Investigating the Idiosyncratic Learning Paths of Elite Canadian Coaches

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ABSTRACT
Researchers have investigated how coaches, from the recreational to the elite level of coaching, learn to coach. Many different learning situations have been identified in the research, yet the question remains: How is it that one coach’s learning path emphasizes certain learning situations as key, and yet another coach’s learning path emphasizes quite different situations? Fifteen Canadian Olympic coaches were interviewed to better understand the coaches’ idiosyncratic learning-path phenomena. The findings provide an example of: (a) how coaches within a specific and similar context, in this case Olympic level sport, can differ dramatically regarding the importance that common learning situations have played in their development, and (b) how previous learning and experiences influence what coaches choose to pay attention to and therefore choose to learn. The coaches’ idiosyncratic learning paths are also discussed in terms of coach development.

Key words: Coach Development, Life-long Learning, Mentoring, Olympic Coaches

INTRODUCTION
The research literature in coaching science continues to grow [1] as more and more research has been conducted to understand, among other topics, the coaching process and how coaches learn to coach. Trudel and Gilbert [2] discuss a recent change in large-scale coach education programs, where program developers are moving away from a novice-to-expert continuum approach based on the assumption that “there is one body of coaching knowledge and coaches will accumulate the coaching concepts as they progress along the continuum” (p. 518) to an approach that recognizes the necessity to develop coach-specific competencies depending on the coaches’ contexts. The Canadian National Coaching Certification Program (NCCP) is a good example of this shift. The Coaching Association of Canada (CAC) conducted, in the mid-nineties, an evaluation process of the strengths and weaknesses of the NCCP [3] and based on the results they chose a competency-based approach which means that coaches will be trained and certified based on proven abilities to ‘do’ instead of on what they ‘know’. Even more:

Reviewers: Tania Cassidy (University of Otago, New Zealand)
Jim Denison (University of Alberta, Canada)
The new structure of the NCCP is designed to take into account the different types of coaches who contribute to the Canadian sport system and the environment or context in which they coach. [4].

The New NCCP, launched in 2005, is designed to train coaches in eight contexts divided among three streams: the community sport stream (initiation, ongoing participation); competition stream (introduction, development, high performance); and the instruction stream (beginners, intermediate performers, advanced performers) [5]. An interesting feature of the program is that coaches will be able to progress both vertically and horizontally. For example, in the competition stream, a coach can choose to move progressively from the introduction context to developmental to high performance or can make a ‘career’ within a context and progress from a ‘trained coach’ (completed training but not yet evaluated), to a ‘certified coach’ (competence demonstrated and evaluated), to an ‘advanced coach’ (additional training and evaluation), to finally reach the ‘master coach’ level (additional training and evaluation) [6].

COACH DEVELOPMENT LITERATURE IN DIFFERENT COACHING CONTEXTS

Although the importance of having coach education programs more tailored to the coaches’ specific needs has been mentioned by many researchers [7-9], what do we really know about coach development in the different contexts? Using a review of literature on coaching sciences between 1970-2001 [1], Trudel and Gilbert [2] provide a portrait of the typical coach in three coaching contexts: recreational, developmental, and elite. Without going in depth, the authors provide some information of coaches’ education and experiences. In an effort to complement and update Trudel and Gilbert’s work, we searched for any empirical studies published since 2002 in which information on how coaches learn to coach were provided (see Table 1). For each article, we present the authors and the year of publication along with information that, when taken together, help define the coaching context and the nature of the study. As we can see, seven of the 15 studies were conducted with coaches in Canada, three studies with USA coaches, two with UK coaches, two with Australian coaches and one study that regrouped coaches from UK, Australia, and New Zealand. When taken together the category ‘Terms used by the authors’ to qualify their participants and the category ‘Coaching athlete at a …. level’ we see that the terms expert, elite, and high-performance are used to qualify coaches working with athletes at either the elite, the national, the international, the Olympic, or the university levels.

If, as discussed earlier, the importance of the coaching context really matters, it will be useful to have discrete categories to qualify the coaches. In the meantime we concur with Abraham et al. [10], who would “encourage an open debate in the literature to discuss what, explicitly, constitutes an expert coach, so that more explicit criteria can be used in future studies” (p. 552). Among the 15 studies, four were conducted with coaches qualified as youth-sport coaches. What can be problematic here is the large spectrum that this designation covers. The coaching context for children of 4-7 years of age is certainly different from the one for 14-17 years of age. The tendency of researchers to regroup recreational and developmental sport coaches under the youth-sport coach descriptor has been underlined by Trudel and Gilbert [2]. The study by Erickson et al. [11] differs from the other studies in that the researchers recruited their participants via CAC’s national coach directory therefore conducting a study that corresponds to a national sport organization’s classification of coaching contexts. Finally, we can say that the recent data on coaches’ development comes
### Table 1. Update on Review of the Literature on How Coaches Learn to Coach, 2002-2008

