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Published online: 28 Nov 2019.

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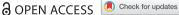
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ABSTRACT

The development of young athletes is a complex process characterised by dynamic changes and uncertainty [Abbott, A., Button, C., Pepping, G.-J., & Collins, D. (2005). Unnatural selection: Talent identification and development in sport. *Nonlinear Dynamics, Psychology, and Life Sciences*, 9(1), 61–88]. Talent development systems are characterised by a high level of uncertainty and unpredictability related to future outcomes [Phillips, E., Davids, K., Renshaw, I., & Portus, M. (2010). Expert performance in sport and the dynamics of talent development. *Sports Medicine*, 40(4), 271–283]. This complexity means that attempts to identify sporting talent and to predict who will eventually succeed have a low level of success [Johnston, K., Wattie, N., Schorer, J., & Baker, J. (2018). Talent identification in sport: A systematic review. *Sports Medicine*, 48(1), 97–109]. Research has challenged the trend of advocating formalised and normative systems of talent identification and development [Bailey, R., & Collins, D. (2013). The standard model of talent development and its discontents. *Kinesiology Review*, 2(4), 248–259], and empirical research has identified different approaches to talent development [Bjørndal, C. T., Andersen, S. S., & Ronglan, L. T. (2017). Successful and unsuccessful transitions to the elite level: The youth national team pathways in Norwegian handball. *International Journal of Sports Science & Coaching*, 13(4), 533–544]. However, surprisingly few researchers have focused their attention on the identification of effective, operational and concrete strategies for steering athlete developmental processes. This research gap is troubling because of the problematic nature of popular development strategies in modern elite sport systems. The complex and dynamic roles of coaches in steering athlete development have been explored by Bjørndal & Ronglan, using [Jones, R. L., & Wallace, M. (2005). Another bad day at the training ground: Coping with ambiguity in the coaching context. Sport, Education and Society, 10(1), 119–134] conceptualisation of coaching as a form of orchestration. However, the usefulness of this conceptualisation has been criticised because although it reflects the complexity of talent development, it is difficult to use as a foundation for a practical, everyday conceptualisation of the challenges and opportunities associated with talent development. The aim of this paper, therefore, is to deepen and to refine the conceptualisation of coaching within complex athlete development settings. The paper explores [Lindblom, C. E. (1959). The science of "muddling through". *Public Administration Review*, 19(2), 79–88] seminal idea of incrementalism to

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operationalise and refine the notion of 'leadership by orchestration' in the context of talent development. Developing a coaching strategy based on incremental leadership should therefore be seen as an attempt to better coordinate, plan and act on the uncertainties associated with talent development.

Introduction

The development of talented, young athletes is shaped by complex processes that are characterised by dynamic changes and ambiguity (Abbott et al., 2005). Talent development systems are also characterised by a high level of uncertainty and unpredictability related to future outcomes (Phillips et al., 2010). This complexity means that attempts to identify sporting talent and to predict which athletes will eventually succeed have low levels of success (Johnston et al., 2018). Recent research has challenged the trend of advocating formalised and normative systems of talent identification and development. For example, the Sports Policy Factors Leading to International Success Model (De Bosscher, De Knop, Van Bottenburg, & Shibli, 2006) advocates the use of a formalised, almost 'production-line' approach to talent identification and development. It offers few insights on the actual *processes* of development involved (Andersen, Houlihan, & Ronglan, 2015). Similarly, the Long-Term Athlete Development Model (Balyi & Hamilton, 2004) focuses on prescriptive stages of development that presume that athletic development is linear and predictable. Bailey and Collins (2013) rightly argue that the attractiveness of 'standard models of talent development' is illusory, inconsistent with the emerging evidence base, and even undesirable.

Recent empirical research has identified different approaches to talent development. The success of Norwegian handball, for example, is based on a decentralised organisational structure in which key actors function highly autonomously and are embedded firmly within the voluntary sport movement (Bjørndal et al., 2015). Bjørndal and Ronglan (2017) have argued that because of the dynamic processes of athlete development and the specifics of context, effective management and coaching in multi-centric sport systems require different strategies compared to processes in which a person has more control over the outcomes involved. The specific nature of an organisational context may increase or decrease the complexities and uncertainties inherent in processes of individual development and this, in turn, may affect which coaching strategies will be regarded as appropriate and effective.

