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**Article Title:** Embodying Industrial Knowledge: An Epistemological Approach to the Formation of Body Knowledge in the Fitness Industry

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## **Abstract**

This paper has two objectives: 1) to develop a coherent epistemological approach to clarify the concept of body knowledge and 2) to analyze the role of body knowledge in business-driven fitness environments. The epistemological analysis is built on phenomenological and feminist discussions on embodiment to clarify the power mechanisms and agency behind the profit-making interests of the fitness industry. I introduce two conceptions of body knowledge—bodily knowledge and embodied knowledge—that are on opposite ends of the same continuum. My analysis suggests that there are several reasons why embodied knowledge is fostered while bodily knowledge remains marginal in the fitness industry. The paper concludes that the business-driven work environment equips group fitness instructors with performative skills but offers few opportunities to develop professional judgment agency and expertise.

## **Introduction**

Practical knowledge has been a prominent issue within sports science and physical education for approximately ten years. Many of the recent epistemological discussions on practical knowledge are contextualized within school curriculums (Azzarito & Solmon, 2009; Ávila da Costa, McNamee, & Lacerda, 2014; Evans, Davies, & Rich, 2009; Shilling, 2010), the field of elite sports (Breivik, 2014), coaching children and young people (Andersson & Östman, 2015), the education of physical education (PE) teachers (Kårhus, 2010; Nyberg & Larsson, 2017), adult recreation (Brown & Penney, 2013), or have been more generally related to the institutions of physical education and philosophical traditions (McFee, 2010; Stolz, 2014). Fewer epistemological discussions of physical activities are framed by the economic interests of the sports and fitness industry. Furthermore, several studies have indicated that the body can provide the dominant site of knowing for fitness professionals (De Lyon & Cushion, 2013; Markula, 2004). Although scholars in a variety of disciplines have engaged in epistemological discussions of body knowledge (Bresler, 2004; Evans et al., 2004; Johnson, 1991; Malmsten, 2000; Matthews, 1998; Oliver & Lalik, 2000; Sheets-Johnstone, 1999; Todd, 2001), theoretically grounded rigorous conceptualisations for analyzing body knowledge are limited, and the problem of how to classify the notions of both “body” and “knowledge” in the context of physical exercise remains.

My aim in this paper is twofold: 1) to develop a coherent epistemological approach to clarify the concept of body knowledge and 2) to analyze the role of body knowledge in business-driven fitness environments. This article seeks to answer to the question of how hidden industrial knowledge is formulated through the work performances of fitness professionals. This study focuses on the conditions for the production, reproduction, and transformation of knowledge by fitness professionals. Because industrial knowledge is characterized by the profit-making interests of companies, it is important to explore how and

why some forms of practical knowledge become more valued than others and to ask who defines what is important in the work context of group fitness instructors. Epistemological approaches to physical activity easily ignore the regulations and rules of the business-driven context that frame individual and collective choices.

The fitness industry is defined here as consisting of operators that manage fitness and recreational sports facilities, as well as produce and provide programs, services, and fitness equipment (NAICS, 2017). Those operators also include companies that feature exercise and other active physical fitness conditioning or recreational sports activities. From the 1980s, fitness activity in health clubs was related to recreation and leisure time (Smith Maguire, 2008), but more recently—to promote enhanced health and fitness among employees—many large corporates throughout the United States and Europe have started to offer fitness programs and exercise equipment to employees (Health Fitness Revolution, 2015). The strategy of including fitness programs, or wellness programs more generally, in many companies is intended to promote healthy lifestyles with a focus on exercise, healthy eating, and tobacco cessation, which in turns boosts employee productivity (Baicker, Cutler & Song, 2010). For the purposes of this paper, fitness programs may include fitness and sport classes, consultations, personal trainer services, and biometric screening equipment, all of which aim to improve the physical fitness and wellbeing of individuals. My discussion of the fitness industry focuses on health clubs and their group fitness classes, as one category of fitness services. In terms of exercise practices, health clubs have been at the forefront of standardizing fitness programs and classes, products that require fewer staff to supervise exercise.

My epistemological approach to body knowledge in this paper is built on phenomenological and feminist discussions on embodiment (Merleau-Ponty, 1962; Grosz, 1994), a recent epistemological discussion on physical activity (Stolz, 2014), and feminist research on women's fitness (Kennedy & Markula, 2011). This research aims to provide a

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suitable platform for examining “industrial knowledge,” remaining aware that such projects have often been undertaken in organizational contexts and management studies (De Lyon & Cushion, 2013). My purpose is to analyze how mainly tacit, invisible, and hidden industrial knowledge might become embodied through the performances of fitness professionals. At this point, “industrial fitness knowledge” in the business context refers to the capabilities of systemizing and standardizing programs and classes, or more generally fitness services, to earn a profit in the service economy. My discussion of industrial knowledge pays attention to the three different levels of industrial knowledge, namely, the macro level, the meso level, and the micro level. One of the most critical challenges in this analysis is how to integrate the micro and macro levels of industrial knowledge (e.g., Goldspink & Kay, 2004).

