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Lifestyle sport contexts as self-organized epistemic cultures

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ABSTRACT

Compared to traditional athletes and PE students, self-organized lifestyle sport practitioners usually have no podiums to reach or grades to earn. They have no authorized instructor available, but seem to treat this apparent deficiency as an opportunity to facilitate their own learning processes. However, from a traditional learning perspective, it can be challenging to understand how these processes unfold. Drawing on theoretical concepts from the educational sociologist Knorr Cetina, the aim of this study is therefore to understand how a self-organized mixed group of trickers, B-boys, and free-runners facilitate knowledge creation when no instructors guide or control their work. Based on observations and interviews we found that the practitioners' knowledge developed in a continuous and invigorating circuit between a worldwide gym on the internet where the practitioners searched for updated knowledge, and the local gym where they practiced knowledge development as intra- and inter-disciplinary embodied interactions. The knowledge object conveyed by the practitioners as 'kinesthetic understanding' was not a fixed a-priori product that could be completely achieved, and the practitioners' acceptance of the knowledge object's essential incompleteness seemed to create a never-ending desire to glimpse the unattainable. The group of tumblers studied in this paper represent an alternative epistemic practice that should be explored in physical education contexts. However, such exploration requires the development of an affective and processual language that reflects the relational intimacy between students and their knowledge objects, rather than a constative language reflecting distance, achievement, and external assessment.

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Introduction

According to the sociologist Karin Knorr Cetina (2009), contemporary and rapidly changing societies require strategies to keep pace with the growth of knowledge. Knowledge creation occurs everywhere in today's society and we should be paying more attention to *how* everyone from experts to toddlers facilitate knowledge production instead of focusing only on *what* they produce. In line with Knorr Cetina's work, Jensen (2007) accentuates that 'the ability to facilitate knowledge creation' (Jensen, 2007, p. 489) is a major challenge at all levels in the post-industrial world and it denotes a major objective in all parts of educational systems (Jensen, Nerland, & Enqvist-Jensen, 2015). What seems most important is that young people and students in particular should be able to explore and develop facilitating abilities for learning, and that they become capable of reflecting on the mechanisms that impel knowledge production and sustain them as active knowledge producers in society (Jensen et al., 2015).

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In organized sports as in school physical education (PE) the facilitation of learning processes for the development of knowledge, bodily functioning and personal experiences is normally taken care of by instructors and teachers. However, the emergence of self-organized lifestyle sport groups all over the world (e.g. parkour, skating, longboarding, tricking, kiting) has documented that facilitation of learning processes and thus knowledge creation may appear without any professional facilitator such as a teacher or an instructor. In such groups, there are normally no knowledge authorities in attendance who plan and teach according to a particular aim. Compared to traditional sport- and PE contexts, the hierarchical structure in these contexts is less obvious (Wheaton, 2013), and as a consequence they have until quite recently been depicted as unorganized, strange and irregular. However, they have also been described as alternative and postmodern (Wheaton, 2010), and practitioners involved have been considered as avant-garde groups (Midol & Broyer, 1995). According to Säfvenbom, Wheaton, and Agans (2018) such groups should not be considered as either 'unorganized' or 'organized', but instead as 'self-organized', 'self-determined', 'relationally process-oriented' and 'collaboratively supervised' (Säfvenbom et al., 2018, p. 13). These groups seem to find it interesting to explore knowledge about bodily movements that presently do not really exist (Aggerholm & Højbjerg Larsen, 2017), and they contribute overall to a less constrained perception of human movement possibilities (Säfvenbom et al., 2018).

Lifestyle sports have emerged and expanded in many ways over the past few decades, and a range of labels (e.g. extreme, alternative, adventure, action, postmodern, post-industrial) have been used to characterize distinctions between them (Gilchrist & Wheaton, 2016). While some adventure sports in particular have gained commercial interest and become an industry in itself (e.g. free-skiing) others (e.g. sport climbing and surfing) have been adopted by IOC and thus national and international sport federations (Edwards & Corte, 2010; Thorpe & Wheaton, 2011, 2017). However, despite commercialization, industrialization and even competing governance structures in professional parts of actions sports (Strittmatter, Kilvinger, Bodemar, Skille, & Kurscheidt, 2018), many young practitioners involved in tricking, skateboarding, parkour and other action, extreme or adventure-oriented activities, defend and practice the grass-root idea of being an independent, self-organized and commitment-based alternative to traditional and competitive youth sports. Due to what seems to be a preferred absence of an authorized instructor (Säfvenbom et al., 2018) and despite the lack of governmental support (Jeanes, Spaaij, Penney, & O'Connor, 2019), such commitment-based, peer-oriented and self-organized contexts will most probably persist as alternatives to traditional competitive youth sports in the future.

The overall aim of this study is not to assess skill acquisition among self-organized lifestyle sports practitioners, but to explore such contexts as epistemic practices. Drawing on theoretical concepts from Knorr Cetina, our aim is to gain insight in how a mixed group of tumblers (trickers, B-boys, free-runners, a Norwegian folk dancer and Capoeira practitioners) facilitates knowledge creation when they obtain and share access to a gym, and how they generate energy for the epistemic machinery when no instructors are there to guide or control the work. Finally, we ask what the discipline of PE can learn from such epistemic practices.

