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PEACOCK, Suzanne, BRYMER, Eric, DAVIDS, Keith <<http://orcid.org/0000-0003-1398-6123>> and DILLON, Michelle

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## AN ECOLOGICAL DYNAMICS PERSPECTIVE ON ADVENTURE TOURISM

SUZANNE PEACOCK,\* ERIC BRYMER,\* KEITH DAVIDS,† AND MICHELLE DILLON\*

\*Carnegie School of Sport, Leeds Beckett University, Leeds, UK

†Centre for Sports Engineering Research, Sheffield Hallam University, Sheffield, UK

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Traditional definitions for adventure tourism have focused on the adventure tourism activity or the adventure tourism environment. In these cases the activity is most often associated with risk and the environment associated with unfamiliarity and natural terrains. Critiques of these definitions have pointed out that this traditional perspective is limited. The risk focus is paradoxical as clients purchase adventure experiences involving risk and uncertainty, whereas tour operators must minimize the risk and emphasize safety. Additionally, adventure tourism can also take place in urban or man-made environments. Furthermore, the traditional definitions mostly ignore the lived experience of the adventure consumer. Individuals undertake adventure for a variety of reasons, including risk and thrills, health and well-being, connection to others and nature, recreational mastery, and personal development. We propose a nuanced conceptual understanding of adventure tourism within an ecological dynamics perspective that considers the relationship between the person, the adventure activity and the surrounding environment, and the recognition of affordances that support well-being. This theoretical approach provides a useful framework for operators and researchers that encourages a more personalized and meaningful experience for the tourist.

**Key words: Affordances; Ecological dynamics; Effectivities; Adventure tourism; Relationships**

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### Introduction

Adventure tourism is a fast developing sector of the global tourism industry and an important contributor to the international tourism market and related industries (e.g., equipment and clothes manufacturers) (Adventure Travel Trade Association [ATTA] & George Washington University [GWU], 2013; New Zealand Tourism Association, 2014; Tourism Alliance, 2015; United Nations World Tourism Organization [UNWTO], 2014; World Travel

and Tourism Council, 2014). Adventure tourism has generated considerable research momentum over the last two decades, with many scholars arguing for greater clarification and a more rigorous empirical focus (Swarbrooke, Beard, Leckie, & Pomfret, 2003; Varley, 2006). Traditionally, adventure tourism has been associated with risky, commercialized, outdoor activities that take place away from the participant's home and in the natural environment (Hall, 1992). However, activities such as sex tourism, pink tourism, religious tourism,

wildlife tourism, gambling, and spiritual enlightenment have also been examined as examples of adventure tourism, which further complicate how we define adventure tourism (Buckley, 2006; Swarbrooke et al., 2003). As a consequence, there is considerable ambiguity for researchers and theorists alike (Cater, 2006; Swarbrooke et al., 2003; Varley, 2006). In this article we present an ecological dynamics (ED) perspective on adventure tourism that emphasizes the person–environment relationship and encourages a more individualized approach to adventure tourism. The ED framework is a useful framework for helping operators design more personalized and meaningful experiences for tourists, and for researchers to develop conceptual frameworks and operational definitions. The following section briefly reviews current perspectives of adventure tourism in order to properly contextualize the ED framework.

#### Traditional Perspectives on Adventure Tourism

For the most part, traditional perspectives on adventure tourism emphasize notions such as purposeful travel, new experiences, natural environments, and risk. Some adventure tourism activities can be undertaken by highly skilled participants with a deep knowledge of the activity and environment, traveling independently to tourism locations, such as BASE jumpers from the UK traveling to Hellesylt in Norway (Brymer, 2013; Brymer, Downey, & Gray, 2009; Brymer & Houge MacKenzie, 2015). Other activities, such as attempting to summit Everest, also require high-level skills and environmental knowledge; however, these trips are often planned and booked through a specialist adventure tourism operator (e.g., Adventure Consultants; Everest Expedition). Still other adventure tourism activities, often planned and booked through a commercial operator, include commercial whitewater rafting and trekking activities and might involve complete immersion in the activity and environment. However, in these instances the tourist may not require high level skills or knowledge of the activity and/or environment to engage successfully. Whereas many adventure tourism activities take place over extended periods of time, some may only take a few hours to complete.

