1 2 3 4 5 6 7	Behaviourism, constructivism and sports coaching pedagogy: A conversational narrative in the
8	facilitation of player learning
9	
10	
11	
12	
13	
14	
15	
16	

1

Running head: conversational narrative

17 Abstract

In order to develop our understanding about how learning theory can help to make sense of and inform the facilitation of player learning, this article presents a fictitious discussion, which takes place following a postgraduate sports coaching lecture on learning theories, pedagogy and practice. Following the lecture, Coach Educator (CE) joins two group members for a coffee to listen to their thoughts, experiences, and coaching practices in relation to pertinent player learning theory. Behaviourist Coach (BC) discusses his approach to coaching and how he has come to coach in this way; and his practices that conform to behaviourist learning theory. When BC has finished sharing his views and practices, CE then invites the other student to contribute to the discussion. Constructivist Coach (CC) recognises that his philosophical beliefs about the facilitation of player learning are vastly different to those of BC. As such, CC decides to share his approach to coaching, which aligns itself with constructivist learning theory. It is hoped that this dialogue will not only further theorise the facilitation of player learning, but do so in a way that helps coaching practitioners make the connection between learning theory and coaching practice.

Keywords: learning theory, fictional narratives, coaching practice,

Behaviourism, constructivism and sports coaching pedagogy: A conversational narrative in the
facilitation of player learning

In recent years, scholars of coaching science have paid increasing attention to how various learning theories and concepts could be used to inform coaching practice and subsequently enhance player learning (e.g., Cassidy, Jones, & Potrac, 2009; Jones, 2006; Light & Wallian, 2008). While such developments are to be welcomed, there still remains a paucity of literature addressing how a theory of learning actually becomes a theory of coaching. This state of affairs is especially surprising given that the teaching and learning interface is considered to be located at the heart of coaching (Jones, 2006). Indeed, coaches across all levels of the sporting spectrum are responsible for helping players to acquire, develop, and refine their sporting attributes, skills and understandings. In addition to teaching sport specific techniques and tactics, coaches in some contexts, are also responsible for helping participants to learn how to be 'good citizens' and to adopt 'healthy lifestyles' (Bloyce & Smith, 2010).

Perhaps the point to recognise here is that there are a myriad of different ways in which coaches can teach and help players to learn and achieve desired outcomes (Jones, 2006). Like others (Cassidy, Jones, & Potrac, 2009; Cushion et al., 2010) however, we would argue that learning theory has occupied a peripheral position in coach education and indeed coaching practice. This state of affairs could perhaps be partially attributed to the gold standard approach that has traditionally been adopted in much formal coach education provision (Cushion, Armour, & Jones, 2003). Here coach learners are often provided with, and expected to abide by, prescriptive modes of teaching players (Chesterfield, Potrac, & Jones, 2010). As such it could be argued, that one of the existing weaknesses of current coach education provision, has been the failure to provide coaches with the opportunities to consider the evidence and theory that

underpins the prescribed pedagogical methods, how players may perceive and respond to these approaches, and possible alternative ways of facilitating player learning (Potrac & Cassidy, 2006).

In order to somewhat redress this situation, it is our belief that practitioners could usefully consider the philosophical assumptions and practical applications of pertinent learning theory. In this respect, it is not our intention to promote the effectiveness of one learning theory over another, rather it "is to make coaches and coach educators reflective of previously unconsidered theoretical notions, thus giving them the options to think in different ways about their practice and their consequences" (Jones, 2006, p. 4).

In terms of the structure for this particular paper, we begin with a brief theoretical introduction to two contrasting learning theories, namely behaviourism and constructivism. Here we provide an overview of the key philosophical, conceptual, and practical implications of the leading theorists associated with both orientation.

