

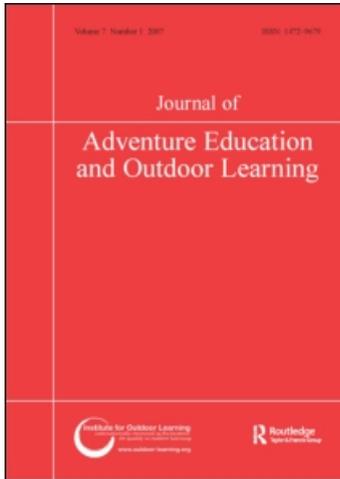
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Repertoire of Practice: Reconceptualizing Instructor Competency in Contemporary Adventure Education

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Abstract

Historically, adventure educators have used the metaphor of hard and soft skills to understand their practice: hard skills representing technical competencies, and soft skills representing interpersonal competencies. In light of current research and in the face of increasingly complex varieties of adventure practice, the categorization of skills into “hard” or “soft” may obscure important aspects of experiential learning and limit the development of an effective pedagogy for adventure education. This paper interrogates the hard/soft metaphor from various perspectives and offers “repertoire of practice” (Wenger, 1998) as a possible framework to further discuss instruction and learning in contemporary adventure education. ‘What we have learned to see something as, becomes in turn, the guide to our outward practical activity’. (Wartofsky, 1979, p. 207)

Introduction

As the field of adventure education grows into the 21st century, its practitioners encounter increasingly diverse participant populations, in new settings, with different goals and purposes. Program objectives now range from offering traditional self-improvement and group-building exercises to providing therapeutic interventions, from emphasizing diversity to enhancing ecological sensitivity, and from integrating humanities-based curriculum content to guiding whole-school reform efforts. Despite this array of innovative outlets for adventure education, some of the models we have for practice lag behind these increasingly complex expressions of our work.

One such model is the metaphor of “hard skills and soft skills” as a conceptual framework for understanding instructor competency.¹ “Hard skills” typically refers to the technical or procedural aspect of leadership such as equipment set-up, activity rules, and safety guidelines. “Soft skills” refers to processing, communicating with, and managing groups (Green, 1990; Wagner & Roland, 1992). Soft skills are also characterized by their association with the psychology and sociology of leadership in such areas as group process, human behavior, and debriefing (Wagner & Roland, 1992).

Given the diversity of aims facing contemporary outdoor and adventure education practice, the complexity involved in instruction may require more than simply maintaining a collection of discrete “hard” and “soft” skills. As adventure education expands into new areas, and in light of recent research, we argue in this article that the hard/soft metaphor is problematic in two key ways: (a) it oversimplifies the complex interrelationship between physical, social and psychological functioning, chiefly by splitting them off from one another, and (b) it falsely positions the instructor as a neutral facilitator of other people’s learning, a user of disembodied, universal, and timeless skills. We argue

that, despite its functionality in organizing and administering training curricula, when applied to actual human activity the hard/soft metaphor can lead to unhelpful conclusions about both learning and instruction. In answer to the question, “what do I have to know to be an effective adventure educator?” it is no longer appropriate, in our view, to respond, “hard skills and soft skills!”

In order to substantiate our argument, we interrogate the hard/soft metaphor from a variety of different conceptual analyses, beginning with feminist critiques. Following this, we survey empirical literature showing that social, psychological and physical functioning are tightly interrelated rather than individually separable aspects of an adventure experience. To examine the role of the instructor, we point to several studies including the current research of one of the authors, illustrating the ways physical objects, rules, spacial relationships and even bodies are routinely orchestrated in order to influence participants’ thinking and social interactions during the adventure experience.

