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A critical realist approach to theorising coaching practice

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Abstract

Current attempts to theorise coaching practice employ specific disciplinary approaches underpinned by often implicit meta-theoretical assumptions, notably scientism and interpretivism. This paper proposes the use of critical realism as a valuable alternative. Three key themes are highlighted: ontological depth, layering and emergence, and open systems and complexity. Within each theme the assumptions and approaches underpinning existing coaching research are described and critiqued and an alternative position developed. The result is the tentative beginnings of multi-layered relational and interdisciplinary conception of coaching practice which seeks to understand how a range of causal factors at different layers contribute to coaching outcomes.

Introduction

Coaching research has provided specific disciplinary, notably psychological and sociological, knowledge of specific layers of coaching and coaching practice. For example, researchers have investigated topics such as coaches' cognitions, behaviours, athlete-coach interactions, and institutional and cultural influences (e.g. Abraham, Collins, & Martindale, 2006; Cushion, 2001; Jowett & Cockerill, 2003; Lacy & Darst, 1985; Potrac, Jones, & Armour, 2002). These disciplinary perspectives are associated with specific meta-theoretical assumptions – notably scientism and interpretivism – which influence discussions about what coaching is, how knowledge is generated, and how we should use this knowledge to build interventions to support coaches (North, 2013). This chapter establishes the basis for an alternative approach for understanding, evaluating, and developing coaching practice based on the philosophy and social theory of critical realism.

Critical realism is most commonly associated with Roy Bhaskar's analysis of the natural (Bhaskar, 1975) and social sciences (Bhaskar, 1998 [1978]), but has been adopted and developed by a number of prominent UK thinkers (e.g. Archer, 1995; Collier, 1994; Pawson, 1989; Sayer, 1984). It suggests that the social world has an underlying material and emergent causal structure that is not easily identified through events and our experiences of them. Researchers use theory to speculate about these underlying causal forces and how they relate to each other in specific contexts to produce outcomes/events including those involving coaching.

The chapter highlights three key features of critical realism: (1) ontological depth; (2) layering and emergence in social practice; and (3) open systems and complexity. Within each theme, the assumptions and approaches underpinning existing coaching research are described and critiqued and an alternative position developed. The result is the tentative beginnings of a multi-layered and relational conception of coaching practice, which seeks to identify how a range of causal influences contribute to coaching outcomes. This is captured through an interdisciplinary approach which neither prioritises specific layers of coaching (e.g., the cognitive or social), nor presents coaching practice *a priori* as simple and stable or complex and dynamic. The configuration of these different causal influences and their resultant outcome patterns are likely to vary considerably between context (Pawson, 1989).

Ontological depth

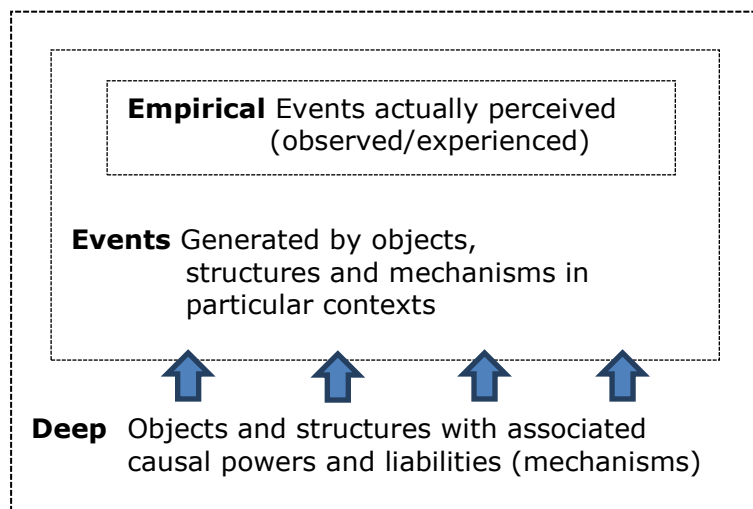
All social scientific research, including coaching research necessarily makes assumptions about the nature of the social world (ontology) and how we develop knowledge claims about it (epistemology). These assumptions shape the description of the objects under study (e.g., coaches, athletes, etc.), their relationship with each other, and the research method chosen. Coaching researchers very rarely make their assumptions explicit, and may often be unaware of their implicit influence on research practice and outputs (North, 2013).