In terms of industrial fitness knowledge, embodiment is one promising solution to address this micro-macro problem. The global delivery of fitness services aims to transcend the lived body and highlight fitness knowledge through simplified biomedical facts about the function of the physical body. However, on the individual level, the fitness industry relies on the relational skills of lived bodies. In this sense, the lived body becomes a key factor in understanding how industrial fitness knowledge is transmitted and reproduced in the performance of fitness trainers. Drawing upon empirical research on group fitness instructors and trainers (De Lyon & Cushion, 2013; Felstead, Fuller, Jewson, Kakavelakis, & Unwin, 2007; Lloyd, 2008; Malek, Nalbone, Berger, & Colburn 2002; Mansfield, 2011a, 2011b; Melton, Katula, & Mustian 2008; Smith Maguire, 2008), my analysis focuses on the business-driven work environment that imposes demands in the form of specific skills and approaches to fitness service delivery.

This epistemological analysis of knowing in and through the lived body is inherently connected to systems of power and agency. Feminist theorists including Elizabeth Grosz, Judith Butler, Sara Ahmed, Rosi Braidotti, Marion Young, and Moira Gatens have examined

the ways in which gendered bodies are constituted differently through particular relations of power. By focusing on embodiment, they have considered how complex processes of social, cultural, and political differentiation proceed through bodily channels, and how power relations shape the body (Pedwell, 2010). Feminist research on female fitness has already explicated the power system underlying the work of fitness professionals and their knowledge production (e.g., Lloyd, 2008; Mansfield, 2011b; Smith Maguire, 2008). Adopting a feminist lens of intersectionality and Ahmed's concept of inter-embodiment allows me to analyze the power mechanisms of forming body knowledge. The goal of feminist intersectionality theories (Crenshaw, 1991) has been to develop a framework for analyzing power that encompasses the complex interconnections of sexism, racism, class oppression, heterosexism, and other axes of oppression. Their purpose has not been to formulate essentialist identity categories, based on, for example, gender, color, sexuality and age, but rather to address how these categories reproduce particular exclusions and affect knowledge production.

This paper is structured as follows: It begins with a description of epistemological standpoints and key theoretical concepts to elaborate upon the notion of body knowledge. Then, the analysis turns to the standardization of fitness services and their global delivery systems to describe industrial knowledge as knowledge capital and part of a profit-making system. Illustrative empirical examples of the formation of industrial knowledge are built partly upon a previous ethnographic study of the fitness business Les Mills (Parviainen, 2011). Then, I consider fitness instructors' bodywork and how they negotiate their relationships with stakeholders through their lived bodies (Parviainen 2014). I analyze how fitness instructors develop performative competences to meet stakeholders' expectations and how they embody industrial knowledge through relationality.

## **Epistemological Approach to Body Knowledge**

The main emphasis in studies of sports and physical activity has been on increasing expertise in hard scientific knowledge that concerns biomechanics, human anatomy, and physiology. Transcending naturalism in sports knowledge, epistemological discussions of physical education (Arnold, 1979) have stressed the difference between theoretical forms of knowing (knowing that), including biomechanics, and practical forms of knowledge (knowing how), following Ryle's (1949/2009) epistemic formulation. Practical forms of knowing usually refer to learning by doing and learning from experience, stressing the social significance of learning from other people and the environment, while recognizing the scope for individual agency as personal knowledge (e.g., Stolz, 2014). The most well-known approach to understanding this type of practical knowledge is Arnold's (1979) three dimensions of movement (learning about, through, and in movement), which have been prominent in many curricular developments in physical education (e.g., Brown & Penney, 2013).

Phenomenological approaches to sport and physical education have also highlighted the importance of embodiment and have stressed the characteristics of bodily movement for knowing and learning (e.g., Brown & Payne, 2009; Standal & Engelsrud, 2013). Drawing on Merleau-Ponty's (1962) phenomenology of the body, Husserl's (1997) notion of kinesthesia and Sheets-Johnstone's (1999) discussion on the primacy of kinesthetic sense and movement are seen to have a central organizing role in forming body knowledge in different types of physical activity. Sheets-Johnstone's (1999) epistemological approach to corporeal knowledge is as follows: "...movement is the generative source of our primal sense of aliveness and of our primal capacity for sense-making" (p. 132). O'Donovan-Anderson (1997) proposed that much conceptual knowledge is also gained in the course of "our bodily negotiations" with the world and that much of our knowledge is, indeed, constituted by these interactions, laying the groundwork for absorbing and interpreting knowledge gathered by other means. This particular

epistemic sensitivity afforded by bodily motion allows the world to limit and guide the organization of our sensations.

