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Road Warriors: Fostering Object-Learner Assemblages through a Social Context of Embodied Learning

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Abstract: Through narrative and autoethnographic qualitative analysis, this study examined: embodied learning through object artifacts in the social context of the leisure sport of amateur bicycle road racing; motor learning and object-human assemblages in shaping adult learning and development.

Keywords: Adult Education, embodied learning, amateur road racers

Over the past few years there has been a growing discussion on embodied learning (EL) in the field of adult education in edited books and text books on the subject (Merriam & Bierema, 2014; Lawrence, 2012). However, with limited exception (Sohdi & Cohen, 2012; Tobin & Tisdell, 2015), and some first-person accounts of embodied learning (EL) in the field (Swartz, 2012), there's a paucity of data-based studies on EL specifically in adult education though there is much conceptual discussion. There is also little consideration of how adults learn through their body in the world of sport, and motor learning. Further, the literature that does exist on EL in the field has been limited to individual learners and does not consider to any great extent the social context or the role of objects in relation to EL. *In light of these lacks, the purpose of the study is to investigate how adults informally learn through engaging with the object of their bicycles in the social context of the sport of amateur road racing, and to understand how this learning has shaped their individual and social identities.*

This paper will focus on how amateur road racers make meaning from the physical sensations they experience riding and racing in connection with their bicycles and on how racers' EL experiences help connect them to other racers and to other people outside of the sport of road racing. The purpose of this discussion is to provide justification to the value object artifacts serve in adult learning settings and to explore the social context of EL in athletes of leisure sports in order to explore its relevancy in our current understanding of its role in adult education and lifelong learning theory.

Theoretical Framework

The theoretical framework of this study draws from two primary areas: it is grounded in (1) embodied learning in adult education (Freiler, 2008; Swartz, 2012; Tobin & Tisdell, 2015) as it intersects with leisure sport (Brymer & Schweitzer, 2012) and Merleau-Ponty's (1962) philosophy of the body; and (2) Actor-Network Theory (Fenwick & Edwards, 2011). In defining EL, as it connects to the field of adult education, and in contrasting EL with somatic learning, Freiler (2008) notes that EL is "a more holistic view of constructing knowledge that engages the body as a site of learning, usually in connection with other ways of knowing (for example, spiritual, affective, symbolic, cultural, rational)" (p. 39). Athletes sense changes in their body through physical and emotional sensations in sport as they experience pain, fear and rhythmic/harmonic body movements. The embodied sensations foster changes to athlete's individual identities. Such bodily sensations have found to produce a range of emotions among athletes from loss of self-identity to the embodiment of unity with the context of their physical surroundings (Brymer & Schweitzer, 2012). Actor-Network Theory (ANT) focuses on the relationship of the actor (learner) and objects, and is a way to approach meaning-making through networks of interrelated things and ideas (Sayes, 2014; Fenwick & Edwards, 2011; Latour, 2005). It emphasizes the role of objects or things as agency or position through the way "assumptions, ideas or stipulative claims [may be] incorporated into analysis;" (Sayes, 2014, p. 44). Fenwick and Edwards (2011) argue the role of objects in learning have largely been unaddressed in of adult education. Objects not only bring context and relevancy to learning, but objects employed act as an extension of the body may become uniquely important to the learning process. Dant (2004) refers to this phenomenon as a co-joined *person-thing assemblage* and argues the relationship of this assemblage is "symbiotic" (p. 75). Thorpe and Rinehart (2010) argue objects used in "alternative" sports such as surfboards and skateboards "are not merely objects participants throw, kick, swing or push; these are objects that define the very activity itself" (p. 1273). Kerr, (2016) adds "participants do not see themselves as separate from the objects they use" (p. 13) but are one with them in the activity.

Methodology

Data collection methods in qualitative research include interviews, observations and analysis of documents that make use of words and images (Merriam & Tisdell, 2016). The study utilizes a combined methodological approach in order to understand how amateur road racers learn informally through their bodies: autoethnography and narrative inquiry. Autoethnography makes the researcher's own story visible while narrative inquiry can be a means to understand stories by "making meaning of experience through experiencing the experience" (Clandinin &

Connelly, 2000, p. 80). From an autoethnographic perspective, I first examined my own personal bicycling experiences to provide a broad perspective of the unique sub-culture of amateur road racing, in order to “display multiple layers of consciousness” and to connect my stories to the larger, cultural aspects of amateur competitive cycling (Bochner, 2000, p. 739). Secondly, six long-term bicycle racers (4 men; 2 women) participated in two in-depth narrative interviews; the second interview focused not only on words but on two additional types of visual data examples provided by the participant as an elicitation device to examine their relationships with the object of their bicycle and other racers, and as a way of gathering more detail in their story. In sum then, the primary sources of data are the stories told by cyclists in narrative interviews, and object artifacts participants brought to their interviews that allowed me to understand their embodied learning experiences as road racers from the unique perspective of riding and racing their bicycles and connecting to other races. Data were analyzed through the constant comparative method of data analysis and organized into themes, and given that aspects of the study are partly autoethnographic, the themes were compared to my own experience.