Athlete development relies on coaching processes set in specific contexts. However, surprisingly few researchers have focused their attention on how coaches can identify and facilitate effective, operational and concrete strategies for steering athlete developmental processes. This research gap is troubling because of the problematic nature of popular development strategies in modern elite sport systems such as the use of surveillance technologies by coaches, which has been reported in male elite rugby (Jones, Marshall, & Denison, 2016) and female elite field hockey (Taylor, Potrac, Nelson, Jones, & Groom, 2015); the hierarchical relations of power between coaches and athletes reported, for example, in female elite gymnastics (Barker-Ruchti & Tinning, 2010); the authoritarian behaviour used by coaches at an English youth football academy (Cushion & Jones, 2006); and dominant disciplinary coaching practices in NCAA Division I men's baseball that are based on a narrow sense of knowing the 'normal' way to train athletes (Gearity & Mills, 2012).

These examples of restrictive practices illustrate the need to interrogate talent development models, and to question assumptions about whether the procedures involved are evidence-based. A failure to do so prevents a full understanding and awareness of potentially unintended consequences, and could even prevent the identification of other more effective and ethical practices (Collins & Bailey, 2013). The intended outcome of success at the senior elite level can be reached via different pathways and strategies, and all coaching, management and methods used are therefore necessarily value-laden. The central challenge, therefore, is to know how coaching in systems of talent development can be achieved in more appropriate and effective ways.

In their studies of elite sports coaching, Jones and Wallace (2005) suggested that the complexities of sports coaching arise because of the intertwined agendas, goals, interests and relationships occurring in this context. They argued that coaching within such multifaceted settings can be best understood as a form of orchestration. This is a useful comparison because coaching, like musical orchestration, is challenging, complex and dynamic: both sports coaching and musical orchestration are only successful if the processes and interactions involved allow people to work together towards a desired, common purpose. The metaphor of coaching as form of orchestration was proposed originally as a way of better describing the realities of coaching. Empirical research has helped to support this mode of leadership that is characterised by targeted interventions which are followed by careful observation, flexibility and constant adaption to keep the processes involved on the right track.

Such abstractions are useful conceptually, and this article is an attempt to look deeper into how such orchestration could function within the practical, everyday organisational context of talent development. Abraham and Collins (2011) argue that researchers have emphasised the complexities of sports coaching. This, they contend, has resulted in a lack of focus on *how* coaches should facilitate and manage athlete development and performance in their specific settings. Orchestration is difficult to operationalise in terms of the 'actual mechanisms and practical skills that [need to] be deployed (Abraham & Collins, 2011)' Lyle (2007) has argued that coaching scholars need not simplify their description of the complexity to deepen their insights. Instead, coaching scholars need to model the core processes and intentions and apply this to specific domains, cultures and organisational settings.

The aim of this paper, therefore, is to deepen and refine the conceptualisation of coaching within complex athlete development settings. In the first part of the paper, we examine the literature on coach orchestration and discuss the scope and limitations of this conceptualisation. In the second part, we explore Lindblom's (1959) seminal idea of incrementalism to complement and refine the notion of 'leadership by orchestration' in the context of talent development. We argue that the concept of incremental leadership can be used to develop a coaching strategy which is especially suited to improving coaching practice in youth athlete development. More specifically, a move towards planning strategies rooted in incrementalist approaches, we contend, is better suited to facilitating long-term athlete development because it offers clearer opportunities for coordination, planning and action. Developing a coaching strategy based on incremental leadership should therefore be seen as an attempt to establish more realistic and effective coaching practices, and ways to better cope with the uncertainties associated with talent development.

Coaching as orchestration

Sports coaching is complex, dynamic, situated and multifaceted, and involves inherently ambiguous processes (Potrac, Jones, & Armour, 2002). Moreover, it is firmly embedded within specific social, historical and cultural contexts (Cushion, Armour, & Jones, 2006). The metaphor of the coach as an 'orchestrator' (Jones & Wallace, 2005) highlights the dynamic and complex nature of sports coaching and stands in sharp contrast to the idealistic and reductionistic representations which still dominate research and education. Prescriptive models have resulted in representations of the coaching process that inadequately reflect the complexity and scale of coaching, and underplay the importance of social and cultural influences (Cushion et al., 2006). The notion of coaching as a form of orchestration highlights two key features in particular: namely that it is an activity which is context-bound, and that it is relational (Jones & Ronglan, 2017).