<table>
<thead>
<tr>
<th>Authors, year</th>
<th>Country</th>
<th>Terms Used by the Authors</th>
<th>Coaching Athletes at the Level</th>
<th>No. of Coaches</th>
<th>No. of Sports</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abraham et al., 2006</td>
<td>UK</td>
<td>Expert</td>
<td>Elite or developmental</td>
<td>16</td>
<td>13</td>
<td>(1)*</td>
</tr>
<tr>
<td>Bloom &amp; Salmela, 2006</td>
<td>Canada</td>
<td>Expert</td>
<td>National or international</td>
<td>16</td>
<td>4</td>
<td>(1)</td>
</tr>
<tr>
<td>Erickson et al., 2007</td>
<td>Canada</td>
<td>High-performance</td>
<td>University</td>
<td>19</td>
<td>9</td>
<td>(2)</td>
</tr>
<tr>
<td>Erickson et al., 2008</td>
<td>Canada</td>
<td>Developmental</td>
<td>Developmental</td>
<td>44</td>
<td>many</td>
<td>(2)</td>
</tr>
<tr>
<td>Gilbert et al., 2006</td>
<td>USA</td>
<td>Successful</td>
<td>- High school</td>
<td>15</td>
<td>3</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Community college</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Division I college</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irwin et al., 2004</td>
<td>UK</td>
<td>Elite</td>
<td>International</td>
<td>16</td>
<td>1</td>
<td>(1)</td>
</tr>
<tr>
<td>Jones et al., 2004</td>
<td>UK, Australia, New Zealand</td>
<td>Expert</td>
<td>National or international</td>
<td>8</td>
<td>5</td>
<td>(1)</td>
</tr>
<tr>
<td>Lemyre et al., 2007</td>
<td>Canada</td>
<td>Youth-sport</td>
<td>7-17 year old (recreational or developmental)</td>
<td>36</td>
<td>3</td>
<td>(1)</td>
</tr>
<tr>
<td>Lynch &amp; Mallett, 2006</td>
<td>Australia</td>
<td>High-performance</td>
<td>National or international</td>
<td>5</td>
<td>1</td>
<td>(1)</td>
</tr>
<tr>
<td>Reade et al., 2008 (a)</td>
<td>Canada</td>
<td>High-performance</td>
<td>University</td>
<td>205</td>
<td>19</td>
<td>(2)</td>
</tr>
<tr>
<td>Reade et al., 2008 (b)</td>
<td>Canada</td>
<td>High-performance</td>
<td>University</td>
<td>20</td>
<td>11</td>
<td>(1,2)</td>
</tr>
<tr>
<td>Vargas-Tonsing, 2007</td>
<td>USA</td>
<td>Youth-sport</td>
<td>4 - 16 year old</td>
<td>366</td>
<td>6</td>
<td>(2)</td>
</tr>
<tr>
<td>Wiersma &amp; Sherman, 2005</td>
<td>USA</td>
<td>Youth-sport</td>
<td>7 - 14 year old</td>
<td>25</td>
<td>5</td>
<td>(1)</td>
</tr>
<tr>
<td>Williams &amp; Kendall, 2007</td>
<td>Australia</td>
<td>Elite</td>
<td>Olympic (summer)</td>
<td>222</td>
<td>19</td>
<td>(2)</td>
</tr>
<tr>
<td>Wright et al., 2007</td>
<td>Canada</td>
<td>Youth-sport</td>
<td>8 - 17 year old (competitive)</td>
<td>35</td>
<td>1</td>
<td>(1)</td>
</tr>
</tbody>
</table>

*Type of methods used to collect the data: 1= qualitative, 2 = quantitative
from both quantitative and qualitative research, which is good news considering that: “Coaching science research has overwhelmingly been guided by quantitative research epistemology” [1] and that “qualitative research seeks to understand the meaning of experience to the participants in a specific setting and how the components mesh to form a whole” [12, p. 332].

As we read the articles cited in Table 1, we can identify a number of sources of information that coaches used to develop their knowledge. The studies with expert/elite/high-performance coaches report that the coaches at that level started their development when they were athletes. Their first couple of years in coaching as an assistant or head coach were often characterized by an obligation to take formal coach education courses. Because most of these coaches considered that this latter source of information provides only partial knowledge on the coaching process they looked for other sources, such as mentoring (formal or informal), clinics/seminars, interacting with other coaches, observing other coaches, sport scientists, and print/electronic material. The studies with youth-sport coaches reveal that these coaches used roughly the same sources of information as the elite coaches with the exception of the use of sport scientists, which they could not afford [13]. In many of these studies it was mentioned that how these sources of information were used varied considerably from coach to coach, which brought Abraham et al. [10] to conclude that coaches’ “development has occurred through serendipitous methods as opposed to a structured program – in short, these coaches are magpies not filing cabinets” (p. 560).