Behaviourist Learning Theory

Modern theories of learning, including behaviourism, cognitivism and constructivism are understandably widely reported in educational literature (Ertmer & Newby, 1993). However, prior to any synthesis regarding the epistemologies of behaviourism and constructivism, it is important to recognise that they are both considered to be a theory of learning and not a theory of teaching (Fosnot, 1996). According to Tennant (2006), the inception of behaviourism can be traced back to John Watson's 1913 paper 'Psychology as the behaviorist views it'. In that article, Watson argued that psychology would do well to abandon the study of inaccessible and unobservable mental events and instead focus its attentions on the investigation of behaviour. In this respect, Tennant states that Watson's proposal was underpinned by the assumption that

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

101

"most of our behaviour is acquired, through learning, which is to say that it is the result of environmental rather than biological influences" (p. 93). As a result of Watson's paper, the investigation of conditions under which learning occurs became a focus for behaviourist researchers.

While many scholars have contributed to the development of behaviourist learning theory, Skinner (1904-1990) is arguably the most widely acknowledged behavioural psychologist, especially in relation to thinking about the pedagogical practice of teaching (Tennant, 2006). Skinner is most widely known for his theory of operant conditioning. According to Bernstein et al. (2008), Skinner introduced the term operant to signify a response that operates on the environment. Bernstein et al. (2008) remind us that Skinner's theory proposes that a reinforcer increases the likelihood that an operant behaviour will occur in the future. In this respect Skinner contended that there are two types of reinforcers, namely positive reinforcers and negative reinforcers. The findings of Skinner and other leading behaviourists has clearly impacted on the field of sport psychology. For example, Smith (2006) explains how operant conditioning can be implemented to enhance athletic performance. In this respect, Smith discusses how coaches can shape athletic performance through the presentation and removal of positive (i.e., positive reinforcement, extinction, and response cost punishment) and negative (i.e., punishment and negative reinforcement) stimuli. Smith also briefly identifies the importance of schedules of reinforcement, another key component of behaviourist learning theory.

Constructivist Learning Theories

Constructivism places a significant emphasis on how individuals accrue and develop their knowledge and understanding through their reflective participation in authentic situations and

interactions with others (Light & Wallian, 2008). In this regard, constructivism rejects the existence of a single reality, and instead learning is considered to be an active and interpretative process. It is widely understood that constructivism is based upon the seminal work of Dewey (1910; 1938), Piaget (1972), and Vygotsky (1962; 1978). Indeed, it is important to recognise here that the term constructivism does not refer to a single theoretical approach, but rather to a diverse range of theories of human learning (Light & Wallian, 2008). Light and Wallian (2008) are correct when they remind us that constructivism can be classified into two broad camps, namely cognitive/psychological constructivism and socio-cultural constructivism. Whilst there is commonality between these two perspectives, it is worth noting that differences between these schools of thought do exist; principally whether thinking occurs solely in the mind, the whole person, or is socially distributed (Light & Wallian, 2008). As such, in drawing upon the work of Light and Wallian (2008) have suggested the potential benefits of coaches and physical educators not feeling forced to choose between them but, instead, adopting a pragmatic approach that emphasises the dialectical relationship that exists between them.

A Coaching Conversation

In keeping with recent developments regarding the use of fictional dialogues in sports coaching research (e.g., Jones, 2007; Roberts, 2014) we chose to adopt a conversational format for this paper. According to Jones (2007) "the aim of the conversational format is to assist reflection and understanding, not only of the arguments made but of our personal stance to them. It is in this invitation to reflect on the evidence encased in the differing viewpoints presented that the strength of the arrangement lies" (p. 161). In this respect, you, the reader, will inevitably identify with certain aspects of the conversation presented. However, like Jones (2007, p. 161),

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

141

142

143

144

145

146

we also invite you to explore "corridors of meaning [and] unexamined echoes...that lead to sense making as they follow the contours of the interaction"