The concept of coaching-as-orchestration was first developed by Jones and Wallace (2005, p. 128) and defined as a 'co-ordinated activity within set parameters expressed by coaches to instigate, plan, organise, monitor and respond to evolving circumstances in order to bring about improvement in the individual and collective performance of those being coached'. The main ontological assumptions of orchestration are that coaches have variable but consistently limited control over other stakeholders and their actions; variable but limited awareness of what is happening in the coaching context; and

that individuals and groups may hold contradictory or even conflicting values and beliefs (Jones & Wallace, 2005). Coaches wield a strong influence on athletes, but other actors and stakeholders also influence the settings in which coaching takes place.

Recent research has provided empirical support for the applicability of orchestration by focusing on the precise actions that comprise coaches' orchestration of talent development at the interactional level. Santos, Jones, and Mesquita (2013), for example, showed how coaches tried to manipulate the contexts and relationships in which they work, as a way of constructing, steering and stage-managing events. The findings showed that coaches were preoccupied with ensuring the cooperation and 'buy-in' of all the stakeholders involved and to generate an impression of control. By building relationships and actively informing their actions through noticing situational details, coaches are consciously able to provide a degree of contextual 'scaffolding' on a daily basis – generating what can be understood as a form of more controlled (and controllable) instability (Jones & Thomas, 2015). As such, performance development and other change-processes are characterised by social interactions enacted through collaboration, struggle and negation and involve team members situated within the broader situational context (Thompson, Potrac, & Jones, 2015). Orchestration, therefore, depends on strong attention both to small details and wider contexts. The quality of observation (or 'noticing') is critical to determining the appropriateness of a coach´s responses (Cushion & Jones, 2001).

Every setting is dynamic and, to some extent, unique. Coaches must therefore adapt to changing contexts and constraints (Jones & Wallace, 2006). This makes coaching processes 'relatively uncontrollable and relatively controllable, partially incomprehensible and partially comprehensible, and imbued by some contradictory values and others that are mutually compatible' (Jones & Wallace, 2005, p. 127). Coach orchestration therefore never follows a set of pre-determined rules but is, instead, based on values or principles. Jones and Ronglan (2017) showed how their own coaching practice in football and handball, for example, was heavily informed by principles derived from 'typical game situations' which are characterised by resistance, insecurity and frustration. Their approach to coaching practice did not follow a definitive 'game plan'. The everyday balance between following structured plans and the ability to be flexible and able to adapt to changing surroundings is also exemplified by Gibson and Groom (2018) who demonstrated the importance of flexible planning and coordination in their study of organisational change.

The problems coaches face can never be solved definitively. Instead, coaches need to balance seemingly contradictory concerns, such as fulfilling short-term and long-term objectives, maintaining discipline while fostering creativity, balancing the need for individualisation versus the need for community, and providing both structure and flexibility. These dilemmas must be confronted both immediately and continuously. For example, Bjørndal and Ronglan (2019) showed how professional handball coaches are continuously engaged in balancing divergent goals related to the amount of playing time exposure, the role of individual team members, and the need to balance collective team needs versus individual needs.

All but one of the aforementioned empirical research studies were conducted in adult elite sport settings and focused on how coaches orchestrate and influence social dynamics to ensure 'buy-in' to their goals and agendas, and scaffold athlete learning in interactions at the micro-level. In contrast, Bjørndal and Ronglan (2017) suggested that orchestration should rather be seen as a useful strategy for carefully steering athlete development processes in sports organisations in which individual athletes participate in multiple team and practice settings, and interact with many different coaches. Their study of youth elite athletes' developmental experiences in Norwegian handball highlighted how relationships and interactions between athletes and coaches are co-adapting continuously, creating tensions, ambiguities and uncertainties related to future outcomes. In this study, the authors used the concept of orchestration to highlight the importance of concerns that lie outside the role and influence of coaches in particular team settings. As the authors argue, the complexity of talent development orchestration is revealed when analytical considerations are widened to include what coaches need to consider when facilitating individual development, both within and

across different team settings. The authors argue that successful orchestration of athlete development depends on coaches showing awareness and flexibility related to how individual athletes will participate, and where and what activities are appropriate. They also argue that it is important for coaches to mutually adjust activities in light of decisions made in other team settings, through the use of incremental planning and detailed coordination.