In line with Wheaton (2013) we use the term lifestyle sports as an umbrella term when we refer to the 'range of participatory, informal and "stoke"-seeking' (Gilchrist & Wheaton, 2016, p. 186) activities observed in this study. In the following text the practitioners are sometimes referred to according to their labels (e.g. tricker, street dancer, capoeira practitioner) in the group, yet collectively they are referred to as tumblers or practitioners. While some of the observed practitioners had spent 10 or more years in lifestyle sports and represented 'the "hard core" committed practitioners' (Gilchrist & Wheaton, 2016, p. 188) who were fully familiarized with the lifestyle, others were not. What they had in common was that they were all informed that they had access to a gymnastic floor at a certain address for three hours every Wednesday afternoon and some Saturday mornings.

Theoretical framework

Karin Knorr Cetina made her first step to an anthropology of knowledge at the onset of the 1970s. In her essay from 1981, she concludes that ‘the thrust of the approach lies in the promise it holds of a sensitive- in contrast to a frigid methodology’ (Knorr Cetina, 1981, p. 152). Since then she has studied the development of knowledge among physicists, biologists and in technology-intensive environments of financial markets. Inspired by David Bloor and Bruno Latour, Knorr Cetina was one among few who started to look at sciences, and knowledge production in natural sciences in particular, from a constructivist point of view. Even though she never left research on hard sciences, her relational perspective and her concepts unfolding interactive processes in knowledge production have been widely adopted, and sensitivity is still a key concept in her understanding of knowledge construction (Malcolm, 2013). She was among the first to utilize the term ‘constructive’ as applied to knowledge, yet compared to other sociologists she claimed an even more interactive approach (Garcia-Sancho & Knorr Cetina, 2018) when claiming that knowledge is not constructed in a vacuum detached from the development of the world (Knorr Cetina, 2001, 2005, 2009, 2013).

According to Knorr Cetina knowledge develops in interaction with scientists, students and other humans who together represent the present world, and thus also a diversity of subjective life-worlds. Traditionally, knowledge has been considered as something that emerges within scientific disciplines in accordance with paradigms, accepted methodology routines, and to some extent scientific regimes and protocols. However, to understand other ways knowledge may develop we need to understand ways in which today’s ‘knowledge society’ (Knorr Cetina, 2005, p. 65) unfolds and how it supports the exploration of science-related issues. We need to understand new ‘machineries of knowledge construction’ (Knorr Cetina, 2009, p. 3) and thus, ‘epistemic cultures’ (Knorr Cetina, 2009, p. 1) that govern new epistemic practices. To do so, Knorr Cetina proposes a relational rather than a performative perspective. She also argues that machineries of knowledge production need energy and that the energy propelling knowledge production forward is created in a dynamic ‘relational intimacy’ (Knorr Cetina, 2005, p. 76) between knowledge objects and learning subjects.

The post-industrial and globalized knowledge society differ from the industrial society in that they seem to be ‘experiential’ (Knorr Cetina, 2001, p. 95). Not only do post-industrial societies produce and unfold new knowledge issues for investigation, they also seem to foster a generation that is uniquely capable of unwrapping these issues, challenge them and thus explore and learn in different ways. This reciprocal process creates societies that are less traditional than their predecessors in their attitude to knowledge production. The knowledge society of today is ‘permeated with knowledge settings’ (Knorr Cetina, 2005, p. 65) or epistemic cultures, and to understand how knowledge and learning develop, these epistemic cultures have to be identified and analyzed.

Epistemic cultures as affective and coactive relationships

Knorr Cetina understands epistemic cultures as ‘those amalgams of arrangement and mechanisms – bonded through affinity, necessity and historical coincidence- which in a given field, make up how we know what we know’ (Knorr Cetina, 2009, p. 1). Epistemic cultures represent coactive relationships between epistemic objects and subjects, and Knorr Cetina draws attention to ‘the logics and arrangements through which knowledge comes into being and is circulated, approached and collectively recognised’ (Jensen et al., 2015, p. 869). Knowledge is gathered in a diversity of epistemic cultures both inside and outside academic institutions that produce knowledge in a variety of ways. Analysis of epistemic cultures as opposed to scientific disciplines concerns the study of knowledge-in-action and allows the possibility of capturing the affective and relational undergirding of knowledge production (Knorr Cetina, 2005).

From a relational perspective, epistemic cultures are cultures that seek and create knowledge that can bring ‘together the world of non-human (epistemic) objects with human contexts and processes’

(Knorr Cetina, 2005, p. 69). Knorr Cetina claims that it is the relationship between subjects and objects that holds the practice of knowledge together and gives it continuity. Knorr Cetina defines epistemic objects by their 'lack of completeness of being' (2001, p. 185). She understands epistemic objects as 'open, question generated and complex' (2001, p. 190) and further, as 'unfolding structures of absences: as things that continually 'explode' and 'mutate' into something else'. Epistemic objects are always changing and unfolding, meaning that most solutions are expected to be temporary, and will eventually give way to new challenges. Knorr Cetina emphasizes that only objects which are seen as incomplete can present further questions, and that the lack of completeness paves way for the learning subject's desire to fill out the blanks.

In other words, it is first of all the practitioner's appreciation of an elusive object and the approval of new unfolding tasks that initiate the practitioner's progress. The unfolding ontology of the objects accommodates the structure of wanting, and binds experts, students and toddlers to knowledge in creative and constructive practice (2001, p. 191). In well-functioning epistemic cultures the unique meaning-producing character of objects may inimitably match the structure of wanting with the subjects involved.