How we conceptualize adventure tourism and the adventure tourism participant is important. For example, if we understand adventure tourism as opportunities for a few individuals with highly specific personality structures (e.g., sensation seekers looking for an “adrenaline rush” from risk-taking behaviors) then this might suggest that the activities are not appropriate for a broader population (Brymer & Schweitzer, 2017a). The implication would be that adventure businesses need only target a small niche population, perhaps with low-level skills, and researchers might focus on determining what type of personality undertakes what type of adventure tourism. A framework that focuses on risky activities might suggest that companies market in terms of hedonism and the desire for thrills and excitement and researchers might focus on personalities and levels of risk in activities. Participant groups for this framework might be young, male, and predominantly Western (Brymer & Schweitzer, 2017a). Equally, if the focus is on leading participants through dangerous environments, then personality and risk might be less relevant for adventure tourism businesses and researchers alike. Below we explore key characteristics of adventure tourism activities, participants, and environments as a way of setting the stage for proposing ED as a helpful framework for gaining further perspective on how we understand adventure tourism.

#### Characteristics of Adventure Tourism Activity

Adventure tourism is frequently associated with participation in risky physical activity in the outdoors (Muller & Cleaver, 2000). Activities include those that can be conducted on land (e.g., climbing, abseiling, caving, skiing, mountain biking), in water (e.g., diving, snorkeling, whitewater rafting, kayaking), and in the air (e.g., BASE jumping, parachuting, ballooning). A distinction is frequently made between low-risk and high-risk activities, often presented as a continuum based on degrees of challenge, uncertainty, intensity, duration, and perceptions of control (Swarbrooke et al., 2003; Varley, 2006). For example, Varley’s (2006) perspective focuses on commodification that is presented as a continuum ranging from staged activities (e.g., balloon rides, bungee jumps, safari tours) where experiences are

described as predictable, safe, and reliable to deep adventures that involve greater levels of participant commitment and responsibility. Swarbrooke et al. (2003) described a continuum ranging from soft activities to hard activities. Soft adventure tourism is delivered by experienced guides, usually for unskilled clients with little or no experience of the activity and is often defined in terms of perceived risk and low actual risk (Buckley, 2006; Cloke & Perkins, 1998; McKay, 2013; Naidoo, Ramseook-Munhurrin, Seebaluck & Janvier, 2015). Participants are provided with sufficient on-the-spot training to complete the activity with minimal commitment and physical effort (Buckley, 2006). Hard adventure activities often occur in more remote, hard-to-reach locations where specialized skills and equipment are required (Cloke & Perkins, 1998; Hill, 1995). Activities at this end of the continuum are thought to be characterized by a high level of risk and will often require physical exertion, intense commitment, and advanced skills (McKay, 2013; Swarbrooke et al., 2003).

Although literature often categorizes activities as 'hard' or 'soft' adventure (for example, ATTA, 2013 classify skiing and kayaking as soft adventure), confusion arises with the assumption that certain sport or adventure activity types are automatically the same. For example, whitewater kayaking on grade two water of the international classification system requires some skill and might be considered exciting. However, this can be successfully undertaken by a relative novice, and the most likely outcome of an accident or mistake is a short swim. Conversely, the outcome of an accident or mistake when on grade six water, the highest grade on the international system, is far more serious; paddling at this level requires specialist skills and a deep knowledge of the environment. Similarly, a skier with a few weeks experience can make their way down a well-manicured black run but skiing sheer cliffs in thick snow requires high-level skills and environmental expertise.

Whereas risk and uncertainty are traditionally considered fundamental and essential characteristics of adventure tourism activities, the emphasis on risk and uncertainty in the definition of adventure tourism presents certain challenges (Ewert, 1989; McKay, 2014; Price, 1978; Sung, Morrison,

& O'Leary, 1997). For example, what might be perceived as risky by one individual may be perceived as boring and mundane by another. The accepted necessity for risk and uncertainty in adventure tourism activities also presents a paradox within adventure tourism operators. While clients are assumed to pay for activities involving risk and uncertainty, tour operators must minimize the risk and emphasize safety (Beedie, 2003; Bentley, Cater, & Page, 2010; Buckley, 2012). Notably, operators implement a number of control factors (e.g., technological, behavioral, and locational) that interact to minimize risk and ensure the safety of participants engaging in adventure tourism (Bentley et al., 2010). In the main, adventure tourism activities are carefully planned with detailed itineraries. Risk and uncertainty are mostly negated and the outcome of an adventure tourism activity is somewhat predictable (Beedie, 2003; Taylor, Varley, & Johnston, 2013).