COACHES’ LEARNING PATH
The identification of these sources of information, such as coaching courses, mentoring, and interacting with other coaches, is certainly an important step in our effort to understand how coaches learn to coach. However, this information is of little use if we do not extend our search to explain the variations or idiosyncrasies that seem to prevail in the coaches’ learning paths within different coaching contexts. An idiosyncrasy has been defined as “an individualizing characteristic or quality” [14]. Recent studies in teaching and learning have noted the idiosyncratic nature of learning [15-19]. For example, one of these studies noted the idiosyncratic character of student teachers’ learning [15] and another found that the use of portfolios for continuing professional development were “idiosyncratic and demonstrated accomplished practice and reflective analysis in different ways” [17, p. 675]. Indeed, one recent study in sport, comparing the developmental experiences of elite and sub-elite swimmers, found commonalities as well as “idiosyncratic psychological differences resulting from these athletes’ experiences” [20, p. 454].

Commenting specifically on the literature on how coaches learn to coach, Werthner and Trudel [21] said:

> While the identification of coaches’ learning sources is valuable, it can be argued that the investigations should not stop here. In fact, attempting to identify which sources are more important than others [22], without looking at the coaches’ learning process in these situations, may limit any initiative to provide the best learning environment for coaches. [21, p. 199]

Using Moon’s [23, 24] main concepts of learning, these authors proposed a new theoretical perspective for understanding how coaches learn how to coach and the subsequent implications for coach education. Central to this constructivist view of learning is the concept of one’s cognitive structure, which can be understood as a network of knowledge,
feelings, and emotions, which represents “what the learner knows at any one particular time” (p. 201): “Therefore learning should be viewed as a process of changing conceptions (the cognitive structure) and not to simply accumulate knowledge” (p. 201). Thus what coaches choose to pay attention to or what they choose to learn will depend on their cognitive structure at any one point in time [25]. The authors defined three main types of learning situations (mediated, unmediated, and internal) under which we can regroup a number of more specific learning situations. In mediated learning situations, such as coaching courses and clinics, the presented material is decided upon and directed by a person other than the learner. In unmediated learning situations, there is no instructor or teacher, and the learner takes the initiative and is responsible for choosing what to learn. In the third type of learning situation, the internal, the learner is not exposed to new material, but rather reconsiders or reflects on existing ideas in his/her cognitive structure. Moon used the expression “cognitive housekeeping” (p. 27) to illustrate this third type of learning situation. Considering that learning is both an individual and a social process [24, 26], and that each individual has his/her own life history, it is most likely that even individuals sharing similar coaching roles, within a similar coaching context, will emphasize different learning situations [25].

PURPOSE
In a previous article [21] we suggested that elite coaches’ learning paths were idiosyncratic, and using a case study, illustrated how a coach’s cognitive structure influenced his approach to different learning situations and how the learning from participating in the learning situations changed his cognitive structure. The purpose of this article is to extend our previous study by answering the following research questions: (a) How do Canadian Olympic coaches differ regarding the importance that several common learning situations play or have played in their development?, (b) How does a coach’s cognitive structure (knowledge, feelings, emotions) influence what she/he chooses to learn, and how do those choices in learning situations create a unique learning path?

METHOD
PARTICIPANTS
Fifteen Canadian Olympic coaches, 4 women and 11 men, ranging from 36-56 years of age participated in this study. All of the coaches met the following criteria: a) had been coaching at the national and international levels for at least 10 years, b) had been an Olympic coach, and, at the time of the interview, c) were coaching athletes(s) with at least one top ten result in the world within the previous two years. The coaches represented a wide range of sports (n = 1 unless stated): athletics, canoe/kayak (n = 2), figure skating, freestyle ski, gymnastics, ice hockey, Paralympic athletics, soccer, speed skating (n = 3), rowing (n = 2), and wrestling. At the time of the interview, 12 of the 15 were employed full time as coaches and three were part time coaches. Six of the coaches had been Olympic athletes themselves and seven were born outside of Canada; in Australia, Russia, Sweden, China, Norway, Romania, and the United States.

DATA COLLECTION
With formal ethical approval in place, coaches who met the criteria were contacted via telephone and invited to participate in a face-to-face interview. All 15 coaches agreed to participate. In-depth interviews were held with each coach, in locations throughout Canada, and each interview lasted from 2 to 3 hours. The primary question that guided the interviews was: What do you feel has helped you develop as a skilled coach? This was a broad, open-
ended question intended to enable the primary researcher and each of the coaches to discuss all of the various ways they may have learned and developed as a coach. To aid in the dialogue and also effectively explore the less formal learning situations, several sub-questions were prepared, and used, when necessary. These sub-questions addressed topics such as formal education, formal coaching courses, clinics and conferences, interactions with others (coaches, athletes, etc.), mentoring, the Web, DVDs, and books, and the process of self-reflection. These topics were based on a review of the existing coaching literature (see references in Table 1 and [27-30]). As Jones and Wallace [31] have noted, the answers you reach depend on the questions you ask, and we argue that with a simple, open-ended, initial question, the environment was created to allow the coaches to speak broadly about how they had learned to coach. The sub-questions were used, when needed, to ensure that we explored all the possible ways the coaches might have learned.

DATA ANALYSIS

The individual interviews were audio-recorded and transcribed verbatim, resulting in a data corpus composed of 20-25 pages single-spaced. Each transcript was then e-mailed to the coaches for any comments or clarifications. One coach did e-mail back with a brief clarification and the adjustment was made.