More recently, in the context of physical education, Michael Polanyi's (1962) concept of tacit knowledge and Marcel Mauss's (1979) notion of body technique have been used in attempts to understand how individuals learn bodily skills and competences through and in movements and exercise (e.g., Andersson & Östman, 2015; Andersson, Östman, & Öhman, 2013; Ávila da Costa et al., 2014; Nyberg, 2014). Polanyi (1962) captured the concept of tacit knowing as follows: it "is not known in itself but is known in terms of something focally known" (p. 88). Polanyi suggested that individuals become aware of their tacit knowing only through focusing on explicit particulars. Tacit and focal awareness are two sides of the same coin; even the most explicit knowledge is underlain by tacit knowledge (Tsoukas, 2003). In this approach, tacit knowledge, as a form of learning, is a mode of revealing something that already exists. Thus, becoming aware of tacit potentials in a phenomenon is not necessary a process of creating (new) knowledge. In the context of sport, Andersson et al. (2013) refer to tacit knowledge as a process of "bodying sport knowledge." Using the empirical example of sailing as a body technique, they argue that in learning sailing skills students are "embodying" a certain existing body technique. In this way, tacit sport knowledge becomes embodied over and over again when individuals recreate its meanings, values, and ideologies through their bodies' performances and activities.

Before further clarifying my epistemological approach to body knowledge in this research, I turn to Merleau-Ponty and Husserl's phenomenology to consider further the ontological standpoint of understanding "the body" in this context. The mainstream biomedical approach to the body in sports science tends to curtail the body to its physiological attributes such as muscle mass and fat percentage. Following this formulation, everyday discourses on the body in the context of the fitness industry usually refer to the physical body. This notion of

the “physical body” can be captured here using the German phenomenological term *Körper*. Everyday “fitness knowledge” stems from the ontological standpoint of the physical body, a material entity, which is seen to consist of body parts and their physiological functions. For instance, one of the most popular workout classes in many health clubs, Bodypump, is described in the Les Mills webpage as follows: “This full-body barbell workout will burn calories, shape and tone your entire body, increase core strength and improve bone health” (Les Mills, 2017). Most regular fitness workouts include at least one of three components that are modified and manipulated: muscle strength and mass, aerobic (cardiovascular) fitness, and flexibility (Markula & Pringle, 2006). Observations of the modification of the physical body through physical exercise is increasingly supported by biomonitoring digital equipment—like the Fitbit, Jawbone Up, and Apple’s iWatch—which measure the user’s heart rate, physical activity, and sleep (see Lupton, 2013).

Providing an alternative to the physiological approach to the body—and its inherent mind–body dualism—Merleau-Ponty outlined “the third category” between *Körper* and the mind. Following Husserl’s notion of *Leib*, Merleau-Ponty (1945/1962) described the lived body, *corps vécu*, as a conscious subject that is never a mere physical thing but has its own motor intentionality. *Leib* cannot be reduced either to *Körper* or the mind; it is the pre-personal subject capable of making sense of the perceptual world through its motor intentionality and movements. The sense-making of bodily movements resides not in words but in the meeting of the spatial, material world and other living beings. As Samudra (2008) asserts, “...one can be a fully conscious actor in the body without necessarily encoding the meaning of one’s actions in words” (p. 666). This becomes clear when we handle an object. Lifting an object reveals something about its weight. Rubbing our fingers across an object tells us about its texture and shape. Squeezing an object, we learn about its compressibility. By turning our awareness away from objects and our perceptual environment towards movements themselves,

we may learn to explore and identify a variety of movement qualities in our physical activity. As Husserl (1997) pointed out, kinesthesia, as a sense of motion, helps us recognize differences and similarities within the qualities and haptic sensations of our own movement.

