

Coach-Athlete Communication Within an Elite Alpine Ski Team

Diane M. **Culver** and Pierre **Trudel**, University of Ottawa

Diane Culver and Pierre Trudel are with the School of Human Kinetics, University of Ottawa, Ottawa, Canada K1N 6N5 Email: dculver@sprynet.com

Abstract

The purpose of this study was to gain a better understanding of the communication process between coaches and athletes in their natural setting. Using semi-structured interviews, non-participant observation and journals, data were collected from six female members of a junior national ski team, aged 17 to 19 years old, and their two male coaches. The first interviews, conducted just before the beginning of the competitive season, established that both coaches and athletes believed in open, two-way communication. Subsequent observation during the competitive season revealed that despite this consensus the coaches and athletes had trouble at times interacting according to this philosophy. In an effort to deepen understanding concerning the communication process it was decided to analyze some of these communication problems, with the use of a model of communication proposed for coaching. The results indicate that many factors influence communication, some due to the context and others related to the individuals' past experiences. Specific issues regarding the effect of silence and the differences in communication between good times and bad times are discussed, as well as certain general themes such as the importance of a positive approach, enjoyment, and communication about psychological concerns. Practical suggestions for the education of coaches and implications for sport psychology consultants are presented.

Introduction

“It takes two to speak the truth... one to speak and another to hear”.

H.D.Thoreau (Nakamura, 1996, p. 103)

Defined as the “transmission and the exchange of information conveying meaning between two or more people” (Fuoss & Troppmann, 1981, p. 115-116), communication is acknowledged as a critical piece in the puzzle that is the art and science of coaching; perhaps even the most important element (Spink, 1991).

Coaches need good communication skills in order to give technical and tactical instructions, manage their teams, interact with parents and administrators, and provide psychological support to their athletes. A study of expert coaches (Bloom, 1996) found that the ability to communicate effectively was one of their distinguishing characteristics: “Learning when to communicate with players is an intangible art, a skill that separates the competent coach from the great one. It

takes years to learn to distinguish the best communication style for each player” (p. 165).

Two main approaches have been used to collect data on the coach-athlete communication process during sport events: Systematic observation and interviews. A number of studies, beginning with Tharp and Gallimore’s (1976) observation of celebrated basketball coach John Wooden, analyzed coaching behaviors and found evidence of “instructional”, and “praise” and “scold” behaviors. This approach led to the development of various systematic observation tools, such as, the ASUOI (Lacy & Darst, 1984), the CAFIAS (Cheffers & Mancini, 1989), the CBAS (Smith, Smoll, & Hunt, 1977), and more recently the COSG (Trudel, Côté, & Bernard, 1996).

In their review of studies on coaches’ behaviors, Trudel & Gilbert (1995) retrieved 111 related documents (master’s theses, doctoral theses, congress proceedings, and articles in refereed journals). Of the twenty-eight articles published in refereed journals; 16 focused on coaches’ behaviors during training, 5 looked at coaches’ behaviors during competition, and the remaining analyzed coaches’ behaviors both in training and competing contexts.

A summary of the communication during training sessions can be found in Trudel and Côté’s (1994) article. Using a story, they portrayed how an average young athlete might describe his or her interactions with the coach during a training session. They estimated that the player listened to instructions 6% of the time, was observed by the coach

11% of the session, and received feedback about 4% of the time. For competitions, such a communication pattern is more difficult to determine since coaches’ behaviors vary considerably from sport to sport. In skiing the coach is situated in one place, viewing only a section of the athlete’s run, whereas in ice hockey, for example, the coach is present for the whole game. In a study of youth ice hockey coaches, Trudel, Côté, and Bernard (1996) found that over 50% of the game time coaches were involved in “observation” without communicating, while only 11% of the time was spent on “instructional” behaviors. The researchers also found that these coaches seemed to act as a one-person show, attempting to control all the action, without listening.

The second approach used to study the communication process has been to ask coaches and athletes what makes an effective coach, through retrospective methods such as interviews and questionnaires (e.g., Côté, Salmela, Trudel, Baria, & Russell, 1995; Partington & Orlick, 1987; Salmela, 1996). Using interviews with expert basketball coaches Bloom, Schinke and Salmela (1997) traced how the coaches changed their communication styles as they developed through their coaching careers from club coaches to international elite coaches. The coaches were found to move from a more autocratic style with younger athletes to a two-way communication style with elite international athletes. Based on a combination of questionnaires and interviews of 1984 Olympians, Orlick and Partington (1986), concluded “that almost all of the athletes who performed to potential at the Olympic

Games had a very close personal bond with their coaches. They worked out programs, problems and strategies together” (p. 4).

In order for effective communication to occur, there has to be congruence between the message sent and that which is perceived by the receiver. However, Anshel (1990), and Horne and Carron (1985) reported differences between the perceptions of coaches and athletes of each other’s communication. Laker (1993) found in physical education classes that the differences might be greater with messages regarding social and affective issues as opposed to those pertaining to the technical or tactical component of sport. In addition, athletes’ perceptions of coaches’ instructions and behaviors might vary because each participant carries a different set of baggage, that is, knowledge, self-efficacy and other beliefs, into the experience. Therefore, descriptive studies on the coach-athlete communication process, according to the age and level of the athletes, will be instrumental to our understanding of this process.

In sum, the literature on the communication process in sport seems limited to the observation of coaches during training sessions or competitions and to interviews with coaches and athletes about effective coaches’ communication skills. In order to develop a better understanding of the coach-athlete communication process, studies in the natural setting that investigate both perspectives (coach and athletes) are needed.

A Model of Effective Communication

In their book on effective coaching,

Fuoss and Troppmann (1981) presented a model for effective communication (see Figure 1). Since this model will be used to analyze the coach-athlete communication process in this study, the different components of the model are presented and explained.

Communicators: sender and receiver.

Both the sender and the receiver are communicators in an effective communication process, therefore, both are involved in encoding and decoding messages. Effective communication can be hindered by different types of interference during the decoding phase. This potential interference may have internal (cognitive or emotional) or external (environmental) sources relative to the decoder (Spink, 1991). Thus due to the dyadic nature of communication, the coach’s and the athlete’s characteristics both play an important role in the process.

Message. Three important elements must be considered regarding the actual product of the encoder: The code used to represent the message, the content of the message, and the treatment of the message. For example, a ski coach treats a message in a particular way by selecting the language of communication, how technical the content will be, and what tone of delivery to use.

