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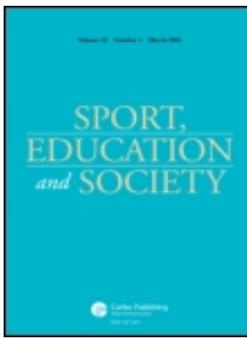
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Sport and exercise pedagogy and questions about learning

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One important challenge ahead for sport and exercise pedagogy (SEP) researchers is to consider afresh questions about learning. Learning in the fields of sport, physical activity and physical education (PE) is a particularly complex business. Most existing theories of learning are defined cognitively, yet learning in sport and physical activity contexts is also practical and embodied, and is linked to the powerful wider cultural contexts of sport and related areas such as health. Yet, even though learning in these contexts is particularly complex, practitioners rarely draw upon specific learning theories to ask questions about practice, and researchers in SEP have tended to focus on content and issues of teaching and coaching instead of using learning theories as a way to explore learning or investigate learning. This paper draws on data from a project in Sweden on learning in PE to illustrate the ways in which a learning theory framework can be used to guide research questions, offer important insights into the learning process and make a contribution to the wider literature on learning theory. We also argue that research design grounded in learning theories has the potential to result in greater coherence across studies, thereby offering a more valuable service to practitioners.

Keywords: *Learning theory; Sport and exercise pedagogy; Physical education; Coaching; Youth sport*

Introduction

Within what we delineate in this special edition as the field of sport pedagogy, or perhaps more appropriately sport and exercise pedagogy (SEP) (Armour & Chambers, 2014), numerous scholars have discussed issues of learning based on behaviourist, constructivist, situated or didactic theories of learning (e.g. Kirk & Macdonald, 1998; Light, 2011; Pope, 2005; Ward & Lee, 2005; for overviews see Amade-Escot, 2006; Rovegno, 2006; Rovegno & Dolly, 2006). Kirk, Macdonald, and O’Sullivan (2006) define the field of physical education (PE) and sport pedagogy as being framed by three intertwined key elements: learning, teaching and curriculum. As these authors note, however, although learning is clearly central to pedagogy, sport pedagogy research over the last 20 years or so has focused mainly on content (curriculum) and issues of teaching or coaching. Moreover, those studies that do focus on learning tend to *discuss* learning rather than analyse the learning that *actually takes place* in the context of a clear theoretical perspective rooted in theories

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of learning (cf. also Ward & Lee, 2005). Instead of looking at what the learners—athletes or students—do, research tends to focus on what the teacher or coach does (cf. Rink, 2001; Rovegno, 2006). Where they are included in research, learning theories tend to be used to provide guidance for curriculum development, curriculum models, or teaching or coaching strategies (see Rovegno & Dolly, 2006).

Learning is at the heart of pedagogy, and PE teachers as well as sport coaches are essentially pedagogues. Pedagogy is, however, a complex concept; indeed Alexander (2008, p. 183), in line with several scholars within sport pedagogy (e.g. Evans, Davies, & Rich, 2009; Kirk, 2006; Rink, 2001), highlighted the ‘extraordinary richness of pedagogy as a field of intellectual exploration and empirical enquiry’. Moreover, as Akkerman and Van Eijck (2013, p. 60) remind us, the learner at the centre of our pedagogical practices is multi-faceted, and has to be recognised as a ‘whole person who participates in school as well as in many other practices’. We can conclude from this that the number of variables operating in any pedagogical encounter is vast (Leach & Moon, 1999; Light, 2008, 2011), so in order to study *learning*, we require clear frameworks simply to make sense of what is happening. Ball (2012, p. 283) has challenged researchers to ‘move away from research designed as mere “demonstrations of knowledge” towards research that has the power to close the *knowing-doing gap* in education’. The illustrations we use in this paper offer one way in which a more explicit focus on learning in SEP research, underpinned by explicit theories of learning, could offer something of value in closing the research–practice gap.

