

On the wisdom of not-knowing: reflections of an Olympic Canoe Slalom coach

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1 On the wisdom of *not*-knowing: Reflections of an Olympic Canoe Slalom coach

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Abstract

Never has sports coaching been so inundated with *second-hand information*. In high-performance contexts, coaches are presented with detailed reports that specify features *about* an athlete or team. Here, we question whether such detailed second-hand information has led us to know *too much* – turning us away from what the world has to share *directly* with us. To over-rely on second-hand information is to narrow in on certainty, on cause-effects espoused through de-contextualized metrics. This eschews opening up to uncertainty, to ongoing inquiry embedded in primary experience. For where certainty risks closures, uncertainty opens the possibility of carrying on. We explore this thesis through the reflections of an Olympic Canoe Slalom coach, meandering through three sections: (i) on paying attention; (ii) on knowing better; (iii) on guidance without specification. While embracing an ethos of *not-knowing* can be unsettling, it can facilitate one's response-ability. This, we contend, leads to the *wisdom of not-knowing*.

Key words: Complexity; Correspondence; Non-linearity; Performance; Learning; Knowing

Prologue: What if the more we know, the less we see?

On speaking of his friend and mentor Norman MacCaig, Andrew Greig (2010), in his book *At the Loch of the Green Corrie*, writes:

“He could name the commonest birds and that was about it. I think he didn’t want to know more, believing that knowledge of their Latin names, habitat, feeding and mating patterns [...] would obscure their reality. *Sometimes the more you know the less you see. What you encounter is your knowledge, not the thing itself.*” (p. 88, emphasis added)

This epigraph, to us, is deeply profound. It encourages a consideration what it could mean ‘to know’; a consideration spread somewhere between certainty and uncertainty, prediction and anticipation, inattentiveness and attentiveness, unresponsiveness and responsiveness. According to Greig’s description, his friend and mentor seemed firmly on the sides of the latter, actively avoiding the desire to label, characterize and itemize birds that sparked his interest, believing that in doing so, he would limit the growth of his attentiveness. By categorizing them as pieces of information inhabiting familial classes, he risked being drawn away from what the birds could share with him, enclosed and bounded by the ascription of a ‘correct’ name, habit, feeding routine and mating pattern. Indeed, while actively *not-knowing* invites vulnerability and may even be unsettling, it can open up immense possibilities of direct interaction and engagement; of encouraging one to look closer, of *really* getting to know what draws their curiosity by perceiving, attending and responding *directly* to its continual coming-into-being.

Perhaps this possibility, captured within Greig’s description, echoes a difference between wisdom and knowledge as information *about* something? The latter being driven by certainty and control; correctly labelling objects inspected as if the world is static, filled with objects destined to be classified away into their ‘correct’ places. The former being driven by uncertainty and humility; appreciating that the world is not filled with objects to be inspected and recorded, but is a dynamic, tangled mesh of things woven together, things perpetually on the move. “To be wise”, says anthropologist Tim Ingold (2018,

p. 9), “is to venture out into the world and take the risk of exposure to what is going on there. It is to let others into our presence, to pay attention and to care”. Maybe, then, what we miss in seeking to know more, is the very becoming of things, stopped in our tracks by a false certainty about them; *encountering our knowledge, not the thing itself*. As MacCaig may attest, there appears to be a wisdom in not-knowing, a wisdom that keeps one open – responsive – to what the world has to share, such that they can get to know it a little better than before (cf, Woods, Araújo & Davids, 2022). Who of them, asks Ingold (2015, p. 134, paraphrased), is wiser? The one who professes to know the correct names of the itemised things they peer at? Or the one who does not proclaim to know, but looks and listens response-ably, with care, sensitivity, and humility?

Introduction

“*I’m not sure...*” is a phrase that many of us in sport have a strong compulsion to avoid uttering. Why is this? Uncertainty is perhaps the only certainty we can be sure of, given the ecologically dynamic world which we all inhabit (Solnit, 2006; Woods, 2021). This is a world, to paraphrase philosopher Alicia Juarrero (1999), where nothing is certain, a world where twists and turns are unavoidable, emergent in even the most seemingly mundane of tasks. So, why should we not embrace this uncertainty in the phenomena of sport? After all, the uncertainty of sport performance is a defining characteristic that invites many individuals to participate at a recreational, professional and spectatorial level.