The following text represents a hypothetical conversation following a classroom-based lecture on the topic of learning theory, pedagogy and practice, which a group of coaches studying for a postgraduate qualification in sports coaching have just completed. Prior to the lecture, the Coach Educator (CE) gave the group some pre-class tasks and recommended reading so that the coaches could contextualise some of the theory with their current coaching roles. Following the lecture CE meets up with two of the coaches for an informal discussion over coffee. The first coach in our dialogue is Behaviourist Coach (BC). BC is a young and ambitious male football (soccer) coach who holds aspirations of eventually working at the highest tier of professional football. For a young coach his credentials are already impressive. BC has successfully completed a number of formal National Governing Body (NGB) coach awards and he currently coaches in the academy of a professional football club in England. BC was once a promising young professional footballer; however, his playing career was terminated prematurely due to injury. Following his injury BC completed a BSc in Sports Coaching, and during his undergraduate studies, BC was fortunate to undertake a work based learning placement at a professional football club. BC flourished in this role and following his graduation was successful in securing a full-time coaching position within the academy. As a professional football academy coach BC works with players between 9 and 18 years of age. BC has very high standards for his players and works them extremely hard. He is regimented in the way that he coaches and has a disciplined approach. Indeed, BC believes that it is the coach who should make the key coaching decisions, transmit knowledge to the players, and shape the behaviours and actions of players in a more favourable direction. When BC was playing, his coaches were

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

166

167

168

169

your players learning.

also very authoritarian, disciplined and regimented, and it was during his playing days that BC first became socialised into the high expectations placed on academy football coaches for results, and immediate and sustained improvements in performance.

The second coach in our narrative is Constructivist Coach (CC). CC is also male, but considerably older than BC. CC currently works in a university and is responsible for teaching sports coaching pedagogy to undergraduate students. In conjunction with this role at the university, CC also works as a coach for a large National Governing Body (NGB). The philosophical orientation and pedagogic beliefs surrounding coaching for CC are somewhat different to that of BC. CC endeavours to avoid traditional forms of instruction, opting instead to engage in team-based discussions through questioning and offering his opinions and experiences. CC openly encourages his players to take risks and responsibility in the learning process. Indeed, CC takes pride in the autonomy and interdependence of his players. In this respect, CC is committed to a 'learner first' approach to coaching that promotes the development of what he refers to as 'thinking players'. Here, CC has observed with some pride how his players have been able to develop solutions to technical and tactical problems with minimal help and guidance from himself. We join the conversation as CE joins both BC and CC for a coffee. **CE:** Hi guys, any objections if I join you? Thank you for your enthusiasm in the lecture just now. I have to say one of the issues I face when delivering this module is marrying the divide between the theory and the practice. Learning theory can be quite a dry and complicated topic and I was conscious I did a lot of talking in there. I didn't really get the opportunity to establish how the theory is aligned to your personal philosophical orientations. Would you mind if I ask you both how you think the theory matches up to your thoughts, beliefs and outlooks regarding

170	BC: Yeah, no problem. I would be only too happy to share my views and experiences if that's
171	ok with you CC? Having listened to your lecture, and completed the readings, I think it is fair to
172	say that my practices and outlook in this regard are probably in-keeping with a behaviourist view
173	of learning.
174	CC: Interestingly, I have a different point of view. I would say, and based upon what I have
175	heard, read and experienced through my own coaching, I am probably more aligned with a
176	constructivist view of learning. However, this was not always the case.
177	CE: [Smiles and gives BC and CC a positive nod] Okay, guys that's really useful. Do you think
178	we could probe some of the issues or indeed tensions regarding both these philosophical
179	viewpoints? Perhaps we could explore the difficulties associated with learning these approaches.
180	Would that be okay?
181	BC: Okay, but for me, coaching is not just about helping the players to learn and improve the
182	technical and tactical aspects of their sporting performances; it's also about getting them to
183	behave in accepted ways more broadly. In my sport for example, I'm not just teaching the
184	players about how to pass the ball or implement a sophisticated defensive system, I also want
185	them to clearly understand how they should conduct themselves in the coaching environment.
186	They need to know what behaviours are acceptable and unacceptable. If you don't have a well
187	ordered, structured coaching environment, the sessions would descend into an unstructured mess.
188	CC: [Interrupts] Apologies for interrupting you BC but I guess this is the crux of the problem. I
189	remember when I offered to help out at my son's rugby club. The other coaches were running
190	their drills, cones were everywhere, and too be honest it looked really structured and organised,
191	but also really [emphasis added] predictable. I suppose this is where my philosophical
192	orientation to player learning is different. My preference for a constructivist approach to

