(Re)conceptualising coach education and development: towards a rhizomatic approach

Thomas M. Leeder

Published online: 16 Apr 2024.

Submit your article to this journal ↗

Article views: 162

View related articles ↗

View Crossmark data ↗

Routledge
Taylor & Francis Group

(Re)conceptualising coach education and development: towards a rhizomatic approach

Thomas M. Leeder [ORCID]

School of Education and Lifelong Learning, University of East Anglia, Norwich, UK

ABSTRACT

To ensure sport coaches across all domains deliver ethical practices, appropriately educating the coaching workforce is of paramount importance. Yet, coach education programmes have been heavily critiqued for failing to enhance coaches' knowledge and practice. In recognising the sociocultural nature of coach learning, researchers have drawn upon prominent social theorists such as Bourdieu, Foucault, and Bernstein amongst others to critically analyse coach education provision. However, the notion of rhizomatic learning, derived from the philosophy of Deleuze and Guattari, has yet to be applied to coach education research, despite its ability to disrupt normalised and linear education systems. Consequently, the aim of this new horizons paper is to introduce rhizomatic learning as a possible framework for (re) conceptualising coach education and development. The intention of this paper is to put Deleuze and Guattari's concepts "to work" to help theorise how social actors and coaching discourses function to produce learning and practice.

Introduction

To ensure sport coaches across all domains deliver ethical coaching practices, appropriately educating the coaching workforce is of paramount importance. Formal coach education courses delivered by sport governing bodies (SGBs) are regularly positioned as the traditional method to prepare sport coaches for their occupation (Lyle & Cushion, 2017), however, such provision has received heavy condemnation both conceptually and empirically within the sport coaching literature. Criticisms primarily argue that the delivered knowledge fails to meet the needs and desires of sport coaches, resulting in limited impact or change to their coaching practice (e.g. Cope, Cushion, Harvey, & Partington, 2021; Cushion, Stodter, & Clarke, 2022; Kuklick & Mills, 2023; Wang, Casey, & Cope, 2023; Williams & Bush, 2019).

Specifically, coach education provision is considered dogmatic and adopts a closed circle format (Piggott, 2012), meaning coaches are subjected to standardised discourses which reinforce a right way to coach, producing docile coach learners who lack creativity and an ability to think differently about their coaching practice (e.g. Cushion, Stodter, & Clarke, 2022; Denison, 2019; Kuklick & Mills, 2023; Williams & Bush, 2019).

However, formal coach education is never neutral (Lyle & Cushion, 2017), instead, courses delivered by SGBs are shaped by a complex array of social, cultural, political, and economical factors, which interact over time to (re)produce ideological interpretations of what effective coaching and learning encompasses (Chapman, Richardson, Cope, & Cronin, 2019; Cushion et al., 2022). In recognising the sociocultural nature of coach learning, in recent years coach education scholarship has drawn upon prominent social theorists including Pierre Bourdieu (e.g. Townsend & Cushion, 2017; Webb & Leeder, 2022), Michel Foucault (e.g. Cushion et al., 2022; Kuklick & Mills, 2023), and Basil Bernstein (e.g. Dempsey, Cope, Richardson, Littlewood, & Cronin, 2022; Williams & Bush, 2019) when seeking to critically interpret issues related to power, discourse, and the contested nature of knowledge and practice within formal provision.

While insightful, Jones (2019, p. 155) has recently questioned whether there has been enough "exploitation" of these social theorists within sport coaching research, instead advocating for the use of "novel and nuanced concepts" to advance our existing understanding of these issues. Thus, rather than (re) turning to the oeuvre of sociological (and psychological) theories (Jones, 2019), a consideration of philosophical thinking would seem worthwhile to further develop a critically reflexive discourse towards coach learning and education (Isidori, Miglioratia, Maulinia, & Echazarreta, 2015). Indeed, as Hughes (2022, p. 109) argues, philosophy is "everywhere yet nowhere in much of the coaching literature", with the allure of sociological and psychological perspectives leading to an overreliance on empiricism, as opposed to conceptual investigation within the field (Hughes, 2022). As such, in echoing the calls of Williams and Bush (2019, p. 375), this paper attempts to "resuscitate the theoretical base" of coach education and development scholarship, by encouraging readers to contemplate how philosophical inquiry can support the facilitation of coach learning, through introducing Deleuze and Guattari's (1987) notion of the rhizome from their seminal book, *A Thousand Plateaus*.