According to Reed (1996), this societal fear of uncertainty can be traced to the dualistic philosophy of Descartes. For Descartes, the world was filled with indeterminate objects not to be trusted, each out to deceive our senses in the quest for perception, understanding and control (Reed, 1996, ch. 2). Manifest in contemporary society, this fear of uncertainty has led to the rise of *managerialism*, where authoritative figures proliferate conformist behavior through the establishment of rules, conventions, and technologies that attempt to exert control, despite the dynamic constraints of the environment and the tasks challenging inhabitants, all in the name of ‘efficiency’ (Ingold, 2000; Reed, 1996; Woods,

Araújo, Davids, & Rudd, 2021). We are reminded of the words of essayist Rebecca Solnit (2001) in her wonderful book on the history of walking, *Wanderlust*:

“The multiplication of technologies in the name of *efficiency* is actually eradicating free time by making it possible to maximize the time and place for production and minimize the unstructured travel time in between. [...] The indeterminacy [uncertainty] of a ramble, on which much may be discovered, is being replaced by the determinate [certain] shortest distance to be traversed with all possible speed” (p.10, emphasis and text in brackets added)

For those of us residing in a society that prioritizes productivity, extraction, speed, and efficiency, knowledge risks being commodified (Shapiro & McNeish, 2021). Viewed as something to be pre-packaged, transmitted, and sold-on; ready to be instilled into the mind of a passive recipient, waiting to be reeled off when the time is ‘right’ (Ingold, 2018; Reed, 1996). It is to look at knowledge as something abstract¹ and second-hand, a documentation of an event, severed from primary experience, specifying *for* an individual *about* what to do in a pre-determined situation. This is what Reed (1996, p. 65) refers to as the ‘machining of the mind’, where one’s actions are guided not by direct and primary experience, but by mediated information that dictates what one is *allowed* to do². Often, such second-hand, abstract information is recorded and catalogued for ease of access in manuals, programs, and lists, defining pre-determined ‘ways of doing’. This traditional, statistically-driven approach risks sanitizing events by eradicating uncertainty, thereby dampening the growth of one’s attentive responsiveness to ebbs and flows of an environment that is never quite the same from one moment to the next (Heft, 2013).

Considered in the context of sports coaching, a fear of uncertainty risks the conflation of procedural, second-hand knowledge as being what a ‘good’ practitioner needs to ‘have’ in order to ‘do’ their job

¹ It is of note, that the etymology of the word ‘abstract’ captures the de-contextualization of second-hand knowledge; *abstractus* (Latin) – meaning ‘drawn away’ or ‘removed’.

² Such ‘machining of the mind’ is perhaps best surmised by a common phrase encountered in Western society: “*the computer won’t let me do that*”.

‘correctly’ (Woods & Davids, 2021). Do not misread us here: we do not mean to imply that second-hand knowledge in sports coaching, which is typically gained through coaching accreditation courses, is not of use. Our claim is to heed the fact that there are different types of knowledge and our conceptualization of it should not be limited to declarative or procedural versions – something verbalized that specifies for practitioners about what to do in pre-determined situations. From our vantage, knowledge to regulate action is that which is grown through primary experience and continued exposure to the emergent constraints of one’s environment (Ingold, 2011; Woods & Davids, 2021). Crucially, knowledge is not a commodity that can be ‘given’ or ‘acquired’. Such a sentiment was eloquently noted by Gísli Pálsson (1994) in his wonderful ethnography of Icelandic fisherman:

“[...] fishing is not a matter of formal schooling and the *internalization of a stock of knowledge*, rather, it is achieved through *active engagement* with the environment [...]. ‘Real’ schooling is supposed to take place in *actual* fishing.” (p. 916, our emphasis)

In surmising these ideas, it is our contention that sports coaches should not just strive toward knowing more through the consumption of second-hand information, but to know *better*. This is to prioritize exposure and primary experience over the ‘acquisition’ of an approved, formalized corpus of second-hand information; appreciating primary experience as the most basic source of information framing how we come to understand the coming-into-being of reality (Woods et al., 2022).

This change in perspective – of seeking to know better, not more – is neither semantic nor vacuous. It implies that at times, knowing better may actually be an appreciation of *not*-knowing, of remaining open to what the world has directly to share with us so that we can find ways of carrying on, ways which may reside beyond convention. In other words, by embracing an ethos of *not*-knowing, we open ourselves to possibility, a possibility of growing our *response-ability to the experiences of others* (cf. Woods et al., 2022). In sport, especially in high-performance contexts, this very appreciation could alleviate the pervasive and perhaps hidden pressures coaches, athletes and scientists feel when questioned about aspects of performance, a pressure that could see them claim for false cause and

effects by reducing or over-simplifying phenomena that are dynamic, entangled, complex, and messy (Vaughan, Mallett, Davids, Potrac, & López-Felip, 2019; Woods, Rudd, Araújo, Vaughan, & Davids, 2021). In sport competition, embracing states of *not*-knowing may help athletes better cope with challenges of discovering skill adaptations needed in circumstances and contexts, and especially where prepared performance plans are unviable.