In short, we are arguing to retire the hard/soft metaphor. By doing so, we also create a need for some other lens for instructor competency. While a considerable amount of research and conceptual analysis lies ahead in establishing a nuanced understanding of adventure practice in different settings (the kind of inquiry, it should be pointed out, that does not appear to have been used to support the hard/soft metaphor initially), in the second half of the article we offer a possible alternative framework. Our goal is to not to provide a definitive statement about relevant skills for contemporary practice, but to provoke a discussion about how “skills” might be reconceptualized given the concerns raised in the first half of the article. To this end we draw on sociocultural theory, which has been proposed elsewhere as a possible conceptual framework for understanding experiential learning (Fenwick, 2001; Kraft, 1990; Michalec, 1993; Quay, 2003). In particular, we discuss the concept of *repertoire of practice* (Wenger, 1998) as a potentially useful framework for discussing skills in the future.

A Brief Word on Metaphors

Categorization through the use of metaphor is not inherently bad. (In fact we acknowledge that “repertoire” is itself a metaphor. Our project here is to argue that it is a more adequate one.) Categorization of skills along hard or soft lines undeniably helps adventure educators make sense of their responsibilities, as well as providing instructor-training programs with a way to organize curriculum. Applying a metaphor to the world in order to categorize it is a useful operation, as linguists Lakoff and Johnson (1980) explain:

Understanding our experience in terms of objects and substances allows us to pick out parts of our experience and treat them as discrete entities or substances of some kind. Once we can identify our experiences as entities or substances, we can refer to them, categorize them, group them, and quantify them--and, by this means, reason about them (p.25).

When some metaphors and models, however, “become so well established that their premises become ‘common sense’ they are rarely examined critically. They organize our thinking to the extent that we do not even think they exist” (Bell, 1993, p. 20). Lakoff and Johnson (1980) offer the metaphor “time is money” as an example: we spend time, save time, budget time, and so on. In fact, it is difficult to conceive of “time” in any way other than through economic terms. Metaphors can, like the *time* example, become so commonplace that they are difficult to escape, often hiding as much as they reveal. When possible, it can be beneficial to explore our metaphors to see if their

limitations outweigh their advantages. We hold up the hard/soft metaphor for critical examination here, because after reviewing the literature on technical skill instruction and group management techniques during adventure experiences, we believe it obscures important considerations about the ways instructional practices are carried out in adventure education.

Reviewing the Literature: Existing Analyses and Research in Adventure Education

Authors in the experiential learning literature have previously critiqued concepts like the hard/soft metaphor, principally from within feminist traditions. These analyses have largely been aimed at two issues. The first concerns the role of language. Jordan (1990) argues gender inequality may be reinforced by use of the terms “hard” and “soft,” establishing obvious divisions along masculine and feminine lines. Jordan’s argument is important, since historically the things known as hard skills were, and to an extent still are, the “most visible, the most exciting, and therefore the most marketable skills in outdoor programs” (Swiderski, 1987, p. 30). Therefore, positioning hard skills as the base of effective practice (e.g., Priest, 1990) may tacitly locate masculinity as the foundation of adventure education and devalue the relational aspects of adventure practice. So long as hard equals masculine and soft equals feminine, it may also prevent women from being seen as effective leaders. Jordan therefore argues that replacing hard and soft with “technical” and “interpersonal” mitigates the gendering of instructor competency.

The second type of feminist critique is epistemological. It aims at models of practice that would separate mental from physical functioning in the first place, suggesting that this act of separation contributes to a dualistic view of mind and body. Michelson (1996) argues that splitting physical (i.e., “experiencing”) and psychological (i.e., “reflecting”) into two parts privileges a western, masculine view in which corporeal experience cannot be trusted without rationally analyzing it. Fenwick (2001) similarly challenges the dualistic view, in which:

... knowledge is extracted and abstracted by the processing mind. This ignores the possibility that all knowledge is constructed within power-laden social processes, that experience and knowledge are *mutually determined*, and that experience itself is knowledge driven and cannot be known outside socially available meanings. (p. 21, italics in original. See also Bell, 1993; Fullagar & Hailstone, 1996)

Our argument takes a slightly more psychological tack than our feminist forebears. Following from sociocultural theory, we mean to situate the acts of instructing and learning in specific social and material conditions. And while Jordan’s linguistic critique makes an important political point, it may not bridge the divide created by the hard/soft metaphor between the physical, social and psychological functions that interrelate during instructing and learning in adventure education.