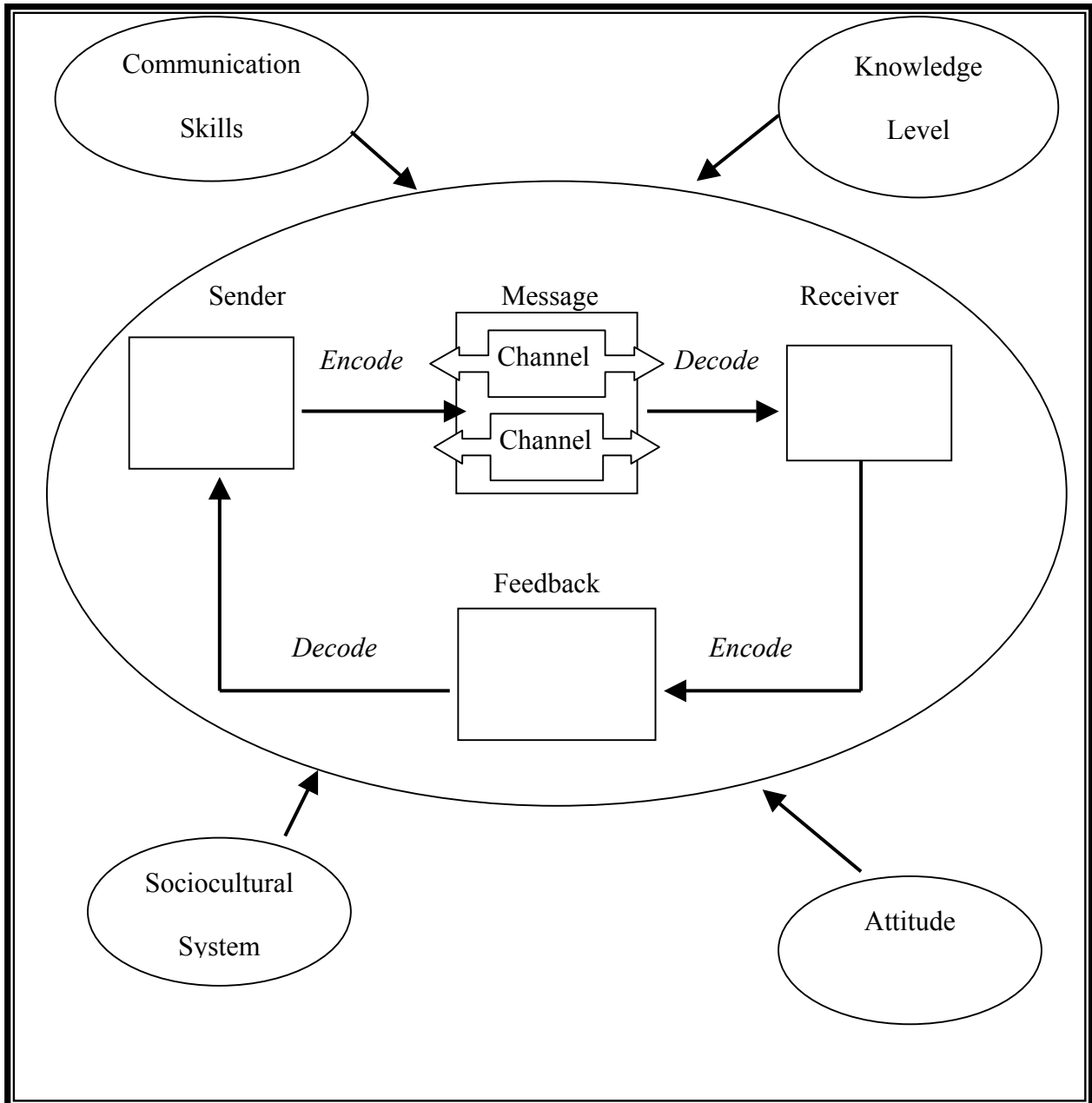
Channel. The channel used to transmit the message is the mode of encoding and decoding messages employing one or more of the five senses.

Feedback. The reaction of the receiver is the feedback, and this feedback provides the check of effective communication. An athlete that looks

blankly at a coach after the coach has corrected the athlete sends feedback to the coach. The message has not been

understood and should be delivered a second time, using another strategy.

Figure 1: Model of the Two-Way Circular Communication Process (Adapted from Fuoss & Troppmann, 1981).



There are four factors within the communicator, whether sending or receiving, which can influence effective communication: (a) communication skills; (b) knowledge level of the subject matter and the other person; (c) attitude towards oneself, the other individual in the dyad, and the subject matter; and (d) the relative positions of the communicators within the sociocultural system.

The purpose of this research was to better understand the communication process between the coaches and athletes of an elite ski team by exploring the roles played by the participants, and analyzing various communication problems. The analysis of certain issues using the Fuoss and Troppmann model offered the possibility of understanding why problems arise, and how they could be resolved.

Methods

Considering the nature of the research problem, which was the desire to study coach-athlete communication in action during the competitive season, a case study using qualitative methods was deemed appropriate. Authors such as Smith (1988), and Wilcox and Trudel (1998) have outlined the advantages of using this research design in applied sport psychology.

The Researcher

Since the researcher is the research instrument in qualitative inquiry, it is appropriate to provide some information concerning the personal experiences I bring into the research process. Traditionally this experience has been treated as bias, the effects of which were undesirable. More recently, the place of researcher subjectivity has been debated

and several authors have argued that this “experiential data” (Strauss, 1987) should not be ignored. In the field of sport psychology, Martens (1987) lamented the fact that this “tacit knowledge” has no place in the traditional scientific method. This knowledge, he concluded should be combined with evidence gathered in the field. Thus, following the advice given by Martens and the suggestion of Strauss to “Mine your experience” (1987, p. 11), I present my background not as bias but as a form of “tacit knowledge”.

My experience in this field stretches across all aspects of participation in alpine skiing, from the club to the top international level as an athlete and a coach. In addition, I have been involved in the training of coaches. As an athlete, I experienced frustration with the strategy of the national ski team, especially regarding psychological aspects. As a coach, I was frustrated by the lack of knowledge in the field and the difficulty of gaining practical coaching knowledge. Many of my frustrations were caused, I believe, by poor communication. These experiences have resulted in a desire to improve the conditions that athletes face, especially coach-athlete communication, in an effort to optimize the positive benefits from their sporting life.

Participants

As indicated previously, the coach-athlete communication pattern might differ relative to the age and the level of the athletes. For this case study it was decided to investigate the communication process in a female junior national ski team. This setting was of particular interest because the adolescent age group

seems to have been largely neglected in sport related research (Allen & Howe, 1998) and also, because in skiing, the transition to the elite level coincides with the period of adolescence. The team was composed of two coaches and six female athletes. Both coaches were about 30 years old and had experience competing in this sport. Dave (all names are pseudonyms) was the head coach, and Charles was Dave's assistant. Both coaches were bilingual (anglophone and francophone) and one had predominately worked with female athletes, while the other predominately with male athletes. The team was made up of six women, 17 to 19 years of age from across Canada, some being anglophone and others francophone.

Data Collection and Data Analysis

The data collection phases and methods for this study are outlined in Table 1. Two interviews were conducted with each participant except one athlete who withdrew from the study after one interview, due to injury. In total, 16 days were spent in the field observing training sessions and four competitions. Also, the coaches and athletes were asked to keep a journal to remind them of significant incidents in the teaching-learning process. Several of the athletes sent some of their journal entries to me via e-mail. These entries proved to be very rich and provided me with data that was alive and very much “in the moment” of the athletes' experiences.

At the last camp of the pre-competitive season the first interviews were conducted and a first period of observation took place. These data were transcribed verbatim by the researcher, and each participant was given a copy of their interview with the instructions to check if there was anything that needed to be added or changed. After the second observation period, approximately one third of the way through the competitive season, all the data from the interviews and the field notes were sorted into major themes, using the NUD.IST (QSR, 1997) software program to manage the data. These major themes, referred to as sign-posts by Kelle (1995), presented a de-contextualized overview of the major issues and problems that the coaches and athletes either had experienced or that they might experience.

The effort to understand communication as it occurs in action requires that the issues be examined within the context in which the participants are interacting. Thus the next step of the analysis was contextualizing: Understanding the data in context. Miles and Huberman (1994) recommended the use of matrices to help in the analysis of data. The sign-posting step served as a guide and the data was analyzed for interactions and information that supported these areas. The result of this analysis was a series of matrices (see Table 2) that established a specific referent, the evidence needed to clarify the interaction or issue, and the likely source of that evidence.

Table 1. Data Collection Phases and Methods.

Time Frame	Pre-competitive Season	Competitive Season		
	End of off-Season (November)	Throughout season (October to April)	1/3 into competitive season (New Year)	National Championships (late March)
Methods of Data Collection	-1 st interviews -Observation (training)	-Journals -E-mail -Telephone contact	-Observation (training and competition)	-2 nd interviews -Observation (training and competition)

Table 2. Example of a Matrix Used as an Interview Guide for the Second Interviews.

Matrix: Athlete T		
Referent	Further evidence needed	Likely source
Race feedback (Europe)	What was the outcome of the last email? Did T. talk to coach D? Ask Dave how it went in Europe with this athlete? Was he angry with T? What was the intent of his silence? Did he eventually discuss this race with her?	Ask T and ask coach D.

The matrices were used as to prepare for the second round of interviews. The final stage of the analysis involved using the model described above to help explain the process of communication as it was documented in the data. In this stage specific interactions or situations were analyzed and certain factors that may have caused problems in the communication process were put forward.

Trustworthiness

The following is an explication of the measures taken to promote trustworthiness. A pilot project with a sailing team was conducted to test methods and concepts. The sampling decision was based on the selection of a reputational case.

That is, a trusted person, knowledgeable in the elite ski world, recommended the team as one that would be suitable for such a study. Care was taken in the establishment of a good research relationship with the participants. All of transcripts were member checked, as well as the entire results by the head coach. The data collection and analysis was conducted in such a way that interpretation could be checked or clarified with the participants as the study was in progress. Finally, the researcher engaged in reflexivity and was involved in a weekly peer review process.