This approach suggests that the concept of coach orchestration offers a conceptually useful approach to understanding the dynamics and challenges of leadership, both in and across different team settings. What remains more elusive, however, is an understanding of *how* coaches should develop strategies that are informed by this concept when attempting to orchestrate their responses to the day-to-day challenges and opportunities they face within youth athlete development settings. The purpose of this manuscript is to change the focus of research from stage management in adult elite sport to youth athlete development as it offers a different perspective on 'coaching as orchestration'. The concept of incrementalism provides a potentially useful foundation for helping coaches to develop strategies to successfully facilitate athlete development in systems of talent development.

Incrementalism, small wins and small, intelligent failures

The analytical concept of incrementalism developed by Lindblom (1959) can be used to explain how policy processes and decision-making can be operationalised better in contexts of complex change. Lindblom (1979) proposed that incrementalism could be used as a strategy for analysis and decision-making in instances in which a large strategic plan is either unnecessary or has failed to develop. Starbuck, Barnett, and Baumard (2008) argue, for example, that in corporate environments, strategic planning in organisational management seldom has a real effect on future outcomes because it tends to make institutions option-blind. In other words, strategic planning can lock organisations into non-opportunistic courses of action. In his extensive studies of welfare policies and trade unions, Lindblom shows how the reality of decision-making and change-processes is characterised more by incrementalism at the grassroots levels. Lindblom argued that policy practitioners tend not to be able to distinguish between facts and values (Saint-Martin & Allison, 2011). He emphasised that the limits of human cognition, and past experience and practice, impact the solutions that people consider. These solutions, he suggested, differed only marginally from those already in place, come with little costs and are also easily reversible (Saint-Martin & Allison, 2011).

Lindblom (1959) argued that small policy changes enacted over time may give rise to larger, broad-based policy changes smaller, step-by-step instances of change have important impacts because, as Weick (1984) notes, people otherwise tend to define social problems in ways that overwhelm their ability to take effective action. Focusing on 'small wins' can lower the psychological challenges people experience when facing complex problems, he reasons. This, in turn, can facilitate more effective diagnoses of a problem, help to create more effective gains, and encourage greater innovation. A strategy based on incremental 'small wins' can be realised through a series of concrete outcomes, such as completing a training cycle or meeting an individual milestone. Some wins may only be of small or moderate importance, but their importance may grow over time and eventually lead to significant developmental outcomes.

According to Saint-Martin and Allison (2011, p. 3), when Lindblom made his claims, it was clear that he 'had a system of "trial-and-error" in mind, where solutions that vary slightly from past experience and practice come with little costs, politically speaking, and are also easily reversible'. Lindblom distinguished between different forms of incrementalism but a full examination of these categories is beyond the scope of this paper. For our purposes, the processes associated with one particular kind of incrementalism, namely disjointed incrementalism. This approach is relevant to coaching and talent development strategies because it is characterised by:

  a. a limitation of analysis to a few somewhat familiar policy alternatives;

b. an intertwining of analysis of policy goals and other values with the empirical aspects of the problem;

c. a greater analytical preoccupation with ills to be remedied than positive goals to be sought;

d. a sequence of trials, errors and revised trials;

e. an analysis that explores only some, not all, of the important possible consequences of a considered alternative;

f. fragmentation of analytical work to many (partisan) participants in policy making. (Lindblom, 1979, pp. 517–518).

In Lindblom's (1979) view, incremental analysis and decision-making are strategies that are preferable in the midst of uncertainty, when people are faced with complex social problems. A strategy of incrementalism, he writes, is one which 'points to something (that needs) to be done, something to be studied and learned, and something that can be successfully approximated' (Lindblom, 1979, p. 518). From a psychological perspective, a focus on incremental progress has shown to positively influence motivation, encourage positive emotions and positively influence the perception of workers in business organisations (Amabile & Kramer, 2011). It is not, however, a strategy that guarantees a preferred outcome. Instead, incrementalism is an attempt to make the most of limited abilities and the incomplete awareness of the actors involved, their interactions, and the unintended consequences of these factors. Drawing inferences between chains of action is part of the art of orchestration *and* of incremental leadership. Small changes in one area may have greater (intentional or unintended) consequences on others. According to (Weick, 1984, p. 43):

> The next solvable problem seldom coincides with the next 'logical' step as judged by a detached observer. Small wins do not combine in a neat, linear, serial form, with each step being a demonstrable step closer to some predetermined goal.' Rather, [a focus on small wins] implies a form of muddling.