Studying the Evidence

The evidence questioning the hard/soft metaphor is not solely conceptual. Several empirical studies cast doubt on the separation of technical skills from social and psychological functioning. Lyng (1990) studied engagement in risky activity (something he called “edgework”), observing that edgeworkers regard their ability to perform in highly stressful and risky adventure situations “as essentially cognitive in nature” (p. 859) as opposed to viewing their actions simply as increasingly proficient hard skills. Instead of isolating hard skills from the social and psychological aspects of their experience, edgeworkers’ physical activity contributed to states of mind only available in the activity itself: sensations such as a distorted sense of time and altered states of perception and

consciousness. Lyng goes on to say that edgeworkers “claim that the experience produced a sense of ‘self-realization,’ ‘self-actualization,’ or ‘self-determination’ ... a feeling of ‘oneness’ with the object or the environment” (p. 860–61). According to Lyng, expert recreational practice requiring intense physical precision is undertaken partly to overcome the alienation and lack of control experienced by workers in a highly technological modern society. These supposed “soft” factors serve as the social and psychological framework through which physical activity can even be understood (and vice-versa), rather than being a separate or subsequent set of conditions.

Additional research also points to the interdependence of physical and psychological functioning. Ewert and Hollenhorst (1994) studied the interaction between skill level and environment preferences among whitewater kayakers and rock climbers, finding that “increasing involvement in activity is associated with changing setting and experience preferences” (p. 177). As with edgework, Ewert and Hollenhorst “argue that equipment is not only external to the individual and a tool for dealing with a particular environment, but also serves a symbolic role in self-identification” (p. 180). Similarly, Borrie and Roggenbuck (2001) assert that wilderness visitors move through various states of mind during their experience; states of mind that are “dynamic, evolving, and dependent in part on context” (p. 203).

These studies, while not directed at the hard/soft metaphor per se, suggest that psychological and physical functioning may not be separable even though the notion of hard/soft polarizes them within the metaphor itself. Lyng’s (1990), Ewert and Hollenhorst’s (1994) and Borrie and Roggenbuck’s (2001) studies indicate that increasing proficiency in technical skill is also a process of social dynamics and psychological development, not just a change in physical technique (see also Chambliss, 1989). From a critical perspective, Kiewa (2001) has argued that technical and physical skills also have political implications, experienced by women climbers as a mechanism of marginalization by their male counterparts. This close relationship between physical and social/psychological functioning is likely to remain obscured as long as they occupy opposing poles in the hard/soft metaphor.

Instructors and Neutrality

Just as technical skills, equipment and environment are socially and psychologically relevant, it is becoming increasingly apparent that the positions, histories and preferences of instructors also bear on the ways situations are perceived and skills are employed (e.g., Brown, 2002). As Dewey (1997/1910) pointed out nearly a century ago, “The teacher is rarely (and even then never entirely) a transparent medium of access by another mind to a subject” (p. 47).

Additional research supports Dewey’s point, casting doubt on the assumption that hard skills are expressed as part of a neutral effort to maintain safety or even perform routine tasks. Jonas (1999) found feelings of risk and danger to be embellished by the physical actions of river guides. In her analysis, river guides often “manufacture” trust in part “by focusing the novices’ attention on the existing dangers making them seem near and omnipresent” (p. 249), heightening the experience for participants in order to achieve desired program outcomes. Likewise, Holyfield (1995) writes that “emotionally loaded scripts” (p. 146) are often employed by challenge course workers to help manage physical experiences that might otherwise be “paralyzing at worst, and just an unpleasant experience at best” (p. 137), consummating the emotional experience in a symbolic social, psychological and

physiological moment of learning. Jonas further argues that the river guides she studied increased the sensation of risk—often by deliberately swiping huge rocks with their rafts—in order to “convince others (primarily passengers) that [the guides] have character, specifically through the construction and experience of danger ... giving those who take risks a sense of ‘superiority’” (p. 248). Based on this evidence, it appears hard skills are regularly and skillfully employed precisely because of their dependable social and psychological consequences. Thus, in practice, the line between what counts as technical and what counts as psychological becomes almost impossible to draw.