Findings

As a result of the data collected from 12 participant interviews conducted from October 2017 to January 2018 using autoethnographic and narrative analysis, the findings indicate that objects and object-assemblages bring context and relevancy to how adults learn informally through engaging with their bicycles in the social sport of amateur road racing. Here I discuss the three primary findings, and then comment on how it relates to my autoethnography.

A Changing Identity

Participants in this study experienced autonomy, strength, resilience and balance in their lives as a result of their co-constructed embodied learning experiences racing their bicycles, which changed their identities. By taking risks in the sport of amateur road racing, working through failures when cyclists began their road racing careers, and through the sheer joy and freedom of the immersive physical nature of bike racing situated in outdoor environments, participants experienced changes to their individual identities. Athletes realized changes to their identities as a result of pushing themselves to their physical limits during races and training rides and to areas outside of the sport such as in their family and work lives. For example, several participants acknowledged that through their failure to finish races early in their cycling careers they understood failure differently in other aspects of their lives. The bicycle as an object shaped their experiences and was critical to their embodied learning experiences.

Racers' experiences with other actors and objects were also found to be important to shaping their social identities. For example, participants co-constructed experiences with other racers set within the *peloton*, or pack of moving racers, which shaped their embodied experiences. Participants described feelings of safety by riding with experienced, smooth, fast racers, and confidence in themselves and other racers by "working through it together" during hard, sustained efforts during races. The learning translated to other areas of their lives such as in their work and family lives. Participants experienced emotional, spiritual and physical strength as a result of their racing and training experiences. For example, Paul's hard work in training and racing his bicycle brought balance to his life and reflected his spiritual and moral values of trying to be *a better man* at home and in his job through hard work. Kara indicated that she was able to be spontaneous in her life and find play again and experience freedom on her bicycle. Kara also had a feeling of *being in the moment* through her interconnection with her bicycle situated in the beauty of outdoor environments.

The Bicycle as Absent-Present

All of the participants interviewed in this study draw from many years of road racing experience, where their bicycles functioned as the absent-present, though they didn't discuss this directly. The phenomenon of absent-present arises from cyclist's reflexivity with their bicycles through motor learning. Participants' movements on their bicycles became so familiar to them as a result of their lengthy experience with their bicycles, that their motor movements were often absent from their conscious thought processes. The cyclists' bodies hold habit memories that have resulted from repeated use of certain muscles (Bergson, 2004). Dant (2004) describes motor reflexivity as the fusion of learner to experience which results in a symbiotic, co-joined entity.

This type of motor learning in cycling may contribute to cyclists' ability to facilitate embodied experiences individually and in co-constructing shared embodied interconnectivity with other cyclists with whom they are engaged in the sport of road racing. The elements of muscle memory, which reduces the need for cognition in riding, and body schema, which allows the body to include objects as extensions of their body's awareness contribute to a cyclist's reflexivity in cycling and affords them new opportunities to learn through their bodies.

Alternately, racers also experience their bicycles as present during moments when they are physically struggling on their bicycles or when the bicycle was not operating well mechanically.

Participants were able to gauge their present level of physical fitness through the sensory information brought through the corporeality of their bodies while racing their bicycles.

Through their embodied experiences with their harmonic and rhythmic motor movements, breath cycles, pedaling cadence, and in experiencing smoothness through their overall movements on their bicycles, participants described their bicycles as absent through feelings of strength, confidence and *being one* with their bicycles or as if their bike was part of them. Conversely, they also experienced fatigue and disconnectivity with their bicycles resulting in experiences where they noticed their bicycle's presence. Participants described themselves as feeling *junky legs, heavy on their bikes, pedaling in squares* or *wrestling with my bike* during moments when they experienced their bike as present. Racers were also able to guide improvements to their physical development through their embodied experiences on their bicycles.

Through feedback brought through embodied sensory experiences while riding their bicycles and through other objects used in the sport of cycling such as technological devices like heart-rate monitors, cadence sensors and power meters, cyclists could use the information to physically push themselves resulting in improvements to their strength, endurance and racing performance. The bicycle was found to be important element to their ability to access information through their bodies in guiding their racing skills and physiological development, and while it was always present.