193

194

195

196

197

198

199

200

201

202

203

204

205

206

207

208

209

210

211

212

213

214

215

learning view games such as rugby or football as unpredictable. My view is that games such as these are chaotic; no passage of play is ever the same. Therefore, if we have a game which is unpredictable, why do we coach it in a predictable manner? Surely football or rugby cannot be viewed as absolute? We need to let the game be the teacher and allow the players to make decisions for themselves. **CE:** That sounds very interesting; CC and perhaps we could touch on this point later. However, BC could you tell us a little more about how you go about helping the players to learn the skills, tactics, and acceptable behaviours? What do you do? How do you do it? What has influenced you to coach like this? How do you understand your practices in relation to the readings that you have engaged with for this class? **BC:** [Smiles] I thought that you might ask me those questions. Let's start with the first question about what I do as a coach to help players learn. I like to use lots of instruction, praise and rewards, as I've found that, by and large, most of the players that I have worked with respond well to this. I've found that the use of specific and meaningful praise tends to get the players to consistently behave in the ways that I want. For example, if a player executes a skill well, I will always provide some technical or tactical feedback with the praise, as I want them to continue to repeat that aspect of their performance that I am referring to. It's the same for their general behaviour within the environment. If the players stop and stand still to listen to me when I request them to do so during an exercise or drill, then I like to reinforce that too. It's an important part of developing a productive learning environment. CC: [Smirking] Yes, but isn't professional football a classic example of where you [slightly raised voice] the coach holds all the power. I don't mean to generalise, to all academy football coaches, but the paper you asked us to read [pointing to CE] for the Coaching Process module,

216	what was it? Ah yes, Cushion and Jones (2006). They referred to the monolithic power
217	relationship which existed between the players and the coach. I suspect your players will do
218	anything, and behave in a manner you want. I bet they are worried that if they don't behave in
219	the manner you expect, they will either not be selected or worse released from the club.
220	CE: [Feeling the need to step in as BC looks a little offended] Well let's just hang on a second.
221	To be fair to BC it sounds like he endeavours to be very positive with the players. Let's pick up
222	on the point raised by CC. What happens though when the players do something wrong? Say
223	they perform a skill or strategy incorrectly and cost you the game, or move around when you've
224	asked them to standstill? What do you do then?
225	BC: I use different approaches here really. If the player makes a mistake but I think they are
226	genuinely trying then I'll step in and explain what they did wrong and show him or her how to
227	perform the skill correctly. However, if I think a player is messing about then I'll tend to give
228	them a punishment. It could be anything from 10 star jumps, to run a couple of laps of the pitch,
229	or to sit out the remainder of the session. It depends upon what the player has or has not done.
230	I've noticed the players really don't like missing out on the match at the end of the session or
231	selection for the game at the weekend. The threat of removing them from this activity really
232	seems to work.
233	CE: Thanks for that, BC. CC before I ask you about your thoughts regarding facilitating player
234	learning? Would you mind if I ask BC a couple more questions?
235	CC: No that's fine.
236	CE: I've really enjoyed listening to what you've had to say so far BC. It seems that you are very
237	busy during the training sessions giving instructions, providing demonstrations and delivering all
238	the feedback. However, I just wondered what type of input the players have during the sessions?

239	BC : I think it's fair to say that I do pretty much all of the talking. But then that's my job, that's
240	what I do, it's my bread and butter! I can diagnose the faults with the players' performances and
241	I can fix them through my use of feedback and, potentially, punishments. I think it's also fair to
242	say my methods are well tested. When I was a player, my coaches were very autocratic and they
243	were in control of the coaching environment. They had all played the game to a very high level,
244	and the feedback they provided was often brutal, but at least they told you how to improve.
245	CE: That's really interesting, BC. If you don't mind, I'd like to ask you more about the feedback
246	you provide and how you think that facilitates their learning in a moment. Before that however,
247	could I ask how you would define your success as a coach in relation to player learning?
248	BC : Well, that's simple really. It's all about them [the players] behaving and responding in the
249	right ways, be it in terms of their general behaviour or how they conduct themselves and perform
250	in training and competition. I measure my success, and failure for that matter, in my ability to
251	consistently bring about desired behavioural patterns. It's not what they think or might know, it's
252	how they behave and perform that ultimately matters most to me.
253	CE: Thanks for sharing that with us, BC. If you don't mind, I'd also like to know a little bit
254	more about why and how you use praise and rewards. For example, how regularly do you praise
255	players who are performing in the desired way? Do you do it every time?
256	BC: That's a good question. I don't praise and correct behaviour every time a player does
257	something right. When introducing a new skill, technique, strategy or indeed an appropriate way
258	of behaving within my coaching environment, I tend to praise regularly so that the players
259	associate the desired behaviours and actions with a reward. I want them to clearly see the
260	consequences of performing and acting in certain ways. However, once I see that the players
261	seem to be reproducing the desired behaviour on a regular basis, I tend to reduce the amount of