In line with reviews by Rovegno (2006), Rovegno and Dolly (2006) and Ward and Lee (2005), we argue that the lack of studies within SEP that examine learning using explicit and complex learning theories is a limitation in the field. Even though there have been notable exceptions (e.g. Clarke & Quill, 2003; Evans & Clarke, 1988; Jones, 2011; Quennerstedt, Almqvist, & Öhman, 2011; Rønholt, 2002; Wright, 2000), these are somewhat sparse. This gap in knowledge limits both the type of questions that research can pose, and also what can be known or claimed about learning from the results of our studies in PE, physical activity and sport contexts. The purpose of the paper is, therefore, to consider these issues and to illustrate the potential benefits of grounding our research in a range of learning theories. In so doing, research would certainly become more complex to design and carry out. Yet, a strong theoretical framework in learning theory would ensure that different studies and findings in our field could more easily become cumulative. This would mean that although our studies would become more complex (perhaps better mirroring the challenges of practice) research findings *across* studies would have greater coherence. It is argued that this is one way in which research can more successfully bridge the research–practice gap identified by Armour and Chambers (2014) and Kirk and Haerens (2014).

In the paper, we will *first* discuss theories of learning with a point of departure in Anna Sfard’s (1998) division of learning theories in two metaphors for learning. *Second*, with the use of Sfard’s insights, we will consider four key challenges to be

addressed in framing research in SEP around learning theories. *Finally*, we will empirically illustrate the ways in which SEP research could contribute new perspectives to the practice field by using different learning theories to analyse learning in contexts of coaching, PE and youth sport.

Learning theory

Given the centrality of learning in pedagogy, it is pivotal to consider questions about the nature of learning and also how we as researchers, or for that matter teachers or coaches, know that somebody has learned anything. At its simplest level, learning can from a behavioural perspective be defined as changes in observable behaviour, whereas from theories that are more cognitively oriented, learning is understood in terms of concept development and mental structures. Of course, every perspective and/or theory of learning we assume or use makes a whole plethora of different assumptions about, for example, knowledge, knowing, the role of the learner, the role of the environment, or where learning takes place. It is difficult to imagine, therefore, how we have been able to conduct any meaningful research in SEP that does not make transparent these assumptions about learning. This is not to suggest that learning theories are uncontested, as is illustrated below. Importantly for this paper, it is the critical distinctions between learning theories, and the ways in which they allow us to frame, analyse and understand practice differently, that underpins our arguments about their centrality in research on pedagogy.

In a seminal article, Anna Sfard (1998) gives us an insight in what Cobb and Bowers (1999) describe as the division between cognitive and situated perspectives of learning in contemporary research on learning. Sfard discusses learning theories within two metaphors of learning—the *acquisition metaphor* and the *participation metaphor*. Sfard describes how educational research is trapped between these two metaphors and what she calls the competing ontologies regarding the question of what learning *is* and how we *really* learn.

Sfard argues that understanding *learning as acquisition* involves exploring knowledge as something external that learners should acquire and internalise in terms of individual enrichment. Knowledge is then a commodity, something we have or possess after passively receiving or actively (re-)constructing it. This view of learning is, according to Sfard (1998), visible in cognitivism, constructivism following the works of Vygotsky, research using Piaget as well as in some interactionist and sociocultural theories of learning. In sport pedagogy, this understanding has been prominent in more behaviouristic and cognitivist studies (e.g. Dodds, 1994; Siedentop, 1983).

On the other hand, understanding *learning as participation* involves exploring knowledge as an aspect of a practice or activity where learning is about becoming a 'member' of a particular practice, activity or discourse (Sfard, 1998; in sport pedagogy research notable in the use of situated learning, e.g. Kirk & Macdonald, 1998). This involves a shift in understanding from knowledge to learning, as well as a shift from knowledge as *having* to knowledge as *doing*. From this perspective,

learning is never separated from the relations and contexts in which the learner is situated, and the learner is considered to be dynamic as she moves from context to context. This view of learning is, according to Sfard (1998), found in sociocultural learning theories using concepts such as communities of practice, legitimate peripheral participation and apprenticeship (cf. Rogoff, 1990; Lave & Wenger, 1991), research using the works of John Dewey and also in more recent efforts to theorise learning in education in terms of 'learning as becoming' (Hodkinson, Biesta, & James, 2007, 2008) and learning as discourse change (Wickman & Östman, 2002).