The emphasis on risk and uncertainty as a motivational factor has also been critiqued (Pomfret & Bramwell, 2016). For example, Walle (1997) considered that a tourist's quest for personal insight, knowledge, and enlightenment was more important than risk. Buckley (2007) suggested that rather than focusing on risky activities, experienced adventure tourists look for invigorating activities where skill levels, favorable conditions, and training combine to support successful outcomes.

Traditional definitions of adventure tourism have often focused on the specific nature of an adventure tourism activity, with the dominant perspective being the activity must be in nature and involve some level of risk. However, this focus has been critiqued as paradoxical and narrow. Scholars still focus on activity but the role of risk has been deemphasized. However, the emphasis on risk still dominates adventure tourism literature, which may mean that other important and valuable experiences and features have been largely ignored (Kane & Tucker, 2004).

#### Characteristics of the Adventure Tourism Environment

Another typical feature in traditional adventure tourism definitions is that it involves the natural

environment and requires an overnight stay away from the participant's place of residence, often requiring the need to travel to remote, unusual, and exotic natural settings (Bentley, Page, & Laird, 2003; Buckley, 2006; Hall, 1992; Pomfret & Bramwell, 2016; Sung et al., 1997). However, although these features might characterize some adventure tourism activities, a number of authors have critiqued these perspectives as limited. Adventure tourism can also take place in urban/near urban, artificial, or virtual settings and only a short distance from the person's home (Beedie, 2005; Swarbrooke et al., 2003). For example, whitewater centers and inland surf centers have been built out of concrete in/near urban areas such as Teesside, UK and Penrith, Australia. These centers provide commercialized activities that might include excitement, rush, and thrills traditionally associated with adventure tourism, but in urban or man-made environments that may be close to individuals' place of residence and not including an overnight stay.

#### Characteristics and Lived Experiences of Adventure Tourism Participants

Traditional perspectives on the adventure tourist often assume that participants possess particular characteristics, typically reflected in young, male, risk seekers (Cater, 2006; Elsrud, 2001; Palmer, 2002; Pizam et al., 2004). However, recent studies in adventure tourism suggest that if this traditional perspective ever reflected the adventure tourist, then the demographics and characteristics of adventure tourists are changing and becoming more diverse (Pomfret & Bramwell, 2016). The notion that adventure tourism is only for the young is becoming harder to defend as participation rates across the generations are growing (Mintel, 2010). The gender gap with regards to participation numbers is also rapidly dissolving (ATTA & GWU, 2013; Bentley et al., 2010). Women account for approximately 43% of adventure travelers (ATTA & GWU, 2013) and make up approximately 60% of adventure tour operator's customers, with many women traveling alone (Mintel, 2010).

Motivations and motives are also varied (Houge Mackenzie, 2013; Kerr & Houge Mackenzie, 2012; Naidoo et al., 2015; Patterson & Pan, 2007). For example, Buckley (2006) identified internal and

external motivational factors including the desire for thrills and excitement, the incentive to overcome fear, developing skills, experiencing a sense of achievement, and feelings of relatedness and the desire to develop friendships and participate with likeminded people. Naidoo et al. (2015) proposed that adventure activities also offer opportunities for personal development, a sense of escapism from everyday life, a chance to enhance self-image, and, for some, an opportunity to test capabilities, in otherwise safe existences. Fundamentally, the motivations and motives for participating and searching out adventure tourism activities are no longer considered uniform (Houge Mackenzie, 2013; Kerr & Houge Mackenzie, 2012; Patterson & Pan, 2007).