262	praise I provide. That is, because I can see that they have learnt to do the right things, I'll praise
263	them sporadically to ensure that the desired behaviour is maintained.
264	CC: (Joins the conversation) I think I understand what BC is driving at in terms of the amount
265	and timing of praise, but how do you praise? What rewards do you use? How do you know that
266	an individual will respond to them in the way that you want?
267	BC: I tend to watch and listen to the players and try and get a feel for them as individuals and as
268	a collective group. Finding what works is one of the challenges of coaching for me. I use a range
269	of rewards. For example, for some people just telling them that they've done well is enough, for
270	others it has been about providing small rewards such as player-of-the day awards. Mainly
271	though, showing the players that you are pleased with their behaviours and performances seems
272	to work really well. That's certainly the philosophy that underpins my approach.
273	CE: You also mentioned punishments; can I ask you about these, BC? What approach do you
274	adopt there?
275	BC: That's a tricky one, CE. My preference is to praise and reinforce positive behaviour as much
276	as is possible. I think that makes for a more positive environment. Equally, the threat of taking
277	away something that the players like seems to really work. Probably, my best example is
278	threatening players that the match at the end of the session won't take place if they [the players]
279	don't perform in the right ways. As for punishments, I tend to use them sparingly and only when
280	I really feel I have to.
281	CC: Why is that?
282	BC: Well, I've found that some players really don't respond to it in the ways that I would have
283	hoped for. I've noticed that players sometimes make more errors because of the fear of
284	punishment. Equally, I've noticed that using punishments can build up a great deal of resentment

285

286

287

288

289

290

291

292

293

294

295

296

297

298

299

300

301

302

303

304

305

306

in some players. While I think I could punish a player and then re-engage with them in the session, my experiences have taught me that players may not always be so understanding. I'll always remember the time I punished a player for performing badly in a passing drill. I thought his movement was lazy and I told him this in no uncertain terms in front of the rest of the group. I also made him sit out of the session for 10 minutes. When he returned to the session he was certainly more active in his movement, but I could see the anger in his face when he looked at me. It took a few weeks for me to reconnect with him. It wasn't good for me, him or the team. If I did this to every player every week, I don't think I would have a team left to coach! That said, if I feel the situation warrants it, I'm happy to dish out a suitably harsh punishment. CC: I can empathise with you here BC. I can remember when I was a young cricket coach. I held a similar philosophical orientation to you. I was coaching a county cricket squad. I remember this one game against our fiercest rivals; we needed four runs from the last over to win the game. I was going mad from the boundary, shouting out instructions, kicking the boundary markers and becoming increasingly more and more animated. The players who were batting were not our recognized batters, and they were really struggling against the opposition's opening bowlers. Instead of trying to run 'quick singles' they tried to smash every ball to the boundary. At the end of the game, when we were defeated, I completely lost it. I was shouting at the players, throwing bits of cricket equipment around the round. I was dishing out all sorts of punishments, until the captain put his hand up. What he said has remained with me ever since, and I suspect this has contributed to my preference for a different philosophical belief about coaching.

BC: Well come on CC, don't keep us waiting. What did the player say?