Similarly, the day-to-day reality of sports development can, as Chambliss (1989, p. 81) suggests, be described as a 'mundanity of excellence'. Great performances, he argues, are the result of a 'confluence of dozens of small skills or activities, each one learned or stumbled upon, … carefully drilled into habit and then … fitted together in a synthesised whole'. In Chambliss' view, it is the small instances of progress that often go unnoticed, despite these being critical to the overall success of a performance and outcome. Effective change and decision-making can best be understood as Lindblom (1979, p. 517) reasons, as 'no more than incremental steps – no more than muddling'.

In fragmented and/or de-centralised organisations, Lindblom (1979) showed how policy-making is not a hierarchically and centrally controlled process. Instead, it involves mutual adaptation, negotiation and bargaining through processes of compromise with, and adjustment to, others. According to Saint-Martin and Allison (2011, p. 3):

> [When] multiple stakeholders are involved: they do not necessarily agree on the goals to be pursued or the details of analysis. But based on their practical experience they can agree on what might constitute a good solution and thus enhance its viability.

Within such contexts, incrementalism becomes a method to facilitate coordination between actors. Coaches involved in different settings may, for example, hold different beliefs of what different activities athletes should participate in, and when and where. Nevertheless, they may also adjust their own activities if they believe that not doing so might otherwise compromise future development or performance (Bjørndal & Ronglan, 2017). Policies and change emerge through such mutual adjustment, as (Lindblom, 1979, p. 523) reasons, and 'are better described as happening than decided upon'.

In sport studies, incremental strategies for change and development have been shown to be a source of reliable experience-based learning (Andersen, 2010b; Andersen, Hansen, & Hærem, 2015; Hansen & Andersen, 2014, 2017). The key to successful reliable experience-based learning is the ability to notice that small wins also contain small failures and that these small, intelligent failures can, in turn, be utilised to enhance learning (Sitkin, 1992). Small wins raise enthusiasm and energy,

but small failures can also have positive effects because they may stimulate reflection and encourage learning. There are five key characteristics that contribute to the intelligence of failures:

> (1) they result from thoughtfully planned actions that (2) have uncertain outcomes and (3) are of modest scale, (4) are executed and responded to with alacrity and (5) take place in domains that are familiar enough to permit effective learning. (Sitkin, 1992, p. 243)

For example, well-planned and carefully planned sessions with uncertain outcomes allows athletes to engage with, and experiment and develop without removing the complexity that characterise the performance context (Jones & Thomas, 2015).

The deductive component of reliable experience-based learning is often undervalued. In his study of the Norwegian Olympic Top Sports Programme, Andersen (2010a) revealed a learning model in which new knowledge was developed under conditions of uncertainty using incremental changes. In the Programme, actors were able to actively use their extensively pre-knowledge of the field to test new ideas and small adjustments to their practice in ways that resembled experiments. Similar positive benefits were reported by Hansen and Andersen (2017) in their study of ski preparation, which found that by observing and comparing promising new prototypes to the existing repertoire of physical prototypes, and by noting small changes in performance, skiers were able to collectively and incrementally develop new forms of best practice. At the individual level, Andersen, Hansen, et al. (2015) showed how elite Nordic skiers were able to promote reliable experience-based learning through self-reflection. The study revealed how those skiers who were characterised as 'experimenters' had specific and situational expectations that made them capable of generating a number of precise observations related to how their training was carried out. In contrast, other skiers relied on coarser and less nuanced frames of reference and reflection. The processes used by the 'experimenters' were incremental in form and based on their careful observation of small changes in their day-to-day form which had occurred in their response to the training they had been prescribed.