Results and Discussion

The Pre-competition Season

The pre-competition season is the off-season and includes summer training camps, both on-snow and dry-land for fitness, as well as one or two pre-season camps in the fall. The first interviews with the coaches and the athletes were conducted during the last pre-season camp, just before the start of the competitive season. At this point, the coaches and the athletes expressed various opinions regarding effective communication.

Coaches' perspective

Both coaches expressed a similar philosophy that viewed the coaching process as interactive. They also expected the athletes to work hard. Here is how the two coaches discussed their approach.

I guess my coaching philosophy is, it is somewhat of an interactive deal with the athletes. I really see it as a two-way deal I guess you could say. You know I need a lot of effort from them and they get a lot of effort from me... And a lot of that is sort of a lot of interactive dialogue between us... But sort of maintain that guidance as the person in charge, and when there are issues when the direction is unclear, then that's where that coach really needs to step in and say, "Okay, this is where we are and this is where we want to go, and these are the steps we need to take. Let's talk about it." (Dave, interview 1)

... that's my philosophy, don't put it too complicated. Also try to put them in a situation that they can learn, not only by telling them what to do... Dave and I, we've got the same philosophy too. (Charles, interview 1)

They also seemed to appreciate when an athlete was able to initiate the interaction.

She is really fairly honest and direct with us and I like to know when it is not working, and I kind of wish that more of the girls were like that, a little bit more blunt and honest about things... With her, we don't waste time, trying to figure each other out, we just talk and she just sort of talks like a 28-year-old, she doesn't talk like an 18-year-old. At the same time she's the kind of girl that really balances the work with the fun. (Dave, interview 1)

Athletes' perspective

The athletes, when asked what sort of approach they thought worked best for them, expressed that they liked an open, interactive relationship with their coaches. These athletes, still teenagers, also remarked on the importance of mixing fun with work.

Dave and Charles are straightforward; they make it fun. (Athlete S, interview 1)

... it has got to be a two-way thing going on... But a big part of it for me is also having a lot of fun... I like working hard and I have no problem with that, but you have got to enjoy it too. I improve usually lots when I'm having fun, even thinking less about my skiing. (Athlete R, interview 1)

With my old coach, he showed us how skiing can be fun, how I can enjoy it... I need it to be fun. (Athlete M, interview 1)

The coaches and the athletes matched on their idea of good communication. Their ideal followed the model for effective

communications: A two-way process (Fuoss & Troppmann, 1981). However, they differed somewhat concerning the context within which the communication should take place. The coaches emphasized that they wanted the athletes to work hard. The athletes expected to work hard but they emphasized that it must be fun. In addition, a look at the factors that influence the communicators in the communication process (Figure 1) raised some evidence that effective communication might at times be hindered.

Communication skills

Several comments made during ordinary conversation with coaches and athletes outside of this team, pointed to the perception that Dave was going to need good communication skills in order to be an effective coach for this team. There seemed to be a sense that the team represented a coaching challenge that was not necessarily technically based. A male athlete, met during the initial observation session, had previously been coached by Dave and he said, “Dave should be a good girl’s coach”. I told Dave this and asked him if he had any idea why that might be said. He replied that he did not really know, but that he tried to talk to the girls and make them feel heard. This represents his acknowledgement that the communication process is viewed as a priority for him with this group. (Researcher’s notes)

While the coach’s comments indicated that Athlete S might possess the necessary skills for direct communication, other comments by coaches and athletes during the interviews just prior to the competitive season suggested that some athletes might not yet have adequate communication skills. Athlete R de-

scribed herself as being shy and finding it “hard to go up and say, tell them all that’s going on” (Athlete R, interview 1) and another athlete was described as being very timid, both by herself and the coaches.

Knowledge level

Traditionally the summer camps are used to do extensive technical work. Since both coaches were new to this team, even though Charles had recently worked with three of the athletes at the provincial level, the off-season was also used as a time to develop relationships between the coaches and the athletes. In the model, this would equate to increasing each communicator’s knowledge level of the other. In discussing his approach at the end of the pre-competition season, Dave said:

... a lot of it for me is really getting to know the athletes I’m working with ... It’s really sort of a dynamic changing discussion all the time and it sort of revolves around all the aspects as far as technique and tactics, and psychology and physical preparation and stuff like that. But I find that you really need to spend time to learn your athletes and get to know who they are and what they sort of stand for, and what they want to get out of the deal, and adjust your coaching to each person I guess... (Dave, interview 1)

When, asked what point he was at in getting to know his athletes he said:

I’d say at about 50% right now, and the only reason that I’d say that is that I have figured them out pretty much to their maximum capacity in training I just haven’t seen them race. You know and racing is sort of 50% of the deal. We

can interact pretty well and tell each other exactly what we want. I just haven't had them in a racing environment yet. (Dave, interview 1)

Attitude

Dave's attitudes toward the athletes were very positive.

Athlete C knows technique pretty well. She's pretty coachable, will do what you want on the hill...

Athlete S: Technically great, just sort of another person that I have a lot of technical discussion with on how we can make her faster.

Athlete E: Really the kind of girl that you want on the team, you know, a lot of energy, a lot of positive energy. Strong physically, strong mentally, and pretty much ready to do almost anything to get on that team and perform... she's a coachable girl in that way, so we were able to make some pretty good changes. (Dave, interview 1)

All the athletes expressed positive views towards the coaches at the end of the pre-competition season. A number of the athletes mentioned that a very important feature of their coaches up to that point in the season was that they displayed a positive attitude in the feedback communication that they gave to their athletes.

I think that coaches have to be very good at communicating with their athletes, and in a positive way. I mean everybody learns in different ways, but for me I learn best when coaches are positive. I mean they don't have to be saying good things all the time, but, when they are positive, you can really talk to them ... I

think it is even more important to have a coach like Dave and Charles are great, because, they understand that you are not going to have a good day everyday. (Athlete R, interview 1)

Another athlete spoke of the effects upon her of previous coaches.

My coaches were like "What are you doing? This isn't skiing, this is garbage!" I can't be negative. I can't have people around me be negative, like coaches, I need them to believe in me. (Athlete P, interview 1)

Even though the coaches and athletes were clear on the importance of having a positive attitude, once the competitive season began, and actual interactions were observed, or recorded in journals, we saw attitudes directly affecting communication.

Sociocultural system

The sport of skiing has a relatively long history in Canada. The national championships have been contested for well over half a century. The "team" is big business, with major corporate sponsorships. But fund raising is still a major necessity, and families do not put athletes on the team without years of expenses in excess of \$10,000 per year. All these factors, along with the distinctive lifestyle of ski racing, contribute to a distinctive sub-culture. An integral part of this sociocultural system is the image that goes with being a team member. The data showed that being selected to the Junior National Team, and wearing the uniform for the first time, clearly added to the pressure experienced by many of these athletes. Here is how one junior team athlete described the situation:

And that was going really well, then as

soon as I got onto the junior team the next year, it was like everything just totally crashed, like I had, I felt like I had so much pressure on me. You get the uniform, right, it's the national team uniform, and I just was so afraid of what other people thought. You know, you're on the national team, now you have to do well, there's no excuse. I don't think I was mentally ready to be there yet. Physically I was at that level, but mentally, I think that I was far from it. (Athlete P, interview 1)

The Competitive Season

It is important to underline that this team is not atypical in the sense that there were not a lot of problems, and the problems encountered are probably of the same general nature as those encountered by many coaches and athletes during a season. Even though both the coaches and the athletes in this study believed that communication should be positive and interactive, just as recommended by numerous authors and organizations (CAC, 1989; Martens, 1997; Nakamura, 1996; Orlick, 1986), the start of the competitive season brought about a discrepancy between these perspectives and what was really happening. The problems raised herein show that during the competitive season, coaches and athletes sometimes stray from their philosophy of effective communication.

As the season progressed, events or issues that took place between the coaches and the athletes were documented and analyzed (Culver, 1999). For the purpose of this article, three specific issues, two regarding the role of silence and one pertaining to an athlete having difficulties performing, will be presented and analyzed using the model of Fuoss and

Troppmann (1981). Following that analysis, several general themes will be linked to Orlick's "Wheel of Excellence" (1996). In particular, the elite participants in this study raised belief, confidence, the importance of a positive approach, and enjoyment as being critical to effective coach-athlete communication.