As a result of the knowledge participants gained through their connectivity with their bicycles as they intersect with other objects and actors and physical surroundings embedded in their cycling networks, the findings of this study indicate that as cyclists' reflexivity of movement brought through motor learning with their bicycles affords them new opportunities to access meaningful learning experiences. Bengtsson (2013) argues objects, like the bicycle, promote habitual learning in adults not through a linear sense, but through the ways they promote interconnectivity to other people and physical spaces where their embodied experiences unfold. The embodiment of self-imposed pain and suffering was also found to change cyclists' perceptions of themselves and others within and outside of their sporting communities.

Changes to Racers' Perceptions as a Result of Self-Imposed Pain and Suffering

Although pain and suffering may be perceived differently in healthcare settings, in the context of amateur road racers with their bicycles and other racers, this study found it be an individual and socially integrative learning experience. Self-imposed pain and suffering opened cyclists to new opportunities to understand and guide their own bodily abilities and limitations and to others with whom they share those experiences. Cyclists co-constructed experiences with pain and suffering were also found to promote changes to cyclists' perceptions of others, both inside and outside their sporting communities.

Myra's perception of the pain and suffering she endured as a result of her injuries after crashes during races allowed her to distinguish pain from discomfort. Kara's experiences with pain were paradoxical at moments. She described herself as feeling good even though she was feeling bad. She recalled being pushed by another rider because she felt so bad.

I just kept getting dropped – I couldn't feel my legs, they were just so blown out. They felt like fence posts. Jim came up behind me and said - just go harder! You know, you can't even go one-tenth of a mile faster – that's when you're praying for a stop sign.

Kara indicated that the pain she experienced during such hard physical and emotional efforts were only temporary sensations, and that through enduring them, she too, would be able to be smooth and fast on her bicycle. She also experienced emotional pain of separation from her cycling community as a result of her aging body and the injuries she had sustained over her years of racing. Interestingly, Jason relied on his technological devices on his bike to push past his pain and as an indicator of his body's present physiological threshold levels during his races.

In the first 10 miles of a ride, if you're feeling bad, you'll probably know through your legs. They call them junky legs or heavy legs. But that doesn't matter in a race. If your legs don't feel good, you have to switch it off in your head, and you're just going to do it...you're going to suffer.

Ethnographic Reflections

My personal experiences in road racing support the findings of this participants interviewed in this study. Engaging my body through the immersive sport of road racing afforded me new opportunities to gain confidence outside of the sport of cycling through my success in racing, and to embody the rhythm of the movement through my body by *getting out of my head* leading to feelings of personal freedom, autonomy and strength.

Discussion

The findings of this study have implications for embodied learning theory and practice in AE and lifelong learning. They also have implications for further research in the sociological areas of Leisure Studies and Actor Network Theory, in particular ways. First, through years of habitual training and rigorous exercise, cyclists in this study gained reflexivity through their motor learning which allowed them to experience new opportunities to learn and resulted in changes to their individual and social identities. Amateur road racers' learning resulted in increased autonomy, freedom, confidence as well as overall improvements to their health and

emotional well-being. But bike racers' familiarity with the social network, which includes objects and other riders with whom they raced and trained helped them embody rhythm, harmony, and feelings of a symbiotic unity through riding and racing their bicycles. Sharing these co-constructed emotions resulted in changes to their individual and collective identities.

The implications of these findings provide a starting point for future research in adult education to explore how strong emotional and physical embodied experiences may help guide changes to the individual and social identities of adults situated in formal settings where their learning takes place, and their own networks that include objects and other adult learners.

Secondly, while many of the studies reviewed for this research explore objects used in leisure sports through the participants' experiences, they largely ignore "object-actor engagement" (Dutkiewicz, 2015, p. 5). This study affirms that objects not only bring important relevancy and meaning to athletes' experiences, but through future opportunities to explore future research and practices of adult learning through leisure sport, we can begin to understand how shared objects in sport and changing technologies affect our learning in areas outside of athletes' sporting experiences.

Third, cyclists' experiences with shared, self-inflicted pain and suffering helped them understand their individual abilities and limitations inside and outside of the sport of cycling and has important implications for how individuals deal with stress and discomfort brought through everyday life. What remains to be explored however, is how athletes entering the sport learn to distinguish good pain, which helps athletes guide improvements to their existing athletic abilities from bad pain which may result in damage to their body.

Fourth, the autoethnographic portion of this research supported the findings of this study by establishing a personal connection to the participants' individual, social and cultural aspects of their road racing experiences.

Lastly, the study has implications for ANT. Fenwick and Edwards (2016) argues the role of objects in adult learning has been largely overlooked in AE. Traditional learning focuses largely on how the human mind engages with learning, but the body is always the first recipient of learning. Reflection and reconstruction of human experience is secondary to the ways the body acquires knowledge through embodied perceptions. Examining how adult learners bring meaning and relevancy to objects and through object-human assemblages may be a fertile area to explore other areas of adult learning through the lens of ANT may lead to further insights for the field of AE.

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