Furthermore, the interpretation of physical action depends in part on how it is orchestrated in the first place. For instance, it is problematic to locate “activity rules” as a hard skill (Wagner & Roland, 1992), because rules strongly influence participants’ possibilities for action. Apparently with this in mind, instructors regularly issue rules to yield particular social consequences. This can be seen in the following interview excerpt, taken from a recent study conducted by one of the authors:

Rachel (a challenge course instructor): I have certainly have facilitated the Mohawk walk where I don’t use that [rule], of you have to remain in contact with another person ... that physical support requires people to, to physically support each other, and potentially ask for help and receive help (in Seaman, 2005, p. 202).

The rule requiring physical contact is issued because of its value in mediating participants’ social interactions, such that “asking for help” becomes part of the objective conditions upon which they then reflect. Similarly, hard skills related to safety seem to be used with the explicit purpose of taking on symbolic relational meanings, as we see here with another instructor’s use of “spotting”:

Lydia: I got serious when it comes to spotting ... that’s how I am about it because I think that one of the things [participants] ... should get out of this workshop is to realize how important it is ... how important building trust is to a group process, and how it can be damaged, and it takes double the amount of time to build that back up, and to really take that seriously (in Seaman, 2005, p. 206).

Lydia’s comment indicates her belief that spotting does not merely serve a safety function, but is symbolically significant in emphasizing feelings of trust. Hard skills like spotting can therefore have multiple meanings for different instructors, in different situations, with different participants, its execution extending beyond the “hard” category in which it might be located on paper. In other words, specific meanings can be embedded into the structure of an exercise as it is presented to participants, and these meanings are almost impossible to infer from their location on the hard side of the metaphor.

Our point here is not to castigate instructors. Instead we mean to suggest that the hard/soft metaphor gives an inadequate picture of adventure practice as it is actually carried out. One limitation of the hard/soft metaphor is that educators may come to see themselves as merely acting out hard or soft skills, rather than organizing the social and psychological experiences of participants in both beneficial and problematic ways. This has obvious normative implications, but it also gives educators limited perspectives on how experiences might be designed to enable learning in concert with programmatic or individual aims. Therefore, to understand the enormous potential of adventure approaches in a broad range of settings, our conception of instructor competency might better reflect not only the complexity of the situations in which adventure is used, but it might also explain the actions we already appear to be doing regularly. We must therefore look beyond the hard/soft metaphor.

Skills: “Bricks” or Situated Practices?

Given the questions raised thus far, it would seem that whatever framework is used to understand instructor competency should account for the ways bodily, linguistic, environmental, social and psychological factors work together during moments of instruction and learning. Sociocultural theories may assist in this effort, since they reflect a “general approach in the human sciences” that aims to “explicate the relationships between human mental functioning, on the one hand, and the cultural, institutional, historical situations in which this functioning occurs, on the other” (Wertsch, DelRio, & Alvarez, 1995, p. 3). In the remainder of the article, we approach the question of instructor competency from a sociocultural perspective.

The aim here is to contribute to an understanding of “skills” that avoids some of the problems generated by the hard/soft metaphor. In service of this aim, we list three interrelated considerations that may be helpful in approaching instruction: (a) adopting a situated view of practice, (b) identifying the different ways instructors and participants are positioned with respect to adventure practice, and (c) explicitly identifying how instructors’ beliefs inform their work, and how their work informs their beliefs. After discussing these considerations, we offer the idea of “repertoire of practice” (Wenger, 1998) as a potential framework for viewing and talking about skills in the future.