Issue # 1: "Silence is not golden?"

Athlete T was feeling the pressure to perform and expressed a total lack of communication with the coach. This is an athlete described in the first interviews by both coaches and herself as being very quiet and timid, especially when it came to communicating. This entry from her journal left no doubt as to the level of her anxiety.

I skied well but was really slow because I almost stopped at the bottom because I couldn't see the next gate. Dave hasn't talked to me yet because I think he is angry. I was having trouble in the training runs the past couple days and today I did everything well and nailed the tough sections. I am in a very depressed mood after today. (Athlete T, e-mail journal)

Speaking in retrospect about the same incident this is what the coach said.

... sometimes when I get really frustrated with somebody's performance, I just I don't even know what to say, and I don't say anything, and it is probably not a great thing. I don't know... she really struggled there, and that's when we sort of hit our low in the confidence. I think she needed a lot of support there, but I was in a position where I was so frustrated and at that point I was under

incredible pressure from above. Why things weren't going well and you know it was just... A lot of stress there. Stress on me and coming from me probably. There was so much frustration that I couldn't say anything. That's something that I need to work on, is figure out a way to constructively deal with frustration like that, because I mean, I don't know how, right now. I don't know how to do it well. The way I do it is not the right way. I just haven't figured out a way to do it... But no she didn't tell me that she thought that I was angry. For sure she would have thought that I was angry because I was, I wasn't angry at her, I was frustrated at... I was angry, no I wasn't really angry I was frustrated that we couldn't get what we wanted out of that deal, and it just wasn't working. I was frustrated because of that, plus that was on a weight bar about 100 lbs. The other 400 lbs were co-ing from other places, that had nothing to do with her and it's not her fault, you know but it affected me a lot. (Dave, interview 2)

Here is what happened in this interaction (shown in Figure 2). Dave was frustrated and did not know how to communicate [1] so he decided against sending a verbal message [2]. Even though he sent no verbal message, the athlete perceived the silence as a message and decoded it as Dave being angry at her [3], which was only partially true. The coach was frustrated because of the low performance that was confounded by pressure from above [5]. Due to the athlete's low communication skills [6], she was unable to go to the coach and discuss this issue. Her confidence (self-perception), which was low to begin with, was negatively influenced [7].

Issue #2: “When silence means neglect”

Several months after the incident “Silence is not golden” the coach and two athletes were involved in a situation in which the coach's silence once again posed a problem for the athletes.

In mid-season Athletes T (from “Silence is not golden?”) and R spent two weeks training and competing alone with Dave. Then the two athletes went to some races with their provincial teams and Dave took another group of athletes to the World Juniors. The incident happened when the two athletes rejoined Dave and the other athletes. Dave had been travelling for several days and arrived at the competition tired and over-worked. With twice as many athletes as usual to look after, he was stretched to the limit in terms of time to do everything. Athletes T and R were worried because the coach was not talking to them. They thought he might have lost confidence or interest in them. They wanted to understand Dave's behavior but were unsure how to approach the problem. The athletes asked if they could discuss this concern with me and we went over the problem and their options. They decided to talk to Dave. This is how Athlete R discussed communicating with the coach. (Note: researcher's words are capitalized throughout).

I'm fine for any other mental stuff, it's just asking for stuff that I have problems with. Because I don't want to be a pain... But I think talking, whenever you have a problem, I think, it's my belief that you got to go and be really demanding and just say, “Listen, what's up?” Even if they're going to be really mad or angry after. It usually makes things better.

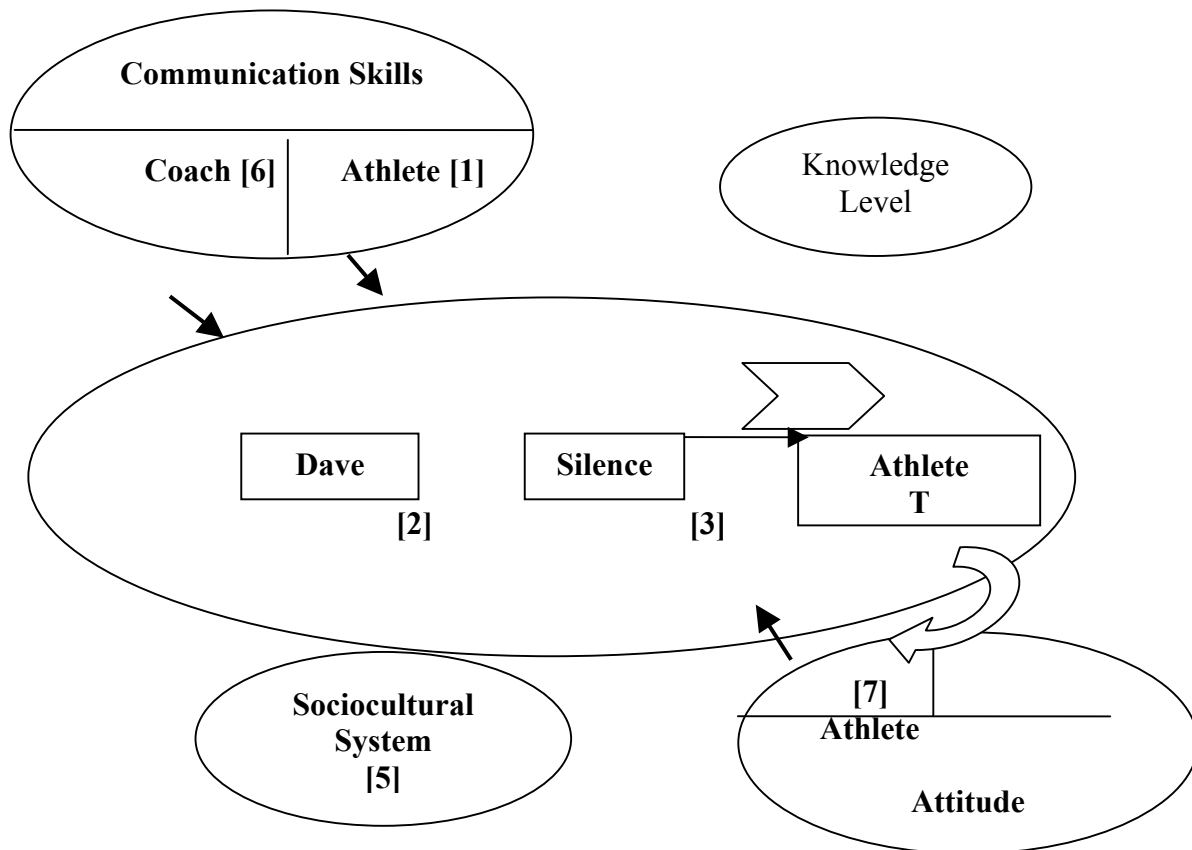


Figure 2: “Silence is not golden?”

(Note: When appropriate the chevron (➤) indicates initiator of the message.)

YOU FIND IT REALLY HARD TO DO THOUGH?

As far as something like that? Oh yeah! But if it's something else, like skis or whatever, I have no problem. But asking for more help, or...

EMOTIONAL SUPPORT OR OTHER KINDS OF SUPPORT?

Yeah, that's hard. I think that's hard for everybody.

BUT IT IS PRETTY IMPORTANT?

Yeah, it is! (Athlete R, interview 2)

On this issue, Dave, the coach, said:

They were frustrated because we didn't see each other for two weeks... You know, we are short staffed. We have 15 girls here and the first couple of days there were only Charles and myself. So there are a lot of things going on where we have to cover a lot of things, you know not just them. They didn't really react to that very well. They thought that they were getting left out of things and not really knowing what's going on. They felt that us not talking to them as much meant losing a lot of confidence in

them and that we didn't care any more. You know that kind of stuff, and that to me shows that their self-confidence, you know, that there's an issue there for sure. (Dave, interview 2)

In this case (Figure 3), Dave just did not have time to communicate with the athletes [1] because of the pressure put on him to take care of many athletes at the time [2]. The athletes had previously had the chance to work very closely with

Dave and had developed certain expectations of him. These high expectations were now challenged in this new context [3]. Athlete R knew that it is important to communicate but she believed that in a ski team it is all right to ask advice about technical or tactical matters but maybe not for other types of help [4]. This is why the two athletes asked the advice of a consultant (the researcher in this case) who suggested that they talk with the coaches [5].