Next, we lay out a foray into the possibility of *not*-knowing in sports coaching. To frame this idea, we weave in the reflections of an Olympic Canoe Slalom coach, anchored in three sections: (i) on paying attention; (ii) on knowing better; (iii) on guidance without specification (cf. Woods, 2021). The coach, who is a co-author of this paper, has over 15 years' experience in Canoe Slalom, and has worked alongside athletes of varying levels of competitiveness (from local to international representation). To preface these sections, a brief theoretical overview is presented. Thus, given its auto-ethnographic approach in certain sections, this paper intentionally alternates prose, shifting between third- and first-person narrative. In this presentation of ideas, we encourage others to embrace an ethos of *not*-knowing; of opening up to the goings on of what interests them, actively attending and directly responding with genuine care and curiosity. For in doing so, the phrase "*I'm not sure*" may just become a welcomed interjection; an affordance to search, discover and explore performance opportunities in sports coaching.

On paying attention

"*Pay attention!*" is a phrase many have either demanded, or been instructed, when attempting to teach, or learn, an unfamiliar task. But what exactly is meant by it? Indeed, this is a complex question that we do not claim to solve here. Rather, what this section explores in its response is our theoretical anchorage, which frames the forthcoming practical reflections. Our exploration starts by drawing inspiration from the ecological approach to visual perception (cf. Gibson, 1966, 1979). Pioneered by James Gibson (1966, 1979), it argues that perception is achieved directly by the whole animal moving around in its environment. In moving around, the array of light that reaches an animal's eye undergoes

continuous modulation, reflecting off surfaces in its surrounds (Gibson, 1979). These modulations reveal ‘invariants’ that directly specify the properties of things encountered – or more specifically, what the things that an animal perceives, *afford* it (Gibson, 1979). This means that the structure of animal’s surroundings is not provided indirectly by some representation constructed and stored in the mind, but is ‘there’ to be directly ‘picked-up’ by an attuned perceptual system. To exemplify, a masterful sailor is one who has learned to ‘pick-up’ key sources of information in their environment that directly specify opportunities to carry their voyage on, attending to properties like oceanic currents, changes in wind direction and strength, emergent cloud or astronomical formations, or the presence of marine or avian life. What the skilled sailor learns, then, is not a corpus of rules or representations transmitted by an authoritative figure that specifies for them a plan of what to do in pre-determined situations (cf. Ingold, 2018, ch. 1). Rather, the actively engaged sailor learns to *directly attend* to key features of their environment that may be hidden to a less attentive counterpart (Pálsson, 1994). This learning experience is to undergo an *education of attention* (Gibson, 1979, also see Ingold 2000). The word attention, in this sense, is rooted in an etymology of *ad-tendere*, meaning, ‘to stretch toward’ (Menzies, 2014). Consider, for example, how a perceptually-attuned sailor actively stretches toward the sounds of distant waves crashing on a rocky shoreline, or how they actively reach toward the slightest changes in the wind’s direction and strength, moving their whole body to directly ‘pick-up’ such key sources of information.

Though, as any experienced sailor would likely attest, while at sea, one is very much at the mercy of what the world may or may not afford. In other words, in a dynamic world, infinitely variegated and perpetually on the move (Heft, 2013), opportunities to act do not appear ready-made, waiting to be directly perceived by an attentive individual (Ingold, 2010). Rather, they would be suspended in a continual process of coming-into-being, along with the action capabilities of the perceiver (Ingold, 2018). There is, then, another side to attend; a side that is not just about stretching toward features of the world that are ‘there’, but one that is about skillfully *waiting on* the world to reveal an emergent path ahead. This is exactly why educational philosopher Jan Masschelein (2010) reminds us that in

French, the word attend – *attendre* – quite literally means ‘to wait’. There are, then, two sides of attention; a skilled perceptual system attuned to information that is ‘there’, specifying available opportunities to act; and a propitious forbearance, a waiting on the emergent ‘not yet’ of what could become (Woods, 2021).