The structure of wanting

The relational intimacy between scientific objects and the learning subjects is expressed in the concept of a 'structure of wanting' (Knorr Cetina, 2001, p. 191). Here, Knorr Cetina draws on the psychoanalytical work of Jacques Lacan and his idea of the 'mirror stage'. According to Lacan, infants obtain a mental representation of a complete 'I' through external images of themselves seen in the mirror (or as presented by parents). The infant identifies with the image, but because the complete observed image does not correspond with the lack of experiences and reflections in the juvenile, the image of the complete 'I' remains as an ideal toward which the person will strive the rest of their life (Knorr Cetina, 2001, 2005). Directing this analogue, Knorr Cetina ties epistemic objects to the subject through a deep and self-involving investment. She debates how the open and thus unfolding characteristic of an object or phenomenon may create subjective mental representations of completeness, and thus a personal desire to fill out some blanks. At the time a subject denotes what is missing in an object, the incompleteness becomes personal (because when necessary, the subject takes the perspective of the object) and the mental representation suggests which way to look further through the insufficiencies displayed in the object or in the self. In this way, objects of knowledge structure desire, and provide for the continuation and unfolding of object-oriented practice. Knorr Cetina equates 'wanting' and 'desiring' and she explains the volatility and unstopability of desire as something that is born from envy of the illusion of problem-solving. The structure of wanting delves conceptually deeper than most contemporary social-cognitive approaches to achievement motivation and Knorr Cetina claims that 'the conjunction of the relational and libidinal dimension gives practice a flavor and quality distinctively different from that of routines and habits' (2001, p. 195). In other words, the work we do and the aims we reach will always be contemporary and the feeling of insufficiency will never let go. Consequently, we go into an alliance with our epistemic objects 'based upon a form of mutuality' (Knorr Cetina, 2001, p. 194) between the objects' lack of completeness and the subjects' unstopable desire to catch a glimpse of an end before it eludes them again.

Self-organized lifestyle sports as a reaction to constraining protocols: analytical perspectives

As previously mentioned, a key notion in Knorr Cetina's work 'is that knowledge is produced in distinct ways in different epistemic cultures and that these cultures are defined by their way of handling knowledge' (Jensen et al., 2015, p. 869). In terms of 'handling knowledge', self-organized lifestyle sport contexts differ from most organized movement contexts (including organized lifestyle sports

contexts) in that knowledge creation may appear without any professional facilitator such as a teacher or an instructor. This is one major part of a broader cultural origin that differs from most traditional sports (Wheaton, 2013). The combination of the self-organized structure and the cultural origin makes such contexts different from self-organized traditional sports as well as from organized lifestyle sports. Accordingly, a study of a self-organized and thus collaborative lifestyle sports group differs from other studies based on peer-coaching, peer-learning and peer-assisted learning in PE and sport. In lifestyle sports, collaboration is inherently imbedded in the ethos, meaning that collaboration is the norm and not a way of working facilitated by someone else (Säfvenbom et al., 2018). This does not mean that lifestyle sports are free from power-relations in terms of gender, social class or physical prowess. Lifestyle sports have been, and are still dominated by white males and some lifestyle sports represent the middle class (Gilchrist & Wheaton, 2016; Thorpe & Olive, 2016; Wheaton, 2013). Self-organized lifestyle sport contexts are experienced by participants (most often physically competent males) as embracing and tolerant. Yet from the perspective of a young person with limited athletic experience or competence, these contexts are probably as hard to attend as organized and traditional sport (Säfvenbom et al., 2018). However, the absence of approved coaches, institutionalized performance goals and mandatory competitions may also reduce some of the traditional power-relations that are quite obvious in traditional youth sports. Thus, taking gender, social class and ability issues into consideration it is, from a Knorr Cetina-perspective worthwhile to study a mixed group of self-organized lifestyle practitioners as one type of epistemic culture. Lifestyle sport groups have dared 'to practice transgressive behaviors and create new values' (Midol & Broyer, 1995, p. 210) and thus challenged existing orders in sports and in society. Lifestyle sport contexts seem to appeal to young people who are dissatisfied with and alienated from mainstream sports cultures (Gilchrist & Wheaton, 2011) and self-organized lifestyle practitioners are portrayed as coactive producers of contexts (Säfvenbom et al., 2018). They seem to consider testing more important than contesting (Aggerholm & Højbjerg Larsen, 2017) and a 'power of will' seems to exceed a 'will to power' (Säfvenbom et al., 2018). The aforementioned studies indicate what Atkinson expresses as a hunt; a hunt for bodily experience and learning that transcends rational approaches (Atkinson, 2013).

Method

Based on the studies presented above we observed and interviewed a mixed group of 'tumblers' who represented different disciplines such as dance (street-dance, break and folk dance), tricking, free-running and Capoeira. The group had access to a gymnastic hall at the affiliating institution of the lead researcher one or two times a week. The practitioners had learned about the group and the access to the gymnasium through friends and social media, and did not necessarily know each other before they gathered. The majority were ethnic Norwegian, but also Danish, French, Flemish, American and Brazilian people who lived in Oslo, Norway were involved. An earlier study, incorporating this context described the context as a symbiosis of bodily movements, cultures, and persons at different ages, passionately working through bodily interaction towards something undetermined (see Author A [anonymized] for further descriptives). On average 30 participants, yet sometimes more than 40 attended the sessions. Approximately 20 persons attended more or less all of the sessions. The overall majority of the participants were male, but approximately five females attended more occasionally.