Using Braun and Clarke’s [32] terminology and definitions, a thematic analysis was conducted. For these authors, thematic analysis is what many qualitative researchers are doing when they want to analyze their data without subscribing to a particular framework (e.g., grounded theory, discourse analysis, interpretive phenomenological analysis, etc.). Because of this theoretical freedom, “thematic analysis provides a flexible and useful research tool, which can potentially provide a rich and detailed, yet complex, account of the data” (p. 79). The phases to perform a thematic analysis are similar to the phases of other qualitative approaches and include: familiarizing oneself with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. In the phase of identification of themes or patterns, a decision has to be made between performing an inductive analysis or a theoretical thematic analysis (deductive). Researchers should select the type of analysis that will best answer their research questions. In our case, and for the purpose of this article, the first task was to read the corpus of data to identify for each coach the different learning situations that have influenced her/his development. Considering that we have used the literature to identify potential learning situations to prepare the sub-questions of the interview guide, and to help in selecting codes, the analysis performed was theoretical thematic analysis. Our theoretical thematic analysis is characterized by a semantic approach because in such an approach:

…the analytical process involves a progression from description, where the data have simply been organized to show patterns in semantic content, and summarized, to interpretation, where there is an attempt to theorize the significance of the patterns and their broader meanings and implications…, often in relation to previous literature (p. 84).

As will be evident in the results section, we did not limit our analysis to the different learning situations, but we reached the interpretation level by using Moon’s [24] and Jarvis’s [26] work to highlight the idiosyncratic nature of the coaches’ learning situations and learning paths.
RESULTS
The results are divided into two sections corresponding to our research questions. In the first section, the profile of the 15 coaches for the five common learning situations are presented, using extracts from the interviews to highlight the major variations between coaches. In the second section, three case studies are presented to illustrate how each coach’s unique cognitive structure influenced their learning and ultimately their learning path.

VARIATIONS WITHIN THE COMMON LEARNING SITUATIONS
Table 2 contains the five common learning situations that the majority of the 15 coaches perceived as important to their development as coaches. These learning situations were: (a) past experiences as an athlete; (b) formal education, in a recognized educational institution; (c) coaching courses and clinics; (d) the utilization of a process of mentoring; and (e) a sustained thinking state regarding coaching that we labeled ‘always thinking about’. For the purpose of this study, what is important to note is that even within each of these common learning situations there were still variations in emphasis among the fifteen coaches.

Experience as an Athlete. In looking at experiences as an athlete, we found that 13 of the 15 coaches had competed in sport at the national level, and 6 of those coaches competed at the Olympic level. When those coaches elaborated on the possible benefits of having been an athlete, in terms of learning how to coach, several of the coaches spoke strongly about the subtle but crucial perspective it provided them. One coach spoke of the importance of understanding the feeling of executing certain technical skills: “I was a gymnast myself and I still use that awareness in my coaching process because I remember exactly how I did it as an athlete” (C 10). Another coach felt that he gained a great deal of knowledge from having competed, but felt it did not have to be at the highest level: “If you have not been there, it is hard to teach it - I won't say it is impossible, but it's hard. But often it's not the very best players that are the best coaches. It is often the next best players, because they had to think more” (C 7).

Another coach felt that what shaped his coaching from his time as an athlete was, in fact, not having a coach on tour:

“I was often in Europe for a month at a time without a coach – just my teammates and a video camera – and we used to video each other and then at night sit down and critique each other. Perhaps not the best, but it taught me to be responsible for my own technical development. I feel very strongly about that as a coach now.” (C 6)

Nevertheless, within this group of 15 coaches, there was one coach (C 8) who did not compete at all, in any sport. With no competitive sport experiences to draw on, he needed to look elsewhere in order to develop his coaching knowledge, and what he emphasized, in terms of learning, will be illustrated in the third case study.