307	CC: He said, 'How dare you punish us for something you have not taught us'. 'How were those
308	batters, who have only batted once this season supposed to win us the game'? 'Have you shown
309	them how to run quick singles? We have never practiced this'. As I left the ground that day, I fel
310	humbled, saddened and embarrassed that my junior captain was right. How dare I shout
311	criticisms from the boundary edge, how dare I launch cricket pads across the changing room,
312	how dare I subject these young players to outbursts of personal abuse. They were placed in a
313	situation that required 'thinking' and 'decision making 'and up to this point all I had
314	concentrated on was techniques. I had not practiced with the squad end-of-game scenarios, or
315	instigated problems for the players to solve. How could I expect them to know what to do?
316	[Looking embarrassed]
317	CE: I think you both raise a number of important points here. While we would all like to adopt a
318	particular view of player learning and apply it unproblematically in our practices, helping players
319	to learn just isn't that straightforward.
320	CE: Thanks for sharing your thoughts BC, very insightful. Listen, I am really conscious that BC
321	has done most of the talking thus far; I know that CC holds a contrasting view, so perhaps it
322	would be appropriate to listen to his approach on the facilitation of player learning?
323	CC: Perhaps you are right CE, given that I've been putting BC on the spot, I think it's only fair
324	that I share my views and experiences on this topic.
325	CE: That's great, CC. Go ahead.
326	CC: I remember when I was younger I was very similar to BC. Actually, if I am completely
327	honest, I see a lot of my early coaching behaviour mirrored in his experiences. However, my
328	philosophy changed after a very humbling experience.
329	CE: What happened? Have you not explored this already in the cricket example?

330

331

332

333

334

335

336

337

338

339

340

341

342

343

344

345

346

347

348

349

350

351

352

CC: Oh no. This was before I coached the county cricket side. After I graduated from teacher training college and secured my first teaching post, I used to coach a basketball school team, they were good, very good in actual fact, and we regularly reached the national school basketball finals in a number of age groups. At that time, I was influenced by the district basketball coach and he used to promote a numbered offence. For example, our taller, rebounding forwards were numbered four and five. Our fast, agile wing players were numbered two and three and our ball handling guard was numbered one. I remember as though it were only yesterday, four and five compete for the rebound, two and three fill the lanes, one becomes the outlet. Using this as basis for my coaching, I set about developing a well-drilled and organised team. We had set-plays for attacking and a rigid zonal system for defending. We practiced both aspects repeatedly until I felt the players could complete them with their eyes shut. The movements and passing had become automatic. I took a great deal of satisfaction from watching the players perform these tasks so efficiently in training and the way we had comprehensively beaten other teams on the way to the national final. **BC:** Sounds great so far. So what happened to change the way you coach? CC: We lost the final! In fact we didn't just lose, we were hammered! I couldn't believe it, to be honest, I still can't believe it. I remember walking out of the changing room area and into the sports hall and watching the opposition complete their warm-up. They looked well-skilled but nothing to be scared of. In fact their warm-up looked so unstructured compared to ours that I thought that we had won before the match had even started. Their coach was a really agreeable chap, he shook my hand, we exchanged some pleasantries and then he sat down and very calmly just watched his team going through the warm-up. One of their players orchestrated their practices and the coach offered nothing but an occasional clap of the hands, a satisfying nod of

353	improvement or a thumbs up sign. I thought he must be filling in for the day as the real coach
354	must have been ill or unable to get to the game. I was soon to learn quite the opposite.
355	BC : That sounds exciting to me. Did you do any technical work or was it all problem-solving
356	and small-sided games?
357	CC: It wasn't all small-sided games and problem solving, we would still incorporate drills as
358	and when they were needed, but it was no longer the only method of coaching implemented.
359	During this time my whole philosophy changed, it wasn't about controlling the players and the
360	session, it wasn't just about techniques and fancy drills, it was about the players' learning and
361	decision making.
362	BC : The use of questions and problem-solving suggests that the session could be a bit too
363	improvised for my liking. It sounds like you could end up 'flying by the seat of your plants' at
364	times. Why didn't you just tell the players what you wanted them to know?
365	CC: There was improvisation that was for sure. But the sessions certainly weren't unplanned and
366	ad-hoc at all. As I worked with Rob, I came to realise just how knowledgeable he was about
367	basketball. His knowledge of the techniques and strategies really impressed me. It was amazing
368	to think that the person who sat so quietly during that basketball final actually knew so much.
369	Rather than telling the players what they needed to know and do, he used his knowledge to ask
370	insightful questions that, for me at least, would really provoke the players to engage with the task
371	in hand. His session plans were incredibly detailed in terms of the activities he wanted to engage
372	the players in. But what really struck me, was the planning that he put into the questions that he
373	asked the players. He had key questions and prompts for every activity. He was equally happy to
374	go 'off-script' if the players' questions and responses took the session in a different direction.
375	For me, that's where his knowledge of the sport and his responses to the players really impressed