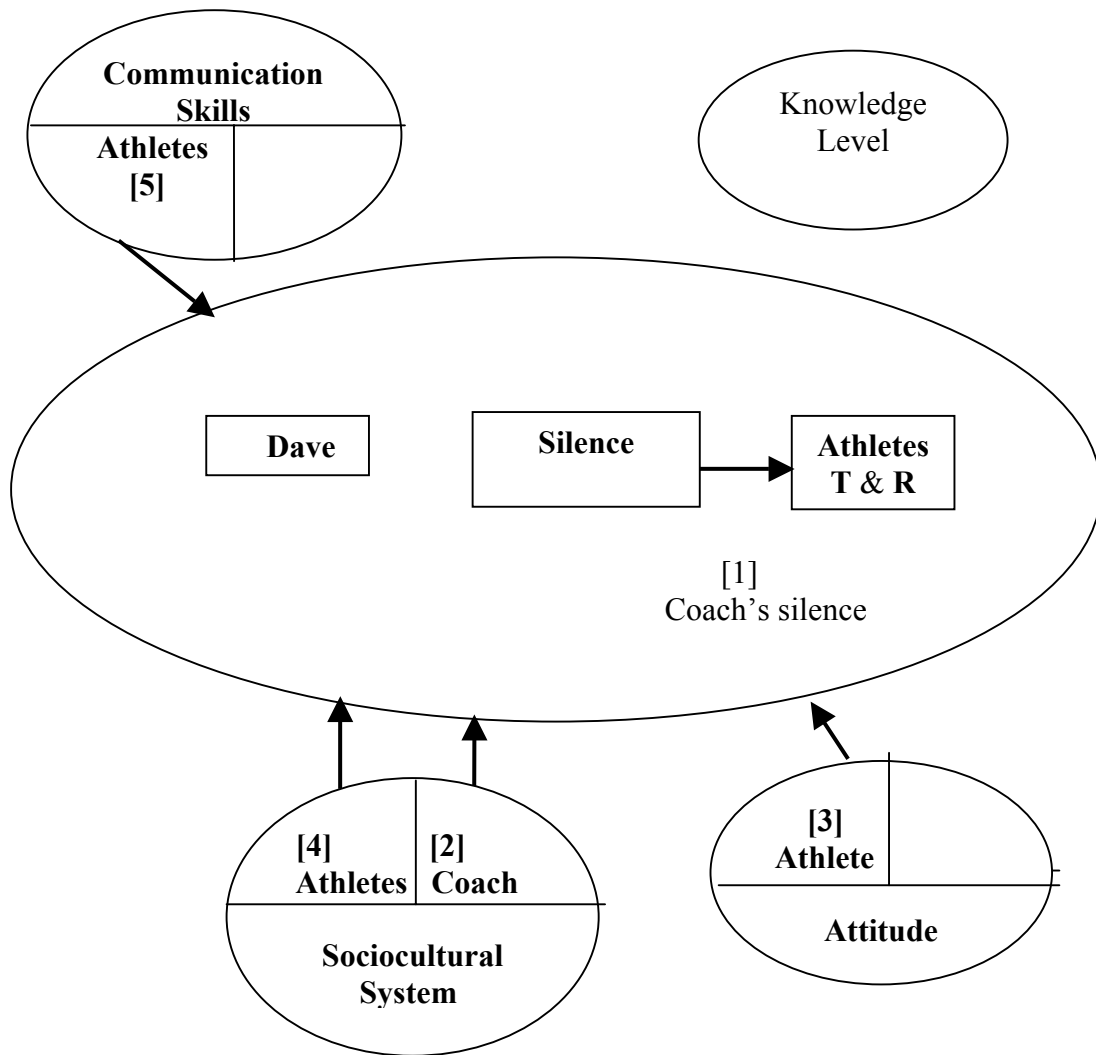


Figure 3: “When silence means neglect.”

In both of the above incidents, the coach and the athlete were unable to communicate in an effective manner. In terms of coaches' behaviors, the difference between what might be predicted according to stated perspectives and what actually occurs has been highlighted by Strong (1992). He reported that coaches, in post-season interviews, rated sportsmanship as the most important reason for youths to play football, and winning as the least important reason. This declared philosophy was almost directly the opposite of their observed coaching in actual practices and games. He concluded, "when winning became the most important reason for playing, the other purposes – learning skills, discipline, sportsmanship, and having fun – were not seriously pursued" (p. 325). Furthermore, Chaumeton and Duda (1988) found that coaches of elite teams put more weight on the importance of winning than coaches of non-elite teams. The incident "Silence is not golden" occurred at a time when the coach, Dave, was under intense pressure from the administration to obtain results. This is not an unknown phenomenon. It has been noted by Bernard (1998) that coaches are often evaluated solely on the performance of their teams, which tends to have the unfortunate effect of tainting their interactions with their athletes.

Added to Dave's frustrations were the stresses of a long competitive season, in this case from mid-November until early April with only a few days off. Dale & Weinberg, (1990) reviewed burnout in sport and described coaches as prime candidates for burnout due to the environment within which they function, which includes the normal stressors of those in the helping professions as well

as additional stressors such as high pressure to perform, and the variety of roles they are required to fulfill. Yukelson (1998) related that burnout can have an adverse affect on coaches' capacity to transmit and receive messages. The incident "When silence means neglect" is an example of the coach, Dave, being so overwhelmed by stresses that he was not even aware that his lack of communication was affecting the athletes.

Issue # 3: "What happened to the coachable athlete?"

Athlete R was weak technically when she joined the team but made incredible progress during the two summer camps. The words of Dave after the last pre-season camp were:

... she improved a lot with us that second camp, she took a lot of work, but she's a coachable girl in that way, so we were able to make some pretty good changes and then get her going in the right direction... Basically every run they do all year is on video-tape, and to watch her at the beginning of the second camp and some of the runs she had at the last camp. It is just unbelievable. You won't even recognise who she is. You know if I could have five or six Athlete Rs on the team, that would be just unbelievable. (Dave, interview 1)

When asked, during the first interview, what she thought helped her improve so much over the off-season, Athlete R said:

I think one of the main things was just believing. Like it was frustrating for a point, because I'd look ahead and see everyone skiing down and be like "Ah!

How am I going to get there?” But believing that it’s going to happen and your coaches believing in you, that he knows it’s going to happen. I found that really reassuring that it’s like, you know it’s going to come. You’ve got one part, you need another part, it’s going to come. And I kind of went, all of a sudden one day it did. Then once it does, you know, you gain confidence and get better and better. And that’s like... It is not easy to change but it is good, you need somebody who wants to change with you. (Athlete R, interview 1)

A few months later, after the start of the season, the coach, Dave, was clearly frustrated with the performance of Athlete R. The following are quotations from my field notes during a training session prior to a race series.

Athlete R seems fine but Dave is very frustrated and says that she is taking criticism very badly, is very sensitive. Dave was trying to give her technical info to help her skiing but felt that he was not getting anywhere. He said that she always has to (that’s the way he said it) work harder, have an extra run, and she said that she was working really hard. I asked Dave what his plan was with Athlete R. He said he didn’t know, he sighed. “I don’t really know what to do with her”. I decided to remind him of what he said about Athlete R in his first interview “If I could have seven Athlete R’s, I’d be really happy”. He replied “Yeah, that was during training and she was doing really well”. In fact, she [Athlete R] repeated feeling a lot of pressure to perform at the races before Christmas because she had been selected to the team. (Researcher’s notes)

This athlete said, “At first I felt a lot of pressure but that wasn’t from them, it was my own wanting to do well.” She also said that she had never gone over her goals with the coach and commented:

I think the only thing is that doing goals would have reassured me. Sometimes it’s just good to know that you are on the same wavelength (as the coach) and that you know what’s going on... and maybe that pressure I was putting on myself would have been avoided. (Athlete R, interview 2)

In this issue (see Figure 4), the coach was the initiator of on-going messages and the issue was the athlete’s performance [1]. The sociocultural system was affecting the athlete as she put pressure on herself to live up to the status of being named to the team [2]. In addition neither the coach nor the athlete appeared clear concerning appropriate goals for her [3]. The athlete’s confidence was low [4] and her emotional feedback [5] added to the coach’s frustration concerning her performance, changing his attitude toward her [6].