Sfard argues that within many fields, proponents of the two metaphors of learning are involved in continuous academic debate and challenge around important issues that separate them, particularly those issues that are regarded as problematic in the 'other' metaphor. Examples of such issues include the distinction between internal/external, individual continuity and change, the role of actors' previous experiences in learning and the question of transfer of learning. Yet, the fact that there is debate within these different groups is not necessarily problematic; indeed, the problem is that the debate is not vigorous enough in the field of PE and sport pedagogy.

Even a superficial scan of the learning theory literature illustrates the potential riches that it offers to researchers and practitioners. For example, Shulman (1987) proposed a knowledge base of teaching with seven categories: content knowledge, general pedagogical knowledge, curriculum knowledge, pedagogical content knowledge, knowledge of learners and their characteristics, knowledge of educational contexts and of educational ends and purposes and values. It is interesting to consider what could be learnt from an analysis of a pedagogical encounter in PE using these categories as an analytical framework. In another example, Daniels (2012) reminds us of the classic work by Bernstein and the recontextualising principle in pedagogic discourse which 'selectively appropriates, relocates, refocuses and relates other discourses to constitute its own order' (p. 7). With notable exceptions (e.g. Evans, Davies, & Penney, 1996; Evans, De Pian, Rich, & Davies, 2011; Evans et al., 2009; Penney, 2013; Penney, Brooker, Hay, & Gillespie, 2009) rather few researchers have drawn upon this theory in order to frame an analysis of practice. Of course, our specific field is not alone in failing to exploit and develop learning theory. Thompson, Windschitl, and Braaten (2013, p. 609) studied novice teacher learning and whether and how novices developed 'ambitious' pedagogies and practice. Their findings led them to argue for 'a more robust theory of teacher learning that accounts for how participation in different communities—that project different messages about instruction and learning—shapes the language and practices of novice teachers'.

Understanding learning within sport and exercise pedagogy (SEP)

As several scholars have pointed out elsewhere (cf. Hodkinson et al., 2008; Jess, Atencio, & Thorburn, 2011; Light, 2008; Ovens, Hopper, & Butler, 2013; Quennerstedt, Öhman, & Öhman, 2011), exploring and thus understanding learning

is a complex business generally, involving several theoretical as well as methodological challenges. It could be argued that learning in the fields of sport, physical activity and PE is a particularly complex matter. Most existing theories of learning are defined cognitively, however, learning in sport, physical activity and PE contexts is also, to a large extent, practical and embodied, an aspect where SEP most certainly can make a contribution to the wider literature on learning in terms of how to dissolve the dualism between body and mind so common in many studies of learning (cf. Evans et al., 2009).

Learning in SEP contexts is also connected to wider SEP cultural contexts such as professional/elite sport and related areas such as health. This means that understanding learning in these contexts includes learning content and direction as well as learning process, and also individual as well as social and institutional/cultural aspects of learning (cf. Hodkinson et al., 2008). As Hodkinson and colleagues (2007) argues: 'learning entails the embodied engagement with practice' (p. 417).

Connected to these issues are two specific concerns we have about some of the existing research in SEP. First, where learning theory is made explicit, there is a tendency to use it to prescribe best ways to teach or coach rather than using learning theories as *ways to explore learning*. As Rink (2001) argued, learning theories are used as 'a recipe for teaching' (p. 113) because researchers focus on offering direct recommendations for best practice instead of using theory to explore issues of learning. Second, we have a concern about using learning theory to state what learning actually is rather than using learning theories as useful ways to investigate learning (cf. Hodkinson et al., 2007; Sfard 1998). To address these concerns with inspiration from Sfard (1998), and building on a previous paper (Quennerstedt, Öhman & Öhman, 2011) we consider four methodological challenges connected to the issue of investigating learning in a SEP context:

- First, there are considerable challenges in seeking to understand learning not only as cognition grounded in cognitive and constructivist theories in both the acquisition and participation metaphors, but also as practical and embodied;
- Second, studies of learning undertaken using an explicit or implicit participation metaphor, and scholars using situated theories of learning, need to acknowledge individuals' learning and individual differences;
- Third, there is the challenge of including wider institutional, social and cultural influences on the learning situation instead of concentrating only on what happens at the particular learning site under investigation. This challenge is often disregarded in the acquisition metaphor of learning and is sometimes underplayed in situated theories in the participation metaphor;
- Fourth, there is a major challenge in ensuring that issues of power relations and inequalities within and beyond the particular learning site are made visible in cognitive theories in the acquisition metaphor, and also didactic theories in the participation metaphor.