Formal Education and Coach Training. In the learning situation of formal education, we see that nine of the coaches had degrees in physical education, teaching or coaching, one had not completed a degree, and five of the coaches held degrees in other disciplines such as engineering, political science, business, French, geophysics (although the undergraduate degree in geophysics was followed by a graduate degree in physical education). Most of the coaches, regardless of the degree and country in which it was obtained, commented on the
<table>
<thead>
<tr>
<th></th>
<th>Athlete Experience</th>
<th>Formal Education</th>
<th>Coach Training</th>
<th>Mentors</th>
<th>‘Always Thinking About’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>National level</td>
<td>UG, Political Science</td>
<td>Level 4/5</td>
<td>informal</td>
<td>curious, always reflecting, reading books on sport, leadership</td>
</tr>
<tr>
<td>2</td>
<td>National level</td>
<td>UG, Physical Education</td>
<td>Level 4/5</td>
<td>informal</td>
<td>always reading</td>
</tr>
<tr>
<td>3</td>
<td>Olympics</td>
<td>diploma in business</td>
<td>Level 3</td>
<td>no mentors</td>
<td>always thinking about training</td>
</tr>
<tr>
<td>4</td>
<td>Olympics</td>
<td>UG, teaching</td>
<td>Level 4/5</td>
<td>informal</td>
<td>always thinking about training</td>
</tr>
<tr>
<td>5</td>
<td>National level</td>
<td>UG, Physical Education</td>
<td>Level 4/5</td>
<td>informal</td>
<td>always strategizing on how to train his athletes to beat opponents</td>
</tr>
<tr>
<td>6</td>
<td>Olympics</td>
<td>Incomplete UG</td>
<td>NCI Level 4/5</td>
<td>informal</td>
<td>self-reflection, observing other athletes and coaches</td>
</tr>
<tr>
<td>7</td>
<td>National level</td>
<td>UG, Physical Education</td>
<td>No NCCP levels, educated in another country</td>
<td>informal</td>
<td>always thinking, analysing, trying to simplify the game possibilities</td>
</tr>
<tr>
<td>8</td>
<td>No competitive sport experience</td>
<td>diploma in coaching</td>
<td>Level 4 in progress</td>
<td>informal</td>
<td>always thinking, analysing, observing coaches and athletes from other countries</td>
</tr>
<tr>
<td>9</td>
<td>National level</td>
<td>UG, French</td>
<td>Level 4 in progress</td>
<td>no mentors</td>
<td>always working on how to coach better</td>
</tr>
<tr>
<td>10</td>
<td>National level</td>
<td>UG, Geophysics, GD, Physical Education</td>
<td>No NCCP levels, educated in another country</td>
<td>informal</td>
<td>always thinking about training and planning</td>
</tr>
<tr>
<td>11</td>
<td>National level</td>
<td>UG, teaching</td>
<td>Level 4/5</td>
<td>no mentors</td>
<td>reflecting from season to season, reading, questioning himself</td>
</tr>
<tr>
<td>12</td>
<td>Provincial level</td>
<td>UG, Physical Education, starting GD</td>
<td>Level 4/5</td>
<td>informal</td>
<td>always analysing, thinking</td>
</tr>
<tr>
<td>13</td>
<td>Olympics</td>
<td>UG, Sport Education</td>
<td>NCI, Level 4/5</td>
<td>formal and informal</td>
<td>always listening, learning, analysing</td>
</tr>
<tr>
<td>14</td>
<td>Olympics</td>
<td>UG, Engineering</td>
<td>Level 4/5</td>
<td>no mentors</td>
<td>always thinking about the athletes, always open to learning</td>
</tr>
<tr>
<td>15</td>
<td>Olympics</td>
<td>UG, Physical Education</td>
<td>Level 4/5</td>
<td>informal</td>
<td>always reading, analysing</td>
</tr>
</tbody>
</table>
value of both their university education and coaching courses or clinics they had taken, and felt both were instrumental to their early learning as coaches. One of the coaches said that his degree in political science was helpful to coaching: “I took courses on ethics, the philosophers, and leadership – not bad areas for coaches to know about. And my degree in physical education, well, everything I took was helpful for coaching” (C 1).

Another coach, who completed his Level 4/5 in the Canadian National Coaching Certification Program (NCCP), said that he found the coaching courses were most useful when he could apply the information immediately with his athletes: “Taking those courses, and being able to apply the information right away, really helped me to learn. I used it all right away – but then, I have never been afraid to change things” (C 14).

Two of the foreign-born coaches spoke of the value of the National Coaching Institutes (NCI) as being instrumental in their learning as coaches in the Canadian sport system. In the NCI learning environment [33], coaches in the program work together as a group, often over a two-year period, and have access to expert instructors on a regular basis, not just within the classroom setting. One coach indicated: “Getting to know the different instructors was valuable – you were not going to learn everything in the class, but you had access to them all year long. That is probably what helped me the most” (C 6). The other coach (C 13) felt the NCI was a key learning situation for him, precisely because he needed to clearly understand the Canadian sport system and Canadian athletes, and this will be illustrated in the second case study.

Nevertheless, one of the coaches (C 3), despite holding a diploma in business, and NCCP level three, said what he learned in those environments was limited in terms of helping him learn how to coach. He felt strongly that what informed his coaching were his experiences as an Olympic athlete, and his ability to still be on the water with his athletes. A unique case certainly, and it will be illustrated in the first case study.

Mentors. All of the coaches in the study spoke of seeking out experts they could learn from. While a number of coaches spoke of their national sport organization facilitating their interaction with experts in various fields, most of the time this type of learning situation was self-initiated. The coaches themselves often used the term mentor, and indeed were sometimes mentors for others, which also enhanced their own learning. One coach said: “I learned a lot from a professor at the sport university - he was creative, he made me think, I never stopped asking questions. We worked together, and developed a system for ‘seeing the game. We had meetings every single week” (C 7). Another coach spoke of the value of having a mentor to help him create coaching scenarios specific to what he was struggling with: “I had a mentor coach – I learned so much from him – things you couldn’t learn in a text book - he was someone I could talk to and ask questions. He taught me to build a relationship with the athletes” (C 1). One of the foreign-born coaches spoke of how helpful it was in his early days as a national coach to be paired with another colleague: “I have learned a lot from other coaches. I got paired up with another national coach and I worked alongside him and that was awesome. But how we worked was really left up to us, it wasn’t really formal” (C 13). Nevertheless, 4 of the 15 coaches were reluctant to use the term mentor. As one coach said: “I have learned from a lot of different individuals, both within my sport, and from other sports, but I would not say I have had a mentor” (C 14).