This athlete, similar to Athlete P cited above, expressed that she felt a pressure to perform and live up to her selection to the junior national team. This issue, “What happened to the coachable athlete?”, demonstrated a deterioration of effective coach-athlete communication that was affected by external pressure on the coach and pressure to perform on the athlete. The result was a loss of confidence and belief for both the coach and the athlete. The athlete in this incident was very clear that believing in herself and feeling that the coaches believed in her helped her perform well

and enhanced her learning. In the following response Athlete R even went further to make the link between belief, confidence and effective communication.

YOU SEEM TO HAVE MADE THE RELATIONSHIP THAT WHEN YOU ARE COMMUNICATING WELL WITH

THE COACHES, YOUR CONFIDENCE IS HIGHER?

Yeah, definitely! That’s really key. Definitely... Because you start to go with assumptions when you are not communicating well, even if they’re not true, which is really bad. That’s really, really key. (Athlete R, interview 2)

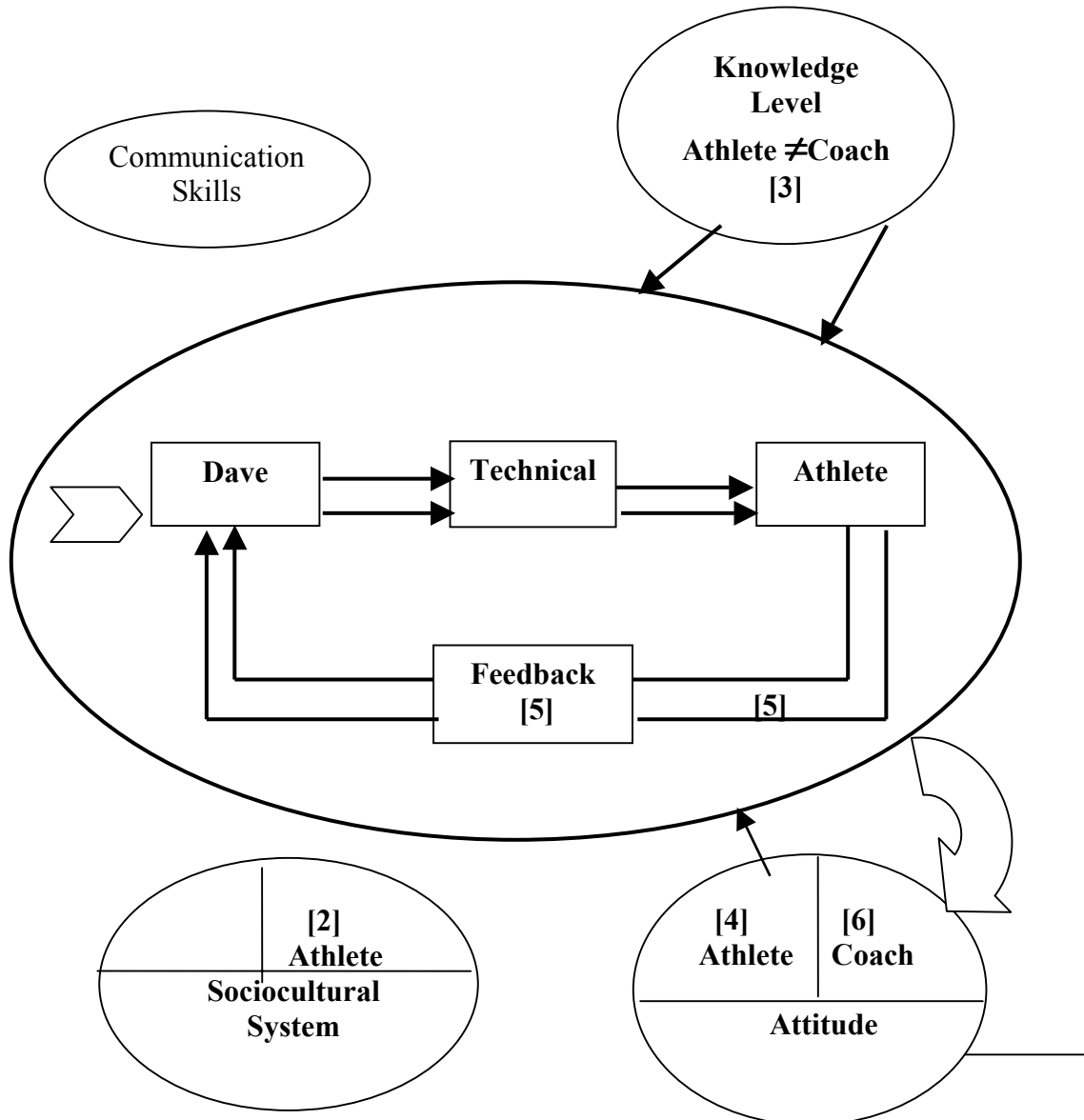


Figure 4: “What happened to the coachable athlete?”

Theme # 1: The importance of positive coaching

On the whole the coaches of this team were positive in their style of coaching, and several athletes were explicit about the importance of the relationship between coaches being positive and athletes communicating more effectively with their coaches. One athlete reflected on her experience with a previous coach, “Things were so much better when he was positive. I understood skiing more, and then I started to tell him what I wanted” (Athlete P, interview 1). These words describe clearly the progression of an athlete who felt that when the coach was more positive, she was more able to participate openly in the communication process. Even at the World Cup level, the importance of positive coaching and belief were evident, as indicated by this athlete:

... at the level that I am racing at now, at World Cup, it's not a lot of technical coaching that you really need, it's more you need a lot of emotional support, motivational support. You have to really believe that the coach believes in you... and that they coach positively. (Athlete B, interview, late season)

The importance of being positive is well documented in the coaching literature (CAC, 1989; Martens, 1997; Nakamura, 1996; Orlick, 1986). Smith, Smoll, and Curtis (1979) found that a positive interpersonal climate was conducive to greater athlete satisfaction, and higher self-esteem. The women in this study were adamant about the importance of a coach being positive. They felt they communicated more effectively, learned better, and performed better in a positive atmosphere. Beyond feedback and other coaching interactions, the women said

that it was very important to them to have fun, to enjoy what they were doing.

Theme # 2: Enjoyment

The data show that the words used by the coaches and the athletes were very similar regarding the importance of having an interactive approach to communication. However, a close reading of the transcripts showed that this communication should, as far as the coaches were concerned, take place within the parameters of hard work. Their view on hard work is understandable. In his book for coaches, Orlick (1986) stated: “Leading Olympic athletes work incredibly hard to achieve the highest level of performance, regardless of sport or country of origin” (p. 1). The athletes, for their part, put greater emphasis on the importance of a positive, agreeable environment in which to work. The aspect of “fun” or “enjoyment” is considered important to young amateur athletes (Boyd, Trudel, & Donohue, 1997), Olympic athletes (Werthner, 1998), professional athletes (Barbour, 1994), and even internationally renowned classical musicians (Talbot-Honeck & Orlick, 1998). Strong (1992) found that in youth sport, learning skills and having fun were among various phenomena that were not seriously pursued when winning became the most important reason for participating. It seems likely that this junior national team might have presented a particular communication challenge because the level and age of the athletes placed them in a transition period in which winning was important. At the same time learning skills was still very important for the proper development of the athletes, and having fun was viewed by the athletes as an essential element of their continued desire to persist.

There are however examples where “fun” is not permitted. A recent article by d’Arripe-Longueville, Fournier, and Dubois (1998), about the perceived effectiveness of interactions between expert French judo coaches and elite female athletes goes completely against the idea of coaches being positive, open communicators that show respect for their athletes. The coaches in the French study were authoritative and they purposely used different strategies to maintain their authority, and their athletes displayed strategies that demonstrated compatibility between them and the coaches, regarding effective interactions. Such strategies are totally the opposite of those recommended in North American coaching literature. There are four sub-cultural groups involved in these differences: European versus Canadian and judo versus skiing. Even though the judo sub-culture can be very distinct, there is evidence that national culture might be predominant in determining what coaching style will be accepted by athletes. Moraes (1998) found that traditional Japanese judo coaches had to change their autocratic style to be effective in the Canadian context. Canadian teenagers are part of mainstream North American culture, and the athletes that compete on the national team in this study come from an environment in which choice is an integral part. They indicated a clear choice to commit themselves to the sport, but not at the expense of having their enjoyment taken away from them. These are the words of one of the athletes.