Of course, these challenges are not the only challenges SEP researchers need to consider when analysing learning. Yet, it is interesting to consider the impact that addressing these challenges would have on framing pedagogy research in our field.

Learning in SEP: an illustration

In order to illustrate our arguments, we draw upon data from a study of PE in Sweden that used sociocultural learning theory (Hodkinson et al., 2007, 2008; Rogoff, 1995; Säljö, 2009; Wertsch, 1998). In Sfard's (1998) terms, this approach is situated within a participation metaphor where learning is understood as an ongoing relation between learners, teachers/coaches and the cultural and institutional prerequisites of the learning situation (for a more thorough account of the theoretical assumptions, see Quennerstedt et al., 2014). This allows us to demonstrate what the use of an explicit theory can contribute to an analysis of SEP practices, to the types of questions that can be posed and also the claims research can make based on research findings.

The illustrations below are from a larger research project that focussed on learning in school PE. The project involved video-recorded PE lessons, teacher and student interviews and analyses of local curriculum documents in eight different schools (Quennerstedt et al., 2014). In this paper, we will use video and interview data in order to highlight the challenges we faced in analysing learning. There is no space in this paper to explore, in-depth, the theoretical assumptions underpinning the study. Instead, we want to show how the sociocultural learning theory we use highlights the ways in which different aspects of learning are constituted in practice.

We have chosen to illustrate learning processes from five video-recorded lessons following the same PE class in school year 8 (14-year-old students). We interviewed the teacher before the lesson and posed questions about the aim of the lesson, content of lesson and expected learning outcomes. Following each lesson the teacher was interviewed again to find out whether the lesson went as expected. From each of the lessons recorded, we selected four sequences—what we call *didactic moments* (Quennerstedt et al., 2014)—to be the basis for further in-depth interviews with the teacher and also with three students. We asked the students to comment on these particular sequences in relation to learning outcomes, using questions such as: 'Tell us what is going on here?' 'Did you learn something you couldn't do or didn't know before?' 'Did you learn this in school or somewhere else?' (For more detail about the project see Quennerstedt et al., 2014).

Illustration 1

This lesson takes place in a large gym and there are both girls and boys in the class. The teacher is very clear about the aim of the lesson in that he says, 'all of you shall learn to dance Schottische.¹ We will have at least three lessons practising this particular dance and then I am sure that all of you will handle it'. The teacher

motivates this with reference to the Swedish national syllabus, where it is stated that the pupils shall be able to dance traditional as well as modern dances.

The teacher is very enthusiastic and all the students begin trying to get into the right rhythm by walking across the gym in beat to the music. The teacher instructs the different steps in phases so that the pupils can learn sections of the dance before doing the dance as a whole. The teacher tries to explain the different steps for boys and girls, respectively, and also use metaphors in his instructions; for example, he said ‘try to be like a robot’, when he wanted the pupils to be more distinct and definite in their movements.

In this situation, we focused on the learning processes by following the students’ progression during the lesson. One boy in particular had some difficulties at the beginning, but he seemed to understand the instructions and he progressed in his ability to dance Schottische throughout the lesson. In the interview with the boy, he told us that he had never danced before, did not do very much physical activity in his spare time and also that he had learned Schottische in that particular lesson.

Looking back at this illustration, it is interesting to speculate on questions about learning. What do we need to claim in order to say that somebody has learnt something? *First*, it supports the suggestion that we need to move away from a cognitive perspective on learning that focuses on mental structure, to an investigation of how learning appears in action (Sfard, 1998). *Second*, we need to be clear about what we mean by learning. In this case, we understand learning as a change of action in relation to a specific purpose in the context of PE (Quennerstedt et al., 2011); in other words, an individual can do something new, act in a different way, fill a gap, etc., in relation to an explicit purpose. So, the aim was to learn to dance Schottische and we certainly did observe a change in some of the pupils’ actions during the lesson. At one level we can argue, therefore, that a learning process can be regarded in relation to the aim and in relation to a change in action.