To enhance and develop future coach education provision, there is an evident need for SGBs and their associated stakeholders "to continue to consider how they can design and develop courses which best support coaches' learning and development" (Wang et al., 2023, p. 2). Rhizomatic learning, derived from the philosophy of Deleuze and Guattari (1987), provides a cluster of concepts that can be employed both theoretically and methodologically to disrupt Westernised, neoliberal, and linear

thinking patterns which plague education systems (Strom, Dailey, & Mills, 2018). In short, thinking rhizomatically helps us to understand how social actors (i.e. sport coaches, coach developers) and ideas (i.e. curriculum, knowledge, discourses) interact to produce learning and practice within educational settings (Strom et al., 2018), such as formal coach education courses. Over recent years, there has been growing interest in the use of Deleuzoguattarian theory when critically analysing teaching and teacher education provision. For example, research has applied rhizomatic concepts to understand the impact of peer coaching, the negotiation of teacher educators' practice, and the process of teachers learning a new school subject (e.g. Charteris & Smardon, 2016; Hordvik, MacPhail, & Ronglan, 2020; Scanlon, MacPhail, & Calderón, 2022). Nonetheless, the application of Deleuze and Guattari's (1987) concepts within sport coaching, and specifically the coach learning and education literature, is somewhat absent.[1] Thus, a rhizomatic approach extends our knowledge and understanding when critically analysing coach education programmes, as opposed to "doing more of the same" and recycling existing sociological and psychological theories (Jones, 2019, p. 154).

Consequently, the aim of this new horizons paper is to briefly introduce rhizomatic learning as a framework for (re)conceptualising coach education and development. While acknowledging there is no right way to facilitate meaningful coach learning (Lyle & Cushion, 2017), the intention of this paper is to put Deleuze and Guattari's (1987) rhizomatic concepts "to work", which provides an opportunity to think differently and reimagine ways forward. To begin, existing criticisms of formal coach education programmes will be explored via a Deleuzoguattarian lens, before (re)conceptualising coach education provision through introducing and applying three core rhizomatic concepts.

Existing coach education programmes: a tree like approach

When discussing education systems, Deleuze and Guattari (1987) use the analogy of a tree and a rhizome. They argue that dominant educational discourses within neoliberal society can be considered *arborescent* or tree like. These education systems are underpinned by dualist and positivist thinking which mirrors a tree like structure, where one trunk (i.e. a universal idea, value, belief) reproduces itself into branches which follows a hierarchical trajectory (Strom & Viesca, 2021; Strom et al., 2018). Linear, arborescent structures emphasise a binary logic that reproduces thinking uncritically, providing distinctions between right or wrong and good or bad (Strom & Viesca, 2021). Thus, tree thought is dogmatic, reducing the potential for creative and diverse ways of thinking, while maintaining the status quo and protecting existing power structures (Strom & Viesca, 2021).

Within the coaching literature, research has demonstrated that much formal coach education provision is akin to arborescent or tree like thinking, designed and delivered through a binary logic underpinned by "the law of the one that becomes two, then of the two that becomes four" (Deleuze & Guattari, 1987, p. 6). Indeed, Kuklick and Mills (2023, p. 1) have recently argued that most coach education programmes are underpinned by "linear and reductionistic knowledge produced by rational positivist science research", which has left a lasting impact on the construction and enactment of formal provision (Lyle & Cushion, 2017). Consequently, coach education courses provide superficial learning experiences for coaches, embracing an audit culture which strips coaches of agency and merely produces a coaching workforce capable of reproducing normalised and transmitted knowledge (Cushion et al., 2022; Kuklick & Mills, 2023; Williams & Bush, 2019). The educational discourse that prevails within formal coach education provision is one which marginalises learners (Cope et al., 2021), with individuals unable to comprehend the power relations they are engaged with which stifles deviation away from the norm (Denison, 2019; Kuklick & Mills, 2023).