Existing coaching practice research makes ontological assumptions about coaching on epistemological foundations. For example, it is common for coaching researchers using psychology as a parent discipline to root their work in a scientism epistemology and quantitative methodology (North, 2013). This presents a view of, or approach to understanding, coaching which has been variously described as atomistic, mechanistic, systematic, controllable and predictable (e.g. Jones & Wallace, 2005). These descriptions are an inevitable result of the epistemology and methodology chosen. Coaching is described in this way because the objects of research enquiry are often captured and analysed through reductionist approaches, using simple observation or self-report research strategies, and quantitative analysis. More sophisticated psychological approaches which utilise qualitative methods still result in simplified and generalised accounts of coaching practice because of their residual link with scientism, and the broader aim of providing abstracted 'models' to inform coach development (Cushion, 2007; North, 2013).

Similarly, coaching research using sociology as a parent discipline makes ontological assumptions about coaching practice based on an interpretive epistemology and qualitative methodology. This approach, which can be seen as a reaction to the scientism outlined above, emphasises the human, relational, situational and dynamic characteristics of coaching (e.g. Potrac, Jones, Brewer, Armour, & Hoff, 2000). Again, however, these descriptions can be traced to underpinning meta-theoretical assumptions (North, 2013). Interpretivism emphasises the 'problem' of meanings and languages used by individuals and groups to describe their actions and relations (Archer, 2003; Sayer, 2000). This provides the social world with a plurality, complexity and contextuality, which can only be understood by using idiographic qualitative methodologies.

Psychological scientism and sociological interpretivism produce 'flat' ontologies i.e., ontologies which are shaped by their epistemologies, that is, empirical regularities or language concerns (Sayer, 2000). Critical realists argue against the conflation of ontology and epistemology by suggesting that the social world has ontological 'depth' – with a stratified threefold distinction between the 'deep', 'events', and the 'empirical' (Bhaskar, 1975) (see *Figure 1*). The 'deep' is what exists. It is the material, psychological and social objects and structures, with associated causal powers and liabilities, which underlie and govern events. In a coaching context objects will include, rather obviously, the coaches, athletes, and other relevant stakeholders. They will include the physical spaces where sport takes place (e.g., the training ground) and the artefacts involved in the sporting activity (e.g., athletes' equipment). The structures will include, for example, the micro-level interactions between coaches and athletes, the norms, rules and practices associated with coaching groups and particular sports, and the broader social forces playing out beyond this.

Figure 1. Ontological Stratification



Critical realists are particularly interested in how objects and structures possess causal powers and liabilities expressed through the concept of ‘mechanisms’. For example, coaching practice is often conceptualised as an intentional activity which focuses on the achievement of specific coaching goals (e.g. Abraham & Collins, 2011; Gilbert & Trudel, 2004; Lyle, 2007). Coaches, athletes and other stakeholders have particular physical, cognitive and affective resources (mechanisms) which enable them to, and constrain them from, pursuing these goals in particular contexts. In this regard, Abraham *et al.* (2006) describe the knowledge bases and decision making apparatus which ‘expert’ coaches utilise to bring about desirable coaching outcomes. From this resource base, coaches and athletes employ cognitive and behavioural strategies (more mechanisms) such as silence, instruction, observation, facilitation, and cooperation (Cushion & Jones, 2001; Poczwadowski, Barott, & Henschen, 2002) to intervene actively in the coaching context in line with the goals established. The success of these strategies will be enabled and constrained (even more mechanisms) by the environmental and social structures and forces in these contexts (e.g. those described by d’Arripe-Longueville, Fournier, & Dubois, 1998; Saury & Durand, 1998).

Although objects and structures are associated with particular causal powers and liabilities, these powers may or may not be activated, and this will determine what happens at the level of the second domain – ‘events’ (Bhaskar, 1975). A coach may have the cognitive resources and strategies to bring about specific coaching outcomes but whether these resources and strategies work (are actualised at the level of events) will depend upon other contextual factors. For example, a coach may employ a strategy that works well for the athlete and the coaching goal is achieved. The same strategy may also positively counteract a negative approach by an athlete, and the coaching goal is still achieved. However, at another time and place, the coaching strategy might be weak or inappropriate, but is mitigated by increased

effort on the part of athlete; again, the goal is achieved. In all instances, the coaching goal is achieved but the active mechanisms, and the relationship between them, are very different.