Yet, although we argued earlier that SEP contexts are very complex learning situations, what we have described thus far does not appear to be complex at all. Using learning theories that focus on embodied actions to analyse the lesson will provide us with similar evidence. In a way, this approach is relatively straightforward with the exception of the first methodological challenge presented above; i.e. moving beyond notions of learning as cognition to include understanding learning as practical and embodied. The first lesson illustration shows how some of the pupils actually learn an embodied knowledge—they learn to dance Schottische.

So, in the next illustration we want to take the analysis a bit further and analyse the following lesson with the same class, with the same aim and content as the first one.

Illustration 2

At the beginning of the lesson when the teacher gathers the students, several girls are sitting on the floor chatting to each other. The teacher joins the discussion while the other students are gathering around taking a seat on the floor. He tells the girls about

the content of the lesson and that they shall continue with the Schottische from the last lesson. The girls talk about how it feels to dance with the boys, they are not happy with this and one of the girls says to the teacher that it is ‘disgusting’. The teacher dismisses the argument by saying ‘Yes ... that could be the case, but you’ll do it anyway’. Then one of the girls turns to the teacher asking:

Girl 1 (Anna): Please, can you answer me and explain why we have to dance girls and boys together?

Teacher (Henry): Why we must dance girls and boys together? This is because we normally do that ... dance boys and girls.

Girl 2: But, I will never dance Schottische in my whole life.

Girl 3: Neither will I—it is ridiculous. Why don’t we dance Zumba instead?

Teacher: Zumba, we did that last year.

Girl 3: But why can’t we do that again?

Teacher: Maybe when we have aerobics later on, next term.

Girl 1: Henry (the teacher), I will never ever dance Schottische.

Teacher: You can never know that.

Girl 2 (ironic): Oh my God!! Oh yes, I will start taking Schottische lesson later in my life, sure!

Teacher: You never know, maybe you will marry or be a great friend to a Dalmas (a person who lives in a place in Sweden where traditional folkdances have a long tradition).

Girl 2: That will never happens because I don’t like Dalmases—they are ugly.

Teacher: One must be prepared for life. I just can’t put you in a little box (showing with his hands). Everything is possible.

Girl 1. But Henry (the teacher), you haven’t answered my question – dancing girls and boys.

Girl 3 (turns to girl 1): Anna is spot-on actually.

Girl 1: Maybe I am a lesbian.

Girl 2: I am also lesbian.

Girl 3 and 4: Me too.

Girl 2: Then you want to dance with a girl.

Teacher: Okay ... (hesitantly)

Girl 1: Are you with us? Do you understand?

Teacher: Yes, I do understand.

Girl 2: I think Anna (*girl 1*) has a good point here.

Teacher: Yes ... one doesn’t have to dance boy and girl. That is right. It is my heterosexual norm that haunts me here.

Girl 1: Exactly!

Girl 2: Yes it is!

Teacher (turns to Anna, girl 1): Good on you, I give you an A for that.

Girl 3: I also think in that way.

Teacher (turn to girl 3): You will also get an A because you reminded me of my heterosexual normativity and lifted the discussion up to a societal level. One can actually be lesbian and want to dance with another girl.

Girl 1 and 2: Yes, that’s right. Exactly!

Teacher: But one can be heterosexual as well and want to dance with a boy. And if you can dance with a boy as well as a girl one has no limitations and everything is all right.

Girls 2: But I can’t dance both.

The teacher now turns to the whole class and indicates that it is time to start the activity.

Teacher: The aim of the lesson is Schottische, you have done it before. We shall check if you have forgotten it or if it is still there.