There is, then, a preparedness and an unpreparedness associated with paying attention. Preparedness signifies that one is masterfully ‘tuned in’ to key available sources of information used to guide performers along their way. Unpreparedness exists because the world is never quite the same from one moment to the next. Functional performance behaviors reside in this dynamically stable (meta-stable) region of the performance landscape (Pinder, Renshaw, & Davids, 2012). This is an appreciation that in order to progress on, one has to *submit* to the goings on of a world *in-form*ation and *expose* oneself to its ebbs and flows. Suspended in this submission and exposure is uncertainty, vulnerability and risk. After all, “[t]o embark on any venture – whether it be to set out for a walk, to hunt an animal or to sail the seas, is to cast off into the stream of a world in becoming, with no knowing what will transpire. *It is risky business*” (Ingold, 2015, p. 138, emphasis added). But what can be found within the process of risk and submission, in waiting on the world to reveal a path ahead, is the very possibility of carrying on. Paying attention, then, is not just about rigidly memorizing information, technique repetition and following a pre-determined path or route laid down by another – a second-hand body of information manifest in a corpus of rules and prescriptive instructions. Rather, it is about submitting to a world in motion, exposing ourselves to, and joining in with, it’s becoming.

Reflection 1: On a coach learning to pay attention

“*Prepared, but not planned*” were the words of a Canoe Slalom athlete when asked to surmise their approach to competition while in a team performance review following the Tokyo Olympics. These words have resonated with me since, as unbeknownst to them, they eloquently reflect where I now find myself as a Canoe Slalom coach. This is a journey that has unfolded from a place where I used to devise rigid performance plans and templates of how I thought things should be done, to one in which

I now embrace uncertainty, an ethos of *not*-knowing, of remaining open to the dynamic contextual currents of high-performance sport (cf. Morris, Otte, Rothwell, & Davids, 2022). It is a journey of learning to pay attention; of being *prepared*, skillfully stretching toward things that are there; *but not over-planned*, remaining open and responsive to emergent possibilities along the way. In this first reflection of my journey as a coach, I briefly share how learning to pay attention has unfolded through the process of ‘course planning’ in Canoe Slalom.

In sports that prohibit prior practice on the competition course, like Canoe Slalom, the process of ‘walking’ or ‘viewing’ the course is a common event. Athletes and coaches can typically be seen prowling the course from the side, formulating plans on how best to tackle the challenges that the event designers have set. In climbing, for example, coaches and athletes are permitted prior ‘exploratory route previews’ from a perspective point on the ground to supposedly help hasten ascents in competition (Button, Orth, Davids, & Seifert, 2018). This process is intended to help coaches identify the best route, thereby dictating where an athlete’s attention should be directed in competition in order to execute their ‘pre-race course plan’. Such a plan is oft-complemented by technical instruction provided by the coach, which is aimed to fixate the intentions of the athlete in negotiating the prescribed route in the most technically effective way. In my experience, such technical instruction is used, in part, to simplify the task in front of the athlete by reducing uncertainty about the possibilities for action the course presents, thus purportedly helping ensure that ‘the optimal route’ is realized during competition.

Indeed, the process of ‘course planning’, briefly overviewed here, was once my approach to competitive performance preparation in Canoe Slalom. A focus on replicating an ‘ideal’ way to negotiate ‘the optimal route’ in competitive performance, which led both me and the athletes to attend to the ‘how’ (prescribed ways of doing) above the ‘what’ (task goals). Inadvertently, both I and the athletes progressively found this to be overly constraining, dampening adaptability in performance; an irony which is only now starting to become apparent given adaptability is a widely

acknowledged key tenet of racing in Canoe Slalom (Morris et al., 2022). Nonetheless, I was often found verbally constraining functional movement solutions by continually attending to an athlete's performance through the lens of error correction; comparing what I was looking at against a preconceived model of 'excellence'. This base methodology aligned with traditional methods of practice preparation for competitive performance, where greater certainty is sought through technique repetition and tactical rehearsal. It is an approach to practice that is pursued by decomposing movement patterns at key moments to cement characteristics of 'stability', 'constancy' and 'permanence' in the athlete's action repertoire. For me, the seismic shift in what it meant to pay attention as a coach came when athletes started reporting feelings of roboticization; lacking presence during competition by focusing too intently on trying to enact *my* pre-race plan. Perhaps I was confusing the map with the territory?