Saint-Martin and Allison (2011) conclude that Lindblom's concept of incrementalism remains important to researchers after more than half a century because it offers valuable analytical insights into decision-making and captures some of the key features of policy-making. The closer attention facilitated by an incrementalist approach provides a way to capture the wider events within the coaching environment, and among parents, club leaders and administrators. This makes it possible to take smaller, more appropriate and measured steps, to avoid contradictory actions, to bring processes back on track, and to channel development and performance in more desired directions. Incremental leadership – small interventions that could solve situations that might otherwise become problematic in the long-term – is characterised by nudging events in more constructive directions. As such, it resonates directly with the concept of orchestration, because both share a common focus on careful observation (Jones, Bailey, & Thompson, 2013).

The added value of incrementalist leadership, we would argue, lies in its dependence on targeted interventions that are based on clear expectations about the preferred specific outcomes of an initiative (Weick, 1984). This facilitates the operationalisation of orchestration because it emphasises how *noticing* can be used as a strategy of expectation-driven trial and error. A 'small success' or an 'intelligent small failure' can be identified by the degree to which the results accord more (or less) with prior expectations. Thus, a successful incremental cyclic process requires the: (a) identification of a delimited problem, (b) specific actions based on the clear preferred expectations of an outcome, (c) precise observations of the actual outcome, (d) the identification of discrepancies between prior expectations and actual outcomes and (e) adjusted actions based on clear (adjusted) expectations. Importantly, as Weick (1984) suggests, small wins can only be assessed as forming a consistent line of development when viewed retrospectively and that these '[small wins] are driven by opportunity and dynamically changing situations (p. 43)'. Thus, and as we suggest in the following section, incrementalism may hold promise as a way to inform an interlinked strategy of coordination, planning and action for coaching and facilitating athlete development in the face of uncertainty.

While the incremental strategies here advocated are not new concepts, their relevance to athlete development has not yet been explored.

Developing a coaching strategy based on incremental coordination, planning and action

Empirical research from the fields of business and political science has demonstrated the benefits of using incremental leadership as an applied strategy. The aforementioned literature review suggests clearly that learning processes characterised by incremental steps to maximise learning potential through small wins and/or small, intelligent failures, can be utilised to successfully assist athlete learning at the individual level. The added value of incremental leadership lies in its application to talent development settings characterised by uncertainty and dynamic interaction, advocating a bottom-up approach to facilitate and coach in settings of youth athlete development. Three processes, in particular, informed by incrementalism may provide coaches with the 'structured improvisation' they need to respond appropriately to the reciprocal connections between athletes, coaches and contexts in talent development settings (Cushion, Armour, & Jones, 2003). First, and at the meso level, incremental coordination may be deployed to coordinate team and individual activities better across different team settings. Second, incremental planning may be better suited to balancing and responding more effectively to the divergent interests and needs of athletes, other coaches and contextual boundaries. Third, and at the microlevel, incremental actions indicate how coaches may help to promote athlete learning and development through a process of expectation-driven trial and error.

Lindblom (1979) argues that incremental leadership can function as a mechanism of coordination in complex organisations. In systems of talent development, athletes are often involved in, or selected to, various practice and competition settings within and across clubs, thus placing more pressure on coordination efforts (Bjørndal et al., 2015). Studies of successful transitions from junior to senior elite sports have shown the importance of coordinating talent development processes across, and because of, these different settings (Bjørndal, Andersen, & Ronglan, 2017). However, achieving coordination in the multi-centric contexts of athlete development is especially challenging because athletes, coaches and other stakeholders pursue diverse goals and interests (Bjørndal & Ronglan, 2017). Studies of junior performance tennis in the United Kingdom have shown, for example, that coaches, parents and sport organisations lack coherence in their perceptions of effective talent identification and development strategies (Pankhurst, Collins, & Macnamara, 2013). This lack of coherence between stakeholders can be detrimental to long-term athlete development (Pankhurst & Collins, 2013). For example, recent studies have shown how problems related to (im)properly managing training and competition loads arise in the interplay between different practice and competition settings (Moseid et al., 2019). Clearly, successful talent development requires coaches to *not* act as individual agents who strive solely to achieve their team's best performance (Bjørndal & Ronglan, 2017).