Despite a learner-centred rhetoric, coach education is largely oppressive (Chapman et al., 2019), producing uncritical consumers of carefully packaged and agenda laden knowledge (Williams & Bush, 2019). Arborescent tendencies are enacted within coach education through standardised curricula and pre-scribed knowledge, uniform assessment measures, passive coach developer pedagogies, and closed-circle formats which perpetuates defined binaries e.g. embedded beliefs towards good vs. bad coaching practice, which need to be reproduced uncritically by learners to be considered competent (Cope et al., 2021; Cushion et al., 2022; Piggott, 2012; Williams & Bush, 2019). In short, much coach education provision involves "puerile examples taken out of context and arbitrarily erected into models ... the master [coach developer] sets a problem, our [coaches] task is to solve it, and the result is accredited true or false by a powerful authority [SGB]" (Deleuze, 1995, p. 158; *insertions added*).

From a Deleuzoguattarian perspective, coach education can be analysed through the concept of tracing, "referring to a process of transferring an image from one medium to another" (Deleuze & Guattari, 1987, p. 5). Tracings are the articulation and enactment of arborescent thought, allow-ing ideas and practices to become standardised, generic, and imposed within a techno-rationalist model (Sherman & Teemant, 2021). Due to coach education being designed and formatted via "a logic of tracing and repro-duction" (Deleuze & Guattari, 1987, p. 11), prescriptive coaching practices and strategies are provided to coaches, with the expectation that these will be copied. Thus, curricula and knowledge "comes ready-made" (Deleuze & Guattari, 1987, p. 12), waiting to be consumed and regurgitated by coaches through decontextualised, linear, and uniform methods of assessment (Cushion et al., 2022).

Future coach education programmes: a rhizomatic approach

If arborescent thinking is linear and produces knowledge reproduction, in contrast, rhizomatic thinking emphasises multiplicity and leads to knowledge (co)production (Deleuze & Guattari, 1987). Using the analogy of a rhizome represents a non-linear and complex way to think about education and society, with Deleuze and Guattari (1987, p. 6) proposing that "if tree logic operates via the binary in either/ors, rhizomes operate in *ands*, connecting and expanding rather than closing off or creating boundaries". In botanical terms, a rhizome is a stem which grows horizontally underground, producing roots and shoots containing nodes in an unpredictable manner. Strom et al., (2018, p. 9) suggest that rhizomes include "heterogeneous elements that connect, and as these elements forge new connections, the rhizome changes or becomes different. Rather than a single unity operating in isolation and reproducing itself". Critically analysing education systems, such as formal coach education, using a rhizomatic lens allows us to challenge the status quo, ultimately questioning linear, dogmatic, and positivist assumptions which are so entrenched they are often resistant to change (Deleuze & Guattari, 1987). While there are some similarities with social constructivist (interpretivist) perspectives, a rhizomatic approach offers a conceptual framework to theorise the relational process of educating and learning inclusive of material and discursive elements, rather than being an epistemological position (see Strom et al., 2018). Indeed, it could be argued that when applied to coach education provision, rhizomatic thinking resonates with Piggott's (2015) application of Karl Popper's work regarding the open society as a model to adopt through the promotion of experimentation, choice, and challenging normative power structures.

Adopting a rhizomatic approach when designing education programmes should facilitate creativity and agency (Charteris & Smardon, 2016). Individuals are provided with autonomy and control over their learning, enabling a progression away from arborescent structures which limit difference and optionality (Mackness & Bell, 2015). Hence, increased learner autonomy within a rhizomatic approach demonstrates a fundamental shift away from hierarchical, institutionalised, and top down power structures within educational contexts (Strom & Martin, 2017). Specifically, increased agency and choice occurs in relation to course content and espoused knowledge, with the notion that the curriculum within a rhizomatic approach emerges from the community of learners itself (Bell, Mackness, & Funes, 2016; Cormier, 2008). Within formal coach education, learners might share their personal experiences, perceptions, and beliefs towards topic areas which are either self-directed or presented as a catalyst by a coach developer.

Therefore, within a rhizomatic approach the curricula content of any coach education course becomes bespoke and organic, while not existing a priori (Bell et al., 2016). Both coach developers and learners are unaware of the direction, flow, and evolution of conversations before the course commences.