Data were collected through 15 hours of observations over a three-month period, and through in-depth interviews with seven male and one female participant. In terms of gender, the interview-sample was representative for the group and reflected as such the male dominance seen in many lifestyle sports (Wheaton, 2013). While interviews were conducted by the second author, both authors observed the group. The second author (age 28 at the time of data collection) was an experienced lifestyle sport practitioner while first author (age 53) had no active experience from lifestyle sports. The observed participants ranged from 15 to 30 years. They were students, full time employees or trying to make a living out of their athletic activities. Two of the interviewed informants had

been involved in their activity for less than two years, while the rest had been practicing their sport for more than five years. Three of the informants were highly skilled. One of them probably among the best in Norway. They attended the gatherings for two major reasons: To learn from others and to get access to a gymnastic floor. Access to a gym and to a gymnastic floor in particular was not usual. They were used to practicing in parks and public arenas during summer time. Nearly all of the participants had previous sports experience from organized and traditional sports, yet dropped out when introduced to what they were now doing. The interviews lasted for 45–90 minutes, and were conducted in a room close to the gym. Two major questions were raised: ‘What do you try to achieve?’ and ‘what do you do to get there?’ The informants were sampled through a sort of snowball sampling procedure (Noy, 2008). At the end of every interview, the interviewer discussed with her present informant who the next informant should be. This procedure is most often used when samples are hidden, something that was not the case in our study. However, we realized early that the informants had a much deeper understanding of their co-practitioners’ reasoning than we had. The informants were informed that the study had been approved by the Norwegian Centre for Research Data and they were assured strict confidentiality. They were informed that they could withdraw from the study at any time without providing a reason.

Thematic analysis was used (Braun & Clarke, 2006; Thagaard, 2018). Descriptive and to some extent unattached storylines from observations and interviews were sorted into ‘chunks’, which were then compared to each other and sorted into themes. These themes revealed themselves as latent and inherent structures in the data and gave form to the material. In the third, interpretive phase (Fangen, 2010) we delved into each of the themes to gain a deeper understanding of them, and to see the data as well as the themes in light of theory. It was during this phase that we analyzed connections between the structure of the data and Knorr Cetina’s theory of epistemic cultures. However, we kept in mind Knorr Cetina’s argument that any epistemic culture is constituted by agency and its properties and not the reverse (Knorr Cetina, 2005, p. 69), meaning that agency is constituted differently in different cultures and that questions regarding agency, epistemic objects, and their symmetry and conception must be traced in the field.

Findings

The global gym

Due to the absence of an instructor or teacher and thus (pre)served routes for development of knowledge and competence, the studied practitioners were constantly searching for external knowledge resources that fit their internal resources, aims and needs at any given time. Without exception, all informants described the internet as a bottomless knowledge source and thus a primary resource for their work. They searched for new methods and techniques, not to mention the excitement to push themselves towards greater accomplishments in the local gym. The internet in general, and YouTube in particular was referred to as a rich source of knowledge and inspiration. Here the practitioners watched people, and on occasion interacted with people from all over the world performing all kinds of artistic sports at different levels, using a variety of different approaches and styles. When choosing their own pool of ‘teachers’ that fit their relational needs, the group of practitioners was not confined to the knowledge of a single instructor. The street dancer Mats compared his search for inspiration and guidance with searching for a food recipe. ‘There are hundreds to choose between’ he said, before he continued: ‘but you probably end up trying the one that suits the resources you to some extent already have’. When recounting the search for an appropriate source, Fredrik, an advanced acrobat and break-dancer described hours spent understanding how he could adapt the material he found online for his personal practice.

You need to get the proper knowledge about what to do to move ahead, and the best way to find it is through YouTube and tutorials, or stuff that you find there. You sit and press slow motion through all the films you see, to learn techniques and stuff, to get it into your head – what to do.

Fredrik argued that YouTube is a 'good alternative to a coach; a supervisor that can teach you stuff'. YouTube inspired him to start breakdancing, and he revealed that even though his skills have increased, he sometimes 'just ha[s] to watch different YouTube videos for up to four hours a day'. According to Fredrik, the development of movement activities occurs rapidly and in order to remain on the frontlines of the culture and contribute to this development he had 'to keep updated'.

The informants distinguished between their two most important sources of information; tutorials and inspirational videos. Mats underlined the need for inspirational videos, to spur him on to encourage others to start. 'The internet is a major resource for the development of knowledge, skills and thus also the global excitement about dance'. According to Mats, global excitement means engagement in and development of dance all over the world.

Because [the internet] is an information spreader, one thing is tutorials and how to do this or that, but another thing is that people actually become interested in this type of dance in the first place. (Mats, dancer)

By some reason, we never observed any use of technological devices in the local gym and we never heard the practitioners discuss their use of internet resources. In addition, some of the informants' found it necessary to emphasize that their search for knowledge and inspiration online was not without critical perspectives. Anders presented himself as a folk dancer who found inspiration in the history and culture of contemporary folk dance, but also in Kung Fu, breakdancing and free-running. He loved to develop new moves, yet as he said: 'These have to in some way relate to culture.' He worried about how net tutorials could possibly harm the development of dance like break. He was concerned that the variety of break-cultures from the past would fade and that the art form would converge into a kind of modern, tedious mainstream. However, to his own surprise this did not seem to be occurring 'because there is always someone who likes to take knowledge about dance to another or a new and different level'. Mats shared Anders' worries about stagnation in the mainstream, but during the last few years he had also come to the conclusion that knowledge about dance and other artistic lifestyle sports requires more than watching a video or listening to an instructor. The serious workers 'do' their art form; they develop new knowledge and are obliged to share their work. Knowledge about potential in human movement requires 'doing' the hard work that cannot be done in front of the computer.

YouTube is used a lot, there are thousands of so-called tutorials out there, where people with skills, or without, post videos where they describe how they do it ... But basically, it is about standing there, and doing it [yourself].