Incrementalist coordination is important because it can better help coaches to coordinate and mutually adapt their activities more effectively. Recent studies of sport school programmes in Norwegian football and handball show how efforts to formally structure coordination can only supplement (rather than substitute) the regular, mutual and case-based informal communication that happens between coaches involved in different settings (Bjørndal & Gjesdal, 2019). School coaches attempted to provide individualised practice opportunities that are complementary to athletes' club-based practice and competition. This is done by continuously adapting the intensity, frequency and type of practice undertaken to decisions made in the club settings. However, school coaches have limited time and club coaches have limited interest in school practice. These realities necessarily constrain structured coordination at the organisational level (such exchanges of formalised plans, evaluations and information). The many athletes, coaches and clubs involved in talent development make it difficult to follow a detailed plan, and coaches have been found to be reliant on informal communication to

reach the necessary fine-tuned coordination of activities across school, club and association settings (Bjørndal & Gjesdal, 2019).

Second, an incrementalist approach to planning seems especially appropriate for efforts to facilitate long-term athlete development. This is because it potentially provides coaches with more flexibility to respond and adapt quickly, especially to decisions made across the multiple team settings characteristic of talent development systems. In team sports, planning is constrained by match fixtures throughout each game-week. The purpose of planning in youth sport settings is most often to prepare the team for the next match *and* hopefully to ensure that these experiences promote continued participation, and the development of the skills needed for the individual athletes to progress towards a sports career as an adult. However, training processes cannot be planned fully in advance, and athletes and coaches must respond and adapt to the dynamic changes of context and people (Saury & Durand, 1998). Incremental planning could provide a way to continually and constantly disrupt the general training prescriptions typically used by coaches, that can limit individualisation, adaptation and innovation in athlete development (Denison & Mills, 2014). Clearly, what coaches and athletes need is a general plan that can be adapted continuously – through incremental changes – to the changing needs of both the teams and athletes involved. This is a corrective to coach education programmes that overemphasise the necessity of modelling the entire coaching process and of advanced long-term planning (Cushion, 2007).

Third, when coordination strategies and planning are more adaptive, then incremental action may help to promote athlete learning and development through processes of expectation-driven trial and error. Coaches, for instance, can individualise practice and competition more effectively, flexibly and continuously by: identifying a delimited problem, taking specific actions based on the clear preferred expectations of an outcome, making precise observations of actual outcomes, identifying discrepancies between prior expectations and actual outcomes, and adjusting their actions based on clear (adjustable) expectations. Targeted trial-and-error logic, driven by clear expectations of outcomes and fine-tuned evaluations based on what coaches expect, are both more concretised ways of 'noticing' (Mason, 2002) and are the foundation of a more reflective approach to the orchestration of talent development. Noticing and evaluation, however, presuppose that there is a framework of expectations that can provide a frame of reference for meaningful observation. Clear coach expectations are therefore essential to the success of incremental actions and changes, and a clear distinction should be made between targeted trial and error and random trial and error.

Adopting incrementalist approaches can be potentially complicated by the fact that while individualised support for athletes is essential, there are social, historical and cultural norms and values that may influence the ability of coaches to support them (Denison, Mills, & Konoval, 2017). Athletes may, for example, underreport their health issues and needs when they are afraid of being dropped or benched. While athlete involvement is necessary, it is not, in and of itself, a sufficient guarantee that the coordination will be a success. Furthermore, the inherent essence of team-sport dynamics place pressure on individualised support. Ronglan (2016) has argued that team sport is characterised by competition, collaboration and complementarity, diverse individual goals and interests, complex social relationships, and multiple, varying contexts. To individualise responses to the needs of each athlete in a team can be demanding for coaches: players are mutually dependent because they must work together to ensure that they are able to perform in a functional manner.

Social forces influence how coaches perceive the problems they face, and there is a risk that they may become rigid in the way they represent problems, both to themselves and others, and how they try to solve problems (Denison & Avner, 2011). Incremental coordination, planning and action can enable coaches to be more aware of the emergent sum of the multiple intended and unintended consequences of coaching decisions made across multiple contexts (Bjørndal & Ronglan, 2017). It can also enable them to be more attuned to shifting circumstances and changing individual needs. Denison and Avner (2011, p. 209) argue that coaches can only become a positive force for

change if they 'engage in an ongoing critical examination of the knowledges and assumptions that inform their problem-solving approaches'. Similarly, studies from sport coaching have highlighted the important role of self-reflection in the professional development of coaches (Jones & Corsby, 2015).