376

377

378

379

380

381

382

383

384

385

386

387

388

389

390

391

392

393

394

395

396

397

398

me the most. I don't think you could ask the insightful questions that he did without really knowing your sport inside-out. I found this approach much more challenging than how I had previously coached. For me, I found telling people the key points much easier to deliver. It was all pre-planned and I followed the script. The interactive nature of coaching in the way that Rob did was a real challenge for me. It definitely put me outside of my comfort zone. **BC:** Was it easy to adopt and change your beliefs and values and the way you coached? CC: No it was difficult and it still is. Sometimes I lapse back into my previous approach to coaching; I still have urges to 'jump in' and tell players what I think they should do, before giving them time and space to think things through on their own. When I was younger I didn't really care about their understanding, I just wanted them to be able to perform as I had instructed. But now I want them to gain a better appreciation of factors contributing towards effective performance. Some players that I've worked with find my approach difficult to get to grips with as it's different to other coaches that they have played under. Some players want and expect me to provide them with all the answers. Similarly, administrators and parents sometimes question why my approach differs to other coaching practitioners **BC:** In what way? CC: Well to begin with some of the parents thought I was not interested. Some of the parental comments included; 'He's not coaching, he's just letting them play', 'I don't think he is really interested, look at the other coaches, they are all using the new equipment'. I also endured a humiliating experience during a one-to-one net session. Looking back it's quite funny really, but I had just attended an English and Wales Cricket Board (ECB) workshop on the use of questioning approaches with players. In my next coaching session, I was determined to give this approach a go. However, in the end it was a disaster, I asked so many questions that the player

399	threw down his bat and stormed off. Both of these examples have served me well and reminded
400	me that if you do adopt alternative modes of instruction it is important to inform both parents and
401	players of your reasons for doing so.
402	CE: I think that's a really important point to recognise here. As stated earlier in today's lecture,
403	applying any learning theory to coaching practice is not an entirely straightforward activity.
404	BC: So do you think that a constructivist approach to the facilitation of player learning is better
405	than a behaviourist one?
406	CC: Well I wouldn't say it is better, but it is different. There doesn't seem to be any scientific
407	coaching studies that say one approach is superior to any other. I'm certainly not saying that
408	everyone should adopt a constructivist approach to their coaching. Other coaches can be very
409	successful when using a behaviourist approach. I've got no problem with it. For me, the biggest
410	differences are more philosophical in nature. I've had to think about the learning experience I
411	provide to my players. I've come to realise that I want the players that I work with to understand
412	the nuances and complexities of the sport, I want them to be able to solve problems, and
413	personally I think they stand to gain a great deal of satisfaction from this. As I learnt in that
414	basketball final, perhaps it will help me to win a couple of basketball games as well! [CC and BC
415	laugh]
416	CE: Thank you both for your insightful contributions. From my perspective it's apparent that as
417	coaching practitioners there are numerous approaches that we can adopt in an attempt to enhance
418	the learning and development of our players. I guess that reinforces both your view, that in
419	actual fact there is no right way to coach and one pedagogic and learning approach is not
420	superior to the other.

421 Concluding Thoughts

The key point from this article was to encourage you, the reader, to critically reflect upon how you view player learning and attempt to facilitate it in your respective coaching practices, a process that we believe all coaches and their players could benefit from.

As both BC and CC have highlighted behaviourism and constructivism come with their respective merits and challenges. What is important here is that as coaches we understand that facilitating player learning is not a straightforward activity.