Always Thinking About. All of the coaches, without exception, spoke of an on-going process of thinking about their sport, analyzing how their athletes were progressing, observing what other countries were doing, and what they might need to be developing in their own training
programs. The emphasis placed on this learning situation by all the coaches is a clear indication of the deliberateness that they brought to their profession. One coach stated:

“It’s a conscious decision to go talk with other coaches. I enjoy it when we go on tour and I can go and sit in a pub with a number of coaches from three or four different countries. You start talking about the best athletes and what they are doing and I pick up all sorts of stuff, that I will then think about and decide how and if I could use it.” (C 11)

Another coach said: “I am always analysing the training program, thinking about how it is going, what I need to change, pondering whether we are reaching our goals” (C 12). This willingness to critically reflect included a curiosity and a desire to be continually improving. One coach said he was always working to build on what he knew, and continually reading on a wide range of topics that might help enhance his coaching ability: “I am reading everything, and reading it critically – strength and conditioning articles, IAAF research studies” (C 2). Another coach said his curiosity was combined with a sense of knowing he did not know everything: “I have a curious mind. I am always asking if there is a better way. I am not so confident that I think I know everything. I always need to learn something else” (C 1). Interestingly, one coach spoke of the time commitment, and sometimes the fatigue, that was related to this learning situation: “It is the first thing that struck me when I started coaching. As an athlete you turn off right after practice. As a coach I don’t switch off at all and I have found it very tiring” (C 11). While all 15 coaches spoke of how they were always thinking about coaching topics to become more effective, how they went about doing that varied from taking time on their own to self-reflect, to reading books, to researching information on-line, to critical observation of other countries’ training methods and competitive processes.

IDIOSYNCRATIC LEARNING PATHS – THREE CASE STUDIES

In this section, three case studies are presented to demonstrate, in-depth, how a coach’s cognitive structure influences the way he/she utilizes different learning situations which, in turn, translates into an idiosyncratic learning path. Pseudonyms have been used for each of the three coaches to facilitate reading.

Case Study 1. Tom: An Olympic Athlete

Tom’s (C 3) cognitive structure has been strongly shaped by his experiences as an Olympic athlete. He competed at two Olympics in the sport he now coaches and at the time of being interviewed he was coaching part-time and holding down another full-time job. Tom’s formal education outside of sport included a college diploma, and he had completed level three of the NCCP program. When asked how he had learned to become an effective coach, he began by saying that his former Olympic athletic experience was very important.

“A big influence for me in my learning as a coach is having been an athlete myself. It’s so useful in being able to draw experience from both good and bad training and competitive situations - because I know a lot of things that I messed up as an athlete and I know things I did that worked. For example, one year I was peaking for the worlds and I just blew it totally and, at the time, I didn’t know why, but three or four years later I realized that I worked too hard leading up to it - that taught me a lot about the design of a training program. It was a significant learning for me.”
What is particular about Tom is, at the time of the interview, he was still able to be on the water with his athletes, still ‘feeling’ what training was like, and making adjustments to his athletes’ training programs based on that capability. He noted that because of this he was often able to resolve technical issues quickly.

“Well, I can’t keep up anymore, at least not with my best athlete. But I can still go through the workout and get a sense if it was hard enough. That’s also how I learned to teach technique, by teaching myself. The only way I could tell them was for me to feel it. That’s not the only way obviously, but it is the most effective way for me because I don’t like looking at video and analyzing - I’m not great at it.”

Tom also spoke of learning by watching and speaking with other coaches, and then critically reflecting on those conversations and observations. His comments reveal a deep reflective process and self-awareness.

“I have borrowed a lot from other coaches, but I think every coach has done that whether they admit it or not. I mean, there is no original program. I did learn a lot from our previous national coach. I learned from him that I could push the athletes harder, but I don’t necessarily do it the way he did.”

On the process of reflecting on his coaching program or on a particular training session, he emphasized that it was a constant process, and because he was a part-time coach, he had to manage that within significant time constraints.

“Well, in the beginning I didn’t ever write stuff down. I sort of just kept things in my head. Now I write it down, I have learned to do that. And I think about my coaching all the time – when I am driving to work or practice, when I am at work, at home. It’s pretty constant. It’s not like I shut it off when I am at home or when I am at work. Because I don’t always have time after practice to sit down and talk to the athletes because I am rushing away to work.”