The multiplicity of objects, structures and mechanisms, the potentially complex relationships between them, and the difficulty in determining whether or not specific causal powers are activated in relation to specific outcomes/events, is referred to as 'openness' by critical realists (Bhaskar, 1998 [1978]). The openness of social systems introduces problems for researchers working exclusively with the third domain - the 'empirical' (i.e., the events which researchers experience). Empirical observation data of events, for example, is not sufficient for the identification of underpinning mechanisms because they are often hidden from view (Sayer, 1984). In a coaching context, it is difficult to determine (without speaking to the coach and the athlete) how observed behaviours relate to the goal, other contextual factors (Potrac et al., 2000), and ultimately, what worked and what did not. Empirical narrative data do not take into account the fact that many important mechanisms operate below the level of consciousness (Sayer, 2000), that respondents can 'impression manage' (Goffman, 1959), or be mistaken. These approaches (that is, the use of observation and narrative) are common in coaching research but, in isolation, they are insufficient to understand and explain coaching practice.

A critical realist ontology of objects, structures and mechanisms operating in open social system with much that is important hidden from observation and narrative, requires an epistemological and methodological position that reflects (or remedies) this. Critical realists emphasise the use of theory to 'penetrate below the surface to identify underlying social mechanisms or generative processes' (Ackroyd, 2009, p. 524), an analytical procedure known as 'retroduction' (Bhaskar, 1975, 1998 [1978]). In practice, the research process typically begins by examining existing general theory, other relevant theoretical and empirical research, and substantive resources, to build up an initial picture of the area of enquiry (Sayer, 1984). This is then used to 'theoretically orientate' new empirical data collection (Layder, 1998). Critical realists are relatively relaxed about the methodological strategy adopted and exhibit no specific preference for quantitative or qualitative data (Pawson, 2006). That said, intensive research designs (e.g., a small number of cases using qualitative methods), might be more appropriate in areas where there is limited theoretical and empirical evidence from which to explore causal structures. Extensive research designs (e.g., larger data sets using quantitative methods) are more appropriate when descriptive categories are formally established (Sayer, 1984). When the data are collected, critical realists use the existing theory and new empirical research to produce new 'adaptive' theory about the phenomenon under consideration (Layder, 1998).

In a coaching context, a critical realist researcher would undertake a period of theoretical reflection and immersion, guided by the relevant psychological/social theory, coaching research, and other relevant resources (e.g., coaching curricula/texts), again, to build up an initial picture of causal structures and mechanisms. This would then be used to inform an appropriate multiple method/stakeholder research design. The latter might include contextualising background interviews with coaches, athletes, and other important

stakeholders to understand their goals and strategies, the video/audio capture of sessions, and pre and post session interviews with coaches and athletes. This represents an extension of the multi-method/stakeholder research designs recommended by Cushion (2001), d'Arripe-Longueville *et al.* (2001), and Potrac *et al.* (2000), but with a focus on identifying and developing theory around causal structures in particular coaching contexts. The result will undoubtedly produce a great deal of data. Therefore, a key part of the research process is identifying and 'abstracting' (Lawson, 1997) the main mechanisms that influence outcomes (Pawson & Tilley, 1997). Finally, the initial theoretical position would then be tested against the new empirical data to develop new adaptive theory about the coaching practice context under consideration.