It is difficult for coaches to consider unintended consequences if the strategies they apply rely too heavily on an overly structured modelling or rigid, pre-determined problem-solving tools (Denison et al., 2017). Instead, the orchestration of talent development should be based on reliable experience-based learning. It is essential that those involved pay active attention to small details and uncertainties, and understand which plans and choices led to the outcomes they desired (Andersen, Hansen, et al., 2015). A coaching strategy based on incremental coordination, planning and action can help to facilitate more critical reflection and success. For sports coaching, incrementalism provides strategies for engaging with uncertainty and places the emphasis on the specific practice context as the starting point for thinking critically about athlete development.

Concluding thoughts

The metaphor of talent development orchestration provides a way of conceptualising and reflecting on the ongoing interactions that characterise how coaches attempt to influence others to facilitate athlete development and performance at the team or organisational level. Empirical studies have exemplified what coaches orchestrate, and how elite coaches stage-manage events and relationships. The concept of incremental leadership offers potentially valuable insights into how to better manage uncertainty and why flexibility is so vital in the face of dynamic change. It allows room for improvisation and helps to address complex processes by encouraging people to break problems down into small, discrete and manageable units. Doing so enables these to be addressed as needed: either one at a time, sequentially, or even in parallel. Using an expectation-driven, trial-and-error strategy, these discrete and manageable problems can be turned into small wins or small, intelligent failures. While the concept of breaking problems into small, manageable units is not a new concept, it has not been much explored in the literature on athlete and talent development. Coaching strategies informed by incrementalism can provide a more realistic and effective approach because they enable a clearer recognition that theoretical assumptions and policy decisions are more useful when they are understood to be guidelines – rather than prescribed rules – that can direct the development of operative goals in specific contexts (Andersen, Houlihan, et al., 2015).

Lindblom's notion of incrementalism acknowledges that leadership and policy and decision-making processes are necessarily value-laden (Lindblom, 1979). In complex social systems, the same outcomes can be achieved via different strategies and means (George & Bennett, 2005). Incrementalist approaches can ensure that coach education programmes focus more on developing deeper insights into personal coaching philosophies, and defining appropriate values and principles. Less time should be spent on learning and applying coaching models that do not adequately mirror the dynamic nature of sport practice. Coaching strategies based on incremental leadership can be facilitated through mentoring, guided reflection, and by discussing and 'solving' case examples and current dilemmas.

The application of incremental leadership is an attempt to develop more adaptive responses to aspects of practice that, on a day-by-day basis, can be influenced but cannot be fully controlled. Applying a coaching strategy based on incremental coordination, planning and action must be seen as a way of integrating the other learnings that coaches undertake about, for example, exercise physiology, psychology and the psychosocial development of athletes. As such, it offers a potentially comprehensive and complementary approach for utilising (inter)disciplinary knowledge in complex social practice settings. We are not suggesting that incrementalist approaches to leadership should replace the importance of long-term strategic objectives, goals and approaches. These broader objectives and goals create specific 'boundaries' that shape how enterprises or organisations operate and

will determine broader pathways of action. However, within these wider contextual frameworks, incremental leadership offers an opportunity to promote and develop youth athlete development in new and less prescriptive ways.

Talent development orchestration can be made more effective through incremental coordination, planning and action, which emphasises the processes of expectation-driven trial and error. New conceptual and practical approaches to coaching are possible in settings of youth athlete development. For example, using incremental coaching strategies to promote reliable experience-based learning would be an interesting way forward for coach education programmes more focused on problematising and developing personal practice (Konoval, Denison, & Mills, 2019). Future empirical research is needed and should explore how successful incremental strategies can be employed in coordination, planning and action for coaching and facilitating athlete development. Exploring how coaches can promote athlete learning and development through incremental changes to the training process may hold promise as a move forward from the much-criticised, prescription-based training periodisation theory that still dominate coaches understanding and practice (Kiely, 2018). Case studies and field-based approaches, such as action research, may especially hold the potential for interpreting and exploring the added value of incrementalism in sports coaching and youth athlete development further.

Disclosure statement

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