Viewing Instruction Situationally

The research presented previously indicates that physical and social/psychological functioning are not neatly divisible. Shifting from the disembodied notion of hard and soft skills to a situated perspective regarding competency is first and foremost a pedagogical concern. When we view skills situationally, we decenter (Lave & Wenger, 1991) our gaze from the perspective of the curriculum and focus on the dynamic contours of communication and interaction involved in an act of instruction. We view, as Bredo (1994) suggests, “person and environment in terms of their contributions to an activity [cognition] rather than as separately described *things*” (p. 4, italics in original). An example—observed multiple times by both authors while studying challenge course facilitation—helps illustrate our point.

An instructor prepares novice participants for an afternoon of climbing on a challenge course. People stand in a circle, attempting to put on their harnesses. Some share nervous jokes about their new outfits. Once past the leg loops, the instructor coaches participants on wrapping the waist belt over their hipbones and through the belay loop. Ultimately, everyone successfully arrives at the buckle of the harness, ready to be “doubled back.”

The instructor highlights the buckle as a critical point on the harness. “See the red bar on one side of the buckle?” the instructor asks. Most of the participants nod. “To prevent a fall, we need to wrap the webbing through the buckle and cover up the red bar. If you see red, you’re dead,” the instructor quips while demonstrating the double-back procedure. A few anxious laughs bubble up from the group, while two or three people immediately question the safety of their harness and doubt climbing will add any educational value to their day—alarmed that “dead” has suddenly entered the picture. Exercising their right to “challenge by choice” (Project Adventure, 2002), these participants explain to the instructor that they are too far outside of their “comfort zone” to climb or belay, and step aside to take pictures.

To understand this situation, we use the conceptual categories we now have: is this a hard skill problem or a soft skill problem? Applying the hard/soft metaphor encourages a process of elimination. This seems to be a hard skill problem: the error occurred when the instructor presented the harness, and is therefore related to equipment. Yet at the same time, it is not a hard skill problem because the harnesses appear to have been properly applied. Next we might approach it as a soft skill problem. The negative psychological effect of the instructor's comment points in this direction. But to what, exactly, can we attribute the problem? After all, the harness itself is implicated in the episode, which seems to point back to hard skills, not soft skills.

Employing the hard/soft metaphor leads us around in such circles, ultimately failing to give us any traction. It does not seem that one can adequately explain the challenge course scenario as a hard skill problem, as if participants just got the wrong idea about the harnesses, or as a soft skill problem, as if the harnesses had nothing to do with it. Viewed situationally, we recognize that an instructor's actions are not communicated in hard and soft ways, or first as physical and later as psychological. Garrison (1994), citing Dewey, helps explain:

For Dewey experience was always experience of reality; there was no appearance–reality dualism ... '[experience] recognizes in its primary integrity no division between act and material, subject and object, but contains them both in an unanalyzed totality ... Things interacting in certain ways *are* experience; they are what is experienced.' ... Everything that exists in nature and participates in natural interactions, everything carries on transactions with everything else--these interactions are *what* human organisms experience (p. 9, italics in original).

Situations, in other words, do not split neatly into hard and soft parts. Neither category seems able to comprehend the full complexity of the harness situation, and neither seems able to explain how participants' learning turned out the way it did.

Location within Communities of Practice

To continue with the harness example for a moment longer, participants' learning involved the instructor, the participant, the setting, the harness and the language used. Also relevant is the proximity of our subjects to the broader climbing "community of practice" (Lave & Wenger, 1991). From the instructor's perspective, "see red you're dead" makes sense; in the company of other instructors the comment would probably go unnoticed. However, participants are not similarly "in" the climbing community so the phrase is alarming, and the situation yields outcomes we can assume are contrary to the intent of the program. In part because of their different positions with respect to the community of practice, instructors' and participants' definitions of the situation (Goffman, 1974) may differ so dramatically that although expert and novice "are functioning in the same spatiotemporal context, they often understand this context in such different ways that they are not really doing the same task" (Wertsch, 1984, p. 9). Instructors may therefore need to adapt their techniques based on the way participants are likely to understand the situation, rather than basing their instructional approach on the assumption that items and terms are salient for everyone in the same way. Such variation and positionality is difficult to recognize from within the hard/soft metaphor.