Layering and emergence in sport

Most coaching research, driven by disciplinary considerations or researcher interest, has focused on specific layers of coaching (Cushion & Lyle, 2010). Saury and Durand (1998) illustrate how physical processes (e.g., the weather and sea conditions) impact on coaching goals and practice in sailing. Coaching scholars have focused on the cognitive dimensions of coaching practice, and, in particular, knowledge bases (e.g. Abraham *et al.*, 2006; Côté & Gilbert, 2009), mental representations/models/relational schemas (e.g. Bowes & Jones, 2006; Côté, Salmela, Trudel, & Russel, 1995; Vergeer & Lyle, 2009), and decision making (e.g. Abraham & Collins, 2011; Abraham *et al.*, 2006; Lyle, 2010). Another strand of research considers coaches' behaviours (Cushion & Jones, 2001; Feltz, Chase, Moritz, & Sullivan, 1999). Another stresses how coaches' agential influence is enabled and constrained by local and broader social and historical influences (e.g. Jones, 2006; Jones, Armour, & Potrac, 2002, 2004). Furthermore, the relationships within the coaching context (e.g. Jowett & Timson-Katchis, 2005), and the macro-social and cultural forces which impact upon them (e.g. Cushion, 2001; d'Arripe-Longueville *et al.*, 1998; Poczwadowski *et al.*, 2002) have also been studied.

Despite producing very useful knowledge about these specific layers (and often for specific purposes) (North, 2013), the net result is that coaching practice is depicted through a number of narrow/partial frames that ultimately constrain a holistic, contextualised understanding of coaching practice, with particular regard to how coaching goals are translated (or otherwise) into coaching outcomes. Coaching practice, for example, is not just about coaches because this ignores athlete and stakeholder goals, capabilities and strategies in contributing to events (Cushion, 2007; Jones & Wallace, 2006). Though a number of recent cognitive based approaches have acknowledged the social nature of coaching, and the complexity of 'other people', coaching practice is still viewed rather unproblematically through the lens of the coach (e.g. Abraham & Collins, 2011). Equally, coaching practice cannot be reduced to coaching agents' actions and relations in a wider set of social and cultural contexts. There is a need to understand coaching stakeholders' specific reasoning, resources and strategies in producing coaching outcomes, and how they are shaped by, and respond to, broader structural conditions and forces.

From a methodological perspective, capturing the breadth of potential influences on coaching practice is a significant undertaking. Critical realists debate the extent to which it is necessary to account for the contributions and combinations of mechanisms at lower levels (e.g., physical, biological), when higher-level mechanisms (e.g., cognitive, behavioural, social, cultural) may be sufficient. Some critical realists suggest that our understanding of the social world cannot escape the complex web of biological, chemical, and physical interactions (Benton, 1991; Carolan, 2005). Researchers studying human development clearly attribute a role to biological as well as environmental factors in their explanations (Bronfenbrenner, 1994). Other critical realists, however, suggest it is sufficient to understand cognitive, behavioural, institutional and macro-social mechanisms (Carter & New, 2004; Manicas, 2006; Sayer, 2000). This is based on the concept of 'emergence' - layers combine in a manner that is non-additive, non-linear, and complex, and give rise to new original phenomena that are irreducible to their constituent parts, even though the latter are necessary for their existence (Archer, 1995; Elder-Vass, 2010). For example, Sayer (2000) suggests that although talking is dependent on an individual's physiological state, including the signals sent and received around our brain cells, it is not reducible to those physiological processes. Emergence not only provides a process for describing how higher level practices such as coaching evolve and develop, but also the potential for explaining the causal influence of these 'higher level' structures and forces in their own right (Elder-Vass 2010).

The approach endorsed in this chapter, however, is an inclusive view proposed by Sawyer (2005, p. 7) in which the need to account for the causal influence of particular layers depends on the context being studied, and as such becomes an empirical question: 'Whether or not a social system can be understood solely in terms of its component individuals and their interactions ... [should be] ... resolved anew with respect to each social system'. Both lower level and emergent properties can be casually active in the same context (Noble, 2008). The approach approached offered here, therefore, conceives of coaching practice as a multi-layered phenomenon, with the possibility that it is influenced by physical, chemical, biological, neurological, cognitive, behavioural, institutional and macro-social objects, structures and mechanisms (Carolan, 2005; Fleetwood, 2008; Greenwood, 1994; Manicas, 2006; Williams, 2000) in producing coaching outcomes/events.