But a big part of it for me is also having a lot of fun. Because, I don’t know, I kind of decided this year, I like, you never know how long you are going to get to ski. You can always be injured.

You have got to make the best of every year and enjoy it and we’re pretty lucky to go where we get to go, so I don’t want anyone or anybody to get in my way of enjoying it. And I think that is also like the coaches have got to know. I like working hard and I have no problem with that, but you have got to enjoy it too. I improve usually lots when I’m having fun, even thinking less about my skiing. (Athlete R, interview 1)

The World Cup athlete echoed the younger athletes. “I came to the bottom line this year and said, ‘I want to be happy with what I am doing and I want to enjoy what I do’ ” (Athlete B, late season interview).

Scanlan and Lewthwaite’s (1986) sport commitment model maintains that commitment is a product of cognitive and affective factors. The cognitive component involves weighing up of the relative desirability of alternative activities. The affective component is sport enjoyment. As declared, the athletes in this study have choices. They choose to be ski racers, but if their enjoyment of the activity is removed, they indicate they will choose to do something else. The French judo coaches are not concerned if their negative approach scares away the odd athlete. They say that they have plenty more to fill that spot. Apart from the moral and philosophical issues that underlie the recommended North American coaching approach, Canada can not afford to chase away its elite athletes, since the country does not have great numbers of them.

Closely related to the connection between the coach being positive and demonstrating belief in the athlete, the communication improving and the ath-

lete's confidence increasing, is the issue of what happens when the athlete is going through a period of poor performances.

... I think a coach has to stick with you in the good times and the bad times... Dave and Charles are great, because, they don't, they understand that you are not going to have a good day everyday. And that is when you really need a coach, to get you through the bad times because the faster you can do that the better you are going to be. But I think that the coaches that have been the best for me are the ones that can help me on the bad days, to get through them, and overcome those days. Because I think that more you can overcome those days the better skier you are going to be, because you will know how to deal with them and overcome them... In those times I find it really hard to tell coaches, "Listen, I need more support here". Like that is the hardest thing that I have to say. (Athlete R, interview 1)

This athlete described the how the ability of the coach to stay positive even when the athlete is experiencing a bad day is critical to the learning process. Three elements of the "Wheel of Excellence" (Orlick, 1996), belief, constructive evaluation, and positive images are intertwined in her words. The last two sentences refer to another significant theme raised in this study; that is, psychological messages and who initiates them.

Theme # 3: Communication regarding psychological issues

When the participants were asked who initiated the messages according to the different referents (technical, tactical, and psychological) there were some in-

dividual differences, but the athletes seemed to feel that the coach was the initiator of more messages concerning technique and tactics. The coaches' and the athletes' perceptions on this division of initiating matched. On the contrary, messages concerning psychological issues seemed to be a problem in terms of who actually initiated them. The coach felt that these other messages should be addressed first by the athletes. Here is the coach's view on this matter:

I think it is individual, but I think there are trends as far as technical, versus tactical versus psychological, emotional that sort of thing. I'll give you an example, technical for sure there is open dialogue but it's more initiated by me. I'd say it's sort of like a 70/30 or 60/40 split, me 60% and them 40%... A lot of times they need me to take the first step, in the technical stuff and then we talk. I'll say something about this and then they'll answer in their own way, how they felt and then we can start talking about it, just so we establish a connection there. Tactically it's more of a 50/50 thing because I can't ski down the hill for them, I need to know what they see, so when we talk about tactics, I can give them my perspective but I can't give them the perspective of skiing down the hill so it's more 50/50... The other thing is I guess, the personal, psychological, emotional thing, where I think that it swings more to them, because I can see something is wrong, but I really don't know what it could be, and I don't feel like pushing and prying, you know? ... If they have a problem they need to tell me... I think they need to initiate and then we can talk. I just am not a sport psychologist. I'm not a pro in that area and I'd like for them to be able to take

the first step in those things. (Dave, interview 2)

The comments from two athletes confirm that the coaches speak to them most readily about technical and tactical matters, and do not initiate concerning psychological issues. The younger athletes indicated that they found it very difficult to initiate these types of messages.

In the technical, I'd say like 60/40, coaches to athletes. Tactical I'd say 80/20. Because that is something they kind of have to tell you, especially on the course. Emotionally, psychologically, they don't initiate anything, so it's all us (laughs), but that's hard for me. (Athlete R, interview 2).

...For sure Dave talks to me most often about technique. But he lets me go on my own with that. Tactically, he is starting to talk to me more since that is what I am working on. Then psychologically, (she laughs) he does not talk to me about those things... (Athlete S, interview 2)

Thus, concerning psychological messages, the athletes found it very difficult to approach the coaches with these problems and the coaches felt that it was not up to them to initiate messages regarding such issues. As a result coach-athlete communication regarding this whole area of support was a problem. As a society we recognise that these issues are not easy to talk about; thus the existence of a variety of professions cantered around the act of counseling. The coaches in this study felt that it was beyond their capacity to deal with “heavy” psychological issues. Nonetheless, the job of coaching does require

the effective coach to be able to understand many psychological aspects. One of the attributes of great coaches is that they listen to others (Bloom, 1996).

Interestingly, Egan (1998) sees empathy as an intellectual process which he presents as a communication skill, made up of empathic listening and the ability to communicate this understanding to the other person. Athletes, like anybody else need to feel empathy if they are going to divulge their psychologically related problems, including showing their emotions. As pointed out by the World Cup athlete in this study, this type of support is perhaps the most important requirement for many athletes, especially at the elite levels (see also Werthner, 1998). Several incidents in this study showed that to avoid communication about difficult issues led to further problems.

Effective communication depends on mutual sharing and understanding (Orlick, 1986). The word communication comes from the Latin *communico*, which means to share. Furthermore the word respect is from a Latin derivative that includes the idea of “seeing” or “viewing” another person’s value (Egan, 1998). Athletes need to share and coaches need to show respect and empathy. Sharing requires trust and assertiveness, on the part of the sender, and empathy on the part of the receiver. The women and coaches in this study had some problems with these, especially when the pressures of the competitive season were upon them.

Several authors have noted the importance of athletes learning to be assertive and to stand up for things that are important to them (Connolly & Rotella,

1991; Howe, 1993). Despite this, Connolly and Rotella also noted that sport psychology consultants working with athletes to help them communicate effectively often fail to prepare athletes with the required skills. In the present study, there is also clear evidence that the younger athletes have a harder time expressing their concerns, and do not want to appear like complainers to the coaches. According to the literature, people have difficulty being assertive for such reasons as worrying what others will think of them, lack of confidence, vulnerability, and lack of awareness (Connolly & Rotella, 1991; Egan, 1998). Connolly and Rotella found as consultants that some athletes have been socialized to fake honesty in communication so as to appear to “agree” with the coach in order to stay on the coach’s good side. This concern with looking good to the coaches surfaced in the incident “When silence means neglect”. In the same incident, the coach and the athletes recognised that lack of confidence was an issue for the athletes. The two athletes involved in this incident, Athletes T and R were feeling vulnerable, not having been selected to travel to the World Juniors with the rest of the team. It is not surprising that these adolescent athletes had trouble asserting themselves, and communicating effectively with their coaches. Assertiveness is a social behavior that requires time and practice to learn (Yukelson, 1998). Older athletes may learn to be more assertive, but considering their standing in the prevailing sociocultural system, athletes might need their coaches help to open communication. Coaches can do this by creating an environment that encourages their athletes to initiate communication (Yambor, 1998).