The characteristics of bodily movements are crucial for knowing and learning in physical activity. However, exploring and identifying movement qualities is only the first step toward forming *bodily knowledge*. The notion of bodily knowledge refers to a knowledge forming process in which subjects pay special attention to sensuous information, perceptions, and feelings that occur during physical training processes. Marchand (2010) speaks of bodily knowledge as “intelligent practice,” reminding us that bodily knowledge is more than “...merely skilled practice and performance” (p. S18). In exploring the sensations and kinesthetic qualities of bodily movements, subjects learn to identify, analyze, and anticipate how their bodies respond to exercise and how their physical conditions and skills are modified by activity. Movement exploration without the intention of learning movement skills or patterns differs greatly from the previously introduced idea of embodying sport knowledge. Forming bodily knowledge is neither linked to improving one’s own movement skills, physical fitness, or aesthetic nor to legitimizing physical activity in the name of healthy living (Parviainen & Aromaa, 2017). Instead, bodily knowledge encourages individuals to trust their own body awareness and learn to understand the ambiguous feelings, intuitions, and sensations emerging from the body during physical exercise. By forming bodily knowledge, subjects may increase their expertise of physical activity and learn to share their findings with others to deepen a wider understanding of embodiment through physical activity.

Sociologically oriented phenomenologists have emphasized the meaning-making processes of the body and movement experiences that take into account historical, social, cultural, political, and material aspects of movement. As Grosz (1994) has put it, “Bodies cannot adequately be understood as ahistorical, precultural, or natural objects in any simple

way; they are not only inscribed, marked, engraved by social pressures external to them but are the products, the direct effects, of the very social constitution of nature itself” (p. x). Social and cultural aspects should be considered carefully when movement qualities and vitality are characterized and interpreted (e.g., Crossley, 2005; Tinning, 2008; Allen-Collinson, 2009, 2011). In trying to avoid the “gender neutrality” of Merleau-Pontian notions of embodiment (e.g., Young, 1989), my approach uses feminist strategies, more specifically intersectionality, to make “gender” more visible when discussing the difference between *Leib* and *Körper*. As a biological and material entity, the physical state of *Körper* is expressive in the sense that it gives impressions of its biological age, muscular tone, and health conditions. These expressive qualities do not necessarily ‘match’ one’s own internal feelings and social identity. Thus, a subject usually develops a reflexive distance to the relationship between *Leib* and *Körper* (Krüger 2010). Feminist intersectional analyses suggest that embodied attributes of *Körper* valued negatively in fitness culture are linked more often to categories of physical features, including “fat,” “sloppy,” “stiff,” and “old,” in contrast to the positive value accorded to “slender,” “muscular,” “flexible,” and “young.” Applying Gatens’s (1996) feminist approach, these categories have had important material effects on the ways in which fit bodies have been constituted, affecting both their present capacities and their future possibilities. She argues that “Power differentially constitutes particular kinds of bodies and empowers them to perform particular kinds of tasks, thus constructing different kinds of subject” (Gatens, 1996, p. 66).

Regarding the lived body, there is also a need to clarify the agency and power mechanisms behind the intentions and interests of forming body knowledge through and in physical activity. Epistemic agents are usually characterized as personally responsible for what they believe to be knowledge, which requires critical reasoning to make judgments about knowledge. In the case of bodily knowledge, epistemic agents require the sensitivity to identify different states of the body’s stamina, flexibility, or strength to develop professional judgment

skills regarding kinesthesia and movement. Elgin (2013) argues, “Epistemic agents should think of themselves as, and act as, legislating members of a realm of epistemic ends: they make the rules, devise the methods, and set the standards that bind them” (p. 135). Moreover, as Moira Gatens (1996) points out, bodies and their ability to form knowledge have been constituted differently through complex relations of power. Following Sara Ahmed’s (2000) feminist perspective on embodiment, bodily features are identified precisely through differentiation from “other” bodies, a process which she refers to as “inter-embodiment.” In this sense, body knowledge does not rely just on “internal” explorations of one’s own sensations but is relationally determined through encounters with others.

The epistemological discussion turns now to the second research question: What role does body knowledge have in business-driven fitness environments? Using Andersson et al.’s (2013) conception of (em)bodying sport knowledge, my approach to embodying knowledge addresses the economic interests of physical and tacit skills in work contexts to understand how business-driven settings incorporate the interests of knowing and learning. I use the term *embodied knowledge* to identify how fitness instructors learn to materialize fitness ideologies related to healthy lifestyles, profit-making, and heteronormativity when instructing classes in fitness settings. The following analysis considers the macro level of industrial knowledge as knowledge capital to illuminate how standardization processes and global delivery systems of services impose demands in the form of specific skills and approaches to fitness practice.

### **Standardization and Industrial Knowledge**

The commercial landscape of women’s fitness, which has grown since Jane Fonda’s 1980s aerobic videos, reached a new milestone at the turn of the millennium with the standardization of group fitness classes. Standardization has brought about enormous changes to the quality and range of classes (Frew & McGillivray, 2005), the nature of the work of fitness

trainers (Felstead et al., 2007), and how the work of fitness professionals is managed in the whole industry (Lloyd, 2008). Global operators, and their trademarks known world-wide, make survival problematic for freelance professional trainers and PE teachers who would like to design their services based on their own professional judgment (Felstead et al., 2007). The popularity of a class no longer depends on the instructor's talent for designing fitness classes but on the discernibility of the trademark of the fitness operator. Thus, pre-choreographed classes deaden rather than awaken the individual creativity of instructors. Behind this development are changes in the global market of the service economy.