Upon humble reflection of such a question, my older methodology of coach-centered control began to give way, leading to richer conversations between myself and athletes about what *they* were seeing, hearing and feeling *in* competition. Initially, this was an uncomfortable process, as being 'the coach', I felt it my obligation to 'have the answers' and dictate, in certainty, how things were to be done in both practice and competition. Was I not, after all, 'the expert'? Fortunately, this unease quickly dissipated, as I grew into an appreciation of what paying attention could mean. For me, it is not about rigidly attending to how I think things should be done, but about being open and responsive to the experiences of all, such that *together*, we can find ways of carrying on. This means that as 'the coach', I no longer see my role vertically, but *longitudinally* (Woods et al., 2022). My job, in other words, is not to impose ways of *being* and *doing* onto the athletes, but is to move, journeying with them in becoming, joining in with what they are seeing, hearing and feeling as best I can. Practice and competition, thus, have progressively become an ongoing process of collaborative search and discovery; of being challenged to consider questions that perhaps neither I, nor the athletes, know the answers to, given the dynamic environment which we inhabit. What this does, though, is open up threads of inquiry for us to explore together, leading to further opportunities for correspondence and

co-designing of practice tasks for preparation. This, I have found, is to submit the constraints of the environment; ‘giving up’ on the desire to exert control over contexts that are dynamic and ever-changing. For me, the mastery of coaching and performance in sport reside precisely in learning to pay attention; attentively responding to the ebbs and flows of an environment that is never settled: *to be prepared, but not planned.*

On knowing better

In our prologue, we spoke of how Norman MacCaig actively sought to avoid ‘gaining’ knowledge about the birds which had sparked his curiosity. According to his friend, Andrew Greig, doing so risked MacCaig’s attentiveness, dampening his astonishment by limiting the enjoyment felt each time he observed the birds going about their business. Otherwise put, knowing the birds, to MacCaig, appeared to be richer than the mere ascription of a ‘correct’ label. For us, such an appreciation was deeply profound, capturing a subtle, but crucial distinction between knowing the world by way of *recognition* or by *direct perception* (Dewey, 1934/2005; Woods et al., 2022). It is this distinction that creates the basis for what we explore in this second section.

In his seminal text *Art as Experience*, John Dewey (1934/2005) proposed that in order to really know the things that spark our curiosity, we need to ‘begin with them in the raw; in the events and scenes that arouse interest and enjoyment as one looks and listens’ (p. 3, paraphrased). For example, to *really* understand the flowering of a plant, one must look beyond the ascription of labels, manifest in ‘correctly’ naming or characterizing a species looked at, and instead attend to the conditions that enable the plants growth. That is, they must immerse themselves in what they seek to know, primarily experiencing the natural ecology of relations in which the things that draw their curiosity come-into-being. Through such immersion, one comes to know what it is that interests them, not through recognition (i.e., the ascription of ‘correct’ labels to various characteristics looked at) but through *direct perception* (Dewey, 1934/2005; Gibson, 1979). For in the former, Dewey (1934/2005, p. 54) argues people fall back “upon some previously formed scheme” that creates the basis for one’s

observation. Maybe this is what Greig (2010), cited in our Prologue, meant in stating “[s]ometimes the more you know the less you see. What you encounter is your knowledge, not the thing itself”? In other words, what one encounters is a prior-formed convention of what it is they are ‘supposed’ to be looking at, with this convention creating the (oft-fallacious) basis for their explanations of it (Blumberg & Wasserman, 1995).

Conversely, in direct perception, Dewey (1934/2005, p. 54) suggests there is an active ‘taking in’, manifest in a “reconstructive doing”, in which one opens themselves to the goings on of what interests them. This is to join in with the coming-into-being of what has caught our attention, not so that we can ascribe labels to various constituents that we proclaim to know, but so that we can allow the very things into our presence, guiding our attention to what is important. This requires one to give up the desire to control, classify, label and characterize, replacing these activities with care, curiosity and response-ability³, leading one to pick up things which they may not have encountered before. An eloquent example of this is found in the work of Primatologist, Shirley Strum (1987), who in seeking to explain the behaviors of baboons from a “baboon’s perspective”, noted:

“I made a determined effort to forget everything I knew *about* how baboons are *supposed* to behave. Instead, I tried to let the baboons themselves ‘tell’ me what was *important*” (p.30, emphasis added an in original)

This distinction between recognition and direct perception is captured by Gibson (1966, 1979), who differentiated between knowledge *about* and knowledge *of* one’s environment. In the latter, knowledge is an *extension* of perception (Gibson, 1979, ch. 14). Meaning, it is primary and unmediated, grown through a progressive sensitivity (*attunement*) to the patterned structure of the invariant features of information that directly specify opportunities to act (*affordances*) (Gibson, 1979,

³ We draw inspiration for this term from the work of both John Cage (2011) and Donna Haraway (2016). In becoming response-able, people open themselves to the experiences cast forward by others, as others do to theirs. What this does, is open paths of travel neither have traversed before, enabling both to carry on their lives, together. See Woods et al. (2022) for further reading.

ch. 8). Comparatively, and similar to Dewey's (1934/2005) accounts of recognition, knowledge *about* one's environment is mediated and indirect. Second-hand, it is denoted through words, pictures and symbols made by a human individual, specifying for another about what or how to do (Gibson, 1966). Indeed, while this secondary information can help people navigate the world, it is one's knowledge *of* their environment that directly regulates their behavior in it (Turnbull, 2008). For us, then, and seemingly to MacCaig, knowing is not about ascribing a 'correct' label or name to an object or its constituents such that we can profess to know more about it than another. But it is about growing an intimate sensitivity to its ebbs and flows, directly perceiving it in-becoming, as we continually come to know it better than before.