For sports coaches this situation is hampered by the reported failure of formal coach education courses to provide its participants with sufficient opportunities to develop innovative coaching practice, or to develop the essential reflective skills necessary for effective coaching (Nelson & Cushion, 2006). Furthermore Nelson, Cushion and Potrac (2006, p.251) raised concerns whether formal coach education was "training or indoctrination?" and argued for coach education teams to develop more alternative and imaginative modes of instruction, in order to help sports coaches deal with the complex and 'messy' reality of coaching. We would also argue that coach education should allow coaches the opportunity to consider and demonstrate their understanding of pertinent learning theories. We agree with Light (2008, p.402) in that behaviorism or constructivism cannot be condensed into a "step-by-step prescription for teaching". It is our opinion that sports coaches would benefit from an understanding of how learning theories could improve their own and their players' learning.

During our brief discussion we covered just two of the different theoretical approaches to learning. We did not mention humanistic approaches, cognitivism or the sociocultural aspects of learning. Therefore would we encourage further investigation into these theories of learning, and their possible application to a theory of coaching.

144	References
145	Bernstein, D.A., Penner, L.A., Clarke-Stewart, A., & Roy, E.J. (2008). Psychology, (8th Ed).
146	New York: Houghton Mifflin.
147	Bloyce, D., & Smith, A. (2010). Sport policy and development. London: Routledge.
148	Cassidy, T., Jones, R., & Potrac, P. (2009). Understanding sports coaching: The social, cultural
149	and pedagogical foundations of coaching practice, (2 nd Ed). London: Routledge.
150	Chesterfield, G., Potrac, P., & Jones, R. (2010). Studentship and impression management in an
151	advanced soccer coach education award. Sport, Education, & Society, 15, 299-314.
152	Cushion, C.J., Armour, K.M., & Jones, R.L. (2003). Coach education and continuing
153	professional development: Experience and learning to coach. Quest, 55, 215-230.
154	Cushion, C., Nelson, L., Armour, K.M., Lyle, J., Jones, R.L., Sandford, R., & O'Callaghan, C.
155	(2010). Coach learning and development: A review of literature. Sports Coach UK:
156	Leeds.
157	Ertmer, P., & Newby, T. (1993). Behaviourism, cognitivism, constructivism: Comparing critical
158	features from an instructional design perspective. Performance Improvement Quarterly,
159	6, 50-71.
160	Fosnot, C.T. (1996). Constructivism: A psychological theory of learning. In C.T. Fosnot (Ed.),
161	Constructivism: Theory, perspectives and practice (pp. 103-119). New York, London:
162	Teachers College, Columbia University.
163	Jones, R.L. (2006). How can educational concepts inform sports coaching? In R.L. Jones (Ed.),
164	The sports coach as educator (pp. 3-13) London: Routledge.
165	Jones, R. (2007). Coaching redefined: An everyday pedagogical endeavour. Sport, Education
166	and Society, 12, 159-173.

467	Light, R., & Wallian, N. (2008). A constructivist-informed approach to teaching swimming.
468	Quest, 60, 387-404.
469	Piaget, J. (1972). The psychology of the child. New York: Basic Books.
470	Potrac, P., & Cassidy, T. (2006). The coach as a 'more capable other', In R.L. Jones (Ed.), The
471	sports coach as educator: Re-conceptualising Sports Coaching Jones (pp. 39-50)
472	London: Routledge.
473	Roberts, S.J. (2014). Talking relative age effects: A fictional analysis based on scientific
474	evidence, Asia Pacific Journal of Health, Sport and Physical Education, 5, 55-66.
475	Smith, R.E. (2006). Positive reinforcement, performance feedback, and performance
476	enhancement, In J.M. Williams (Ed.) Applied sport psychology: Personal growth to peak
477	performance (pp. 42-59) (5th Ed) New York: McGraw-Hill.
478	Tennant, M. (2006). Psychology and adult learning. London: Routledge.
479	Vygotsky, L.S. (1962). Thought and language. Cambridge: MA, MIT Press.
480	Vygotsky, L.S. (1978). Mind and society. Cambridge: MA, MIT Press.