The post-industrial knowledge economy is characterized by the changing nature of economic products from material goods to so-called immaterial, weightless goods and services (Drucker, 1993; Huws, 2003). In the fitness industry, health and fitness clubs want to provide large quantities of group fitness classes and other fitness services, including personal training or diet consulting at low prices (Lagrosen & Lagrosen, 2007). Standardized choreographies allow for flexibility in personnel decisions because they do not require a large investment in training, and employees can be used interchangeably (Ritzer & Stillman, 2001).

Les Mills International (LMI) has arranged its global delivery system to provide standardized fitness classes to health and fitness clubs all over the world. LMI is one of many firms that offer services that were considered non-tradable before the 1990s (Aharoni, 2000). Schwass (2015) estimates that LMI has trained approximately 130,000 instructors to provide standardizing fitness programs (i.e., different types of fitness classes) in around 17,500 clubs in more than 100 countries, which deliver classes to millions of participants every week.

The globalization of the fitness service industry has created new forms of international business activity that did not exist in traditional manufacturing. One of the most successful functional mechanisms for the international expansion of service firms has been the franchising of trademarks, brands, and licenses. Franchising is a very efficient means to achieve

international business expansion (Fladmoe-Lindquist, 2000; Hoy & Stanworth, 2003). A major contribution of franchising is the creation of linkages and network relationships around a successful story and a strong brand. LMI, as a fitness franchisor, designs pre-choreographed classes that individual instructors, as franchisees, perform and sell for customers. Most franchisees are freelance trainers or are employed in licensed health clubs.

Franchising as a delivery model is an example of the rationalization of service production, which rests on four pillars: efficiency, calculability, predictability, and control (Ritzer, 2004). Efficiency results from the globally organized training system for gathering independent or employed trainers to work under trademarks. Although LMI fitness instructors recruited by health and fitness clubs are often young people such as students, weight trainers, or enthusiastic fitness clients, many fitness professionals with PE degrees feel forced to acquire a license to be able to instruct in health clubs. Previous studies (e.g., Felstead, et al., 2007; Melton, et al., 2008) have stated that despite their levels of expertise in formal physical education, all candidates need to pay a fee to attain certification through short courses. Once candidates have completed a couple of days of module training and have been cleared to instruct, they can start teaching in licensed fitness clubs. In the global fitness market, LMI has gained a reputation among fitness clubs and customers for efficiently supplying fitness classes with uniform quality. Its products are predictable because the instructors have strict rules for how to instruct the classes.

This system of delivering fitness classes has stretched and enlarged the limits of fitness services partly because the movement routines and patterns in this system can be reused, limiting the need to change the whole structure of the class. In fact, fitness choreographies undergo continual updates, with new versions and variations, even if the structure of a series remains the same. Knorr Cetina (2000) suggests that contemporary products and services are not defined by what they are but by what they will be and what kind of potential they have. She

proposes that more and more products exist not only as things to be used but also as things to be transformed. To become successful in the fitness industry, a company needs to unite the requirements of standardization and the transformation of fitness services.

Returning industrial fitness knowledge, on the macro level, knowledge is characterized by the capacity to standardize and systematize fitness services to earn a profit in the service economy. Building an efficient global system that can deliver largely homogenous services is based on industrial knowledge that consists of competences, abilities, and capital for profit-making. As a form of *knowledge capital*, it leaves independent freelance trainers few options to defend the quality of their classes based on their own expertise and professional knowledge. Global fitness companies that use the franchising model keep high-skilled, knowledge-intensive operations inside the firm by designing services, while they offer low-skill, labor-intensive operations to fitness instructors around the world (Gereffi & Korzeniewicz, 1994). All instructors are equal for LMI in the sense that the quality of LMI services does not rely on the expertise of highly educated professionals but rather on their performance skills. This becomes clear in an LMI advertisement: “No matter how good you are now or how long you’ve been teaching, as a LES MILLS™ instructor you’ll constantly get better” (Les Mills, 2017).

The phrase “constantly getting better” does not merely refer to trainers’ skills to execute a routine correctly but also to their ability to display their bodies in an attractive but appropriate manner for customers. Women form the majority of customers in group fitness classes, even though aerobic classes are masculinized to try to attract more male customers (Brabazon, 2000). Mansfield (2011b) suggests that within the heteronormative framework of female fitness exercise regimes, fitness spaces are heterosexual spaces despite potential gender differences among trainers and customers. These heterosexual spaces and heteronormativity regulate fitness trainers’ relationality with their customers and the way they display their bodies to class participants. In trying to further clarify the role of this relationality in embodying

industrial knowledge, my discussion focuses next on micro-level analysis and the bodywork of fitness instructors.

