, powerful movement, uncoordinated, skilful, inconsistent, uncommunicative, connected*	I was not happy on the court, really negative about it, about myself, had no confidence, or enthusiasm. I was too aggressive in my game and in mind. … I was physically fit because we had a good practice a week before. *Doubtful, alert, aggressive, dissatisfied, concerned, annoyed, uncommitted, motivated, decisive, undetermined, physically charged, physically tense, powerful movement, uncoordinated, unreliable*	He was neither confident nor happy. … He was not relaxed, but was quite coordinated. *Doubtful, attentive, confident, aggressive, dissatisfied, troubled, furious, uncommitted, motivated, persistent, unwilling, physically charged, physically tense, coordinated movement, sluggish, inconsistent, disconnected*

Note. In normal font are data extracts from the interviews and in italicized font are psychobiosocial states identified on the IPPS.



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896 Figure 1

897 Superordinate and subordinate themes identified regarding what coaches perceived and how they responded in relation to their players' states

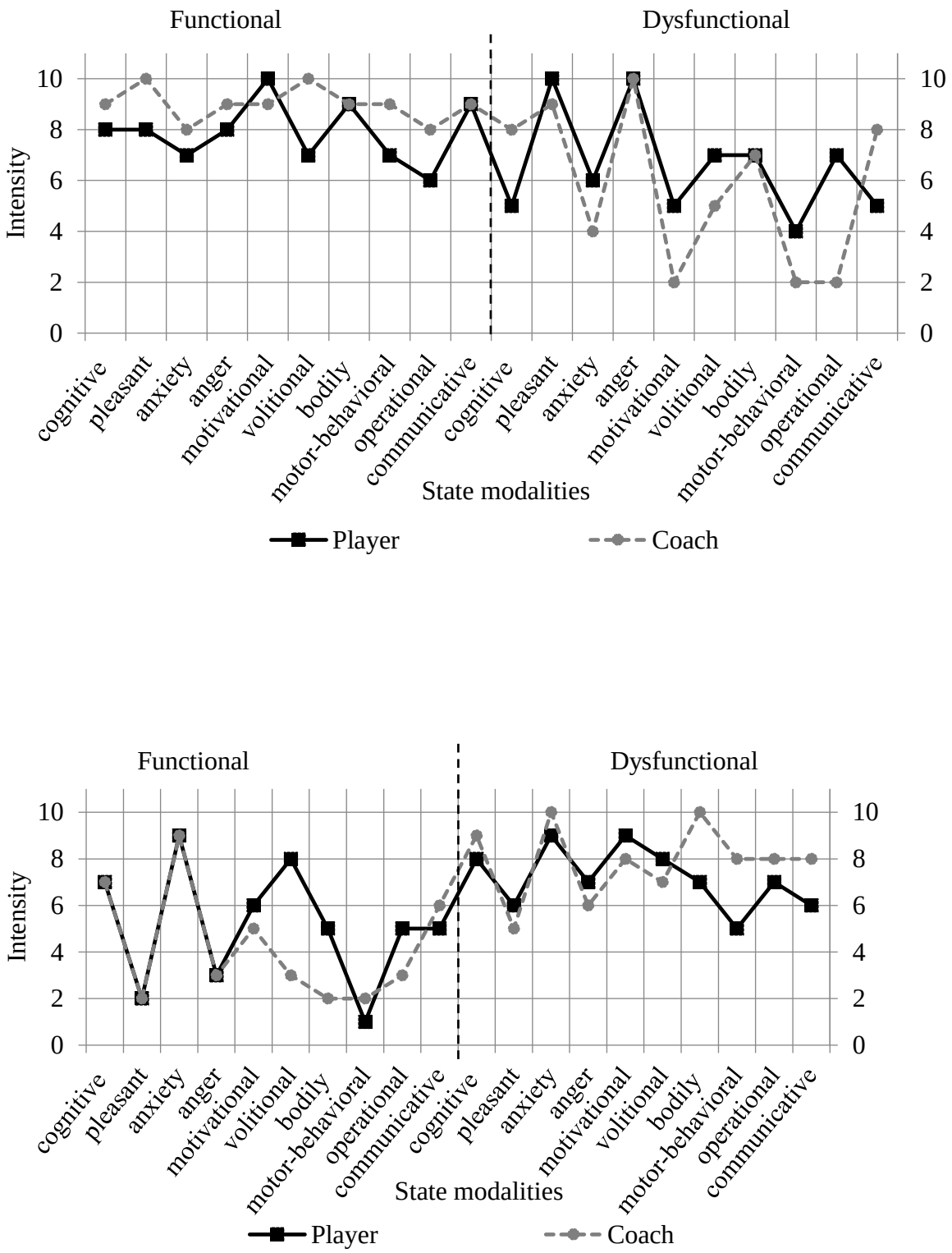

Figure 2

Individual profiles of a tennis player's psychobiosocial states before most (upper part) and least (lower part) successful performances as assessed by his coach and herself