



**“I was forming a thought as we were chatting”: Narrative pedagogy stimulates coach developers learning about personal epistemology**

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## Key points

This research introduces the concept of developing coaches' personal epistemology (beliefs about knowledge) through narrative pedagogy: an educational approach based on story telling.

The research suggests that coach developers would benefit from a greater understanding of personal epistemology and that narrative pedagogy is a suitable means to encourage exploration of this topic.

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## Supplementary file A: Transcripts of narratives

### Narrative 1: 'How my beliefs about knowledge have developed, and how they influence my coaching'

*"This is a story of how my beliefs about knowledge have developed over my life and career. It's about how early experiences and people in my life have shaped my view of knowledge and knowing and how these have influenced, and continue to influence, my beliefs, philosophy and my practical coaching.*

*I can trace some of the most important influences on my personal beliefs back to my childhood. As a kid, I lived on open farmland in the countryside. My parents gave me loads of freedom to roam around and explore where we lived. I was free to jump over the fence and just leg it off into open countryside to climb trees, play in rivers and generally have adventures. My parents gave me the freedom to be independent and develop that adventurous spirit. For me, having freedom to roam definitely led me to figuring things out for myself and making my own decisions. I was constantly trying to make sense of something and evaluating it. I mean, if you climb a hundred trees, there's a thousand ways to climb them and if it doesn't work, you try and find out why. There's any number of ways to solve a problem. I was able to get out there and unpack things and see what the real world was about. I guess that even at that early age, I believed that if I wanted to know about something, it was a case of me figuring it out through trial and error, but ultimately it was me myself that would generate the knowledge.*

*Later, at school I had an environmental studies teacher called Rick. Rick was exceptional in his approach. He was supportive and empowering, and looked to hand over the reins but was always there to catch you when it didn't quite work. He was really knowledgeable about his subject, and he put it across in a passionate way; he allowed us to explore the subject with an element of freedom, independence and empowerment, and this really worked for me as it fitted with my beliefs about learning new things.*

*Other than Rick, I found school quite restricting. Because of my early experiences, I came to school with this kind of 'critical-thinking, problem-solving' way of thinking where I liked to figure out my own knowledge and can appreciate different ways of doing things. School was more of a 'this is how it's done' approach. And when I tried to ask the 'what if' questions... well, they didn't entertain 'what if' questions; it's "no, this is what it is". I felt that, in the classroom, I was being held in this kind of fixed, absolute kind of setting and it didn't fit so well with me as it contradicted the beliefs that I had already developed. "For example, take maths... maths in school was taught in a really black-and-white way. Teachers would take the approach that this is 'the' way to solve this or that problem. But for me, even at quite a young age, maths was really functional and used to solve everyday problems. It was about working out bearings in the mountains or working out timings for leg of nav on the hill and there's different ways of doing that stuff, but that just wasn't how it was taught in school".*

*In hindsight, I think the beliefs about knowledge that I developed in those early years before school were very strong and almost overrode what was being thrown at me in the classroom. I felt that school was about black-and-white, and I wanted the shades of grey. Although I generally had a good time at school and university, as I look back now, I think they really just strengthened my belief that knowledge is developed through critical thinking, evaluating, reflecting; and accepting that every situation is different and needs its own solution.*

*My way of thinking about how knowledge is developed was very influential when I came into coaching. It's fair to say that early on in my coaching career, when I was trying to make sense of it all, I wanted that certain, objective, safe knowledge from the NGBs and the books etc. Doing coaching is different to learning about coaching, it's complex, and one way to manage that complexity is to treat it as something simpler than it is. For example, if you just follow the NGB standard - like Body, Boat, Blade or something, you won't go too far wrong. But fairly quickly, a bit like when I was climbing trees and building rafts as a kid, I moved on to seeing coaching as more subjective, trial-and-error, figuring things out myself and working out what actually works in that specific situation when I'm working with people. When I first started coaching white water kayaking, I had this image in my head, like a technical template, of 'what' skills should be performed; and alongside this a coaching template to 'how' they should be coached. But pretty early on, I realised that my template didn't fit every learner. Paddlers are different shapes and sizes, have different equipment, and have different physical and psychological makeups – so suddenly my technical model did not fit everyone; likewise, they all had differing motivations, prior knowledge and learning backgrounds, so again my coaching template needed adjusting. So, rather than impose my technical and coaching templates, I had to figure out a way to help learners with their different needs; I wasn't prepared to accept there was only 'one way' of doing something as fellow coaches and aspects of my NGB coach training led me to believe at the time. I had to think it through, test it out and evaluate if it was effective; and if not, it's back to the drawing board.*

*Ultimately, the beliefs that I developed as a kid translated into my beliefs as a coach and they influenced, and continue to influence, me as a coach. For example, my belief that coaching is really subjective and ever changing makes me continue to reflect, evaluate and strive to find the best solution in any given circumstance.*

*I liked having my own independence when I was a youth and as I was developing, and that independence I had then was very powerful and beneficial to me. This now transfers nicely in all the work I do in adventure sports world where the coach isn't always right there to help and therefore developing independence becomes so important. So therefore, when I'm coaching, developing independence in others is core to what I like doing; I just want people to feel they've got the freedom to direct their own learning. For example, when taking a group on a river, I want them to have the autonomy to direct how they want to experience the journey and learn the skills. I want them to feel empowered and in control; being involved in choosing where to go, when to go, how much leading or how much being led. I aim to lead from the back and encourage them as early as possible to be out at the front and making decisions, but equally if they don't want to be that is fine. If not at the front though they are not 'following the leader's line' they are 'learning from the leader's line and deciding whether to follow it or adapt it'. It's about putting them in the driving seat, but being there to support their decision making as is required. So, for me, in my coaching, there's freedom within the decision making, that decision making can allow them to either direct their own learning or direct where they want to go, or what they want to get out of their time with me."*

## **Narrative 2: My paradigm shift**

*"Later on in my career, as a continuation of British Canoeing's Coaching Diploma I studied, I carried on to do a master's degree in Performance Coaching. The concept of going back to university at this stage of my career was such an exciting opportunity; I felt I had so much coaching experience from the world of adventure sports but was desperate to 'check and challenge' this against other sports and theoretical constructs. One of the first things I was asked to do on the course was to formulate a view of what constitutes the coaching process and then present a model to represent this view – like creating a structured framework for coaching; what did I see as the component parts (e.g. interpersonal skills, instruction,*

*practice, feedback) and then how did they fit together? It was an interesting project and really got me thinking about how I conceptualised coaching. I was influenced a lot by the work of other academics as well as my own reflections as a coach and coach educator.*

*At that time, I was at the top of my game, not only as a coach but also as a coach educator. In terms of British Canoeing stuff, I was a level 5 coach training director and assessor and was involved with the formulation of the new (at the time) UKCC qualifications. So, this task was right up my street!*

*I embraced the task and began to formulate my own model of coaching. It took the form of a lot of interlinking boxes, each relating to a different aspect of the coaching process; for example, I could base my model on a 'plan, do, review and conclude' cycle; but within each of these stages a load more component parts were required. In the 'do' part then I needed to show the differing approaches to skill acquisition alongside the range of teaching styles that could be used and then this mapped against differences in the learners; it was then a similar challenge for the 'review' stage and so on. Then there were the other parts of the process that this did not encapsulate like the interpersonal side, the motivational climate, the environmental context, the coach/learners' values and beliefs, and the external constraints. I was trying to break it all down, compartmentalise different components and organise it all together into a coherent structure. I guess, at that time it represented my perspective of coach education in that I wanted to break it down to make it more manageable for new coaches to learn. Very quickly my model got very big and eventually it ended up spreading over five pages. But it wasn't until I had to stand up and present it to the tutor and my peers that I had a sudden epiphany:*

*I didn't believe in what I was presenting!*

*After my presentation, I sat and listened to my peers giving theirs, and that just confirmed what I was thinking. We were all trying to reduce the coaching process down and break it into 'understandable parts' to make it digestible and manageable, but that just didn't make sense to me; I didn't believe in it. I just wasn't convinced that the whole coaching process could be broken down and compartmentalised like that; it's far too complex.*

*Coaching is about people, and people are complicated, and coaching them is messy! Breaking it all down into neat little boxes didn't make sense to me. And that was my lightbulb moment – we need to embrace the messiness... right from the start! And it was that concept ... to embrace the messiness and embrace the complexity of coaching; and if we try and put it into boxes, and keep it in boxes, we're not actually doing anybody any favours in the long term because that's not what happens in coaching; there are too many variables, and they are too interlinked. For example, I was out on the sea coaching two people on the Falls of Lora tidal flows not so long ago; in essence they had booked some private coaching to learn the same thing – moving water skills in a sea kayak. In discussion they had a similar amount of paddling experience and were paddling the same type of sea kayak – so the session on paper should have been pretty straightforward. However, once on the water it became abundantly clear that one was very anxious and one was very confident, one wanted to just 'give it a go' and one wanted 'slow and steady', one asked for technical understanding of why things worked and one wanted to just know what works best and one wanted to learn to 'survive' future tidal races and one wanted to learn to 'play' in future tidal races. A seemingly simple coaching session had very quickly turned complicated and messy – something that seems to happen all the time in my coaching!*

*I might end up coaching two people the same thing, but in a completely different way. I have to accept a level of uncertainty when I'm making decisions about how to coach –that is, will this work for that learner right here, right now? So, embracing the messiness, the complexity of coaching, and not protecting our new coaches from that, I think is really*

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2 **learning about personal epistemology**

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21 **Abstract**

22 Sports coaching research has consistently demonstrated a link between a well-developed personal  
23 epistemology (beliefs about knowledge and knowing) and adaptable coaching behaviours. Given this  
24 connection, coach developers could benefit from learning about personal epistemology and the  
25 potential it has for the coaches they support. As such, this project utilised narrative pedagogy, a  
26 psycho-socio-cultural approach to learning grounded in the exploration of stories, to understand a)  
27 what coach developers took away from learning about personal epistemology and b) the extent to  
28 which narrative pedagogy is a valuable form of continuous professional development (CPD) for  
29 coach developers. Using reflexive thematic analysis, we propose that the content of personal  
30 epistemology, delivered to experienced coach developers through the medium of narrative  
31 pedagogy, can act as: 1) a stimulus for connection; 2) a stimulus for meaning making; 3) a stimulus  
32 for new ideas; and 4) a stimulus for change. The themes illustrate how narrative learning can  
33 support CPD for experienced practitioners by engaging coach developers with the role of epistemic  
34 beliefs in coaching. In conclusion, personal epistemology is useful content for coach developers and  
35 narrative pedagogy is an appropriate way to engage coach developers with such complex and  
36 challenging content.