### **Embodying Industrial Knowledge**

The term bodywork has commonly been used to refer to two different aspects: work that individuals undertake on their own bodies (Gimlin, 2002; Coffey, 2013) and paid or voluntary work performed on the bodies of others (McDowell, 2009; Wolkowitz, 2006). In the bodywork of group fitness instructors, both aspects are united. The bodywork of fitness instructors is characterized by 1) efforts to modify their own bodies, 2) practical skills to instruct classes, 3) physical strength and resilience to perform in classes, and 4) interpersonal and performance skills to communicate with customers. The temporality of embodiment also characterizes their capabilities of performing their work tasks and embodying industrial knowledge. How their bodies are constructed and modified by body techniques implicates the past (Mauss, 1979; Featherstone, 2000) in their investment in physical capital as professional development (Shilling, 2004). The present is implicated in the processes of developing interpersonal relations with clients through awareness of how they display their bodies. Body display is combined with performance skills that include the capacity to produce inspiring moments, affection, and energy to keep club members motivated to work out their bodies. The future is implicated in the notion of “becoming bodies,” which refers to convincing and assuring people that the “sporty” and “fit” appearance of instructors can be achieved through hard workouts (Coffey, 2013).

It is widely argued that personality and interpersonal skills are central to recruitment in the knowledge economy and that education and practical experience have become less important in almost all occupations (e.g. Nickson, Warhurst, Cullen, & Watt, 2003). In the fitness industry, people are recruited who have the “right personality,” characterized by the

following traits: “outgoing,” “lively,” “confident,” “chatty,” and “sociable” (Lloyd, 2008). The emphasis on an instructor’s interpersonal skills rather than technical ability to design a class supports the findings of a survey of employers in the sports, fitness, and outdoors sectors by SkillsActive (2005). At the top of the required skills were communication skills, with 90% of respondents citing these as very important. De Lyon and Cushion’s (2013) empirical findings on the knowledge development of fitness trainers showed that codified academic and theoretical knowledge gained through degrees was not considered useful in the business-driven work context of fitness trainers. Similarly, Melton et al.’s (2008) empirical findings suggest that the majority of fitness trainers’ learning occurs in the work context, beyond dedicated formal education environments and institutions.

De Lyon and Cushion (2013) concluded that fitness employers attribute greater value to industrial knowledge and are less likely to acknowledge the benefits of higher education courses. Similarly, fitness trainers expressed their need to develop industrial knowledge as part of their occupational skills (De Lyon & Cushion, 2013). Profit-making, as the core of industrial knowledge, is a value tacitly adopted through working in the business-driven environments of health clubs. While De Lyon and Cushion (2013) do not describe in detail how industrial knowledge is formed, I propose that through bodywork and its temporality fitness instructors learn to hide the economic interests and rationalization of industrial knowledge to make classes pleasing and inspiring for customers. Embodying industrial knowledge, fitness instructors learn to make standardized choreographies appealing to customers through their performance in order to obscure the economic interests of those choreographies. It is not surprising that the interpersonal skills required in this obscuring process are seen to occur naturally and effortlessly in their bodies. Their work has traditionally been seen as low-skilled, in terms of technicality; however, I want to emphasize here that embodying industrial knowledge is a skillful intentional activity rather than a purely imposed or tacit process.

Returning to the differences between bodily knowledge and embodied knowledge, I want to draw attention to the role agency plays in knowledge forming processes. Bodily knowledge and embodied knowledge are not used here as synonyms but rather as opposite ends of the same continuum (Figure 1). The scale of difference between them depends on the degree to which the knowing subject can set his or her own tasks and interests to form knowledge. Forming bodily knowledge requires critical reasoning to make judgments about values and ideologies behind the movement patterns. This refers to the way in which methodological practices of processing knowledge are flexible and open-ended. When established movement patterns, sports disciplines, or standardized fitness programs define and contextualize targets of knowledge formation in advance, the knowing subject's ability to form body knowledge can become highly limited. However, as stated before, epistemic agents in embodying industrial knowledge are still personally responsible for what they believe or expect to know.

Most efforts to form body knowledge are located somewhere between these two ends of the continuum. This is because movement disciplines usually structure the initiatives of formation of body knowledge, while in embodying the existing movement patterns of sports and physical activity, the agent always brings his or her own style and interpretation into the epistemic processes.