An important dimension of the above debate concerns agency and structure. Although coaching research has increasingly used the agency/structure concept (e.g. Bowes & Jones, 2006; Jones et al., 2002, 2004; Jones & Wallace, 2005; Mallett, 2007), there has been a particular focus on coaches' agency, often subject to, rather than influencing and changing, pervasive structural conditions. This is understandable. Coaching researchers' are in the business of understanding and helping coaches thus the main focus of attention has been on the coach. Others have sought to counter notions of coaches as 'exclusive controllers' of the coaching environment (e.g. Jones & Wallace, 2005) – and, as a result, they have emphasised the importance of recognising and understanding the influence of structural forces. Some have attempted to occupy a more central position. For example, Cushion (2001) explores coach

and player experiences in his research on professional youth football (see d'Arripe-Longueville *et al.* 1998, for a similar approach in French judo). Furthermore, Cushion (2001) suggests that coaching practice is the relationship between coach, player and club, between mental and social structures. But even within this more balanced and nuanced analysis there may be issues. Cushion (2001), for example, uses Bourdieu's (1977) concepts of habitus, field and capital to explore coaching practice. Archer (2007), in particular, has been critical of Bourdieu's (1977) treatment of agential reflexivity, suggesting that it underplays the role of agency and leads to the unconscious/uncritical adoption of structural dispositions.

Critical realists suggest agency and structure have distinct causal powers in contributing to outcomes/events (Archer 1995; Elder-Vass 2010). They reject the 'upward conflation' of agential accounts which suggest that social activity can be explained entirely in terms of the aggregation of individual human activity. They also reject the 'downward conflation' of structural accounts, which suggests that social activity can be explained entirely by structural and macro levels forces. Some critical realists, for example Archer (2007), also reject the centrally conflated 'elisionist' accounts of agency and structure (e.g., Bourdieu 1977; Giddens (1984).

Human agency, characterised by self-consciousness, cognition, knowledge, intentionality, reflexivity, emotionality, is influenced, although not determined, by the resources, and cultural and structural forces at hand. Thus, coaches and athletes, through their resources and reasoning, have interests, exercise choices and pursue projects, but these interests, choices and projects are enabled and constrained by structural and cultural conditions that are not of their making (Archer, 1995, 2003). These resources and structures are themselves the product of agency. As Sayer (2000, p. 18) suggests, 'no structure without actions', but this does not mean that they can be collapsed into one another. Structures are the material resources, practices, norms, rules, power relationships, and shared meanings produced, reproduced or transformed by agency at a previous time. These structures then enable or constrain, and are, in turn, reproduced and transformed by agency in the present and into the future (Archer, 1995). Compared to the objects and structures studied through the natural sciences, therefore, social structures are only 'relatively enduring', but nevertheless they are sufficiently enduring to have a causal influence on agency. It is the distinct properties and powers of agency and structure, and the timelines over which they act, that entail their irreducibility to each other (Archer 1995; Elder-Vass 2010).

A critical realist approach, therefore, explicitly recognises the agency of all stakeholders (coaches, athletes, others) and how their individual or collective goals, capabilities and strategies are enabled, as well as constrained, by environment and structure in contributing to coaching outcomes and events. Although the contributions of agency and structure are clearly of fundamental importance to understanding coaching practice, it must also be recognised that there are physical dimensions, and that both agency and structure have different layers (e.g., cognitions, behaviours, dyad, group, society) that have to be taken into account. This multi-layered relational approach establishes the basis for, and prescribes, an interdisciplinary

approach to knowledge generation (Bhaskar, 2005; Carolan, 2005; Fleetwood, 2008). Manicas (2006, p. 3) illustrates the point: 'Once we notice that a host of causal mechanisms, biological, psychological and social, are epigenetically implicated in the constitution of a human being - and of their concrete actions - we can see that "nature" and "nurture" are inextricably involved and that, in consequence, there is no reason to believe that any one science, psychological or social, could improve on the way we ordinarily explain ... behaviour'. This approach allows considerable scope to draw on existing research resources across the disciplines when developing new theory of coaching practice in particular contexts. It also means that coaches, athletes and other relevant stakeholders are an explicit part of its definition and, therefore, research designs.