Understanding the Instructor's Beliefs

When instruction is viewed situationally, skills take on a dynamic and interactional quality rather than being solitary items. In a situated view, where skills are understood based on their contribution

to learning rather than their fit in a category, there is no “brick wall” in which “hard and soft skills can be thought of as bricks.... Soft skills are stacked on top of hard skills” (Priest & Dixon, 1990, p. 22). As we have tried to show, physical and social/psychological phenomena are mutually determined in experiencing and learning, and it is therefore unhelpful to split one off from the other or suggest that one is more basic. This appears to be as true of a climbing technique as it is for a debrief strategy.

Viewing hard and soft categories as brick-like emphasizes a teacher-centered rather than a learner-centered (Lave & Wenger, 1991) view of practice, because it preferences the ways curriculum organizers administer and write about skills rather than the ways instructors use and participants experience them. This can cause instructors to “take their own mental operations and for granted, and unconsciously make them the standard for judging the mental processes of others” (Dewey, 1997/1910, p. 48). Since the hard/soft metaphor does not explicitly recognize how one’s beliefs inform one’s practice and vice-versa, maintaining it may block inquiry into the ways instructors’ beliefs shape their work; after all, one can hardly imagine bricks to be open to much interpretation, possess histories, or contain potentially conflicting and contradictory meanings (e.g., Jonas, 1999; Kiewa, 2001). Because it would question the presupposition that skills can be understood independently of context, a situated view of instruction would encourage active and ongoing inquiry into how rules, kinesthetic poses, linguistic utterances, spacial relationships, and physical instruments may take on different meanings in different situations with different participants. For example, Seaman (2005) found different cultural practices to explain some of the ways Indian, Taiwanese and North American adults participate in and make sense of routine aspects of adventure education—including the ways seemingly innocent “props” are used—suggesting that even the most mundane features of the adventure experience have culturally and socially symbolic meaning as they mediate action. Instructors’ actions already appear to be influenced for better and for worse by their beliefs, positions and backgrounds (cf. Brown, 2002; Hovelynck, 2001), but the hard/soft metaphor does not underscore the importance of understanding how these beliefs are formed or how they may be tacitly communicated while routinely employing skills.

To be clear, we are not trying to imply that instructor-training programs do not already discuss the items we have outlined here (although, undoubtedly, some probably do more than others). Instead, we mean to initiate a broader conversation about the models used to guide those discussions. We also do not mean to imply that technical proficiency is unimportant, especially in today’s risk management climate. Indeed, understanding how technical skills communicate social and psychological meaning to participants seems to be a crucial aspect of instructor competency in contemporary adventure work (e.g., Loeffler & Warren, 2004). It is precisely this kind of understanding that the hard/soft metaphor cannot adequately inform.

Repertoire of Practice

Our goal thus far has been to illuminate some of the hidden problems with the hard/soft metaphor. Our aim in this final section is to introduce a meta-level conceptual framework on par with, but very different from, the hard/soft metaphor as a basis for understanding the relationship between the broader field, skills, the instructor, and her or his work. While further inquiry clearly remains important as new arenas for practice develop, we feel the concept of *repertoire of practice* (Wenger, 1998) may help set the stage for future discussion.

Skills are not inert items that sit obediently on the page in neat categories. They structure the experiences of our students. They tell us what we should do and when we should do it. They take on meaning through their continued use, transforming us in the process. At a broader level, the skills involved in adventure education also develop over time depending on a variety of factors including different participants, safety regulations, research activity, insurance availability, and innovations from related practices such as counseling, classroom education, popular culture, sailing, mountaineering, corporate profit-making and so on. Take, for instance, the technology now used in “leading edge” climbing on challenge courses in the United States. For years, rope “lobster claws” were the norm, and instructors used them unquestioningly. Today, nylon lanyards with shock-absorbing technology and high-angle tension wire clips have been developed and have pushed traditional lobster-claws “outside mainstream practices” (Project Adventure, 2002). It is not the case that lobster claws became unsafe overnight, but that the conditions of practice have changed; internally from the increasing number of novice practitioners who present a risk to themselves on more and more challenge courses, and externally from the increasing scrutiny of insurance companies and government regulators—not to mention the economic opportunity to write new safety parameters and thereby pioneer new equipment on the market. The equipment, techniques and sensibilities that constitute skills, in other words, are themselves permeable and in a near constant state of flux (Seaman, 2005).