Following Ahmed's (2000) feminist perspective on inter-embodiment, relationality determines the processes of body knowledge through encounters with and between others and the environments where these take place. Business-driven fitness clubs and gyms usually offer epistemologically restrictive environments, although this may depend on specific organizational cultures and business strategies. When fitness instructors have limited possibilities to form or apply their own personal knowledge in their classes, they are steered to materialize industrial fitness knowledge through their bodies. De Lyon and Cushion's (2013) findings indicate that fitness instructors who work within highly restrictive gym environments

have limited opportunities for career progression and off-the-job training, as well as a reduced sense of personal and professional development. From Mansfield's (2011b) perspectives on gendered power mechanisms, the heteronormativity of industrial fitness culture has important material effects on the ways in which bodies have been constituted, affecting both their present capacities as well as their future potential. Thus, this power mechanism constitutes particular kinds of bodies and empowers them to perform particular kinds of embodied knowledge (Gatens, 1996).

Fitness instructors who aim to make a living in this highly competitive field usually need to possess local knowledge of "who's who" in the field and what invisible rules, regulations, and procedures define the way health clubs operate. As Evans (2015) proposes, successful employees and professionals develop capabilities of *micro-political literacy* (Kelchtermans & Ballet, 2002; Evans, 2015). Whether adopted implicitly, reactively, or deliberately, micro-political literacy includes tactics for surviving in highly competitive circumstances to one's best advantage. In fitness environments, micro-political literacy is usually related to capabilities of "reading" clients', employers', and colleagues' facial expressions, gestures, and bodily behavior. Such knowing is produced through relationality, but "reading" or "literacy" also requires responding appropriately in and with one's own body. So, in this sense, the correct reading of an ongoing situation depends on appropriate bodily actions and responses.

Ahmed's (2000) notion of relationality captures the idea that fitness instructors negotiate relations with stakeholders through their bodies. Most fitness instructors want to develop their relationality with clients through an easily approachable bodily presence and doing their best to help and advise clients (Parviainen, 2014). As the modus operandi of fitness classes, the fitness trainer's body is the focus of intense scrutiny for customers. Observing instructors' performances and listening to their verbal guidance, customers mirror the

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instructors' movements and internalize their spoken instructions in their own bodies. Before every class, fitness instructors prepare their body to fit the type of class they are instructing (e.g., aerobics, dance, spinning, Pilates) by hiding or revealing parts of their bodies with tights, trousers, shirts, and tops (see Frew & McGillivray, 2005). In addition, they tune their lived bodies to express proper affection and enthusiasm connected to the “mood” of the class type. In this way, fitness instructors neutralize embodied particularities that might irritate clients or highlight difference to display the “right” signals for the specific fitness product. I assume that such relationality and social awareness of embodiment refer to an awareness of the power relationship embedded in embodying fitness knowledge.

Following Gatens's (1996) view of how power constitutes different work tasks, the implicit goal of displaying the body is to neutralize or highlight differences. Instructors learn to perform their embodied competence in a manner in which their bodies stand the test of the customer's monitoring gaze, in particular, regarding muscularity (Markula, 1995), body weight (Mansfield, 2011a), heterosexual attractiveness (Mansfield, 2011b), and aging (Parviainen, 2014). Trainers develop socially formulated personal strategies for neutralizing some aspects of their bodies and showcasing others (see Gimlin, 2002).

Fitness services and employees are tightly interwoven in the business environment of health clubs. Service quality is not perceived to be high if a client suspects that an instructor's body is not fit. The bodies of fitness instructors (their posture, shape, fitness, flexibility, etc.) are usually the immediate source by which clients and stakeholders evaluate and trust the quality of the services and products provided in a health club (Parviainen, 2011). Thus, fitness instructors are not seen as professionally convincing if they have sloppy posture, regardless of their technical talent in instructing classes. In my phenomenological approach, credibility is not simply related to physical attributes (muscularity or body size) but also the capability to

use the lived body (*Leib*) by hiding and emphasizing certain physical features to meet clients' expectations.

Credibility consists of three related concepts—competence, trustworthiness, and caring—that are identified as central determinants of customers' satisfaction with services provided by professionals (Richmond, Smith, Heisel, & McCroskey, 2002). Many instructors rely on the performative capabilities of their lived bodies to try to convince fitness clubs' stakeholders of their professional competence and the high quality of their services. For instance, through brisk, energetic, and assertive movements, they aim to create the impression their bodies are vital, healthy, and youthful, or by keeping their postures in an exaggeratedly straight position, they give the impression that their bodies are fit, slender, and muscular. In this way, they learn to perform fit bodies through their lived bodies. Ahmed's (2000) concept of inter-embodiment assists my theorizing of how some physical particularities (e.g., body shape, gender, biological age) are (re)formed through relational processes and the capabilities of lived bodies. These relational processes of creating credibility are contextually situated within particular configurations of power. However, my approach is not deterministic but seeks to trace the ways such relational encounters can become turning points for the formation of new identities. Within this framework, various lived bodies are differentiated, yet also fundamentally connected, but are never essentially fixed by physical particularities or their specific performative capabilities.