> In the rhizomatic model of learning, curriculum is not driven by predefined inputs from experts; it is constructed and negotiated in real time by the contributions of those engaged in the learning process. This community acts as the curriculum, spontaneously shaping, constructing, and reconstructing itself and the subject of its learning in the same way that the rhizome responds to changing environmental conditions. (Cormier, 2008, p. 3)

Accordingly, due to the idiosyncratic nature of individuals' learning journeys, as opposed to the tracing analogy used to describe arborescent structures, rhizomatic learning can be perceived as a map which is "open and connectable in all of its dimensions; it is detachable, reversible, susceptible to constant modification … reworked by an individual, group, or social formation" (Deleuze & Guattari, 1987, p. 12). Maps are active, adaptable, and constantly under (re)construction based upon an individual's decisions and choices, whereas tracings are closed and ultimately reproduce prescribed concepts and knowledge (Sherman & Teemant, 2021). Deleuze and Guattari (1987) developed a plethora of analytical tools in addition to six fundamental principles associated with the rhizome (see Mackness et al., 2016), however, it is beyond the scope of this paper to discuss and apply each one in sufficient depth to the context of coach education. Hence, the remainder of this paper briefly introduces three core concepts associated with rhizomatic learning, while highlighting their implications for formal coach education provision: *assemblages*, *rhizomatic lines*, and *becoming*. Although discussed in isolation, these concepts are inherently connected.

Assemblages

In appreciating the importance of connection, multiplicity, and expansion within a rhizomatic approach, assemblages are a crucial Deleuzoguattarian concept. Although somewhat abstract, Strom and Martin (2017, p. 7) define an assemblage as "an aggregate of elements, both human and non, that function collectively in a contextually unique manner to produce something". Within educational settings, the "something" that is produced refers to learning, practice, and a specific identity amongst other aspects, occurring through the amalgamation of human and non-human elements (e.g. beliefs, norms, ways of being). To contextualise, a coach education course (whether in person or

virtual) can be considered an assemblage, comprised of human (coach learners, coach developers), discursive (shared language, dress, equipment, terminology), and abstract (ideas, knowledge, values) components which interact to (co)produce coach learning and practice. Indeed, recent research has begun to shed light on how materiality (e.g. non-human components) within coach education shapes the pedagogies of coach developers, and ultimately, coach learning (Maclean, 2021).

Assemblages can function on a large scale, for example, coach education courses within a SGB's national curriculum and delivery, or independently on a smaller scale, such as the use of group tasks within a course. Nevertheless, regardless of size, an assemblage refers to the way human and non-human elements merge together to "produce knowledge, action, or other happenings in particular ways" (Strom & Viesca, 2021, p. 214). The concept of assemblages allows more critical scrutiny towards situations and phenomena, providing a lens to view coach education as a complex and fluid entity, where outcomes (i.e. learning, practice, dispositions, identities) arise from the relations between constituent parts, demonstrated within the teacher education literature (see Charteris & Smardon, 2016; Sherman & Teemant, 2021; Strom & Viesca, 2021). Rhizomes emphasise connection and multiplicity, encapsulated through the lines which form their anatomy. These rhizomatic lines, constructed in one of three ways, have the potential to reconfigure, maintain, or adapt the makeup of assemblages, demonstrating their shifting and pliable nature (Deleuze & Guattari, 1987). Our attention now turns to these.

Rhizomatic lines

The notion of rhizomatic lines helps us to understand how change and modification occurs within social settings, in part demonstrating how the elements of an assemblage function together (Strom & Martin, 2017). Within their work, Deleuze and Guattari (1987) describe a range of rhizomatic lines (molar, molecular, lines of flight) which each possess different roles, creating connections within and between the components of an assemblage (Charteris & Smardon, 2016). As such, rhizomatic lines have a pervasive influence on the structure and activity of assemblages, explaining how "status quos are maintained – or conversely, how they may be disrupted" (Strom & Viesca, 2021, p. 214). The three types of rhizomatic lines are described below, supported by coach education examples.

- **Molar lines**: These are structured lines of territorialisation operating on a macro level, which reinforce normalised ways of thinking,

reproducing dogma(s), and maintain existing power balances. Although socially constructed, molar lines are dualistic and represent established beliefs and accepted practices. For example, within a coach education course, molar lines might take the shape of privileged bio-physical/psychological curricula knowledge, a promoted coaching philosophy or style, normative perceptions towards what and how to coach, instrumental rationality, or SGB agendas.

- **Molecular lines**: These carry out the work of molar lines on a micropolitical level, expressed through individuals' agentic thoughts and practices. Compared to rigid molar lines, molecular lines are subtle and flexible, either reinforcing molar lines or alternatively breaking free and deviating away from the norm. Within a coach education course, molecular lines are represented through the agentic day-to-day dispositions, communications, and actions of both coaches and coach developers, which will either reinforce or challenge the accepted norms within that provision.