The local gym

Due to the absence of coaches, defined aims and traditional routines for practice, it was initially hard to understand how the practitioners organized themselves in the local gym. However, over a period of time of observation, the practitioners developed into a conglomeration of three or four vague sub-disciplines (tricking / capoeira, free-running and break) who more or less organized themselves in different parts of the room without strict borders. For a traditional sport researcher, the observed within-discipline differences in age and experience could be distracting, mainly because everyone seemed to appreciate these differences.

Everyone is at different levels. There are some extremely skilled and are among the best in Norway at what they do. Some are novices who come for the first time, but in a way, inside the gym they are all the same; there is no one who feels that they are better than someone else or more worthy than others, all help each other ... (Anders, dancer and acrobat)

Morten agreed, yet underlined that what he referred to as a non-hierarchical system relied on the fact that there were some masters around:

It is like those who have been there longest ... you automatically give more respect to, you listen more to them, but everyone has as much to say as them. It's not a selection of few leaders, there is no hierarchy, no, and it's very ... liberal. Everyone does what they want to, but you listen to those who have been there the longest and are most skilled of course. (Morten, tricker)

Teaching others helped all of the practitioners to understand the learning process and even beginners were expected to give feed-back to the more advanced. Anders explained how teaching initiates some processes in his head, and improved what he called 'kinesthetic understanding'.

Kinesthetic understanding is strengthened by coaching each other. The individual and collective development is optimized because being a coach one can achieve higher kinesthetic understanding and those who have achieved high kinesthetic understanding become better coaches. (Anders)

Mats underlined that 'beginners learn more from the experienced, because they have come further in their process of achieving kinesthetic understanding'. In an effective symbiotic relationship, beginners learn from the advanced and the advanced learn by teaching beginners:

The experienced people have been through the same processes that the ones they're teaching are learning right now. Those who teach know what these processes are about They know what to say and do because they have gone through those same processes. (Mats, dancer)

The practitioners spent a lot of time working within their own self-organized areas of the room. However, members of each discipline also seemed to observe other disciplines as much as their own. They never stopped examining the work going on in other parts of the room. Once in a while they left their own areas to assist, or more carefully watch someone's work in another discipline and quite often they did not return. On the contrary, one migration often led to members from one or two other disciplines also leaving their spots and joining what would spontaneously develop into a single inter-disciplinary movement workshop. However, even when practitioners left their disciplines, they still brought their knowledge to collaborate and thus explore new paths towards a common, but as yet undefined inter-disciplinary goal. In such moments, ideas from different global networks merged into a local body movement workshop composed of a heterogeneous mix of practitioner who represented different disciplines, skill levels and knowledge bases. Enthusiasm seemed to grow within and between bodies, and between and within disciplines when previously unconceived movements were framed as objectives – that might never be achieved. In their most euphoric states, nothing seemed impossible to the athletes, and the passion these sessions generated seemed to be of primary importance for all those involved.

It's incredibly exciting to see how the group as a whole works together, how it mixes and how we learn from each other. When the capoeira people leave their corner of the room and go over to the trickers to ask and learn things to add to capoeira, right? And how the break-dancers learn from the trickers, and how they apply break-dance elements in their further work. Folk dancers are going to break-dancers to learn head spin that after all was an old tradition in Folkdance, right? . . . It's amazing to see the dialogue and the inspiration that flow back and forth between the different communities. (Fredrik, b-boy and acrobat)

The knowledge object

As described above, most of the practitioners admitted that they studied videos to help them intellectually understand various movements, but also pointed out that movements must be explored 'bodily' in order to become knowledge that can be shared. They distinguished between a mechanical understanding of human movement and a more holistic understanding of movement development. Again, they presented their understanding through the concept of 'kinesthetic understanding'.

John described his kinesthetic understanding developing over time through 'trial and error' in a pure practice of human movement possibilities, not coached by others but his own temporary understanding. As this understanding developed, John became more familiar with possible human moves and with human capability. When he reached a certain level it was possible for him to let go into a variety of exploratory and playful runs that included a range of summersaults, rotations and screws – in order to see what happened. This was what he meant by trial and error. With a single step he jumped and flipped, on spot or along the diagonal of the gymnastic mat. He explained that his first move in the run (e.g. a horizontal twist or a back flip) was intentional while 'the rest' was decided in accordance with how the body met the mat; on one or two legs, rotating or in

balance. Sometimes John would finish his run in a standing position, but very often he hit the mat halfway with his shoulder or back first, then moved into various forms of rolls that decelerated the speed of his body. Sometimes with a smile on his face, but more often with an expression of anger or frustration, he would take a short rest and then do it again – and again. He was carefully observed by the others who analyzed his work, yet respectfully kept their distance, until John either succeeded or cried out for help.

... Just jumping around to see what happens, which is also fun, when you fall and almost hurt yourself, then often you understand something more, you try something and, wow! That worked great, I could use that. (John, a tricker and an acrobat)

This process of trial and error increased John's understanding of how he could proceed to a new move by 'accidentally achieving it'. Whether it was the achievement or the process of trial and error he considered as his object was hard to tell. However, what the practitioners of different disciplines seemed to have in common was an aim to understand and to develop the art of human movement. According to the interviewed informants, they searched for kinesthetic understanding or embodied knowledge, not necessarily as a final destination, but more often as part of a process that could take them further in a direction with no final destination. What seemed to propel their work was their urge to explore movement within a group of motivated fellow practitioners. As one of few females in the group, Alice explained:

I don't think you have to be at a certain level, but if you intend to achieve something, maybe you should at least have a certain strength, or at least be ... or maybe not. I think motivation is perhaps the most important [attribute]. (Alice, acrobat)

Alice explains how some special experiences are motivating for her:

If I have managed something, it is like, wow! Then I hear someone cheering and it's like, oh, wow, was there someone who saw me? Then you feel you are seen and taken care of, and it is very good for the social climate, when you show that you see the others, and I get very motivated to do it again. (Alice, acrobat)

According to Alice the mechanism of collaborative learning affects the learning environment and thus the motivation among the attendances. Fredrik felt 'very included' because he felt that 'I may contribute to others development and learning as well'. Mats emphasized the 'mutual passion for movement' as a most vital drive in achieving the progress they were aiming for. He experienced 'a sense of solidarity' as he felt 'connected to others who have the same passion' as him. According to Mats, self-organization of knowledge production can be hard and requires a passionate eagerness that must be nurtured, and can only develop from 'inside the body'.