### **Conclusion**

The aim of this paper was to contribute to epistemological discussions about the power mechanisms behind knowledge production in the fitness industry by clarifying what those mechanisms are. My epistemic discussion suggested that independent trainers have limited access to the knowledge capital possessed by global fitness companies and their trademarked

and licensed fitness services. This leaves trainers few options to use their own expertise and professional judgment to defend the quality of their classes. Instead, the standardization of fitness services steers fitness instructors to develop interpersonal rather than technical skills to perform these services in an attractive manner. My analysis suggests that trainers negotiate an appropriate relationality with stakeholders. In building this relationality, trainers simultaneously make their bodily presence easily approachable for customers while trying to convince stakeholders of their professional competence and the high quality of fitness services. Relationality is characterized by the nature of industrial fitness knowledge on the micro level, where individuals aim to materialize the values and ideologies of industrial knowledge through and in their bodies. In my interpretation, this type of relationality does not encourage trainers to develop the professional judgment skills to identify clients' kinesthetic awareness and understand their capabilities to coordinate and time their movements.

It is obvious that industrial knowledge production is not simply neutral or instrumental but also constitutes particular kinds of bodies, and thus constructs certain types of embodied subjects (Gatens 1996). While some dimensions of embodiment such as posture, facial expressions, and tone of voice are more easily mutable, many corporeal characteristics, including age, muscular tone, and (partly) weight, are fixed aspects of one's physique. To meet the requirements of the ideal type of physicality—nearly impossible for most instructors—trainers struggle to learn to filter the expressivity of corporeality by concealing or accentuating certain features of their bodies (Parviainen, 2014). However, fitness instructors, when neutralizing or emphasizing their embodied particularities, cannot simply be read as “victims of the fitness industry” but as performers that, through a type of relativity, negotiate specific body knowledge that is useful and beneficial for them in performing their work tasks in this specific context.

This paper neither condemns fitness companies that make a profit nor blames fitness instructors' compliance with the culture of business-driven fitness. The problem is that the epistemological discourses of professional learning easily promote individual abilities but disregard the strategies of institutions that produce and reproduce forms of professional knowledge. My purpose has been to develop an epistemological method of analysis that can offer novel tools to make more visible the formation of knowledge capital in the fitness industry and its consequences for the work of fitness professionals.

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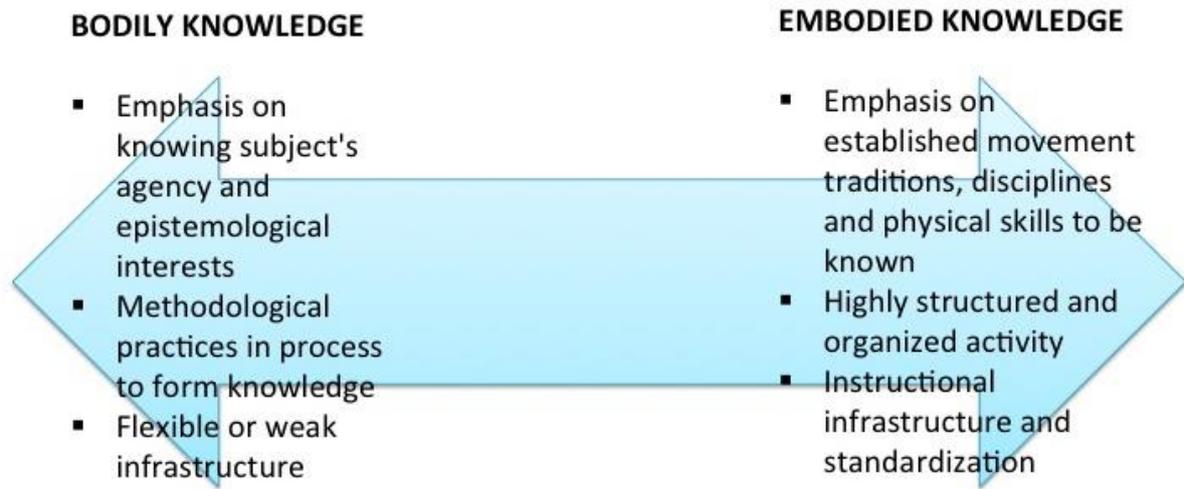
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**Figure 1:** The continuum of body knowledge.