- **Lines of flight**: When molecular lines deviate from the norm, they become lines of flight, causing rupture and challenge to the status quo within an assemblage through a process of deterritorialisation. While temporal in nature, lines of flight may eventually become recaptured by molar lines; however, this modification enables small changes to be made overtime which can disrupt arborescent thought. Such examples can be demonstrated through coach learners questioning foundational assumptions, engaging in critical reflection, debunking coaching norms and myths, or when coach developers encourage experimentation, creativity, and provide coach learners with choice over course content, structure, and/or assessment.

Molar lines create *striated* space, present within arborescent coach education provision, where coach learners follow fixed, pre-determined learning journeys. In contrast, rhizomatic learning enables progression through a *smooth* space, where coach learning is open to change, transformation, and endless possibilities. Fundamentally, the argument made by Deleuze and Guattari (1987) is that lines of flight over time have the potential to reconfigure and change what is accepted as and perceived to be the norm, leading to the deterritorialisation and reterritorialisation of assemblages. Therefore, coaches and coach developers operating within coach education assemblages should function collaboratively to stimulate lines of flight and deterritorialisation, where individuals can "think outside the box" freely to facilitate new meanings, changes, and differentiation (Denison, 2019).

Becoming

The metaphor of learning as becoming has been applied previously within the sport coaching literature (see Webb & Leeder, 2022), nevertheless, conceptualising learning through a rhizomatic lens suggests that engagement within assemblages accentuates a state of *becoming* for individuals. The concept of becoming helps position the notion of identity as something which is dynamic, flexible, and malleable in nature, emphasising a rhizomatic shift where learning involves a state of becoming, which is perceived as a process, rather than a fixed position of being in the world (Deleuze & Guattari, 1987). Arborescent and tree like education systems are likely to produce recipients of codified knowledge, however, a rhizomatic approach and its associated state of becoming creates the opportunity of learning differently for individuals (Charteris & Smardon, 2016).

Coach education programmes will be engaged with by individuals in variable ways, with attending coaches each at a different stage of *becoming* through encountering the associated assemblage (people, discourses, norms) idiosyncratically. Within a rhizomatic approach to coach education, it is worthwhile positioning coaches as nomads, recognising that each learner is following their personal journey, with a multiplicity of paths available within smooth, rather than striated, spaces (Deleuze & Guattari, 1987). As Deleuze (1995, p. 153) argues, the term nomad acts as a symbol for conceptualising learning as a process of becoming, as nomads always "transmute and reappear in the lines of flight of some social field". In sum, rhizomatic thinking acknowledges coach learners are nomads in a state of becoming, who are following idiosyncratic learning paths despite encountering the same coach education assemblage (Deleuze & Guattari, 1987).

Concluding thoughts and future research

Deleuze (1995, p. 165) emphasised that "there is no more a method for learning than there is a method for finding treasures". As stated within the introduction, it is not the intention of this paper to state that formal coach education programmes *should* be informed by a rhizomatic approach. Indeed, Deleuze and Guattari (1987) advocated for a non-versus stance between arborescent and rhizomatic perspectives, arguing that both have the potential to facilitate and hinder creative thinking and learning if used (in)appropriately. Instead, despite their vagueness and abstract nature, Deleuzoguattarian concepts are "so rich to think with" (Pringle & Landi, 2017, p. 118), it seems a worthwhile endeavour to imagine what coach education and development might look like through a rhizomatic lens.

However, Deleuze and Guattari's (1987) concepts are only useful if they allow us to reflect and think differently about existing problems within society. In this instance, the problem being that the current design and delivery of coach education and development programmes fails to meaningfully impact upon coach learning and practice (e.g. Cope et al., 2021; Cushion et al., 2022; Kuklick & Mills, 2023; Wang et al., 2023; Williams & Bush, 2019). Thus, in terms of its implications, rhizomatic learning provides SGB stakeholders (e.g. policy makers, course designers, coach developers) with a cluster of malleable concepts to stimulate critical reflection on their existing coach education programmes, with the hope of (re)conceptualising alternative provision which extends beyond linear approaches. Rhizomatics asks questions related to context, function, and production to address issues within educational settings (Strom & Martin, 2017). Consequently, future research questions for sport coaching scholars who wish to further explore rhizomatic learning and its implications for coach education might include:

(1) What are the active ingredients of coach education and development informed by a rhizomatic approach?
(2) What form(s) of coach learning and practice does a rhizomatic approach to coach education and development produce?
(3) How can coach developers effectively be trained to understand, design, and deliver coach education and development programmes informed by a rhizomatic approach?
(4) Given the growth of technology enhanced learning within coach education, how can rhizomatic principles be integrated within online provision?