Fredrik who had been in this group longer than most of the others concluded:

This is mainly driven by passion You feel with your whole body, that this is something I have to do. I can't escape it, something just grabs you, captures you immediately, something that you cannot help but love. (Fredrik, b-boy and acrobat)

Discussion

Findings from the present study correspond with prior research indicating that self-organized life-style-sport practitioners facilitate their learning environment and thus knowledge production without interruption from an instructor or a coach. The practitioners in the present study never described the absence of an instructor as a problem. On the contrary, they seemed to prefer not having a formal instructor delineating protocols for achievement. Our analysis revealed that the studied self-organized tumblers' processes of knowledge creation represented a continuous exchange between a worldwide gym on the internet (e.g. YouTube, Facebook, tutorial sites) where practitioners searched for and contributed to updated knowledge, and a local gym where they practiced knowledge development as embodied interactions. The knowledge production was thus a result of a dynamic interplay between global and local co-practitioners. The use of computer-mediated

communication corresponds with prior studies showing how 'globalized ideas and images available through the Internet and other media can be put into practice within specific locales' (Kidder, 2012, p. 1). According to Kidder, the real world dialectically intertwines with the virtual worlds, and that 'life on-screen and life off-screen are not a dichotomous either-or distinction' (2012, p. 3). The practitioners bring their ideas and enthusiasm from movies, YouTube videos and video games into their real world practices and Kidder considers the athletes' use of internet as 'on-screen Pedagogy' (2012, p. 13). In line with the study from Kidder, our study shows that constructivist approaches to learning and knowledge development in movement contexts are needed. The present study shows that facilitation of learning processes emerge in interaction with the world and thus with the development of the knowledge society, and that emergence in facilitations may contribute to emergence of new knowledge. This corresponds with Knorr Cetina's argument that we should be paying more attention to how knowledge processes are facilitated outside traditional knowledge producing institutions. Our study indicates that the current generation born into the post-industrial knowledge society construe learning environments differently from prior generations and that they may facilitate their learning processes differently, if they are allowed to. However, it should be mentioned that even if most of the practitioners talked a lot about how internet supported their work we never actually registered practitioners who used electronic devices or talked about their use of internet when they met in the local group. On the contrary, we noticed that some of the practitioners, and the more experienced in particular expressed some kind of shame when 'admitting' that they still used internet for learning purposes. The expressed embarrassment corresponds with prior research showing that directly searching for tutorials has been seen as cheating within lifestyle sports (Ma & Munter, 2014) and indicate how also self-organized lifestyle sports is governed by historical and cultural regulations and constraints. However seen from a Knorr Cetina perspective these constraints are overridden by personal desire; a deep and self-involving investment, and a hunt for engrossment.

The hunt for engrossment

The absence of a certified instructor made it possible for each of the practitioners to facilitate their own learning process through exploration of knowledge sources that fit their current needs. Consequently, when compared to what is seen in traditional sports and PE, the work going on in the studied context reflected an unusually exploratory and inquisitive approach that involved not only problem solving but also problem detecting. The bottom-up approach was a result of the absence of an instructor and it seemed to have a transformative effect on the relationship between the practitioner and the object. The investigative attitude in the collaborative processes within the observed sub-disciplines in general, and in the spontaneously inter-disciplinary movement workshop in particular, indicated a lack of disciplinary a-priori outputs and delineating protocols. Freedom from such outputs seemed to open up for exploratory play, trial and error and thus new experiences and knowledge, as well as new challenges to take on. The tumblers repeated their moves over and over again, but the practice never seemed to turn into procedural routine. According to the lifestyle sports literature this is explained by the idea that knowledge creation is rarely a stated goal of lifestyle sports and that involvement in these types of activities is primarily about the importance of 'having fun' or 'living in the moment' (Wheaton, 2010, p. 1059). However, the practitioners' commitment to their activities seen in the present study indicates an ideal emotional pattern that is more eudaimonic than hedonic (Vittersø, 2016). The practitioners' dedication to practicing a move or technique 'over and over again' seemed to be a continuous hunt for engrossment and knowledge enhancement more than just pure pleasure. Knorr Cetina argues that this type of dedication is the emotional basis of research work (2001, p. 184).

Conceptualizing relational undergirding

Understanding how the above-mentioned emotional basis affects the learning process requires concepts designed to capture the affective and relational undergirding of the observed practice.

Conceptualizing this relational undergirding entails a relational perspective that accentuates the dynamic in the more or less dissociative relationship between the aim of learning (the knowledge object) and the learners (the subjects). According to Knorr Cetina, it is common to separate subjects from what are often seen as independent knowledge objects, and that relational resources can help us to overcome the subject-object separation. This entails seeing the learning object as something relational to explore, instead of something external to acquire. The lifestyle sports practitioners in our study achieved to come closer to this union with their learning objects by replacing the external expert (coach, teacher or instructor) with constantly ongoing loops of reviews of available resources, self-studies and collaborative learning in a facilitated symbiotic relationship across disciplines for both novices and experts. At the time practitioners identified what was missing, partial or inadequate in what they were doing, they seemed to enjoy looking for whether the insufficiencies displayed in the relationship between the object and the self could tell which way to proceed. As mentioned earlier Knorr Cetina explains the volatility and unstoppable of desire as something that is born from envy of the illusion of problem-solving. The practitioners seemed to approach this illusion actively – to get into an alliance with it and play with it without being interrupted by someone who would expose the illusion and thus kill practitioners' images of self and thus the practitioners' desire.