What happens next is that the teacher changes the plan for the lesson. He numbers each pupil (one, two, one, two, etc.) and asks the number ones to stand in an inner circle and the two in an outer circle. It is now the numbers that create couples for the dance, not gender. This means that some of the pupils by random dance girl and girl, some boy and boy and some boy and girl. The teacher tells the pupils that the inner circle shall dance the boys' steps he taught last lesson and the outer circle the girls' steps. As the lessons continues, the teacher also begins to change his vocabulary by saying 'partners' instead of girls and boys. Consequently, the particular steps the pupils have learnt in the previous lesson, as boys and girls, does not function in this mixed setting. The dance is now utter chaos. In relation to the aim—learn to dance Schottische—this change of direction by the teacher means that the pupils cannot dance Schottische any longer. The specific 'boy' and 'girl' steps do not function when they are mixed. Essentially, the original aim of learning to dance Schottische is replaced by another purpose, i.e. the trajectory of the learning changes. What this illustration shows us is that other issues of learning—more complex ones—are evident because actions that arise in the lesson appear in a different way in relation to the aim of dancing Schottische. To understand this complex process, we would argue that learning theory is a fruitful and, indeed, a necessary tool.

So, what can we claim about learning in this situation: addressing the four methodological challenges

In the following, we draw upon sociocultural learning theory to discuss learning (cf. Quennerstedt et al., 2014 for its use in the study), and consider the four earlier mentioned methodological challenges inherent in analysing learning in a SEP context. From the two illustrations above, we are able to consider how different aspects of learning are constituted in practice and how learning can be investigated in different ways.

In relation to *the first challenge*, to view learning also as practical and embodied, we have already mentioned how some of the pupils actually learn practical knowledge in the sense of moving the body in a particular way, they follow the music in a specific rhythm and they also learn to coordinate their own body as well in relation to a dancing partner. This can be understood as embodied knowledge that transgresses the body/mind dualism in studies of learning and acknowledges learning that 'entails the embodied engagement with practice' (Hodkinson et al., 2007, p. 417).

In relation to *the second challenge*, to embrace individual learning and individual differences, we are able to offer an illustration of how individual experiences are involved and are re-actualised in the learning processes. Consider the girl in the second illustration who started the discussion about boys and girls dancing together.

In the post-lesson interview, we asked the girl why she posed the question about boy/girl dancing. She then told us about a recent ‘parent–teacher conference’ where the head teacher had suggested that she was a bit shy and that she must try to put herself forward sometimes and try to engage more in debates and discussions. The girl reported that she had simply taken advantage of that opportunity in the PE lesson as a way to practise arguing. Given that the teacher changed the way in which the lesson was taught, we might conclude that the girl has learnt that she is well worth-listening to because it was her intervention that resulted in the change. Her previous experience in the parent–teacher conference was, thus, re-actualised in PE practice as an illustration of ongoing learning.

In relation to *the third challenge*, involving wider institutional, social and cultural influences on the learning situation, it is readily apparent from the second illustration that cultural dimensions are an integral part of the learning process. Studies that take an institutional dimension into consideration generally focus on aims and purposes expressed by teachers. Yet, in the second illustration we can see that the institutional and cultural dimension of learning is not emanating from the PE context and its institutionalised discourses. Instead, something unexpected occurs that might have been missed if we had focussed only on the aim of the lesson. In the post-lesson interview with the teacher, when we showed him the sequence from illustration 2, he told us that they had discussed issues of heterosexual normativity in a biology lesson a couple of weeks before. That means that in this example of dynamic learning, cultural and institutional dimensions come into play in this episode in PE including an earlier biology lesson, ‘a parent–teacher conference’ and contested ideas about heterosexual normativity in society. Thus, by using sociocultural learning theory as an analytical framework, we can see the cultural and institutional dimension, including both teachers’ purposes and wider social and cultural influences, as key features of the learning situation.