Reflection 2: On a coach coming to know better

"As I was doing that gate, I thought, 'XXXX is going to hate that stroke'". These were the words a Canoe Slalom athlete directed at me, their coach, upon reviewing their final run at an Under 23 World Championship event. Indeed, I did not like the stroke in reference, as from my worldview at the time, it did not represent what I thought to be 'biomechanically correct'. However, the immediate gratification I somewhat self-indulgently felt at the athlete recognizing their supposed technical error, was quickly replaced with a dropping penny when the athlete followed up with "...but it was an effective stroke though, wasn't it?!". Yet again, the athlete was right. Despite what I thought about the strokes 'biomechanical incorrectness', it was highly functional, given the interacting constraints they were working under at that moment of the race. What this dropped penny led me to consider was a somewhat uncomfortable, yet seminal proposition for me as a coach: *perhaps my prior knowledge about Canoe Slalom was preventing the growth of the athlete's knowledge of it?* In this second reflection, I explore my journey in responding to such a question.

While a young coach early in my journey, I often found I conceptualized my role hierarchically. Although well-intentioned, I felt it my job to impart or transmit knowledge *about* Canoe Slalom down onto athletes; manifest in technical instructions intended to specify *for* them *about* what and how to

321 do in situations that I thought would emerge. Simply, as the coach, I thought it was my job to know
322 more about the sport than the athletes I worked with. In practice, this was often denoted through
323 high levels of corrective instruction related to the techniques that I thought the athletes should use to
324 paddle or negotiate the course, with such instruction typically being prescribed verbally, from the
325 perspective of standing on the riverbank. It is only now, in retrospect, that I have come to appreciate
326 that in such coach-centric moments, I was neither directly attending to the athlete, nor to the literal
327 currents of the course they were traversing. Instead, I was attempting to transmit my prior established
328 knowledge *about* what I thought to be ‘correct’ and ‘effective’ performance techniques, often
329 regardless of context. Further, my coach-centered view was not helping the athletes learn to explore
330 their aquatic surrounds in functional ways. Instead, it was rather fixating them upon what I was saying
331 (or often yelling) at them from my terrestrial position on the sidelines. For example, learning to pick
332 up key haptic information relating to water pressure on a paddle blade was being dampened in the
333 athletes by attempting to perform a stroke I had prescribed for them from *terra firma*. Perhaps this is
334 what Dewey (1934/2005, p. 54) was referring to in discussing the pitfalls of *recognition* – I was relying
335 on “some previously formed scheme” (based on my knowledge *about* performance) to create the
336 basis of what I was looking at as a coach. Progressively, this hierarchical, coach-centered model of
337 knowledge transmission became a deep source of frustration for both me and the athletes. Not only
338 did the athletes often ‘fail’ to enact what I thought I had successfully transmitted, but they started
339 reporting feelings of being overly-constrained in both practice and competition, unable to explore
340 what ‘functionally felt right’ for them.

341 This stark realization led me to consider that by instructing athletes, using procedural strategies such
342 as “*if X happens, then do Y*”, I was attempting to impose additional non-specifying information to help
343 them navigate a performance environment that was already information rich. With great discomfort,
344 I indeed discovered that it was my knowledge *about* how I thought things should be done in Canoe
345 Slalom that was constraining the growth of the athlete’s knowledge *of* it. While this was a seminal
346 realization for me along my coaching journey, it opened another interesting thread to follow up with;

how, then, was I to take up with my role in helping athletes grow their knowledge *of* an environment that is dynamic and replete uncertainty? It is this question that leads into the third section of this paper.