The knowledge object expressed by the practitioners as 'kinesthetic understanding' (see also Bäckström, 2014) is distinctively not a fixed a-priori product that can be evaluated according to a standard, but something that the practitioners realize they can never fully attain. In Knorr Cetina's terms the object (kinesthetic understanding) was searched for in 'open drawers filled with folders extending indefinitely into the depth of a dark closet' (Knorr Cetina, 2005, p. 190). However, the practitioners' curious exploration of these drawers seemed to encourage their creativity, increased self-study, more trial and error and thus a structure of wanting that perpetuates their engagement. Based on the data presented in this study and the relational language of Knorr Cetina, we may say that the elusive nature of kinesthetic understanding led to temporary feelings of insufficiency among the practitioners, and that this seemed to undergird a relational intimacy between the practitioners and the knowledge object. According to Knorr Cetina this intimacy was shaped by the practitioners' desire, and provided for the continual unfolding of the object-oriented and thus relational practice. Applying terms from Knorr Cetina we may say that the practitioners went into an alliance with the object 'based upon a form of mutuality' (Knorr Cetina, 2005, p. 194) between the objects' lack of completeness and the subjects' unstoppable desire to get just a glimpse of a finish line. For the practitioners, this momentary glimpse seemed satisfying enough, because just when they arrived at what they'd believed was their destination, they found their attention caught by new open folders that could not be ignored. According to Fredrik, he could not escape, he was captured by something that he could not help but love.

Learning in PE through the ethos of lifestyle sports?

Research shows that PE in school is dominated by a sport discourse (Kirk, 2010), that students' learning processes in PE have been governed by linear learning applied from classical learning theories (Tinning, 2010), that the Demonstration-Explanation-Practice – model still dominates (Barker, Bergentoft, & Nyberg, 2017), that assessment procedures are focusing on product rather than process (Leirhaug & Annerstedt, 2016), and that resistance to renew and adapt to the contemporary society has been a most pronounced challenge (Kirk, 2010).

The context observed in this study differs from a regular PE context in terms of the variance in age among those involved, the absence of a professional teacher, and also in the open-ended, yet vigorous practice that the group collaborated in from different perspectives and with different levels of competence. In addition, as a voluntary, autonomous and eager group of young people the group studied in this paper is not representative of all students in PE. The practitioners in our study shared a devotion and a passionate attitude that seem different from that of the average PE-

student. On the other hand, what is going on in lifestyle sports reflects the global and post-industrial society and the current generation of young people born into this world and grown up in the knowledge society. According to Knorr Cetina, and as seen in this study, this generation may offer alternative approaches for learning that PE-teachers should consider trying out in collaboration with the experts; the current generation of students. Based on our work, it is at least reasonable to find out if students are able to explore and develop facilitating abilities for learning in PE if they are given the opportunity or even encouraged to do so.

Bignold (2013) is one of few, who have argued that lifestyle sports should be included in PE as alternatives to traditional sports. More research is needed, but it needs to be emphasized that lifestyles sports cannot just be considered as an alternative activity, yet as an alternative logic that requires a relational, affective, explorative and processual language rather than the constative language that usually accompanies the traditional sport discourse and traditional demonstration-explanation-practice – models. Implementation of lifestyle sports in PE ought to be done on the premises of the knowledge society and lifestyles sports itself; not only as an alternative activity, yet as the epistemic culture it represents.

Conclusion

The present study supports Knorr Cetina and others who imply the need to understand ways in which today's 'knowledge society' unfolds and how it supports exploration of knowledge outside traditional academic institutions, restraining protocols and classic theories on learning. We need to understand new machineries of knowledge construction and how these govern new epistemic practices. The small scale analysis presented in the presented study indicates that young people today are able to facilitate their own knowledge production in the field of human movement when their environment is not affected by strong cultural norms or actors, and the findings support the idea that knowledge is not produced in a vacuum detached from how also the world of sport develops. The group of tumblers studied in the present paper who have been presented as lifestyle sport practitioners of tricking, brake and free-running, yet who also represent elements from traditional folk dance and Capoeira together make up an epistemic culture that introduced us to an alternative epistemic practice in the field. Despite the fact that this group may not be – indeed, probably is not representative of all young students who attend PE in schools, we argue that there is a lot to learn from these types of epistemic practices that are becoming more and more prevalent outside the established educational environment.

Disclosure statement

No potential conflict of interest was reported by the authors.

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References

- Aggerholm, K., & Højbjerg Larsen, S. (2017). Parkour as acrobatics: An existential phenomenological study of movement in parkour. *Qualitative Research in Sport, Exercise and Health*, 9(1), 69–86.
- Atkinson, M. (2013). Heidegger, parkour, post-sport, and the essence of being. *A Companion to Sport*, 60(1), 359–374.
- Bäckström, Å. (2014). Knowing and teaching kinaesthetic experience in skateboarding: An example of sensory emplacement. *Sport, Education and Society*, 19(6), 752–772.
- Barker, D., Bergentoft, H., & Nyberg, G. (2017). What would physical educators know about movement education? A review of literature, 2006–2016. *Quest*, 69(4), 419–435.