37 **Keywords**

38 Knowledge, coach development, epistemic beliefs, continued professional development

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## 41 Introduction

### 42 *Personal epistemology and sports coaching*

43 Learning to coach is a complex process requiring the acquisition, integration and application of  
44 knowledge to ever-changing social contexts (Wood et al., 2024). Accordingly, a growing body of  
45 literature seeks to understand the processes by which coaches develop knowledge and learn their  
46 craft (Culver et al., 2019; Stoszkowski & Collins, 2016). Within this literature, there has been a  
47 growing emphasis on the social aspects of learning (Culver et al., 2024; Stoszkowski & Collins, 2016)  
48 whereby an individual ‘constructs’ knowledge through their experiences and interactions with  
49 others (Stoszkowski & Collins, 2014). However, there has been relatively less attention on the nature  
50 of that knowledge as constructed at an individual level.

51 When individuals develop new knowledge, an instinctive, highly personalised process of cognition is  
52 activated (Hofer, 2002). This process is underpinned by an, often subconscious, set of personal  
53 beliefs about knowing and knowledge termed personal epistemology. Although epistemological —  
54 and onto-epistemological — thinking is foundational to methodological reasoning in academic  
55 contexts, it has received far less attention in applied domains such as sports coaching. While not a  
56 ‘new’ topic philosophically, the study of how coaches develop beliefs about knowledge and knowing  
57 in relation to their craft remains underexplored and conceptually emergent. Contemporary  
58 frameworks of personal epistemology such as the Theory of Integrated Domains in Epistemology  
59 [(TIDE) Muis, 2006]] and extended TIDE (Merk et al., 2018) maintain that epistemic beliefs are  
60 complex and socially developed; that is, beliefs are actively constructed through a diverse range of  
61 experiences in a myriad of social settings (schools, workplaces, NGBs). Beliefs are thought to develop  
62 in a stage-like manner, with more advanced stages reflecting higher levels of education and  
63 intellectual ability (Kuhn & Weinstock, 2002). Development starts from a position of *absolutism*  
64 whereby knowledge is viewed as directly knowable, sourced externally, and consists of objective and  
65 certain facts which are justified by appeal to reality. In the following stage, *multiplism*, the source of

66 knowledge shifts to being located in the self and is viewed as multiple, subjective, uncertain and  
67 justified by opinion and preference. In the final stage, *evaluativism*, the knower is able to coordinate  
68 subjective and objective components of knowledge. Thus, complexity and uncertainty are accepted,  
69 and knowledge viewed as personally constructed by human minds whereby individuals see  
70 themselves as part of the process of knowledge by critically evaluating and weighing different  
71 viewpoints (Barzilai & Eshet-Alkalai, 2015; Kuhn & Weinstock, 2002). Individuals operating an  
72 evaluativist personal epistemology have been described as epistemologically ‘sophisticated’  
73 (Schommer, 1998), epistemologically ‘mature’ (Kuhn et al., 2000) and ‘more constructivist’ (Muis et  
74 al., 2016). Each of these terms represents a more advanced conception of the nature of knowledge  
75 and is seen as desirable.

76 Although the TIDE frameworks advocate a stage-like progression in the development of  
77 epistemological beliefs, they also acknowledge the potential for recursive movement—where beliefs  
78 may temporarily regress to earlier stages. This regression is particularly evident when individuals  
79 transition from structured, predictable learning environments to more autonomous and less-defined  
80 contexts (Muis et al., 2006; Stodolsky et al., 1991). In the domain of sports coaching, such  
81 disruptions may occur during transitions between roles, clubs, or qualification levels, where the  
82 demands of new social contexts challenge previously held beliefs and practices (Christian et al.,  
83 2023). This more detailed understanding of knowledge and its development can shed light on the  
84 experiences of developing coaches and guide coach developers (Christian et al., 2023). For example,  
85 when presented with competing frameworks, all of which offer an incomplete understanding of  
86 reality, an individual in the absolutist stage would ask which theory is correct, the multiplist would  
87 become frustrated by competing options, while the evaluativist would accept and be comfortable  
88 navigating the uncertainty.

89 In an extension to the developmental stage perspective, Muis et al. (2006, 2016) highlight the notion  
90 of domain specificity of epistemic beliefs. Specifically, Muis et al. (2016) found variation in the stage

91 of beliefs between students' conceptions of mathematics (more absolutist) and psychology and  
92 general knowledge (more multiplist). It follows that a coach's personal epistemology may be specific  
93 to sports coaching as a distinct domain of knowledge. Furthermore, Merk et al. (2018) argue the  
94 existence of an even 'finer grain' level of belief, as topic specific beliefs within domain beliefs. In the  
95 instance of sports coaching as a multidisciplinary domain of knowledge, it is conceivable that a coach  
96 may hold varying levels of belief about knowledge of, for example, biomechanical and psycho-social  
97 principles. The complexity of belief structures outlined by the TIDE and Extended TIDE frameworks  
98 illustrate how the stages of absolutism, multiplism and evaluativism are useful broad categories to  
99 start thinking about learners and how to best engage with them, but also that these are only a  
100 starting point to encourage more nuanced thinking.

101 Notwithstanding the complex nature of epistemic beliefs, research has consistently demonstrated a  
102 link between a well-developed (i.e., evaluativist) personal epistemology and sophisticated  
103 pedagogical behaviours (Barry et al., 2023; Christian et al., 2017; Christian et al, 2023; Collins et al.,  
104 2015; Lodewyk, 2015; Melhuish & Ryan, 2024). Grecic and Collins (2013) conceived of the  
105 connection between epistemic beliefs and coaching actions as an 'epistemological chain' that  
106 underpins a coach's planning, creation of the learning environment, coaching actions, and reviewing.  
107 These authors maintain that as epistemic beliefs develop from absolutism to evaluativism, they are  
108 likely to translate to constructivist coaching approaches. Specifically, coaches who operate from a  
109 position of epistemic evaluativism (i.e., hold the view that knowledge is complex, tentative and can  
110 be constructed by the 'knower') would favour approaches which emphasise understanding the  
111 learner's starting point and goals and which encourage the learner to be active in structuring their  
112 own learning and understanding (Christian et al., 2019). For example, in certain contexts the coach  
113 may construct learning activities where no clear solution is immediately identifiable with a view to  
114 developing self-analysis, decision making and reflection. Use of divergent questions and delayed or  
115 bandwidth feedback would support learning and encourage the learner to develop independent,

116 autonomous and personalised solutions to movement problems (Collins et al., 2015; Grecic et al.,  
117 2013).

118 Despite research evidence linking well-developed personal epistemology to advanced coaching  
119 behaviours and the inherent benefit this carries regarding quality of coaching, other researchers  
120 (Ashford et al., 2025; Light, 2008; Partington & Cushion, 2013; Stodter & Cushion, 2019) discuss the  
121 notion of an 'epistemological gap,' the dissonance between beliefs about learning and coaching  
122 actions, within sports coaches and physical education teachers. Specifically, Partington and Cushion  
123 (2013) identified low levels of self-awareness among top-level soccer coaches who, despite  
124 espousing intentions to develop "whole" and "decision-making" players in their role as a "facilitator  
125 of knowledge creation," were actually observed to utilise high levels of prescriptive instruction, an  
126 approach associated with an absolutist conception of knowledge (see also Ashford et al., 2025).  
127 These authors argued that a core purpose of coach education is to close this gap. A well-developed  
128 personal epistemology may be one means by which such epistemic gaps may be closed, ultimately  
129 enhancing the quality of coaching practice.

130 Christian et al. (2023) described, through case study, the development of the epistemic beliefs of a  
131 renowned Adventure Sports Coach (ASC) through the lens of the TIDE framework. These authors  
132 concluded that personal epistemology theory has considerable potential in coach learning,  
133 specifically by: (i) encouraging trainees to invest time exploring formative experiences of sport,  
134 education, coaching, and their personal sociocultural world; (ii) exploring beliefs about sports  
135 coaching as a domain of knowledge in and of itself; and (iii) encouraging coaches to embrace  
136 knowledge about sports coaching as complex, tentative, and uncertain from the start of their  
137 development. Given that a well-developed personal epistemology is advantageous for coaches  
138 (Barry et al., 2023; Christian et al., 2023; Melhuish & Ryan, 2024) and ultimately the learners they  
139 support, it follows that investing effort in advancing the epistemic beliefs of trainee coaches is likely  
140 to be a fruitful endeavour.

141 Given the many demands upon coaches as they develop knowledge of their craft (Côté & Gilbert,  
142 2009; Wood et al., 2024), it is important to establish an efficient method by which the topic of  
143 personal epistemology might be effectively integrated into coach learning (i.e., how and by whom).  
144 In terms of by whom, one potential avenue lies with the coach developer. Described as an ‘umbrella’  
145 term for those involved in coach education, tutoring, mentoring and assessing, coach developers  
146 have the capacity to influence a large number of coaches (Campbell et al., 2020; Jones et al., 2024;  
147 Stodter & Cushion, 2019). Partington et al. (2022) advocated that coach developers require specific  
148 training to support them in developing comprehensive knowledge of learning and pedagogy.  
149 Partington et al. demonstrated the value of a continuing professional development (CPD) course,  
150 focussed on understanding and implementing learning, in aligning coach developers espoused  
151 theories (what people say they do) and theories-in-use (what they actually do). Tailored CPD would  
152 seem an efficacious approach for coach developers to engage with the concept of personal  
153 epistemology and its role in coaching.

#### 154 ***Narrative inquiry and narrative pedagogy***

155 One approach to CPD with the potential to meaningfully impact coach developers learning about  
156 complex topics such as personal epistemology is narrative pedagogy: a contemporary theory of  
157 learning, education and social interaction informed by the principles of narrative inquiry (McMahon  
158 et al., 2018). As a psycho-socio-cultural approach grounded in the examination of stories, narrative  
159 inquiry holds that humans actively construe meaning from experience and communicate those  
160 experiences to the world by formulating and sharing stories shaped by the narratives available  
161 within our culture (Everard et al., 2022; Frank, 2010; Smith & Sparkes, 2009a; Sparkes & Smith,  
162 2013). As Everard et al. (2024) explain, narratives are perceived of as both personal and social  
163 insofar they “*act as socio-cultural templates onto which individuals map their personal stories*” (p.3).  
164 As such, narratives have the potential to illuminate personal and social experiences by acting as a  
165 vehicle to which we attach meaning, allowing us to make sense of our lives (Smith & Sparkes,

166 2009a). Given the potential performative capacity of narratives to ‘do things’ to people (Everard et  
167 al., 2024), we propose that sharing narratives about the role of personal epistemology in sports  
168 coaching may have the potential to generate meaningful insights for coach developers to ‘map’ their  
169 own epistemology, and employ this map to frame how they think about and orchestrate coach  
170 development (Frank, 2010).