Although not an exhaustive list, there is an evident need for future empirical research to apply, integrate, and analyse the practicality and value of rhizomatic learning within coach education and development provision. It is recognised there is a danger that rhizomatic learning could merely become a prescription *for* coach education (Cope et al., 2021), as opposed to providing evidence *of* its implementation and subsequent successes and challenges. Thus, in paying homage to recent work by Voldby and Klein-Døssing (2020), one solution might involve conducting action research projects which collaborates with coach education stakeholders (e.g. coaches, coach developers, policy makers). Working concurrently with individuals at the coal face to design, experiment, and produce conceptually grounded provision will help demonstrate how Deleuzoguattarian ideas can be practically applied within courses, alongside exploring the potential outcomes, challenges, and impact associated with a rhizomatic approach.

Note

1. Some of the ideas and arguments presented in this paper are expanded upon else-where with some practical implications for, and specific features of, rhizomatic coach education discussed in more depth (see Leeder, 2022).

ORCID

Thomas M. Leeder http://orcid.org/0000-0002-7456-2175

References

Bell, F., Mackness, J., & Funes, M. (2016). Participant association and emergent curriculum in a MOOC: Can the community be the curriculum? *Research in Learning Technology*, *24* (1), 1–19. doi:10.3402/rlt.v24.29927

Chapman, R., Richardson, D., Cope, E., & Cronin, C. (2019). Learning from the past; a Freirean analysis of FA coach education since 1967. *Sport, Education and Society*, *25* (6), 618–697. doi:10.1080/13573322.2019.1654989

Charteris, J., & Smardon, D. (2016). Professional learning as 'diffractive' practice: Rhizomatic peer coaching. *Reflective Practice*, *17*(5), 544–556. doi:10.1080/14623943. 2016.1184632

Cope, E., Cushion, C. J., Harvey, S., & Partington, M. (2021). Investigating the impact of a Freirean informed coach education programme. *Physical Education and Sport Pedagogy*, *26*(1), 65–78. doi:10.1080/17408989.2020.1800619

Cormier, D. (2008). Rhizomatic education: Community as curriculum. *Innovate: Journal of Online Education*, *4*(5), 1–6. https://nsuworks.nova.edu/innovate/vol4/iss5/2

Cushion, C. J., Stodter, A., & Clarke, N. J. (2022). 'It's an experiential thing': The discursive construction of learning in high-performance coach education. *Sport, Education and Society*, *27*(7), 844–861. doi:10.1080/13573322.2021.1924143

Deleuze, G. (1995). *Difference and repetition*. New York: Columbia University Press.

Deleuze, G., & Guattari, F. (1987). *A thousand plateaus: Capitalism and schizophrenia*. Minneapolis: University of Minnesota Press.

Dempsey, N., Cope, E., Richardson, D. J., Littlewood, M. A., & Cronin, C. (2022). An examination of content knowledge in formal coach education curriculum. *Sport, Education and Society*, *29*(2), 221–239. doi:10.1080/13573322.2022.2131761

Denison, J. (2019). What it really means to 'think outside the box': Why Foucault matters for coach development. *International Sport Coaching Journal*, *6*(3), 354–358. doi:10.1123/iscj. 2018-0068

Hordvik, M., MacPhail, A., & Ronglan, L. T. (2020). Developing a pedagogy of teacher education using self-study: A rhizomatic examination of negotiating learning and practice. *Teaching and Teacher Education*, *88*, 102969. doi:10.1016/j.tate.2019.102969

Hughes, C. (2022). Philosophy *for* coaching rather than philosophy *of* coaching: Some conceptual clarifications. *Sports Coaching Review*, *11*(1), 108–126. doi:10.1080/21640629.2021.1995261

Isidori, E., Miglioratia, M., Maulinia, C., & Echazarreta, R. R. (2015). Educational paradigms and philosophy of football coaching: A theoretical and practical perspective. *Procedia - Social & Behavioral Sciences*, *197*, 614–621. doi:10.1016/j.sbspro.2015.07.203

Jones, R. (2019). Sport coaching research: A brief look around and forward. In C. L. T. Corsby & C. N. Edwards (Eds.), *Exploring research in sports coaching and pedagogy: Context and contingency* (pp. 153–158). Newcastle upon Tyne: Cambridge Scholars Publishing.