The solution to this situation from the hard/soft perspective would likely be to add more categories like “meta skills” (Priest & Gass, 1997) or to argue whether some new thing belongs in the hard or the soft category. Given the concerns we have already raised, neither of these options seems particularly helpful or desirable, and they also flatten a dynamic process of development of both instructors and practice. Instead, we suggest it can be beneficial to view both the knowledge and skills of the field and the knowledge and skills of instructors as co-evolving repertoires of practice.

Writ large, a repertoire of practice refers to:

Routines, words, tools, ways of doing things, stories, gestures, symbols, genres, actions, or concepts that the community has adopted over the course of its existence, and which have become part of its practice. The repertoire combines both reificative and participative aspects. It includes the discourse by which members create meaningful statements about the world, as well as the styles by which they express their forms of membership and their identities as members (Wenger, 1998, p. 83).

Wenger’s description suggests that simply being a member of a practice involves identification with its repertoire, developing a sort of minor portfolio from the broader array of features. The repertoire of adventure practice contains not only specific skills, but also assumptions about how those skills ought to be employed (for example, that learning happens in an experience-reflect sequence. Loynes, 2002; Seaman, 2005). Of course, not all practitioners are uniformly positioned; some are more “peripheral” than others, some are differently positioned with respect to power, some are novices and some are experts (but even these roles are not fixed. See Lave & Wenger, 1991). What binds them is their common stock of tools, techniques and sensibilities that reflect their involvement in shared practice. Importantly, nobody can lay claim to knowledge of the whole practice, because the “participative” aspects of a repertoire indicates that one’s active involvement in a practice is also an inevitable process of changing it to fit different circumstances. With the “brick wall” that is the hard/soft metaphor, instruction appears as the one-way execution of inert skills rather than the dexterous and often unanticipated adaptation of skills in new situations, which also entails their transformation and the expansion of practice itself.

Additionally, viewed as part of a repertoire of practice, skills are not simply something one *has*, but things that give meaning to what one does. Given the studies discussed earlier, it seems instructors do not act in hard or soft ways but act on their beliefs about the effects of particular strategies in particular situations, employing tools and techniques in ways that are consistent with their beliefs (cf. Hovelynck, 2001). This indicates that instructors' understanding of skills is based not on hard or soft categories, but is rooted in a coherent, practice-based instructional paradigm in which technical and social/psychological inform each other. Maintaining the hard/soft metaphor may in fact obscure the complex ways instructors' views of practice are formed, which seems to be an essential part of practice in the first place:

Sustained engagement in practice yields an ability to interpret and make use of the repertoire of that practice. We recognize the history of a practice in the artifacts, actions, and language of the community. We can make use of that history because we have been a part of it and it is now a part of us; we do this through a personal history of participation. As an identity, this translates into a personal set of events, references, memories, and experiences that create individual relations of negotiability with respect to the repertoire of a practice (Wenger, 1998, p. 153).

Two items arise from this point. First, seeing instructor competency as an engagement with a repertoire of practice opens up the possibility for inquiry into how one's views of practice are formed—not just in terms of one's personal beliefs and positionality, but also in terms of the belief systems that are contained in the history(ies) of practice itself. Learning “skills” might thus involve investigating the influence of the field's historical roots on current practice rather than seeing philosophical foundations as unassailable and consensual (e.g., Wurdinger, 1995). For example, one might acknowledge the martial roots in the discourses and equipment we rely upon routinely, and that alternative foundations are possible—and even disruptive to a reliance on war metaphors, for instance (see Hunt, 1990; Noddings, 2002).