171 In an extension to narrative inquiry, narrative pedagogy can be defined as an approach to education  
172 focused on facilitating meaning-making through deep conversations and individual reflection  
173 prompted by stimulating stories (Goodson & Gill, 2011). Specifically, Goodson & Gill (2011) refer to a  
174 “spiral of construction and reconstruction” (p. 123) which can generate new understandings of the  
175 issue in contention and lead to meaningful change for individuals and groups (McMahon & Smith,  
176 2016) . McMahon et al. (2018) describe these three-stages of the narrative pedagogy process as:  
177 Narration: preparing and sharing narratives of an individual’s lived experience (e.g., text-based  
178 stories); Collaboration: narratives are examined, questions and challenges are posed in a  
179 collaborative manner in order to better understand the lived experience; and Location: links are  
180 made between the narrator’s story to the individual’s story, locating in their wider contexts including  
181 social and cultural practices.

### 182 ***The present study***

183 An increased understanding of personal epistemology has the potential to advance coach  
184 developers’ practice by encouraging them to explore and develop the beliefs that underpin the  
185 actions of the coaches they support which, ultimately, may lead to more considered and adapted  
186 coaching. As such, the primary aim of this study was to understand what coach developers took  
187 away from a CPD process focused on personal epistemology. In addition, given the potential for  
188 narrative pedagogy to communicate complex information and facilitate meaning making with  
189 respect to a practitioner’s role and context, a second aim was to explore the value of narrative  
190 pedagogy as a form of CPD for experienced practitioners. Although presented separately, these aims

191 are considered to be inextricably intertwined. That is, one aim (learning about personal  
192 epistemology) happens through and by the other (narrative pedagogy).

## 193 **Method**

### 194 ***Philosophical beliefs and methodology***

195 This study was conducted from an interpretive constructionist perspective. As such, our approach is  
196 characterised by ontological relativism (the belief that reality is mind-dependent, multiple and  
197 created), and epistemological constructionism (knowledge is socially constructed and subjective  
198 [Everard et al., 2024]). Thus, we posit that knowledge, experience and insights are constructed  
199 socially through the reciprocal sharing of stories and resultant dialogic exchange. In line with Kvale  
200 and Brinkman's (2009) traveller metaphor, our focus groups allowed us to ask questions and invite  
201 participants to tell their own stories, the meaning of which unfolded throughout the focus group.  
202 Knowledge was therefore socially constructed, both between the focus group convenor and  
203 participants, and between participants themselves.

204 In line with our research philosophy, it was important to also consider our own positionality and the  
205 impact that we, as researchers, had on the research process. The first author is involved in coaching  
206 and coach development both in higher education and national governing body contexts. His research  
207 interests are in developmental epistemology. As such, his insider status allowed him to build rapport  
208 with participants based on common ground and credence within the community. The second author  
209 is involved in coach development in the context of a MSc programme and with national governing  
210 body of sport qualifications. In this capacity, he helps coaches to explore how their underpinning  
211 values and beliefs influence their actions as a means to focus and accelerate their development. The  
212 third author is a qualitative researcher in the field of sport and exercise psychology and is also a  
213 sports coach.

### 214 ***Participants***

215 Having gained institutional ethical approval, criterion-based sampling was used to recruit coach  
216 developers from a single UK sporting National Governing Body, British Canoeing (BC<sup>1</sup>). Our rationale  
217 for using a homogenous sample was based on narrative pedagogy advocating for reciprocation and  
218 deep dialogue. Such dialogue is facilitated by an 'cultural insider' with 'embodied and contextual  
219 understanding' of the subject matter (Everard et al., 2022); as a BC coach developer, the first author  
220 was well placed to facilitate the process and build the relationships which are fundamental to  
221 successful narrative pedagogy (McMahon et al., 2023). To ensure 'levelness', experience and  
222 currency, participants were sampled on the following criteria: (a) they identified as a coach  
223 developer, (b) as a minimum they were a BC 'Coach Award' (Ofqual level 3) programme tutor with  
224 (c) a minimum of two years' experience delivering this award, (d) they had delivered this programme  
225 within the last six months and (e) were willing to participate in intellectually challenging CPD over  
226 multiple sessions. An email invitation was sent by the first author through the governing body to the  
227 73 BC tutors who met these criteria; 16 coach developers ( $n^{\text{female}} = 4$ ) with a mean age of 49.7 (range  
228 35-62) years, were recruited via email invitation sent by the first author through the governing body.  
229 Participants provided informed consent; they had an average of 22.9 years coaching experience  
230 (range 7-37 years) and 14.6 years (range 3-34 years) experience as a coach developer. Throughout  
231 the results, participants are referred to by pseudonyms.

### 232 ***Procedure***

233 In order to maximise the potential of the narrative pedagogy process, predefined learning intentions  
234 which related to the nature and application of personal epistemology were established: (1) Develop  
235 a deep understanding of how our beliefs about coaching knowledge drive our coaching actions; (2)  
236 Recognise that beliefs develop through identifiable stages (absolutism to evaluativism) and are  
237 influenced by sociocultural factors; (3) Understand that well-developed epistemic beliefs consider

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<sup>1</sup> In the time since initial planning and participant recruitment, British Canoeing has subsequently been renamed Paddle UK

238 knowledge about coaching as complex, tentative and personally constructed through enquiry and  
239 reason; (4) Apply this knowledge to your work as a coach developer.

240 Guided by the premise that narrative inquiry conceives of humans as storytellers who, by sharing  
241 stories make sense of and communicate our experiences (Everard et al., 2022), two video narratives  
242 were constructed by reworking the themes from Christian et al. (2023). Similarly to Everard et al.  
243 (2022), video as opposed to text-based narratives were used as the method of communication as a  
244 multi-sensory representation was thought to be more visually appealing, emotive and thus more  
245 impactful. The narrative videos were developed in conjunction with, and narrated by, Doug Cooper,  
246 the expert case from Christian et al. (2023).

247 The first video narrative, *'How my beliefs about knowledge have developed, and how they influence*  
248 *my coaching'*, highlighted aspects of developmental epistemology and the role of sociocultural  
249 influences. For example, Doug told the story of how his parents (key influences) built a stile at the  
250 end of their garden which afforded him the opportunity for exploration, freedom and independence.  
251 This early experience was fundamental in developing Doug's evaluativist beliefs about personally  
252 constructed knowledge in a messy and disorganised world. This video narrative lasted approximately  
253 11 minutes. In the second video, *'My paradigm shift'*, Doug told the story of his return to education  
254 later in life. He recounted how, when presenting his 'model of coaching' to tutors and peers, he had  
255 an 'epiphany moment' where he lost faith in what he was presenting. He subsequently described  
256 coaching as being 'too messy and complex' to put into boxes and advocated a holistic, rather than  
257 reductive, approach to coach education which should be underpinned by 'embracing messiness',  
258 accepting uncertainty, and the development of a philosophy of coaching. This video illustrated  
259 epistemological aspects of knowledge as subjective, tentative and uncertain (messy, complex), as  
260 opposed to simple, certain and objective. This video narrative lasted 9 minutes. Transcripts of both  
261 narratives are available in supplementary file A.

262 Doug's story illuminates the experiences of one coach developer and how their personal  
263 epistemology changed over time. Thus, Doug's story might be viewed as a biographical master  
264 narrative (McLean et al. 2017). Master narratives are stories which are known by the majority, serve  
265 the purpose of defining acceptable and valued frameworks, and often conform to cultural  
266 expectations, while biographic master narratives provide a framework for how life should unfold  
267 (i.e., life event timings [McLean & Syed, 2015]). Using such a narrative to prompt discussion and  
268 learning holds many strengths; for example, master narratives are culturally specific, familiar stories  
269 which help put participants at ease – especially with complex subject matter – and provide 'hooks'  
270 to facilitate their connecting with each other. Yet we were also aware that master narratives can  
271 limit narrative pluralism by reducing access to alternative storylines and different ways of developing  
272 personal epistemology (Sparkes et al., 2012). Consequently, in the stages of narrative pedagogy that  
273 follow, we were cautious not to present Doug's story as the only available story, but instead to view  
274 his story as a catalyst to other stories shared among participants.

275 In the first stage of the narrative pedagogy process (narration), the video narratives were shared  
276 with participants ahead of the first focus groups so they could absorb the two stories in a manner  
277 and time of their choosing. Each narrative was accompanied by an online 'initial reactions' form  
278 designed to capture preliminary 'real time' responses to the video and help participants to think  
279 with the narratives ahead of the first focus group. Example questions included '*What are the main*  
280 *things that you took away from this story?*', '*Did anything in the story surprise you, or make you think*  
281 *differently about something?*' and '*Do you agree with Doug that coaches operate in a world where*  
282 *knowledge about coaching is complex and messy?*' Responses were collated by the first author and  
283 used to provide insight and guide questions in the main data collection.

284 In the second stage (collaboration), participants were randomly organised into three groups and  
285 invited to attend the first of two focus groups. Focus groups were chosen primarily for their capacity  
286 to generate dynamic dialogue through collective interaction, and their suitability for the exploration

287 of novel concepts (Sparkes & Smith, 2013). Thus, focus groups are well placed to support meaning  
288 making through deep dialogic exchange, a guiding principle of narrative pedagogy (Goodson & Gill,  
289 2011). All focus groups were facilitated by the first author using Microsoft Teams.

290 The primary purpose of the first focus groups was to build rapport with participants and establish an  
291 environment which mitigated the influence of power dynamics, and encouraged the sharing of  
292 information (Everard et al., 2022). These focus groups also sought to allow participants to develop a  
293 deeper understanding of the narratives by exchanging views and ideas with others. As such, these  
294 focus groups sought to provide the first 'layer' of learning in the narrative pedagogy journey.

295 Although largely unstructured, the first focus groups followed a similar format in that participants  
296 were initially asked to share and discuss their general views about the narratives and debate various  
297 aspects within them. For example, participants were asked how they felt about Doug's perspective  
298 that coach development should be a holistic, rather than reductionist endeavour. These initial  
299 discussions were supported by the facilitator referring to participants responses on the initial  
300 reactions forms. Subsequently, more focussed questions were posed; for example, given that much  
301 of the first narrative focussed on the link between Doug's beliefs about coaching knowledge and his  
302 coaching actions, participants were asked if they could think of examples of how a belief they held  
303 informed their coaching actions. As such, participants were encouraged to share their own stories in  
304 light of the narratives provided. The initial round of three focus groups lasted between 125- 135  
305 minutes and were video recorded.