Kuklick, C. R., & Mills, J. P. (2023). Post-structural pedagogy in a coach development curriculum. *Sports Coaching Review*, 1–22. doi:10.1080/21640629.2023.2192640

Leeder, T. M. (2022). Closing reflections on football coach education: Towards a rhizomatic approach. In T. M. Leeder (Ed.), *Coach education in football: Contemporary issues and global perspectives* (pp. 263–277). London: Routledge.

Lyle, J., & Cushion, C. (2017). *Sport coaching concepts: A framework for coaching practice* (2nd ed.). London: Routledge.

Mackness, J., & Bell, F. (2015). Rhizo14: A rhizomatic learning cMOOC in sunlight and in shade. *Open Praxis*, *7*(1), 25–38. doi:10.5944/openpraxis.7.1.173

Mackness, J., Bell, F., & Funes, M. (2016). The rhizome: A problematic metaphor for teaching and learning in a MOOC. *Australasian Journal of Educational Technology*, *32*(1), 78–91. doi:10.14742/ajet.2486

Maclean, J. (2021). The 'lieutenants' of coaching: How materiality shapes coach developers' practices. *Somatechnics*, *11*(2), 265–282. doi:10.3366/soma.2021.0355

Piggott, D. (2012). Coaches' experiences of formal coach education: A critical sociological investigation. *Sport, Education and Society*, *17*(4), 535–554. doi:10.1080/13573322.2011.608949

Piggott, D. (2015). The open society and coach education: A philosophical agenda for policy reform and future sociological research. *Physical Education and Sport Pedagogy*, *20*(3), 283–298. doi:10.1080/17408989.2013.837435

Pringle, R., & Landi, D. (2017). Re-reading Deleuze and Guattari's a thousand plateaus. *Annals of Leisure Research*, *20*(1), 117–122. doi:10.1080/11745398.2016.1204138

Scanlon, D., MacPhail, A., & Calderón, A. (2022). A rhizomatic exploration of a professional development non-linear approach to learning and teaching: Two teachers' learning journeys in 'becoming different'. *Teaching and Teacher Education*, *115*, 103730. doi:10.1016/j.tate.2022.103730

Sherman, B., & Teemant, A. (2021). Unravelling effective professional development: A rhizomatic inquiry into coaching and the active ingredients of teacher learning. *Professional Development in Education*, *47*(2–3), 363–376. doi:10.1080/19415257.2020.1825511

Strom, K. J., Dailey, A., & Mills, T. (2018). Nonlinear negotiations: Constructing practice as a first-year teacher. *Teacher Education Quarterly*, *45*(3), 7–28.

Strom, K. J., & Martin, A. D. (2017). *Becoming-teacher: A rhizomatic look at first-year teaching*. Rotterdam: Sense Publishers.

Strom, K. J., & Viesca, K. M. (2021). Towards a complex framework of teacher learning-practice. *Professional Development in Education*, *47*(2–3), 209–224. doi:10.1080/19415257.2020.1827449

Townsend, R., & Cushion, C. (2017). Elite cricket coach education: A Bourdieusian analysis. *Sport, Education and Society*, *22*(4), 528–546. doi:10.1080/13573322.2015.1040753

Voldby, C. R., & Klein-Døssing, R. (2020). "I thought we were supposed to learn how to become better coaches": Developing coach education through action research. *Educational Action Research*, *28*(3), 534–553. doi:10.1080/09650792.2019.1605920

Wang, Z., Casey, A., & Cope, E. (2023). Coach experiences of formal coach education developed by national governing bodies: A systematic review. *Physical Education and Sport Pedagogy*, 1–13. doi:10.1080/17408989.2023.2230235

Webb, K., & Leeder, T. M. (2022). Dispositions and coaching theories: Understanding the impact of coach education on novice coaches' learning. *Sport, Education and Society*, *27*(5), 618–631. doi:10.1080/13573322.2021.1887846

Williams, S., & Bush, A. J. (2019). Connecting knowledge(s) to practice: A Bernsteinian theorising of a collaborative coach learning community project. *Sport, Education and Society*, *24*(4), 375–389. doi:10.1080/13573322.2017.1376638