On guidance without specification

There is an important corollary to that which we have discussed in the prior two sections; that of the role experienced others may play in educating one's attention toward key features of an environment, thereby helping them grow their knowledge *of* it. What we suggest, is that embroiled in the wisdom of *not*-knowing, is a careful reconsideration of the very word 'education'. To start, we explore two interpretations of education. The first of which, Jan Masschelein (2010) shows can be traced to an etymology of *educare*. In this interpretation, education roughly means 'to teach', representing a process in which one becomes increasingly aware or conscious about a topic – moving from naïve to knowledgeable (Woods, 2021). Linking this idea to the prior two sections, this approach aligns to a view that situates knowledge as a second-hand commodity that can be instilled into the passive mind of another, transmitted from a putative authoritative figure (a teacher, coach or even parent). To be educated, according to this first interpretation, would be seen as being *more* knowledgeable *about* a topic such that one can assume a critical, all-knowing position (Woods, 2021).

In contrast, Masschelein (2010) introduces a second etymology – *e-ducere* – which roughly means 'to lead out'. Such an interpretation of the educational process is not concerned with the transmission of second-hand information intended to make one more knowledgeable about a topic, but rather encourages one to 'displace their view' (Masschelein, 2010). This displacement is intended to help one expose themselves to the 'goings on' of the world – *to look, listen and feel* – not to become aware or conscious, but to grow an attentive responsiveness to things as they are, where they emerge. To exemplify, where *educare* would situate the instruction at the core of the educative process – telling one what or how to do – *e-ducere* would focus on leading another out into the world such that they can primarily experience things for themselves. Leading another out into the world, then, is not so

372 they can reach some prior established convention about how things should be done, but is a way that
373 people can open up to new opportunities for further exploration, discovering things for themselves in
374 a world that is never the same from one moment to the next (Woods, 2021).

375 The differences between these interpretations are important to consider given the pedagogical
376 approaches embroiled in both. For example, Masschelein (2010) suggests that when understood as *e-*
377 *ducere*, one should take up with a ‘poor pedagogy’. This is a less intrusive pedagogy that is not
378 concerned with listed instructions, rules or defined ways of doing, but more focused on guiding others
379 toward the discovery of things for themselves:

380 [a poor pedagogy] “helps us to be attentive, which offers us the exercises of an ethos or attitude
381 not the rules of a profession or the codes of an institution” (Masschelein, 2010, p. 49)

382 In other words, an experienced other does not provide augmented information to specify for a less
383 experienced companion about what or how to do, but guides them toward where they may like to
384 start their search. Rudd et al. (2021) suggests that augmented information can provide such guidance
385 without specification which promotes exploratory activities and can take form in many ways, such as
386 nudging, demonstrating or even showing, *so long as they help less experienced others to self-discover*
387 *things which are of concern to them.*

388 Do not misread us here: this should not be construed as lessening the role of an experienced other in
389 an educative process. Rather, it highlights a key differentiation in that role: that being when
390 understood as *educare*, a practitioner – while perhaps standing on the riverbank – would likely verbally
391 instruct an inexperienced paddler about how they should paddle, and what they should look like while
392 on the water. Understood as *e-ducere*, however, a practitioner – perhaps dwelling in the water with
393 them – would likely guide an inexperienced paddler in exploring the various features of their
394 surrounds that invite interaction, encouraging them to discover various ways paddling may feel,
395 sound, and look to them. Simply, the former situates guidance with specification of movements at the
396 core of the educative process, while the latter prioritizes guidance *without* specification. For in the

latter, there is an appreciation that in a world that is never settled, no one person holds all the solutions to problems encountered along the way. Rather, functionally-relevant ways forward emerge as people learn to attend and respond directly to ongoing changes in environing conditions.

Reflection 3: On a coach leading out into the currents of uncertainty

In reflection two, I unpacked a seminal realization for me as a coach: that being athlete behavior is emergent under interacting constraints. This meant that, if I provided excessive corrective verbal instruction during a course run, an athlete's capability to discover and attune to key sources of information in their environment would be considerably limited, as they would instead be focusing too intently on trying to enact precisely what I thought to be 'correct'. This led me to reconsider my role in athlete development, and in this third reflection, I briefly discuss where this reconsideration has taken me. Specifically, I reflect upon how I have progressively leaned into a 'poor pedagogy' (Masschelein, 2010), guided by a constraints-led approach (Davids, Button, & Bennett, 2008), encouraging athletes to safely explore the uncertainty of their surrounds in order to adaptively solve emergent problems of competition based on their action capabilities. Stated differently, I have evolved from a coach who tried to specify *for*, to one who now guides *without*.