306 Given the complexity of personal epistemology and its application to coaching the first author  
307 produced a supporting video entitled: '*Personal epistemology for coach developers.*' This video was  
308 viewed by the research team as the 'pedagogical component' (i.e., learning about) of the narrative  
309 pedagogy/ CPD process, and extends other narrative pedagogy designs which have favoured the  
310 sharing information with participants during data collection interactions by PowerPoint (Everard et  
311 al., 2022; Everard et al., 2024) or by sharing academic literature (McMahon et al., 2018). This

312 approach also extends the boundaries of narrative pedagogy designs in that participants could  
313 engage with and digest subject matter in a manner of their choosing. Our thinking here was guided  
314 by Goodson and Gills's (2011) contention of the need for narrative pedagogy to create space (time)  
315 for learners to navigate the chaos of learning by developing thematic and conceptual understanding  
316 and insight. Our staged approach also extends previous narrative pedagogy designs which have  
317 facilitated all three stages of the narrative pedagogy process (narration, collaboration, location) in  
318 one continuous 'sitting' (Everard et al., 2022; Everard et al., 2024; McMahon et al., 2018).

319 The video used the first author's position as a cultural insider to communicate content in an  
320 accessible manner using shared language and applied examples. In terms of epistemology theory,  
321 the video focussed on definitions, the concept of belief-action links, developmental stages, the role  
322 of sociocultural influences in the development of beliefs, and coaching knowledge as complex and  
323 tentative. The video ended by asking participants to reflect on the content in light of their  
324 experience as a coach developer and asked specific priming questions; for example, "*have you ever*  
325 *worked with absolutists, multiplists or evaluativists? How would you identify them?*" The 35-minute  
326 video (available from the first author on request) was made using the video recording function in  
327 PowerPoint and shared via MS Teams.

328 In the final stage (location), participants attended a second focus group which had two primary aims.  
329 Firstly, to understand if participants' thinking about the narratives, their own personal epistemology,  
330 or their work as a coach developer had changed following their engagement with and reflection on  
331 the video and preceding activities. Secondly, to understand the extent to which participants valued  
332 narrative learning as a form of CPD. As with the first focus groups, sessions were largely  
333 unstructured and free flowing, but punctuated with some pre-planned questions; for example, '*Have*  
334 *you ever worked with absolutists, multiplists or evaluativists*', '*How did this shape your*  
335 *decisions/actions as a coach developer*' and '*What are your thoughts about CPD done in this way?*'.

336 These focus groups lasted between 125-130 minutes. In total data collected included 6 focus groups,  
337 attended by 16 participants, which totalled 10.5 hours of discussion.

### 338 ***Data analysis***

339 A reflexive thematic analysis (RTA) was used to analyse the initial reaction forms and focus groups  
340 dataset (Braun & Clarke, 2019). RTA was judged to be the 'best fit' approach to address the central  
341 research question due to its methodological flexibility which can result in a rich, detailed and  
342 complex account of the data (Trainor & Bundon, 2020), usefulness when investigating under-  
343 researched areas (Braun & Clarke, 2006) and capacity to identify patterns of meaning within and  
344 across data in relation to participants' lived experiences (Clarke & Braun, 2017). In accordance with  
345 RTA's requirement for the researcher to enact an active and reflexive stance so as to thoughtfully  
346 engage with the data and analytical process, the process of doing the RTA followed several stages  
347 resulting in the generation of themes (Braun & Clarke, 2019; Trainor & Bundon, 2020).

348 To begin, the first author spent a prolonged period of time immersing himself in the data by listening  
349 and relistening to the video recordings, whilst simultaneously editing, reading and re-reading the  
350 transcripts. This stage also involved reading and re-reading participants initial reaction forms,  
351 referring back to field notes and to the first author's reflexive journal. Due to the nature of the  
352 narrative pedagogy approach, the data were analysed in a fluid and recursive manner (e.g.,  
353 chronologically by individual focus group, temporally by initial collaboration stage and subsequent  
354 post-epistemology video location stage, by topic and by individual) to create a holistic appreciation  
355 of the dataset. Initially, the data were read inductively (e.g., coach developers' lived experiences)  
356 and then deductively (e.g., listening to participant responses in light of personal epistemology  
357 theory). Such dialectic movement between the personal experience and the theoretical explanation  
358 has been termed abductive reasoning (Ryba et al., 2012).

359 Next, initial codes were created in an attempt to capture significant meanings of the dataset as they  
360 related to the research question (Everard et al., 2022). The analysis utilised a mix of latent and

361 semantic coding to generate tentative initial theme names which were subsequently organised,  
362 reorganised and mapped around a central organising concept (Braun & Clarke, 2019). Acting in their  
363 role as critical friends, intermittent engagement with the second and third author allowed for  
364 continual reflection and the iterative development of themes. In the final stages of analysis, writing  
365 multiple drafts of the results allowed for themes to be reviewed, collapsed and refined. Similarly to  
366 Everard et al. (2022), the analytic procedure concluded with the formulation of an overall story of  
367 the dataset within the themes presented.

### 368 ***Quality of the research***

369 Guided by a relativist approach for judging the rigour of qualitative research (Everard et al., 2024;  
370 Sparkes & Smith, 2009), several quality indicators were considered which suit the particular needs of  
371 the research. First, we propose the research to be worthy in relation to both Jones et al.'s (2024) call  
372 for research leading to a more nuanced understanding of the coach developer, and Christian et al.'s  
373 (2023) emphasis on the integration of contemporary models of personal epistemology into the  
374 sports coaching literature. Second, the coherence of the study was considered by addressing Oliver-  
375 Álvarez et al.'s (2024) call to maximise the impact of narrative research by translating findings into  
376 narrative pedagogy interventions and by extending the approach by paying particular attention to  
377 the pedagogical aspect of the research design. Third, we consider the research to be transparent  
378 based on the lead researcher assuming and maintaining a reflexive stance during the data collection  
379 and analysis, and by utilising discussion and feedback from critical friends throughout. These critical  
380 friend discussions acted as a theoretical sounding board, debating the case made in relation to the  
381 data generated and embracing the different positions of the research team (Smith & McGannon,  
382 2017). Finally, this study also included an information-rich sample, prolonged, in-depth data  
383 collection, and aligned with recent guidance for research in narrative pedagogy (McMahon et al.,  
384 2022).

### 385 **Results and discussion**

386 Thematic analysis resulted in the development of four sequentially linked, progressive themes. The  
387 central organising concept for these themes was that the participants found the content of personal  
388 epistemology, delivered via narrative pedagogy, acted as a stimulus on their thought process and  
389 practice in a variety of ways. That is, the stimulus referred to in the theme titles is the combination  
390 of the content of personal epistemology and narrative pedagogy as the mode of delivery.

391 ***A stimulus for connection***

392 In line with Goodson and Gill's (2011) work, participants outlined how narrative pedagogy moved  
393 beyond the narration of stories and acted as a stimulus for connection when discussing personal  
394 epistemology. Narrative pedagogy worked to connect participants to specific aspects of the story, to  
395 general meanings or sensations, as well as connecting to others in the group. Thus, narrative  
396 pedagogy connected both on an intrapersonal level (i.e., the story resonates with *my* experiences) as  
397 well as on an interpersonal level (i.e., the story prompts *shared* discussions with the group).

398 On an intrapersonal level, participants described feeling connected to Doug's story. As Frank (2010)  
399 puts it, stories can get under our skin. People do not simply listen to stories but get caught up in  
400 them. As Dave described:

401 I felt that I was immediately hooked into the story because there was a feeling of real  
402 empathy from almost the beginning...so even before there was the need to respond, I was  
403 enjoying the tales and definitely felt that there were parallels that I could relate to.

404 In line with narrative pedagogy, Dave was able to 'locate' the story, and this allowed him to connect.  
405 For Dave this connection occurred naturally; the story was located in what Frank (2010, p55) might  
406 call his 'inner library'. This inner library draws our attention to stories that are familiar, and which  
407 can be readily located in our own experiences. Indeed, participants highlighted that it was this  
408 familiarity, particularly with Doug's early childhood experiences, which connected them to Doug's

409 story, suggesting “My story is very similar to Doug’s” (Mike) and “I had a very similar childhood to  
410 Doug’s” (Alice). Yet this wasn’t the case for all participants. In particular, Chris described:

411 I'd say I probably didn't have that connection. I naturally find it quite challenging watching  
412 that 10-minute clip, because if you don't know the person and you're not there with them...if  
413 I'd have known Doug, I'd have attached lots of emotions to him and to what he was saying  
414 behind it. But I didn't get that quite as much as I think other people probably did.

415 Chris’s experience of Doug’s story was uncommon in the groups and illustrates that not all  
416 participants experience connection. In explaining this lack of connection Chris raises two important  
417 points: first that Doug was unknown to him and second that Doug was not present in the group. His  
418 description highlights that in order to feel connected to the story, he needed to feel connected to  
419 Doug. Frank (2010) writes that stories work to make characters available as ‘generalisable resources’  
420 that listeners use to engage in work on their own character. Yet in Chris’s case, the character  
421 seemed unavailable and disconnected, thereby resulting in less engagement. For this reason,  
422 practitioners using narrative pedagogy would benefit from checking the resonance of narratives with  
423 all participants and preparing methods to bolster that connection for anyone struggling.

424 On an interpersonal level, participants described how engaging in the focus groups provided a sense  
425 of relief. As Sally explains:

426 I’m glad it’s not just my own coaching that’s messy! I was always worried that everyone else  
427 seemed to have boxes for theirs. So, my main takeaway from that narrative is that it’s great  
428 we are talking about it and recognising it and looking to embrace it.

429 Although Sally clearly connected to the content within the narratives, it is the interaction with fellow  
430 coach developers which provided her with a sense of assurance. In this instance, the narratives  
431 acted for Sally by mitigating feelings of isolation, promoting mutual resonance and bringing her into  
432 relationships with others (Frank, 2013). As Goodson & Gill (2011) explain, narrative learning has

433 particular benefit when people begin to appreciate, they are part of the “common stream of  
434 humanity” (p.67) and that their problems are generally problems that confront everyone.  
435 Additionally, coach developers connected to concepts related to personal epistemology. For  
436 example, Sam connected with Doug’s conception of embracing the messiness and chaos of coaching:

437         So yeah, I fully concur that coaching is messy, and I'm constantly questioning what I'm doing.  
438         I'm always, you know, *'is this the right thing for the learner, is it the right time, the right*  
439         *approach'*? So, uncertainty is something that I just embrace, and I also believe that, you  
440         know, everything is messy or everything is chaotic, like the environment we send people into  
441         is chaotic, humans are inherently messy and chaotic. The process of learning is messy and  
442         chaotic, so it's just... chaos abounds, right? And, what we try to do as coach developers, is  
443         try to give people tools to, not necessarily control the chaos, but kind of operate within that  
444         chaotic environment.