Conclusion

The coaches and athletes agreed on the ideal communication process in sport. The first interviews indicated on one hand, the desire of the coaches to provide a training environment in which communication was open and, on the other hand, the wishes of the athletes to be able to talk to their coaches. Observation revealed that this ideal of two-way communication got lost, at times, in the heat of the action. The analysis of specific incidents using the Fuoss and Troppmann (1981) model demonstrated how effective coach-athlete communication is an important part of the pursuit of excellence, affecting and being affected by such essential elements as belief, confidence, and enjoyment. This study has raised important issues concerning the education of coaches and the training of athletes in assertiveness. A clinic on coach-athlete communication at the start of the season or during coaching courses is unlikely to be satisfactory, as it was only when coaches and athletes were in action that problems arose. Furthermore, each problem occurred in a particular context. Instead, a case study approach similar to that used in educating doctors and business people might be envisioned. Both coaches indicated that they learned a lot from participating in the study, even though the primary objective was not to train the coaches. Dave said that reading through the analysis of the interactions was amazing, and added: “It’s like having a video of your self working, but better because you get to see it from the other people’s view too”. The reading of the incidents was akin to having a mirror of his work that allowed him to see behind each individual’s words and actions, helping to explain why communication did not always go as well as it might.

Sport psychology consultants concerned with communication problems could

adopt the methodology used in this study.

References

Allen, J. B. & Howe, B. L. (1998). Player ability, coach feedback, and female adolescent athletes' perceived competence and satisfaction. Journal of Sport and Exercise Psychology, 20, 280-299.

Anshel, M. (1990). Sport psychology: From theory to practice. Scottsdale, AZ: Gorsuch Scarisbrick.

Barbour, S. A., Orlick, T. (1994). Mental skills of National Hockey League players. , Journal of Excellence, Issue No.2 .

Bernard, D. (1998). Le sport en crise morale. Avante, 4(3), 141-147.

Bloom, G. A. (1996). Life at the top. In J. H. Salmela (Ed.), Great job coach! (pp. 139-178). Ottawa, ON: Potentium.

Bloom, G. A., Schinke, R. J., & Salmela, J. H. (1997). The development of communication skills in elite basketball coaches. Coaching and Sport Science Journal, 2(3), 3-10.

Boyd, D., Trudel, P., & Donohue, J. (1997). Perceptions of learning opportunities in youth women ice hockey. Avante, 3(2), 31-56.

Chaumeton, N. R., & Duda, J. L. (1988). Is it how you play the game of whether you win or lose?: The effect of competitive level and situation on coaching behaviors. Journal of Sport Behavior, 11, 157-174.

Cheffers, J. T. F., & Mancini, V.H. (1989). Cheffers' adaptation of Flanders' interaction analysis system. In P. W. Darst, V. H. Mancini, & D. B. Zakrajsek (Eds.), Systematic observation for physical education (pp. 119-135). Champaign, IL: Human Kinetics.

Coaching Association of Canada (1989). National coaching certification program: Level one theory. Gloucester, ON: CAC.

Connolly, D., & Rotella, R. J. (1991). The social psychology of assertive communication: Issues in teaching assertiveness skills to athletes. The Sport Psychologist, 5, 73-87.

Côté, J., Salmela, J. H., Trudel, P., Baria, A., & Russell, S. (1995). The coaching model: A grounded assessment of expert gymnastic coaches' knowledge. Journal of Sport and Exercise Psychology, 17, 1-17.

Culver, D. M. (1999). Coach-athlete communication within a National Alpine Ski Team. Unpublished master's thesis, University of Ottawa, Ottawa, Ontario, Canada.

Dale, J., & Weinberg, R. (1990). Burnout in sport: A review and critique. Journal of Applied Sport Psychology, 2, 67-83.

d'Arripe-Longueville, F., Fournier, J. F., & Dubois, A. (1998). The perceived effectiveness of interactions between expert French judo coaches and elite female athletes. The Sport Psychologist, 12, 317-332.

Egan, G. (1998). The skilled helper: A problem management approach to healing (6th ed.). Pacific Grove, CA: Brooks Cole.

Fuoss, D. E. & Troppmann, R.J. (1981). Effective coaching: A psychological approach. New York: Wiley.

Horne, T., & Carron, A. (1985). Compatibility in coach-athlete relationships. Journal of Sport Psychology, 7, 137-149.

Howe, B. (1993). Psychological skills and coaching. Sport Science Review, 2(2), 30-47.

Kelle, U. (1995). Computer-aided qualitative data analysis. London: Sage.

Lacy, A. C., & Darst, P. W. (1984). The evolution of a systematic observation instrument. Journal of Teaching in Physical Education, 3, 59-66.

Laker, A. (1993). Teachers' and pupils' perceptions of lesson content in physical education. Unpublished doctoral dissertation, University of Northern Colorado, Colorado.

Martens, R. (1987). Science, knowledge, and sport psychology. The Sport Psychologist, 1, 29-55.

Martens, R. (1997). Successful coaching (updated 2nd ed.). Champaign, IL: Human Kinetics.

Miles, M. B., & Huberman, A. M. (1994). Qualitative data analysis (2nd ed.). Thousand Oaks, CA: Sage.

Moraes, L. C. (1998). Beliefs and actions of traditional and modern expert judo coaches. Unpublished doctoral dissertation, University of Ottawa, Ottawa, ON.

Nakamura, R. (1996). The power of positive coaching. Boston: Jones and Bartlett.

Orlick, T. (1986). Coaches' training manual to psyching for sport. Champaign, IL: Human Kinetics.

- Orlick, T. (1996). The wheel of excellence. Journal of Performance Education, 1, 3-18.
- Orlick, T. & Partington, J. (1986). Psyched: Inner views on winning. Ottawa, ON: Coaching Association of Canada.
- Partington, J., & Orlick, T. (1987). The sport psychology consultant: Olympic coaches' views. The Sport Psychologist, 1, 95-102.
- Qualitative Solutions and Research Pty Ltd. (1997). QSR NUD.IST (Version 4.0), [Computer software]. Victoria, Australia: Author.
- Sallis, J. F., & Patrick, K. (1996). Physical activity guidelines for adolescents: A consensus statement. Pediatric Exercise Science, 6, 302-314.
- Salmela, J. H. (1996). Great job coach! Ottawa, ON: Potentium
- Scanlan, T. K., & Lewthwaite, R. (1986). Social psychological aspects of competition for male youth sport participants: IV: Predictors of enjoyment. Journal of Sport Psychology, 8, 25-35.
- Smith, R. E. (1988). The logic and design of case study research. The Sport Psychologist, 2, 1-12.
- Smith, R. E., Smoll, F. L., & Curtis, B. (1979). Coach effectiveness training: A cognitive-behavioral approach to enhancing relationship skills in youth sport coaches. Journal of Sport Psychology, 1, 59-75.
- Smith, R. E., Smoll, F. L., & Hunt, E. B. (1977). A system for the behavioral assessment of athletic coaches. Research Quarterly, 48, 401-407.
- Spink, K. (1991). The psychology of coaching. New Studies in Athletics, 6(4), 37-41.
- Strauss, A. (1987). Qualitative analysis for social scientists. Cambridge: Cambridge University Press.
- Strong, J. M. (1992). A dysfunctional and yet winning youth football team. Journal of Sport Behavior, 15, 319-327.
- Talbot-Honeck, C., & Orlick, T. (1998). The essence of excellence: Mental skills of top classical musicians. Journal of Excellence, 1, 66-81.
- Tharp, R. G., & Gallimore, R. (1976). What a coach can teach a teacher. Psychology Today, January, 75-78.
- Trudel, P., & Côté, J. (1994). Pédagogie sportive et conditions d'apprentissage. Revue Enfance, 2-3: 285-297.

Trudel, P., Côté, J., & Bernard, D. (1996). Systematic observation of youth ice hockey coaches during games. Journal of Sport Behavior, 19, 50-65.

Trudel, P., & Gilbert, W. (1995). Research on coaches' behaviors: Looking beyond the refereed journals. Avante, 1(2), 94-104.

Werthner, P. (1998). Investigating the preparation and perspectives of eight high performance athletes. Unpublished doctoral dissertation, University of Ottawa, Ottawa, ON.

Wilcox, S., & Trudel, P. (1998). Constructing the coaching principles and beliefs of a youth ice hockey coach. Avante, 4(3), 39-67.

Yambor, J. (1998). Coach-athlete issues. In M. A. Thompson, R. A. Vernacchia, & W. E. Moore (Eds.), Case studies in applied sport psychology: An educational approach (pp. 115-138). Dubuque, IO: Kendall/Hunt.

Yukelson, D. (1998). Effective communication. In J. M. Williams (Ed.), Applied sport psychology (3rd ed.) (pp. 142-157). Mountain View, CA: Mayfield.