Second, “individual relations of negotiability” are an inevitable part of practice and form the basis for understanding the ways adventure education can be—and is being—adapted in new areas. Seeing “skills” as an evolving repertoire of practice recognizes the centrality of these adaptations on the vibrancy and relevance of practice itself. And, as reports of these adaptations are shared through stories, articles, email lists, program policies, trade books, or even in the form of physical “boundary objects” (Star & Griesemer, 1989) taken from other practices, the ways we understand adventure education itself expands in new directions while retracting in other areas. Again, clearly this kind of exchange already happens. The hard/soft metaphor, however, cannot sufficiently address the dynamics of overall practice nor the development of individual practitioners.

Under the repertoire of practice view, the phenomena of *learning skills* gives way to developing a cohesive identification with adventure practice, which:

Emphasizes the relational interdependency of agent and world, activity, meaning, cognition, learning, and knowing. It emphasizes the socially negotiated character of meaning and the interested, concerned character of the thought and action of persons in activity (Lave & Wenger, 1991, p. 50).

Practice is the fusion of actor and world, mind and body, in a situation occurring within complex social communities. Understanding skills as a repertoire of practice aims to locate the adventure educator amidst a broader field, with a view that is always partial and evolving. A major focus of

instructor competency under a repertoire of practice view, then, involves “encouraging people to develop dexterity in determining which approach from their repertoire is appropriate under which circumstances” (Rogoff, in Gutierrez & Rogoff, 2003, p. 22), hopefully by placing participant learning during actual moments of instruction—not the hard/soft metaphor—as the central criterion for what is deemed “appropriate.” Under these conditions, the question is not “is it hard or soft?” but rather, “what am I doing to create the conditions that support learning, with these persons, at this moment, and to what end?”

Conclusion

The hard/soft metaphor fosters three unhelpful (and empirically problematic) assumptions. First, it splits a set of unified processes into two categories: physical and mental. Although these categories help draft curricula, when skills are actually carried out they do not fall neatly along hard and soft lines, nor do they yield hard or soft effects. The hard/soft metaphor operates at a level of abstraction that exists outside practice, and by oversimplifying the complex interaction of physical, social and mental processes, it ultimately may not be helpful to practitioners as they put their skills to use. Second, the hard/soft metaphor (and its associated “brick wall” metaphor) treats skills as inert and solitary instead of variable, contested, and negotiable. This makes it incredibly difficult to understand beyond an intuitive level how or why one might adapt practices to meet different educational aims or contribute to different understandings. Third, the hard/soft metaphor suggests it is possible to neutrally present a cache of skills to students who, presumably, experience them uniformly and unproblematically. This is not only empirically inaccurate, it is disempowering to the instructor who may not see her or himself as a contributor to the field but rather as a functionary of it.

Nearly a century ago, Dewey (1916) pointed out: “in general it may be said that the things which we take for granted without inquiry or structured reflection are just the things which determine our conscious thinking and decide our conclusions” (p. 22). While Dewey is often invoked as “the parent of modern experiential education” (Priest & Gass, 1997, p. 14), his lifelong struggle against dualistic thinking still serves as a helpful reminder to review our own metaphors and the ways they shape our understandings. In this spirit, the concept of “repertoire of practice” may provide an alternative way of thinking about skills that does not begin from a dichotomous view of human functioning.

Finally, from a repertoire of practice view, it is possible to recognize the hard/soft metaphor itself as an historical artifact, reflective of a time when “expedition behavior” may have been the predominant instructional context (e.g., Phipps & Swiderski, 1990). Given the increasingly complex and diverse situations in which adventure educators find themselves, our models for instructor competency might better reflect the growing complexity of our practice.

Note

1. In this article we use the convention of “scare quotes” around disputed terms, but drop their usage when the disputation is clear (Kenyon, 1994).

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