445 Sam’s connection to coaching as messy and chaotic is indicative of an evaluativist epistemology  
446 insofar it infers a conception of coaching knowledge as complex, tentative and uncertain (Barzilai &  
447 Eshet-Alkalai, 2015). Additionally, by making links to broader social and cultural contexts of learning,  
448 the coaching environment and human nature, Sam goes further than just connecting to the  
449 narrative; he is also able to locate the story within his own practice as a coach developer and  
450 speculate on how he helps others to develop (e.g., by giving them tools to operate within the chaos  
451 [Everard et al., 2022]).

452 Whilst the notion of coaching as messy and chaotic (complex, tentative, uncertain) resonated with  
453 participants, there was a divergence of opinion about how this might translate into working with  
454 trainees. As Charlie describes:

455         I agree with Sally, I love the thought of embracing the chaos, but I think it's so big and it's so  
456         complex. People come to us wanting these absolute answers, but they're also coming to us

457 very green and almost at the point where they haven't really sussed out command style  
458 instruction yet. And to throw in all this other stuff in a sort of organic chaotic way can  
459 definitely be... overwhelming. So, you've got to have something, I guess, to hang that chaos  
460 on to.

461 Although Charlie accepts the idea of encouraging new coaches to embrace the complexities of  
462 coaching (an inherently evaluativist perspective [Kuhn & Weinstock, 2002]), he fears this perspective  
463 may be overwhelming for those who have yet to develop foundational knowledge of coaching.  
464 Charlie advocates for a progressive approach whereby a foundational, more absolutist, conception  
465 provides the framework to 'hang' more complex concepts. Narrative pedagogy has worked for  
466 Charlie by both stimulating a connection to the narratives and epistemology theory, and also by  
467 encouraging him to consider their practical application. That is, Charlie has located his learning into  
468 his work as a coach developer (Goodson & Gill, 2011). In conclusion, this theme highlights the value  
469 of narrative pedagogy as a form of CPD through its capacity to provide evocative stimuli that created  
470 meaningful connections to narratives and each other. That is, participants were able to join with the  
471 story and interpret it from their own vantage point, feel its nuances and experience it affecting their  
472 own lives (Frank, 2013). Furthermore, it emphasises the value seen by these experienced coach  
473 developers in epistemology theory, specifically the nature of knowledge as complex and tentative  
474 and the implications this has for their practice.

#### 475 ***A stimulus for meaning making***

476 This theme encapsulates how the layered nature of narrative pedagogy enabled participants to  
477 actively construct meanings of the nature of epistemology and its role in coaching on the foundation  
478 of the narratives, the precepts of epistemology theory and their experiences as coach developers.  
479 The theme is underpinned by Smith and Sparkes (2009b) notion that "*meaning is basic to being*  
480 *human and being human entails actively construing meaning*" (p.3).

481 Narrative pedagogy stimulated coach developers to construct new meanings both on a personal  
482 level (i.e., of themselves) and of their role as a coach developer. In terms of meaning making on a  
483 personal level, when discussing the narrative in which Doug talks about how significant others have  
484 shaped his beliefs about coaching, Dave reflected on his own experiences of his relationship with his  
485 father:

486 The big thing I keep coming back to is those massive influences in my past ...the best analogy  
487 I can give is it's like a magnet and I'm a piece of iron trying to move away from that magnetic  
488 pull but there are times where it just pulls me right back again. And I'll give you the exact  
489 example... my father; a huge character in our family, huge character in the town, massive  
490 influence on me. A complete absolutist. You know, a builder. Never time to coach you. Just  
491 to tell you how to do it, and he was very efficient. And try as I might, I will pull away from  
492 that and reflect away from that and think deeply. And you know, I'd like to think I've  
493 evolved. But I know there are times when I just come whamming back to it, you know, and I  
494 think it's good for me to know that. I think this [focus] group, this has really forced me to  
495 reflect and think and identify that, and not be ashamed of it, but accept that that's sort of  
496 part of who I am. And when I dig really deep, this is something I bring to my career in  
497 coaching.

498 Muis et al. (2006) propose that in the formative years, general epistemic beliefs are largely shaped in  
499 the social context; in Dave's instance, by his father. Narrative pedagogy provided Dave with the  
500 understanding by which to characterise his father as an epistemological absolutist and describe his  
501 evolution from that position and accept his experiences as part of his identity. Oliver-Álvarez et al.  
502 (2024) argue that when a person is emotionally involved in a story, they become more responsive to  
503 and persuaded by its content. Evidently, Doug's story had a deep emotive influence on Dave, initially  
504 causing him conflict but ultimately resolution and a new meaning of himself and his epistemology.  
505 Additionally, Dave's experience highlights the reciprocity of epistemic beliefs between different

506 domains (Merk et al., 2018; Muis et al., 2006), in this case between general 'life domain' beliefs and  
507 the domain of sports coaching. Such reciprocity supports Christian et al.'s (2023) contention that  
508 those interested in developing the personal epistemology of trainee coaches should take time to  
509 explore formative experiences in a range of social contexts (school, sport, family) to understand how  
510 these underpin beliefs about coaching.

511 Narrative pedagogy also stimulated meaning making among participants in their role as coach  
512 developers. For example, in his second focus group, Sam explains how the personal epistemology  
513 video stimulated thinking about how epistemic beliefs drive coaching behaviours:

514 I think my biggest take away was...to change what a coach does, you must change what they  
515 know, which requires a change in beliefs. I think that was my biggest take away, it's that kind  
516 of linkage there...between the doing, the knowing, and the believing. We're often trying to  
517 change what the coach does on this end, right? That's what we're in the business of;  
518 adjusting and modifying their actions. And that's often quite challenging to do, particularly if  
519 they're rooted in their beliefs and because of that, there might be an unwillingness to  
520 change and you know, and that kind of, a links up to the next bit of both the structure of  
521 knowledge and the certainty of knowledge, if they're on the simple or certain side it's really  
522 difficult to make that change happen. And so, for me, it was kind of an 'A-ha' moment, it just  
523 made sense.

524 In this example, Sam connects the idea of intransigent beliefs to the absolutist perspective of  
525 knowledge as simple and certain (Hofer & Pintrich, 1997), thus showing an accurate application of  
526 epistemology theory. Thus narrative pedagogy has enabled Sam to process information from the  
527 narratives and video and take on board a new perspective he had never previously considered  
528 (Frank, 2010). As Sam says, '*it just made sense*'.

529 In addition to participants making new meanings about particular aspects of the materials  
530 presented, others, such as Angus, go further by reconceptualising his role as a coach developer:

531 OK, so I really liked that journey of absolutism to multiplism to evaluativism, so I guess  
532 you've got, like, an absolutist who encounters reality, gets a bit sad for a while, and ideally  
533 emerges wiser and humbler and maybe a little bit more pragmatic. And I feel like, that  
534 journey... I see that loads. And going back to you Alice, I think it was yourself, talking about  
535 '*what's our purpose as developers?*', I feel actually my main purpose is to hold their hands  
536 through that hard bit of, of going from rules, a rules-based reality to context.

537 In this example, Angus is mindful of the emotionally unnerving nature of moving from a 'rules-based'  
538 (absolutist) conception of coaching knowledge to a context-driven, subjective (evaluativist) one  
539 (Barzilai & Eshet-Alkalai, 2015). He goes on to reflect on an earlier exchange with Alice to  
540 conceptualise his role as one of emotional support (i.e. holding their hand) to the absolutist and  
541 guiding them to emerge as 'wiser' and 'humbler' pragmatists. As such, Narrative pedagogy provided  
542 Angus with a framework to locate his understanding of personal epistemology into his work as a  
543 coach developer and make meaning of his role in the process (Goodson & Gill, 2011). Although  
544 several researchers have proposed that epistemic beliefs develop within educational encounters  
545 through a process of cognitive disequilibrium and subsequent realignment (e.g., Bendixen & Rule,  
546 2004; Muis et al., 2006), there is scope for further research into the social and emotional role of the  
547 educator within such encounters.

548 Overall, we contend that narrative pedagogy acted to evoke, compel and stimulate participants to  
549 develop new meanings of personal epistemology on a personal level, on the level of *what* they do as  
550 a coach developer and on the level of *how* they do it as a coach developer. Given the complexity of  
551 personal epistemology as a multifaceted philosophical construct and the nature of the participants  
552 as a practically minded, non-academic audience, the ability to create meaning from the materials  
553 presented should not be undervalued and highlights the value and appropriateness of narrative  
554 pedagogy in communicating complex information in an accessible way. As Smith & Sparkes (2009b)  
555 explain, narratives act as vehicles through which we create, communicate, and fill our world with

556 meaning. This is because meanings are not stable properties to be discovered, but rather are  
557 constructed, modified and ultimately, as Frank (2010) proposes, act as guidance systems which help  
558 people to understand who we are and as such, help us make sense of the “blooming buzzing  
559 confusion” (p.30)

560 ***Narrative pedagogy stimulates new ideas***

561 This theme describes how the narratives and pedagogical discussions stimulated reciprocal exchange  
562 between participants resulting in discernible new ideas and ways of thinking. The theme exemplifies  
563 the deeply social process of narrative pedagogy and highlights the value of collaborative dialogue in  
564 the generation of new ideas (Goodson & Gill, 2011). Laura exemplifies the theme by explaining how  
565 collaborating with others acted as the catalyst for developing new ideas which no individual could  
566 have had in isolation:

567 In terms of impact...watching the videos... I don't think anything particularly new was in  
568 there. I think that it was kind of like, 'Yep, no, yep, yep, yep'. But it's this conversation that  
569 matters; it's conversations like this that make learning and thinking happen. And just getting  
570 other people's thoughts and opinions. There's been a lot of '*somebody said something and*  
571 '*somebody else has built on it and somebody else has built on that*', and no one of us would  
572 have had that chain of thought without the other one saying something.