In Canoe Slalom, a key source of information is the race poles through which an athlete negotiates in order to complete a course run. While rules dictate that these poles must be hung at a minimum of 20cm above the waterline, the height does change in relation to the rising and falling river levels. Meaning, athletes must be attentive and responsive to changing heights of the poles such that they can learn to adaptively negotiate them without incurring time penalties. This challenge, therefore, creates an interesting task constraint in practice and competition. Previously, the focus of my practice design would be to specify *for* athletes about how to negotiate the varying heights of these poles – verbally instructing them about stroke techniques both prior and during the run, while positioned on the riverbank. Since appreciating the pitfalls of this, my approach has shifted to focus less on drilling 'the how' and more on supporting an 'exploration of ways' by *designing in* problems and challenges

that the athletes are encouraged to solve during practice activities. Effectively, I have evolved from a 'solution provider', to a 'problem setter' through the careful re-design of faithfully representative practice tasks (Woods, McKeown, O'Sullivan, Robertson, & Davids, 2020), while practice has evolved from mere technique repetition to 'repetition without repetition' (Bernstein, 1967), where athletes repeat the process of solving performance problems.

To exemplify, a common task constraint I now manipulate in practice is the height of the race poles athletes need to negotiate. The purpose of such a constraint manipulation is to *dampen* certain invitations to act and *amplify* others, thereby destabilizing current movement solutions while exposing athletes to problems that extend the ways they can negotiate the changing heights of the race poles. Lowering an outside pole to the waterline, for example, presents a unique challenge, as the boat can no longer be taken under the pole without incurring a time penalty, thereby inviting different movement solutions to be explored. In combination with raising the inside pole (of the same gate), athletes are further invited to explore ways of moving and orienting their boat and body in relation to gates of varying pole heights. It is important to note, that it is the constraint manipulation which guides the attention of athletes in such practice tasks, not my verbal instruction. Why this is important, is that it keeps me open and responsive to how the athletes negotiate the course in ways meaningful to *them*, based on the constraints *they* are working within. What this affords me, in turn, is the opportunity to identify further course features to be carefully manipulated in order to challenge or support the ongoing course negotiation. Thus, my relationship with the athletes is now co-adaptive, in which their actions actively contribute to the ongoing (re)design of their practice tasks (Orth, van der Kamp, & Button, 2019).

What this reflection demonstrates, is how I have learned to guide (task constraint manipulation) *without* specification. The athlete-environment relation is at the centre of the learning process, rather than the coach. In a way, this is more demanding than guidance *with* specification, as I have had to learn to pay closer attention to what each individual athlete is directly showing me in how they

negotiate the course. This is needed so that I can continue to manipulate key constraints that challenge or enhance their adaptability. Thus, where observation was once a constant loop of evaluation and calibration against what I ‘knew to be true’, I now find myself somewhat uncertain when observing practice and competition. Uncertain, though, in the best possible way, as it keeps me open and responsive to how the athletes functionally explore the dynamic constraints of their environment. This is why I now like to think that the athletes and I are coaching each other in companionship, co-designing together to lead each other out into the uncertain waters ahead.

Concluding remarks

What we have presented here is a foray into the possibility of *not*-knowing; of opening up to the phrase “*I’m not sure*” in sports coaching. In doing so, we sought to foreground a wisdom that can be found through such embracement; a wisdom that Norman MacCaig embodied according to his friend Andrew Grieg, through the relationship he sustained with the birds that drew his curiosity. To us, this is a wisdom that situates care, curiosity, humility, attentiveness, and (co)responsiveness at its core. It would be naive, though, for us to not mention that it is a wisdom that also brings with it vulnerability, risk and discomfort. Hopefully, though, we have shown there to be a comfort in this vulnerability, as through such, one can open themselves to the ebbs and flows of an environment that is always on the move. A wisdom of *not*-knowing, then, is an appreciation that no one holds all the answers to life’s mysteries, but that the answers – as much as they exist – come-into-being as people head out into world together, guiding each other’s attention towards what is of concern to them: *encountering not their knowledge, but the things themselves*.

As our journey comes to a pause, we return to the question offered in our prologue: Who of them is wiser? The one who professes to know the correct names of the things they look at? Or the one who does not proclaim to know, but looks and listens response-ably, with care, sensitivity, and humility? Our response to such a question, while woven throughout our paper, is eloquently surmised by the inspiring words of essayist Rebecca Solnit (2006, p. 3), who reminds us that wisdom is not a fact to be

472 explicated or data to be extracted. Rather, it is being alive to an unfolding journey that knows no ends,
473 no bounds. An encouragement to care, to be response-able, and to never stop looking into the haze
474 of the horizon, embracing the mystery of the unknown, one paddle stroke at a time:

475 “Leave the door open for the unknown, the door into the dark. That’s where the most important
476 things come from, where you yourself came from, and where you will go”

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