- Bignold, W. J. (2013). Developing school students' identity and engagement through lifestyle sports: A case study of uni-cycling. *Sport, Education and Society*, 18(2), 184–199.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Edwards, B., & Corte, U. (2010). Commercialization and lifestyle sport: Lessons from 20 years of freestyle BMX in 'Pro-Town, USA'. *Sport in Society*, 13(7-8), 1135–1151.
- Fangen, K. (2010). *Deltagende observasjon*. Oslo: Fagbokforlaget.
- Garcia-Sancho, M., & Knorr Cetina, K. (2018). 'These were not boring meetings': Miguel García-Sancho talks with Karin Knorr Cetina. *Engaging Science, Technology, and Society*, 4, 246–266.
- Gilchrist, P., & Wheaton, B. (2011). Lifestyle sport, public policy and youth engagement: Examining the emergence of parkour. *International Journal of Sport Policy and Politics*, 3(1), 109–131.
- Gilchrist, P., & Wheaton, B. (2016). Lifestyle and adventure sport among youth. In K. Green & A. Smith (Eds.), *Routledge handbook of youth sport* (pp. 186–200). Routledge International Handbooks. Oxford: Routledge.
- Jeanes, R., Spaaij, R., Penney, D., & O'Connor, J. (2019). Managing informal sport participation: Tensions and opportunities. *International Journal of Sport Policy and Politics*, 11(1), 79–95.
- Jensen, K. (2007). The desire to learn: An analysis of knowledge-seeking practices among professionals. *Oxford Review of Education*, 33(4), 489–502.
- Jensen, K., Nerland, M., & Enqvist-Jensen, C. (2015). Enrolment of newcomers in expert cultures: An analysis of epistemic practices in a legal education introductory course. *Higher Education*, 70(5), 867–880.
- Kidder, J. L. (2012). Parkour, the affective appropriation of urban space, and the real/virtual dialectic. *City & Community*, 11(3), 229–253.
- Kirk, D. (2010). *Physical education futures*. New York, NY: Routledge.
- Knorr Cetina, K. (1981). *The manufacture of knowledge*. Oxford: Pergamon Press.
- Knorr Cetina, K. (2001). Objectual practice. In T. R. Schatzki, K. Knorr Cetina, & E. von Savigny (Eds.), *The practice turn in contemporary theory* (pp. 184–198). London: Taylor & Francis.
- Knorr Cetina, K. (2005). Culture in global knowledge societies: Knowledge cultures and epistemic cultures. In M. D. Jacobs & N. W. Hanrahan (Eds.), *The Blackwell companion to the sociology of culture* (pp. 65–80). Malden, MA: Blackwell Publishing Ltd.
- Knorr Cetina, K. (2009). *Epistemic cultures: How the sciences make knowledge*. Cambridge, MA: Harvard University Press.
- Knorr Cetina, K. (2013). *The manufacture of knowledge: An essay on the constructivist and contextual nature of science*. New York, NY: Pergamon Press.
- Leirhaug, P. E., & Annerstedt, C. (2016). Assessing with new eyes? Assessment for learning in Norwegian physical education. *Physical Education and Sport Pedagogy*, 21(6), 616–631.
- Ma, J. Y., & Munter, C. (2014). The spatial production of learning opportunities in skateboard parks. *Mind, Culture, and Activity*, 21(3), 238–258.
- Malcolm, I. (2013). Conceptualising the knowledge work of digital professionals through Knorr Cetina's ideas of macro-epistemics and information knowledge. *Studies in Continuing Education*, 35(2), 131–145.
- Midol, N., & Broyer, G. (1995). Toward an anthropological analysis of new sport cultures: The case of whiz sports in France. *Sociology of Sport Journal*, 12(2), 204–212.
- Noy, C. (2008). Sampling knowledge: The hermeneutics of snowball sampling in qualitative research. *International Journal of Social Research Methodology*, 11(4), 327–344.
- Säfvenbom, R., Wheaton, B., & Agans, J. P. (2018). 'How can you enjoy sports if you are under control by others?' Self-organized lifestyle sports and youth development. *Sport in Society*, 21(12), 1990–2009.
- Strittmatter, A., Kilvinger, B., Bodemar, A., Skille, E. Å., & Kurscheidt, M. (2018). Dual governance structures in action sports: Institutionalization processes of professional snowboarding revisited. *Sport in Society*, 1–19. doi:10.1080/17430437.2018.1440696
- Thagaard, T. (2018). *Systematikk og innlevelse. En innføring i kvalitative metoder* (5th ed.). Bergen: Fagbokforlaget.
- Thorpe, H., & Olive, R. (2016). *Women in action sport cultures: Identity, politics and experience*. London: Springer.
- Thorpe, H., & Wheaton, B. (2011). 'Generation X Games', action sports and the Olympic movement: Understanding the cultural politics of incorporation. *Sociology*, 45(5), 830–847.
- Thorpe, H., & Wheaton, B. (2017). The X games: Re-imagining youth and sport. In L. Wenner & A. Billings (Eds.), *Sport, media and mega-events* (pp. 247–261). New York, NY: Routledge.
- Tinning, R. (2010). *Pedagogy and human movement: Theory, practice, research*. New York, NY: Routledge.
- Vittersø, J. (2016). *Handbook of eudaimonic well-being*. Cham: Springer International Publishing.
- Wheaton, B. (2010). Introducing the consumption and representation of lifestyle sports. *Sport in Society*, 13(7-8), 1057–1081.
- Wheaton, B. (2013). *The cultural politics of lifestyle sports*. London: Routledge.