573 To demonstrate how iterative exchanges culminated in new thinking and ideas, upon hearing Doug's  
574 story of 'embracing the messiness,' participants entered into a discussion about how as coach  
575 developers they actively model uncertainty (i.e., 'not knowing') to their trainees. As Mike explained:

576 I totally believe that telling them '*It's OK to be rubbish*' is something is a message that we  
577 don't convey enough. We're throwing all this stuff at them, and it's totally OK to be bad with  
578 it. And to actually take the time to say: '*Look, here's something that I'm not quite so good*

579 *at'*. And just coming back to that thing that Peter and Alan mentioned earlier, just be humble  
580 with it and highlight the fact that we don't always know, and we don't always do it right.

581 Mike's notion of 'being bad with it' and 'not always knowing' is indicative of modelling a well-  
582 developed epistemological position by viewing knowledge of coaching as uncertain and tentative  
583 (Schommer, 1998). Mike goes on to associate the idea of not knowing with being humble, a  
584 characteristic shared among high-level adventure sports coaches (Christian et al., 2017).

585 Subsequently, Sam picks up on Mike's concept of humility and builds on the conversation by linking  
586 it to his ideas of modelling uncertainty by demonstrating vulnerability to learners:

587 So, when you talk about humbleness and things like that, it's expressing vulnerability. And I  
588 think once you're in that space of evaluativism like, you have to be that person. You have to  
589 *be* vulnerable because you just have to embody the fact that knowledge is constantly  
590 changing and evolving and you're existing in this kind of soup that's spinning around, and  
591 you have to operate in that space. And I think that that just embodying that is something  
592 that might help people move from that absolutism forward because you're giving them, you  
593 know, a model, if you will. A behavioural model of what this (evaluativism) looks like.

594 In this example, Sam builds on Mike's ideas and goes on to offer his view that that modelling  
595 uncertainty has the potential to help make sense of the constantly changing and evolving 'soup' of  
596 coaching and facilitate the development of absolutist beliefs towards an evaluativist perspective.

597 Subsequently, Dave returns to Mike's original idea to question the point in a coach's development  
598 that uncertainty should be introduced:

599 I just wonder whether our modelling needs to evolve as we're with our trainee coaches. If  
600 we go in from the get-go into, you know, Mike, that '*we are humble and we haven't got all*  
601 *the answers'*. Is there a risk that at that stage of their development they're going to think  
602 '*For \*\*\*\*\* sake I wanted answers and this guy's telling me he hasn't got any'*. Whereas

603           when we've won their trust, you know, that's when we're allowed to sort of let the cat out  
604           the bag and say, you know guys, 'it ain't quite like that....'

605   This example highlights how narrative pedagogy stimulated the reciprocal sharing of thoughts and  
606   ideas (modelling uncertainty) that resulted in new – and nuanced – ideas of the concept. It also  
607   reflects a solid understanding of epistemology theory (e.g., knowledge as tentative/uncertain and  
608   developmental stages) and highlights that participants are taking away new understandings from the  
609   process. Furthermore, the ability to analyse and apply epistemological concepts to their work as  
610   coach developers indicates the higher-order thinking skills of participants and the value of narrative  
611   pedagogy as a stimulus to move beyond basic comprehension of the subject matter. Overall, this  
612   theme exemplifies Goodson and Gill's (2011) contention of how the collaborative endeavour of  
613   “intense conversation, dialogue, questioning negotiating meaning and critical interpretive  
614   interpretation” (p.127) assists in navigating the ‘maze’ of often competing meanings and  
615   understandings. Goodson and Gill (2011) refer to this as “the most chaotic part of the process” but  
616   one that, when successfully navigated, can result in new understandings and interpretations of  
617   events.

#### 618   ***Narrative pedagogy as a stimulus for change***

619   This final theme describes how narrative pedagogy stimulated participants by enabling them to  
620   create links between the stories presented, the pedagogical video, collaborative discussions and the  
621   wider context of their professional practice which, ultimately resulted in the intention to change  
622   some aspect of their professional practice (Everard et al., 2024).

623   Although participants readily shared ideas for change, they also highlighted how the concept was  
624   unnerving. As Dave, a seasoned coach developer with 28 years' experience explained:

625           I've got a course coming up in a week's time with a group of racing coaches. And right now,  
626           I'm scared shitless, and actually, this CPD has just made me more scared because I'm going

627 to go at this next course in a slightly different way. And I like to be a man with a plan, but I'm  
628 going to brave up and do things differently. And I think what I'm going to do is spend more  
629 effort and time at the very beginning to probe a little back with everybody. So, this whole  
630 thing about past influences, '*what has affected your beliefs in terms of how you coach?*,' and  
631 what I need to be prepared to do then is adapt what I then present over the two days.

632 Evidently, the notion of how sociocultural factors influence the development of epistemic beliefs  
633 (Muis et al., 2006) resonated with Dave. Specifically, he is taking action by further profiling the  
634 learners on the course to enable him to better adapt the course to suit their individual needs. Such  
635 actions are essential evidence of bridging the knowledge-practice gap, evidence which is lacking in  
636 many coach development courses which impact knowledge more than behaviours (Stodter &  
637 Cushion, 2019). However, for other participants, change is a work in progress and their ideas are not  
638 fully formed as Dave's. As Angus describes:

639 So short-term, it's about changing an e-mail and thinking about what the questions should  
640 be to inform me of where they're at on that absolutist to evaluativist spectrum. And in the  
641 long-term, it's... can I reframe lots of coaching questions about our beliefs about knowledge  
642 and who we are as people, rather than our beliefs about learning? Which will be an  
643 interesting idea to play with. It's a fluffy idea though because I haven't thought about it yet. I  
644 need to sit down and put some words around it.

645 In this example, Angus describes how he intends to develop questions to gain a deeper  
646 understanding of his learners' epistemology. He feels understanding learners' beliefs about  
647 knowledge will help him situate learning about coaching within the realm of human nature, rather  
648 than as an academic exercise. Perhaps most notable here is Angus' intention to 'play' with a 'fluffy  
649 idea.' Although he has a firm grasp of developmental epistemology (Kuhn & Weinstock, 2002),  
650 Angus' idea for change is not yet fully formed. McGannon et al. (2022) describe the pedagogical  
651 value of stories as 'entry points' for change which work differently for people and ultimately lead to

652 “new ways of living” (p. 942). As such, for Angus narrative pedagogy has provided an entry point,  
653 however tangible change is still a work in progress.

654 Both Dave and Angus’ ideas for change involve gaining insight into learners’ epistemic beliefs  
655 through use of questioning, with the view that a deeper understanding of learners will help situate  
656 their work as developers. As such, their intentions for change are subtle and implicit. Other  
657 participants favoured more explicit intentions for change, as Sophie describes:

658 I think, having had these discussions, it would be useful for the coaches coming through to  
659 actually use these words, and for us to explain this stuff to them and be more explicit. So,  
660 Alice’s questions might frontload the sessions, and Ian might draw out pieces of information,  
661 but I actually think sticking the labels on it... we shouldn't be frightened of having that  
662 explicit discussion, an open discussion in the room. Not necessarily sticking labels on anyone,  
663 just getting them to contemplate and appreciate it [personal epistemology].

664 Narrative pedagogy worked differently for Sophie in that she felt sufficiently strongly about the  
665 value of the subject matter that she intends to explicitly integrate it through ‘open discussion’ into  
666 her practice. Other participants share Sophie’s more explicit approach and connected personal  
667 epistemology with coaching philosophy (Cushion & Partington, 2016; Williams & Macnamara, 2021).  
668 For example, Peter highlights his intention to change the way he delivers the Core Coach  
669 programme: “I was thinking about introducing the philosophy session in significantly earlier... almost  
670 right at the beginning but I think, avoiding the term philosophy, I think it turns people away but  
671 using the term beliefs”. Not only does Peter consider the topic significant enough to be addressed  
672 from the start of the coach’s development, but he also feels changing the terminology he uses from  
673 ‘philosophy’ to ‘beliefs’ is a better way to appeal to learners and engage with them.

674 Within their discussed intentions for change, the coach developers highlighted potential challenges  
675 they might meet. For example, Joe raised the possibility of resistance from learners:

676 One of the notes I wrote from the video was, *'If you want to change what the coach does,*  
677 *we need to change what they know and what they believe'*; but how do we support that  
678 absolutist, you know, because they might not want to change, they might have absolutely no  
679 desire to change their belief structure. I think it could well be that the 'absolutist approach'  
680 is what they've seen be really effective, or they believe to be effective at their club, for  
681 example.

682 In this example, Joe is recognising a difficulty that might arise and seeking assistance from the group  
683 in addressing it. In response to Joe, Sam advocated a subtle, supportive approach of offering new  
684 ideas to encourage changes in thinking:

685 I think one of the ways to help people move through (developmental stages) is just  
686 constantly confronting people with, you know, new evidence. But in a very kind of  
687 thoughtful and gentle way so that you don't kind of rip the rug out from underneath them.  
688 But that kind of gentle prodding of like *'Oh, have you considered this?'*

689 In summary, this concluding theme highlights the value of narrative pedagogy as a form of CPD in  
690 that participants were able to draw on their learning about personal epistemology (take aways) to  
691 discuss a range of intentions for change. As Oliver-Álvarez et al. (2024) state, the purpose of  
692 narrative pedagogy is to use stories to 'ambush' learners and promote change by exposing them to  
693 stories they might otherwise not hear and, as such, increase their inner library. Even with the more  
694 staggered implementation of narrative pedagogy within the present study in contrast to previous  
695 projects, it is perhaps not surprising that narrative pedagogy would result in ideas for change that  
696 are not yet fully formed given this "ambush" nature of narratives. Indeed, given Frank's (2010)  
697 contention that narrative research should provoke ongoing dialogue, it may even be desirable that  
698 change is a long-term process. It could be argued that identifying and discussing ideas for change is  
699 an appropriate outcome for a discrete CPD event for coach developers. Evidencing actual change  
700 may be better positioned within reaccreditation portfolios or as part of formal qualifications.