Open systems and complexity

A notable feature of existing research has been the emphasis on either the simplicity and stability, or the complexity and dynamism, of coaching and coaching practice depending on disciplinary and meta-theoretical assumptions (North, 2013). As noted earlier, those who tend to work within the discipline of psychology are more inclined to work within a scientism framework. Though there are different strands of coaching research situated within this discipline (e.g. Feltz et al., 1999; Smith, Smoll, & Curtis, 1978), and the ideas have evolved considerably (e.g. Abraham et al., 2006; Côté et al., 1995), the resultant models remain focused on general descriptions of coaching components – coaching goals, knowledge bases, behaviours, and decision making processes which simplify or ignore the environmental and social dimensions of coaching practice and their influence on coaching outcomes (Cushion, 2007; Saury & Durand, 1998) mainly to model coaching for the purposes of coach development (North, 2013). Lyle (2002) presents another multi-dimensional model, which, while recognising the interpersonal and externally constrained nature of coaching, has been interpreted as overly systematic, sequential and mechanistic to represent fully its contingencies (Bowes & Jones, 2006; Cushion, Armour, & Jones, 2006; Jones & Wallace, 2005).

Coaching researchers working within the discipline of sociology with interpretivist leanings are more critical about the likelihood of creating representative knowledge, and focus on the differences, pluralities, complexities and disorder of coaching and coaching practice (Brewer, 2007; Lyle, 2007). Significant warnings are expressed about the value of planning, sequence and control in coaching, and greater play is made of localised meanings, interpretations, relationships, power games and the 'swampy lowlands of practice'. Some coaching researchers go a stage further suggesting coaching could be characterised as having moments of extreme ambiguity, uncertainty, pathos and indeed, chaos (e.g. Bowes & Jones, 2006; Jones, 2006; Jones & Wallace, 2005).

Of course, there is no suggestion that the main strands of coaching research do not recognise a broad continuum of coaching possibilities. Coaching research informed by psychological scientism has noted the complexity and dynamism of coaching (e.g. Abraham & Collins, 2011; Côté et al., 1995); while sociological interpretive informed research has made reference to its

simple and routine elements (e.g. Cushion et al., 2006; Jones & Wallace, 2005). Rather, it is suggested that each strand's disciplinary and philosophical assumptions and methods lead them to focus *a priori* on one over the other (North, 2013). For example, the psychologically orientated work of Abraham and Collins (2011) acknowledges the complexity of coaching but focus on its more stable and universal elements in the task of providing tools for coach development. The sociologically orientated work of Cushion (2007, p. 397) suggests coaching practice can be understood as 'structured/regulated improvisation' (following Bourdieu 1977), but ultimately appears to emphasise coaching's more complex and contextualised features in a broader critique of existing conceptualisations and coach education (North, 2013).

Critical realists support a position which recognises a greater level of complexity and dynamism in practice than positivistic approaches allow, but do not accept a position that suggests *a priori* complexity and disorder as a normal state of affairs. The objects and causal forces which create complexity and disorder can also have a stabilising influence. For example, Popper (1972) argues that humans are biologically disposed to impose regularities on their environment. Giddens (1984) suggests that because agents seek 'ontological security' they are disposed to act in institutionalised and routine ways. Bourdieu (1977) uses the concept of habitus to describe the 'structured and structuring' tendencies in agents, groups and institutions. Sayer (2000, p. 13) argues that stability is an 'intentional achievement, a product of making continual changes in order to stay the same, or at least to maintain continuities through change, rather than a result of doing nothing'. Downward et al. (2002) suggest that agents counter 'ontological complexity' by developing an appropriate decision making-apparatus. Elder-Vass (2010) contends that social institutions have a significant stabilising influence on the social world.

Critical realists, in other words, argue that the complexity and contingency inherent in open social systems may (or may not) be pacified by mechanisms that make order, or something close to order, possible. Thus, for critical realists the social world is neither defined, necessarily, by simplicity or complexity, order or randomness, stability or instability (Archer, 1995; Manicas, 2006; Stones, 1996). Commenting on accounts which prioritise order (modernism) and disorder (post-modernism), Stones (1996, p. 24) suggested that: 'I do not see why we should choose, *a priori*, one or the other'. Reflecting on the mechanisms which combine to produce social order/disorder, Sayer (2000, p. 16) noted that: 'Just how much difference context makes cannot be specified at the level of ontology, for it depends on the nature of the processes of interest ... the latter range from the chameleon-like to the relatively context-independent or indifferent'. Thus, for Sayer (2000), in relation to identifying important mechanisms at different layers, the determination, and our understanding, of the relative simplicity/complexity and/or order/stability of social systems is a context specific and empirical matter. A critical realist approach, therefore, suggests that coaching practice can be simple and complex, stable and dynamic, consensual and have moments of conflict. The line between these polar positions is dependent on context, such as the sport, participants' sporting objectives, age/stage of development, gender relations and little moments that go right or wrong!