Case Study 2. Sam: A Foreign-Born Coach

Sam (C 13) was a former Olympic athlete in the same sport that he coached, but grew up and competed for a country other than Canada, speaking a language other than English. Sam felt he had developed great technical coaching knowledge both from his own experiences as an athlete and his formal training in university with a degree in coaching science from his country, but emphasized that to succeed as a coach at the Olympic level in Canada, he had to learn about the culture of Canada. He spoke of two learning situations that shaped his learning path in Canada: the importance of the formalized learning environment of the National Coaching Institute (NCI), which enabled him to develop both an understanding of the Canadian sport system and skills related to understanding and coaching Canadian athletes, and the opportunity that the NCI created by providing him with a group of coaches and experts to interact with and learn from throughout the two year program.

“Well, for me, to be successful here, I had to understand the culture in Canada and I had to adapt myself to this new world – and it is not only language, but also the philosophy here. For example, if I suggest something that is 180 degrees from what they have done before, the athletes won’t accept it, so I had to find a way to move
them slowly in that direction. The NCI helped me a lot. So many things I had not heard of before – leadership, psychology, for sure - the technical side I did learn, but I had also learned that in my country. The leadership course was so useful, because it was about how to communicate with the athletes. First of all, as children where I grew up, we are told, by our parents, you must listen to us. And you must listen to the teacher in school – the teacher is God. And here in Canada it’s totally different. In my home country, in sports, as an athlete, you follow the one coach and you have to listen. You can question, but not too much. So for me, given my background, I learn better in more formal settings, formal courses, with seminars, assignments.”

Sam said that he learned from observing athletes and coaches, both his own and those from other countries, and then from reflecting deeply and constantly and challenging himself to always be learning. And he spoke of how he used the sport science experts affiliated with the NCI.

“By working with lots of high level athletes, and by watching other high-level athletes and coaches, from other countries, training here – I learn so much. I always have open eyes. I ask myself, what is different and what does that mean? I did a biomechanical analysis with one of our teachers at the NCI, a professor from the university – that was so good. I had never done that before. I have changed a lot of things with my program.”

Case Study 3: Geoff: A Protégé.

Geoff (C 8) has coached within the sport of gymnastics as a full-time club coach for more than 20 years. He has a coaching diploma from a college that conducted a two-year program for gymnastics coaches, and, at the time of the interview, was halfway through NCCP level 4/5. However, he never competed in sport, and as a result of this lack of athletic experience, he felt it was necessary to learn the details of the technical side of the sport by working alongside other coaches.

“Well, I did the ‘sitting at someone’s feet’ to learn about gymnastics. And I am still doing that. To watch someone interact with an athlete on skills, or psychology, or something I am struggling with, and see how they deal with it, and how it applies to their athlete, although it may not be exactly the same for my athlete – it gives you so much to draw on. That’s perhaps how I learn best – watching, and observing, and asking for help. I have learned to ask for help.”

When asked specifically how these mentoring relationships occurred, Geoff indicated that all of the learning situations with other coaches were self-initiated.

“Well, when I was younger, I asked one of our top provincial coaches if I could spend some time with him while he was coaching, and we made it a teacher-student relationship. And when I started sitting on national committees, I would go a day early and sit and watch the national coaches. I did that for many years. With my Olympic athletes, I joined up with another national coach and we had our athletes train together regularly. And this really turned into a mentoring relationship, with us meeting up every three weeks for the last two years, and talking on the phone. He
has helped me learn so much. He makes me think, he doesn’t often give me the answer. He has probably been the biggest help in my coaching career.”

When asked how and why these learning situations were so important to his coaching, Geoff talked about how he saw himself as a learner.

“I am not a classroom learner. I think I am a hands-on learner, and perhaps I have a slight learning disability. So in gymnastics, particularly with my most recent mentor, he would really ask a lot of questions, like ‘what did you see there?’ and when I would not know, he would break down the skill, and I gained so much from that.”

**DISCUSSION**

Based on the content of 15 interviews with Canada’s Olympic coaches, the purpose of this study was to answer two research questions: (a) How do a group of Canadian Olympic coaches differ regarding the importance that several common learning situations play or have played in their development?, and (b) How does a coach’s cognitive structure (knowledge, feelings, emotions) influence what she/he chooses to pay attention to, and to learn, and how do those choices in learning situations create a unique learning path?

For each of the five common learning situations, important variations were found among the coaches regarding the role each of those learning situations played in their development. As reported in other studies [7, 8], many of our coaches indicated that being an athlete provided them with specific knowledge that was almost impossible to learn in courses or books. However, as one of the coaches in the study did not have any experience as an athlete we can say that previous experience as an athlete is not essential. Regarding the formal education of the coaches, the results indicated that 14 of the 15 coaches had a college or university degree. This is congruent with what was reported by Trudel and Gilbert [2] in their assessment of the education of coaches at the elite level. Of particular interest is the fact that some coaches stressed how their degree in a field not related to sport (e.g., political science) was useful. Considering that coaching is a very complex task, and that coaches require a wide spectrum of different types of knowledge to effectively play different roles [10, 9], it should be of little surprise that many different education programs could contribute to a coach’s learning.