## 701 **Practical implications**

702 This study is the first to employ narrative pedagogy to educate coach developers about the role of  
703 personal epistemology in coaching. As such, it provides several practical implications for both coach  
704 developers and researchers. First, considering the reported value of learning about personal  
705 epistemology from the participants in this study, those responsible for the education and training of  
706 coach developers should engage with this topic as a means of gaining deeper understanding of how  
707 beliefs about knowledge of coaching underpin coaching behaviour. However, the conceptually and  
708 intellectually challenging nature of the subject matter raises concerns about the practicalities of  
709 coach developers facilitating meaningful dialogue around personal epistemology. Accordingly, we  
710 conclude that an insight into specifically targeted aspects of epistemology, including belief-led  
711 coaching actions, developmental stages, and the role of the sociocultural environment in the  
712 development of beliefs would provide sufficient depth to stimulate conversation amongst coaches  
713 and coach developers to draw meaning which may in turn foster enhanced coaching practice.  
714 Second, given the complexity of the subject matter, the design of CPD programmes which address  
715 this topic should be staged, contain a variety of stimuli, and create opportunities for learners to  
716 discuss and share ideas and to listen to others. Equally, coach developers should be supported in  
717 adopting a facilitative stance that encourages curiosity, openness and dialogue, rather than feeling  
718 the need to “teach” epistemology in a traditional sense. Third, researchers and practitioners that  
719 utilise narrative pedagogy should formulate predefined learning objectives, include a distinct  
720 ‘pedagogical component’, include priming activities that capture in-the-moment initial reactions to  
721 narratives, and take place over a period of time to allow thinking to develop and foster social  
722 connections.

723 **Finally, we thank an anonymous reviewer for encouraging us to consider the broader philosophical**  
724 **implications of coaches and coach developers engaging with personal epistemology. Although a full**  
725 **exploration of these issues lies beyond the scope of this manuscript, we recognise that future**

726 scholarship may wish to grapple with more fundamental questions about whether – and to what  
727 extent – epistemic beliefs can or should be treated as “content” within coach education. Our  
728 intention within this study was not to position personal epistemology as a fixed body of knowledge,  
729 but to show how narrative pedagogy can create dialogic spaces in which coaches examine how their  
730 ways of knowing shape their practice. In this sense, our approach resists standardisation by  
731 foregrounding reflexivity, openness, and meaning-making rather than prescriptive instruction. As the  
732 field continues to explore the role of philosophy in coaching, there remains important work to be  
733 done in interrogating the political, cultural, and methodological implications of bringing epistemic  
734 inquiry into professional learning contexts.

### 735 **Limitations and future research**

736 Despite the original contributions of this study, future research would do well to address its  
737 limitations. First, we have focused specifically on personal epistemology within this study. Our  
738 decision to do so was based on the well-established literature on epistemology within the fields of  
739 psychology and education (Barzilai & Eshet-Alkalai, 2015; Merk et al., 2018; Muis et al., 2006, 2016),  
740 which may inform sports coaching. We acknowledge that other metaphysics (e.g., ontology) are also  
741 deserving attention in future research. In addition, we acknowledge the view of an anonymous  
742 reviewer that this work could be considered in light of other perspectives (e.g., through a social  
743 justice lens). Future research extending the current work would benefit from adopting a broader  
744 perspective. Second, as outlined in the method, this research relied on a master narrative of the  
745 epistemological development of a renowned coach. We are conscious that having access to a single  
746 narrative runs the risk of limiting narrative pluralism by ‘locking’ participants into the story and  
747 reducing their access to other narratives available in the cultural repertoire, which may work  
748 differently for them (Monforte et al., 2018). In this study, the use of focus groups may have  
749 mitigated against the prevalence of one dominant master narrative, but future research using one  
750 single voice as a catalyst for discussion might consider the type of story used. In this case we used a

751 narrative deemed familiar to participants, but group discussions might also be stimulated by  
752 previously unheard, marginalised, or deviant stories. Given the novelty of the developmental  
753 personal epistemology literature in the sports coaching domain, we have intentionally focused on  
754 personal epistemology as content (i.e., coach developers learning about epistemology). To support  
755 and extend this initial exploration, future research should focus on processes of epistemic change in  
756 coach development. A useful initial step would be to explore the barriers and facilitators  
757 encountered by coach developers and the coaches they support. Additionally, the theoretical  
758 implications of personal epistemology in relation to sports coaching merit further research  
759 attention. As noted in the introduction, the notion of domain-specific epistemology suggests that  
760 beliefs about knowledge in coaching may differ from those in other domains. A fruitful next step  
761 may be to explore how the specific epistemic structure of coaching underpins the development of  
762 knowledge within the domain. **Finally, exploring the reciprocity and transfer of epistemic thinking  
763 between knowledge domains (e.g., culture, nature, politics) has potential to offer insights into how  
764 thinking and talking about beliefs regarding knowledge and knowing may shape personal  
765 epistemology within broader life contexts.**

## 766 **Conclusion**

767 The nature and development of personal epistemology is an integral yet under-researched  
768 component of sports coaching which has the potential to lead to more considered coaching  
769 behaviours. Accordingly, in response to calls for research to integrate contemporary models of  
770 personal epistemology into coach development (Christian et al., 2023) and to maximise the impact  
771 of narrative research by translating findings into narrative pedagogy interventions (Oliver-Álvarez et  
772 al., 2024), this original research sought to examine a) what coach developers took away from  
773 narrative learning about personal epistemology, and b) the extent to which narrative pedagogy is a  
774 valuable form of CPD for coach developers. Our results show that personal epistemology was  
775 perceived to be a useful concept for experienced coach developers, and that narrative pedagogy was

776 an appropriate vehicle to enhance participants understanding of personal epistemology and its role  
777 in coaching. In general, as reflected by the names of the themes and evidenced by their active  
778 involvement and contribution of ideas, participants found the narrative pedagogy process to be a  
779 stimulating and engaging exercise. Furthermore, participants found the narratives, personal  
780 epistemology video, and pedagogical discussions to be meaningful and relevant in their role as coach  
781 developers. More specifically, the progressive order of themes presented in the results shows firstly  
782 that participants were able to create intrapersonal and interpersonal connections to the materials  
783 presented. Subsequently, participants were able to actively construe meaning from the materials  
784 and discussions and locate new meanings in their work as coach developers (Goodson & Gill, 2011;  
785 Smith & Sparkes, 2009b). Consequently, through a process of reciprocal engagement, participants  
786 were able to apply new understanding and meanings to discuss, explore, and develop new ideas  
787 about their roles. Finally, and perhaps most importantly, participants were able to discuss how the  
788 narrative pedagogy process inspired ideas for change in their future practice. As such, through  
789 appropriately facilitated CPD for coach developers, contemporary theories of personal epistemology  
790 can successfully inform the practice of coach.

## 791 **References**

- 792 Ashford, M., Cope, E., Abraham, A., & Poolton, J. (2025). Coaching player decision making in rugby  
793 union: exploring coaches espoused theories and theories in use as an indicator of effective coaching  
794 practice. *Physical Education and Sport Pedagogy*, 30(1), 28–49.  
795 <https://doi.org/10.1080/17408989.2022.2153822>
- 796 Barry, M., Collins, L., Grecic, D., & Barry, M. (2023). Differences in epistemological beliefs in a group  
797 of high-level UK based caving, mountaineering and rock-climbing instructors. *Journal of Adventure  
798 Education and Outdoor Learning*, 00(00), 1–21. <https://doi.org/10.1080/14729679.2023.2220834>

- 799 Barzilai, S., & Eshet-Alkalai, Y. (2015). The role of epistemic perspectives in comprehension of  
800 multiple author viewpoints. *Learning and Instruction, 36*, 86–103.  
801 <https://doi.org/10.1016/j.learninstruc.2014.12.003>
- 802 Bendixen, L. D., & Rule, D. C. (2004). An Integrative Approach to Personal Epistemology: A Guiding  
803 Model. *Educational Psychologist, 39*(1), 69–80. [https://doi.org/10.1207/s15326985ep3901\\_7](https://doi.org/10.1207/s15326985ep3901_7)
- 804 Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in*  
805 *Psychology, 3*(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- 806 Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in*  
807 *Sport, Exercise and Health, 11*(4), 589–597. <https://doi.org/10.1080/2159676X.2019.1628806>
- 808 Campbell, S. M., Fallaize, A., & Schempp, P. (2020). Most Valued Experiences in an International  
809 Coach Developer Training Programme. *International Sport Coaching Journal, 8*(1), 130–135.  
810 <https://doi.org/10.1123/iscj.2019-0063>
- 811 Christian, E., Berry, M., & Kearney, P. (2017). The identity, epistemology and developmental  
812 experiences of high-level adventure sports coaches. *Journal of Adventure Education and Outdoor*  
813 *Learning, 17*(4), 353–366. <https://doi.org/10.1080/14729679.2017.1341326>
- 814 Christian, E., Hodgson, C. I., Berry, M., & Kearney, P. (2019). It's not what, but where: how the  
815 accentuated features of the adventure sports coaching environment promote the development of  
816 sophisticated epistemic beliefs. *Journal of Adventure Education and Outdoor Learning, 20*(1), 68–80.  
817 <https://doi.org/10.1080/14729679.2019.1598879>
- 818 Christian, E., Greenlees, I. A., & Kearney, P. E. (2023). Flowing with the TIDE: A case study of the  
819 nature and development of epistemic beliefs of a high-level adventure sports coach. *International*  
820 *Journal of Sports Science and Coaching. https://doi.org/10.1177/17479541231170853*
- 821 Clarke, V., & Braun, V. (2017). Thematic analysis. *The Journal of Positive Psychology, 12*(3), 297–298.  
822 <https://doi.org/10.1080/17439760.2016.1262613>

- 823 Collins, L., Collins, D., & Grecic, D. (2015). The epistemological chain in high-level adventure sports  
824 coaches. *Journal of Adventure Education and Outdoor Learning*, 15(3), 224–238.  
825 <https://doi.org/10.1080/14729679.2014.950592>
- 826 Côté, J., & Gilbert, W. (2009). An Integrative Definition of Coaching Effectiveness and Expertise.  
827 *International Journal of Sports Science & Coaching*, 4(3), 307–323.  
828 <https://doi.org/10.1260/174795409789623892>
- 829 Culver, D. M., Duarte, T., Kraft, E., & Werthner, P. (2024). Learning as a social enterprise. In S. Rynne  
830 & C. J. Mallett (Eds.), *The Routledge Handbook of Coach Development in Sport* (p. 17). Routledge.
- 831 Culver, D. M., Werthner, P., & Trudel, P. (2019). Coach Developers as ‘Facilitators of Learning’ in a  
832 Large-Scale Coach Education Programme: One Actor in a Complex System. *International Sport*  
833 *Coaching Journal*, 6(3), 296–306. <https://doi.org/10.1123/iscj.2018-0081>
- 834 Cushion, C., & Partington, M. (2014). A critical analysis of the conceptualisation of ‘coaching  
835 philosophy.’ *Sport, Education and Society*, 21(6), 851–867.  
836 <https://doi.org/10.1080/13573322.2014.958817>
- 837 Everard, C., Wadey, R., Day, M., & Howells, K. (2024). Examining the applied value of narratives for  
838 professional practice: An exploration of sports injury narratives in action. *Journal of Applied Sport*  
839 *Psychology*, 0(0), 1–22. <https://doi.org/10.1080/10413200.2024.2370793>
- 840 Everard, C., Wadey, R., Howells, K., & Day, M. (2022). Construction and communication of evidence-  
841 based video narratives in elite sport: Knowledge translation of sports injury experiences. *Journal of*  
842 *Applied Sport Psychology*, 0(0), 1–24. <https://doi.org/10.1080/10413200.2022.2140225>
- 843 Frank, A. W. (2010). *Letting stories breathe: A socio-narratology*. University of Chicago Press.
- 844 Frank, A. W. (2013). *The wounded storyteller: Body, illness & ethics*. University of Chicago Press.
- 845 Goodson, I., Biesta, G., Tedder, M., & Adair, N. (2010). *Narrative learning*. Routledge.