Like the history of the social sciences, only 20-30 years later, coaching research has followed a trajectory that has produced relatively simplistic over-confident positions (psychology scientism) followed by relatively complex pessimistic positions (sociological interpretivism), with the complexities of the latter being an inevitable over-reaction to the simplicities of former (Layder, 1998). However, more recently, coaching researchers have started to confront their disciplinary, methodological, and (implicit/explicit) philosophical inclinations, with reference to the 'realities' of coaching. For example, Lyle (2007) recognises both the simple and routine, and the complex and innovative in coaching, suggesting that variation may relate to the sport and type of athlete the coach works with (e.g., participation, development and performance). Abraham and Collins (2011, p. 210) contended that '(good) coaching is and indeed must be systematic. We just had/have to get better at identifying and developing the systems that can and do cope with the "swampy lowlands"'. Cushion *et al.* (2010, p. 2) suggest 'coaching practitioners do in fact use standardised strategies and routines in an attempt to cope with the many and varied constraining factors of the coaching process; these routines and strategies are purposely flexible by design, so permitting improvised adaptation to the arising contextual demands'.

The increasing recognition of both the simple and complex, and stable and dynamic, elements of coaching is likely to reflect a pragmatic and experiential response rather than one based explicit philosophical assumptions. Outhwaite (1987, p. 28) suggests that researchers often work with a 'nocturnal philosophy', that is, despite their adopted frameworks suggesting particular approaches and answers, they subconsciously work with other approaches. Other philosophers and methodologists (Miles & Huberman, 1994; Outhwaite, 1987; Pawson, 1989) contend that although researchers may explicitly adhere to, or be labelled as supporting, scientism or interpretivism their practices are often critical realist in nature – although they seldom employ these approaches as far as they should (Sayer, 2000). The explicit adoption of a critical realist philosophical framework that identifies and describes the objects, structures and mechanisms and their inter-relations in particular contexts, it is argued, provides a valuable alternative framework to situate these emerging ideas.

Conclusions

In conceiving coaching practice as the inter-relationship between objects (e.g., physical spaces, artefacts, coaching stakeholders), structures (e.g., norms and rules of coaching groups and particular sports), and mechanisms (e.g., the physical and cognitive resources and strategies of coaching stakeholders) in open multi-layered social systems, with routine and non-routine elements, a critical realist approach moves beyond existing psychological-sociological, quantitative-qualitative, agency-structure, coach-athlete, simple-complex, and stable-dynamic dichotomies. A critical realist approach provides a broad canvas, an orientating structure, to analyse the causal relationships and connections between coaching goals, coaching stakeholders' cognitions and behaviours, and wider social and environmental influences that can draw on existing research. This allows both the simplicity and stability of coaching practice

to be understood, as well as its moments of complexity and dynamism. In addition, it provides a framework for understanding, 'what works, for whom, in what context and why', and through conducting new theoretical and empirical work will help to bring formalised coaching knowledge closer to actual practice.

This approach highlighted the need for relatively complex research designs to investigate coaching practice in context. This will undoubtedly produce large quantities of data that would help us to identify and explain the important mechanisms that lead to coaching outcomes in particular contexts. In this way, we give ourselves a chance to break down coaching practice into its fundamental properties and processes, and to understand how these elements relate back to the whole. The result of this work will be a knowledge base that not only reflects on the underlying structures of coaching in particular contexts, but also provides coaches with knowledge for action (Jones & Wallace, 2005). This will take many forms but an obvious example is the identification of coaching strategies that have been shown to work in particular contexts, but with a very clear identification of the conditions under which they work, and how their application may vary as conditions change.

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