In relation to *the fourth challenge*, involving issues of power relations, we have been able to illustrate how macro-power relations can be understood in a local context and gain significance through how they are staged in action. There are many ways of talking about, understanding and studying power. In an educational context, discussions focus on—for example—whether teachers have power over students, or whether it is the students who have power over the teachers, or whether the headmaster has most power—or perhaps even the caretaker (Öhman, 2010). Different kinds of power are also discussed, for example, gender or economic/class structures as forms of power (cf. Brennan & Popkewitz, 1998; Evans et al., 1996; Rønholt, 2002). In the approach presented here, the analytical focus is upon how power is manifested and assumes concrete expression in people’s actions. In illustration 2 above, it is obvious that the teacher had decided what was going to happen during the lesson. For example, at the beginning of the lesson when the girls talk about how it feels to dance with the boys, the teacher dismisses their arguments by saying ‘Yes ... that could be the case, but you’ll do it anyway’. His body language on the video shows that he ignores the girls’ statement, even though one of them describes the boy–girl dancing as ‘disgusting’. When the girls turn the discussion into

questions of heterosexual normativity, 'Maybe I am lesbian', however, the teacher listens and also changes the plan for the lesson.

This incident can be understood in terms of a power relation, in the sense that the student's claim in this illustration becomes more influential because questions of lesbian, gay, bisexual and transgender rights (LGBT) are an 'untouchable' discourse in Sweden today (Graham, 2009). In relation to discourses of heteronormativity, the girls' actions—as a power relation—guided the actions of the teacher and changed the plan for the lesson through what can be called 'the force of the better claim' (cf. Roth, 2001). In this situation, both the teacher and the students potentially learnt something, which emanated from the pupils' actions; i.e. how to deal with the normativity of heterosexuality. At the same time, the intended aim of the lesson to learn Schottische was undermined. The trajectory of learning starting from the stated purpose of the lesson was accordingly compromised. This event illustrates how issues of power relations are involved in the learning processes and can thus be seen as an integral aspect of the learning situation.

Concluding remarks

In this paper, we have discussed the importance of using different learning theories to explore issues of learning in research grounded in what has been defined as the field of SEP (see Armour & Chambers, 2014). We have presented four methodological challenges to be considered when exploring learning and how different aspects of learning are constituted in practice. We have also illustrated through the example of two PE lessons: (1) how learning can be seen as practical and embodied; (2) how individual experiences are an inherent feature of the learning process; (3) how wider cultural influences enter and become part of the learning process and (4) how power relations shape the learning process and can be understood in practice through how they are staged in action. But what impact could addressing these challenges have on SEP research?

We would argue that the two lesson illustrations and our analysis provide evidence to support our claim that an important challenge for SEP researchers is to consider afresh questions about learning and build explicit learning theories into our research. Essentially, we should always be made aware by researchers of which aspects of learning are being considered in their research and from which theoretical perspective, what assumptions about learning are being made, and what additional perspectives could offer to analysis. We thus argue for the importance of theoretical plurality in seeking to understand the complexity of learning within sport, physical activity and PE settings. As Sfard (1998) argues, 'exclusivity becomes the worst enemy of success' (p. 10). Moreover, as Hodkinson et al. (2008) warn us in relation to looking for universal ways to improve teaching, learning and coaching in all situations:

The complexity of learning, of learning cultures and of the relationships between learners and learning cultures demonstrates why such questions can never be

satisfactorily answered, except in terms of broad generality of principles of procedure. (p. 43)

Universality is, according to Hodkinson and colleagues, a futile project. We would instead argue that learning theories could be used more creatively and purposefully in SEP research to help us to understand the complexity of learning. In addition, we argue that the lack of academic debate on learning theories in the field together with the solitary islands of research using learning theory to explore ongoing learning means that we have limited the reach of our work. With notable exceptions, we have been unable to make the contribution to the wider literature on learning that our field offers, not the least in terms of embodied aspects of learning and learning understood as ‘becoming’.

We also advocate the need for research to produce theoretically informed results that can inform practice, rather than using learning theories unproblematically to prescribe teaching and/or coaching methods and best practice. Essentially, learning theories should be the natural starting point in research on learning in order to define research questions. There is a vast and robust existing literature on learning theories in and beyond the field of education. Grounding our work firmly in this literature, and using it to stimulate research questions, has the potential to offer practitioners the kind of knowledge that they need to address the complex, multi-layered questions they face in practice every day.

Note

1. Schottische is a traditional Swedish ‘folkdance’, where you dance in couples—a man and a woman. It is slightly different steps for men and women.

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