- 846 Goodson, I., & Gill, S. (2011). *Narrative pedagogy: Life history and learning*. Peter Lang.
- 847 Grecic, D., & Collins, D. (2013). The Epistemological Chain: Practical Applications in Sports. *Quest*,  
848 65(2), 151–168. <https://doi.org/10.1080/00336297.2013.773525>
- 849 Grecic, D., MacNamara, A., & Collins, D. (2013). The epistemological chain in action: coaching in high  
850 level golf. *Journal of Qualitative Research in Sports Studies*, 7(1), 103–126.  
851 <http://clok.uclan.ac.uk/31155/http://www.uclan.ac.uk/research/www.clok.uclan.ac.uk>
- 852 Hofer, B. (2002). Personal epistemology as a psychological and educational construct: An  
853 introduction. In B. Hofer & P. R. Pintrich (Eds.), *Personal Epistemology: The Psychology of Beliefs*  
854 *About Knowledge and Knowing* (pp. 3–14). Routledge.
- 855 Hofer, B., & Pintrich, P. R. (1997). The Development of Epistemological Theories: Beliefs about  
856 Knowledge and Knowing and Their Relation to Learning. *Review of Educational Research*, 67(1), 88–  
857 140. <https://doi.org/10.2307/1170620>
- 858 Jones, T., Allen, J., & Macdonald, S. (2024). The “Face” of Coach Development: A Systematic Review  
859 of the Role of the Coach Developer. *International Sport Coaching Journal*, 11(1), 1–19.  
860 <https://doi.org/10.1123/iscj.2022-0017>
- 861 Kuhn, D., & Weinstock, M. (2002). What is epistemological thinking and why does it matter? In P. R.  
862 Hofer, B. K., & Pintrich (Ed.), *Personal Epistemology: The Psychology of Beliefs About Knowledge and*  
863 *Knowing* (pp. 121–144).
- 864 Kuhn, D., Cheney, R., & Weinstock, M. (2000). The development of epistemological understanding.  
865 *Cognitive Development*, 15(3), 309–328. [https://doi.org/10.1016/S0885-2014\(00\)00030-7](https://doi.org/10.1016/S0885-2014(00)00030-7)
- 866 Kvale, S., & Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research interviewing*.  
867 Sage.

- 868 McLean, K. C., Shucard, H., & Syed, M. (2017). Applying the master narrative framework to gender  
869 identity development in emerging adulthood. *Emerging Adulthood, 5*(2), 93-105.  
870 <https://doi.org/10.1177/2167696816656254>
- 871 McLean, K. C., & Syed, M. U. (Eds.). (2015). *The Oxford handbook of identity development*. Oxford  
872 University Press.
- 873 McMahon, J., Lang, M., Zehntner, C., & McGannon, K. R. (2023). Athlete and coach-led education  
874 that teaches about abuse: an overview of education theory and design considerations. *Sport,  
875 Education and Society, 28*(7), 855–869. <https://doi.org/10.1080/13573322.2022.2067840>
- 876 McMahon, J., & Smith, B. (2016). Ivor Goodson: Narrative coach learning and pedagogy. In L. Nelson,  
877 R. Groom, & P. Potrac (Eds.), *Learning in Sports Coaching: Theory and application* (pp. 123–133).  
878 Routledge.
- 879 McMahon, J., Knight, C. J., & McGannon, K. R. (2018). Educating parents of children in sport about  
880 abuse using narrative pedagogy. *Sociology of Sport Journal, 35*(4), 314–323.  
881 <https://doi.org/10.1123/ssj.2017-0186>
- 882 Melhuish, L., & Ryan, G. (2024). Undergraduate perspectives on the epistemological chain in  
883 adventure sports coaching. *Journal of Adventure Education and Outdoor Learning, 24*(3), 422–441.  
884 <https://doi.org/10.1080/14729679.2022.2087196>
- 885 Merk, S., Rosman, T., Muis, K. R., Kelava, A., & Bohl, T. (2018). Topic specific epistemic beliefs:  
886 Extending the Theory of Integrated Domains in Personal Epistemology. *Learning and Instruction,  
887 56*(March), 84–97. <https://doi.org/10.1016/j.learninstruc.2018.04.008>
- 888 Muis, K. R., Bendixen, L. D., & Haerle, F. C. (2006). Domain-general and domain-specificity in  
889 personal epistemology research: Philosophical and empirical reflections in the development of a  
890 theoretical framework. *Educational Psychology Review, 18*(1), 3–54.  
891 <https://doi.org/10.1007/s10648-006-9003-6>

- 892 Muis, K. R., Trevors, G., Duffy, M., Ranellucci, J., & Foy, M. J. (2016). Testing the TIDE: Examining the  
893 Nature of Students' Epistemic Beliefs Using a Multiple Methods Approach. *Journal of Experimental*  
894 *Education, 84*(2), 264–288. <https://doi.org/10.1080/00220973.2015.1048843>
- 895 Oliver-Álvarez, M., Peiró-velert, C., & Monforte, J. (2024). *Narrative pedagogy in sport, PETE , and*  
896 *physical education : A scoping review*. <https://doi.org/10.1177/1356336X241279380>
- 897 Partington, M., O'Gorman, J., Greenough, K., & Cope, E. (2022). An Investigation into Coach  
898 Developers' Theories in Practice, Learning, and Development on a Continuing Professional  
899 Development Course. *International Sport Coaching Journal, 9*(2), 161–169.  
900 <https://doi.org/10.1123/iscj.2020-0124>
- 901 Ryba, T. V., Haapanen, S., Mosek, S., & Ng, K. (2012). Towards a conceptual understanding of acute  
902 cultural adaptation: A preliminary examination of ACA in female swimming. *Qualitative Research in*  
903 *Sport, Exercise and Health, 4*(1), 80–97. <https://doi.org/10.1080/2159676X.2011.653498>
- 904 Schommer, M. (1998). The influence of age and education on epistemological beliefs. *British Journal*  
905 *of Educational Psychology, 68*(4), 551–562. <https://doi.org/10.1111/j.2044-8279.1998.tb01311.x>
- 906 Scott, S. D., Hartling, L., O'Leary, K. A., Archibald, M., & Klassen, T. P. (2012). Stories – a novel  
907 approach to transfer complex health information to parents: A qualitative study. *Arts & Health, 4*(2),  
908 162–173. <https://doi.org/10.1080/17533015.2012.656203>
- 909 Smith, B. (2018). Generalizability in qualitative research: misunderstandings, opportunities and  
910 recommendations for the sport and exercise sciences. *Qualitative Research in Sport, Exercise and*  
911 *Health, 10*(1), 137–149. <https://doi.org/10.1080/2159676X.2017.1393221>
- 912 Smith, B., & McGannon, K. R. (2017). Developing rigor in qualitative research: problems and  
913 opportunities within sport and exercise psychology. *International Review of Sport and Exercise*  
914 *Psychology, 11*(1), 101–121. <https://doi.org/10.1080/1750984X.2017.1317357>

- 915 Smith, B., & Sparkes, A. C. (2009). Narrative inquiry in sport and exercise psychology: What can it  
916 mean, and why might we do it? *Psychology of Sport and Exercise*, *10*(1), 1–11.  
917 <https://doi.org/10.1016/j.psychsport.2008.01.004>
- 918 Smith, B., & Sparkes, A. C. (2009). Narrative analysis and sport and exercise psychology:  
919 Understanding lives in diverse ways. *Psychology of Sport and Exercise*, *10*(2), 279–288.  
920 <https://doi.org/10.1016/j.psychsport.2008.07.012>
- 921 Sparkes, A. C., Pérez-Samaniego, V., & Smith, B. (2012). Social comparison processes, narrative  
922 mapping and their shaping of the cancer experience: A case study of an elite athlete. *Health (United*  
923 *Kingdom)*, *16*(5), 467–488. <https://doi.org/10.1177/1363459311428229>
- 924 Sparkes, A. C., & Smith, B. (2013). *Qualitative research methods in sport, exercise and health: From*  
925 *process to product*. Routledge.
- 926 Stodter, A., & Cushion, C. J. (2019). Layers of Learning in Coach Developers' Practice-Theories,  
927 Preparation and Delivery. *International Sport Coaching Journal*, *6*(3), 307–316.  
928 <https://doi.org/10.1123/iscj.2018-0067>
- 929 Stoszkowski, J., & Collins, D. (2014). Communities of practice, social learning and networks:  
930 Exploiting the social side of coach development. *Sport, Education and Society*, *19*(6), 773–788.  
931 <https://doi.org/10.1080/13573322.2012.692671>
- 932 Stoszkowski, J., & Collins, D. (2016). Sources, topics and use of knowledge by coaches. *Journal of*  
933 *Sports Sciences*, *34*(9), 794–802. <https://doi.org/10.1080/02640414.2015.1072279>
- 934 Trainor, L. R., & Bundon, A. (2020). Developing the craft: reflexive accounts of doing reflexive  
935 thematic analysis. *Qualitative Research in Sport, Exercise and Health*, *13*(5), 705–726.  
936 <https://doi.org/10.1080/2159676X.2020.1840423>

- 937 Williams, G. G., & Macnamara, Á. (2021). Coaching on the Talent Pathway: Understanding  
938 the Influence of Developmental Experiences on Coaching Philosophy. *International Sport*  
939 *Coaching Journal*, 8(2), 141–152. <https://doi.org/10.1123/iscj.2019-0099>
- 940 Wood, S., Richardson, D., & Roberts, S. J. (2024). '[Trails] and tribulations': exploring wash-out in  
941 cycling coach education. *Qualitative Research in Sport, Exercise and Health*, 16(3), 271–284.  
942 <https://doi.org/10.1080/2159676X.2023.2290535>

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