All the coaches were certified NCCP Level 3 or higher. Again, this is not a surprise given that it is a requirement for Canadian coaches to be Level 3 certified or higher in order to coach at the Olympic Games. As shown in other studies [22, 34], the importance attributed by the coaches to these coaching training programs varies from coach to coach. It is also important to emphasize that although this learning situation has been designed with the intent of teaching essential coaching knowledge/skills, coaches also might find in it the opportunity to learn other things. As the findings of this study indicated, foreign-born coaches found the coaching training programs to be a place where they could also learn about the sport culture and Canadian culture. This finding should be of particular interest for national sport organizations that are often hiring coaches from other countries.

For the coaches who indicated that they benefited from the expertise of a mentor, the mentoring process was, as shown in other studies [22, 30], informal and four of the coaches were reluctant to even use the term mentor because they were in communication with more than one individual. Is this an example of a poor support system for coaches or an indication that the time has come to abandon the traditional approach of mentoring where a newcomer
is under the wing of a more experienced person? In the conclusion of their review of mentoring research, Kammeyer-Mueller and Judge [35] said:

In short, it may not be especially helpful to one’s career success if a relatively powerless or naïve mentor comes to one’s assistance, no matter how helpful he or she may try to be. It is also possible that research will benefit from considering developmental relationships with multiple mentors simultaneously rather than concentrating on the behavior of a single influential individual. (p. 279)

Considering that coaches need a broad range of knowledge from sport-specific to pedagogy and all those “put under the heading of ‘ologies’” [10, p. 559], coaches will have the advantage of developing a network of experts in the areas where their knowledge is lacking. Recent studies suggest that coaches are now looking more and more for advice from sport scientists [36-38].

The learning situation we have called ‘always thinking about’ seems to have been used by all the coaches. Other studies have indicated that coaches learn by reading books, talking with and observing other coaches and athletes, and taking time to reflect [22]; but what was fascinating with the coaches in this study was how often they used expressions like ‘always reading’, ‘always thinking’ or ‘always working on’. As the coaching process and coaching practice are very complex, and can be viewed as ‘structured improvisation’ [39], we argue that these coaches were constantly in a process of creating knowledge and not acting merely as technicians applying coaching theories. This position is supported by the work by Bloom and Salmela [40] with a group of expert team sport coaches: “The present analysis demonstrated that expert coaches were fervently devoted to their involvement in sport as exemplified by their commitment to hard work and their search for improvement in their coaching knowledge” (p. 72).

In brief, the data collected to answer our first research question show that even within a specific coaching context (Canadian Olympic coaches) there are variations between coaches regarding the importance that several common learning situations have played in their development.

Using a constructivist view of learning [24, 26, 41], we have attempted to answer our second research question by focusing on three case studies to show how coaches construct “their own meaning by using their uniquely developed cognitive structure to guide their noticing and perception” [23, p. 117] of what is meaningful to them when engaged in learning situations (mediated, unmediated, internal). For each of the three coaches, a few specific learning experiences were presented to demonstrate that these coaches were not simply passive learners trying to memorize information. Indeed they were active learners, meaning that their network of knowledge, feelings, and emotions (their cognitive structure) was key in their decision to engage in certain ‘episodic experiences’ [16]. By doing so, the coaches’ cognitive structure was modified resulting in becoming a more experienced coach. The data also show that the coaches’ learning was influenced by interacting with others (coaches, mentors, athletes) which compels us to consider the social context when analyzing coaches’ participation in learning situations. Merriam et al. [42] recommend that when explaining participation in learning situations, it is important to consider the psychological (individual) and the sociological (social context).

It is important to recognize that throughout one’s life, learning experiences are numerous, but some will have a major impact while others will be simply confirming what one already knows [26]. Nevertheless, the different experiences in each sphere of one’s life (family,
school, work, leisure) come together to form one’s unique biography and therefore learning can be considered lifelong [26, 41]. Based on our data, we can say that our lifelong learner coaches had different learning experiences and therefore their learning paths are idiosyncratic. This implies that researchers should not be so concerned with finding the learning path of expert/elite/high-performance coaches. However, to acknowledge that coaches’ learning paths are idiosyncratic does not mean that sport organizations should abandon their role of training coaches. We are suggesting quite the contrary. They should continue to develop coach education programs, which allow coaches to have access to coaching theories. They should continue to provide coaches with current material on coaching but, importantly, must also understand that the material may not have the same impact on all coaches because of differences in the coaches’ cognitive structure [25].

CONCLUSION

Studying coaches’ development is a daunting task, considering that coaching is a very complex activity [9, 39] and that we do not have a theory that fully explains human learning [26]. However, to see progress in coaches’ development it is essential to take into consideration the coaches’ cognitive structure because “to try to study learning as something divorced from the learner in the wide world is artificial and non-realistic” [26, p. 194]. This is particularly relevant at a time when coaching is viewed as context specific. Adopting the lifelong learner perspective will not make coaches’ development any easier, but it will ensure we focus both on what coaches should learn and on how they are as human beings learning from experiential and existential perspectives [41]. To meet this challenge, it will take collaborative work between researchers, program designers, national sport organizations, and coaches to find the best strategies to nurture coaches’ development.

REFERENCES