In summary, accepted notions of adventure tourism have often focused on the activity and the environment. Dominant themes have been that the activity should be risk focused and the environment should be unfamiliar and in natural terrains. Critiques of this perspective have pointed out that the risk focus is problematic and that modern adventure tourism might not involve unfamiliar or natural environments. Perspectives in tourism research that have considered the tourist have found that the traditional profile of a young, single, male risk-taker notion may no longer apply to the growing range of adventure tourists. The adventure tourist is not homogenous and appears to be interested in far more than risk. The adventure tourist heralds from a variety of backgrounds, is equally likely to be female or male, married or single. Equally, motivations for taking part in adventure tourism are diverse. The adventure tourist might be interested in thrills and excitement (e.g., the university student who completes an impromptu bungee jump from the tallest bridge in New Zealand), health and well-being (e.g., the London accountant who rafts the Grand Canyon in search of restoration and escapism from city life), mastery (e.g., the Italian tourist who travels to the Alps or Nepal in order to develop whitewater or mountaineering skills), connection to nature (e.g., the tourist from India walking through the national parks of Nepal), relationships with like-minded others (e.g., the middle-aged couple on a multiday raft trip through the Grand Canyon), personal development (e.g., the domestic tourist from Vancouver traveling to the Cascade mountains to take part in a multiday, multiactivity adventure program), or exotic

locations (e.g., the Japanese tourist cycling cross Australia) to name just a few. Therefore, conceptual frameworks for adventure tourism need to not only encapsulate a broad range of possible activities, people, and environments, but also the relationships between these.

### An Overview of Ecological Dynamics

Ambiguity in contemporary discourse on adventure tourism suggests that a more nuanced, holistic, and multidisciplinary approach is needed that encapsulates and develops current approaches to the study of adventure tourism. Ecological dynamics (ED) is a framework that integrates key ideas in ecological psychology and dynamical systems theory (Brymer & Davids 2012, 2014). ED has a foundation in the complexity sciences, motivating a conceptualization of an individual as a complex dynamic system (Kelso, 1995) composed of many interdependent, interacting subsystems or domains (e.g., physical, cognitive, social, emotional). It has been employed to interpret behavior in a variety of fields such as health, psychology, sport, outdoor education, adventure sports, and environmental education (Brymer & Davids, 2012, 2014, 2016; Brymer, Davids, & Mallabon, 2014; Clough, Houge McKenzie, Mallabon, & Brymer, 2016; Davids, Araujo, & Brymer, 2016; Sharma-Brymer, Brymer, & Davids, 2015; Yeh et al., 2016). In this section we explore the view that the ED framework is ideally suited to the study of adventure tourism because of its focus on the person–environment scale of analysis. We propose that an ED framework, predicated on an interactive relationship between the person, activity, and environment, provides a more functional approach than some traditional models, which contain an inherent “organismic asymmetry” (Brymer & Davids, 2012, 2014; Dunwoody, 2006). The concept of organismic asymmetry refers to an inherent bias in science for seeking explanations of human behavior based on internal mechanisms and referents. For example, a personality psychology perspective on adventure tourism typically focuses on the role of specific individual characteristics (e.g., sensation-seeking personality), with little reference to the role of the environment in guiding behaviors. This biased tendency is avoided by considering the person–environment relationship as the relevant

scale of analysis. A more equitable focus on the relationship between person, activity, and environment would avoid the weaknesses of this inherent bias. In the adventure tourism context this reemphasis allows a perspective that includes both individual and environmental characteristics and importantly the relationship between them. Adopting the person–environment relationship as a scale of analysis for understanding adventure tourism would also provide an opportunity to address individual, task, and environmental differences.

To understand how this process may occur in adventure tourism, there are three key conceptual ideas worth highlighting within the ED framework: *affordances*, *form of life*, and *effectivities*. The notion of affordances comes from ecological psychology (Gibson, 1979) and refers to properties relating each individual to an environment combining the objective nature of the environment with the subjective nature of an individual. For Gibson (1979) affordances are:

What the environment offers the animal, what it provides or furnishes, *either for good or ill* . . . something that refers to both environment and the animal in a way that no existing term does. It implies the complementarity of the animal and the environment. (p. 127; italics added)

From an ED perspective, affordances refer to invitations (Withagen, De Poel, Araujo, & Pepping, 2012) offered by the environment (captured in opportunities provided by other individuals, events, objects, surfaces, substances, and so forth) that are potentially realized by an individual with relevant capacities, skills, and capabilities. An environment described in terms of “affordances” changes the emphasis from a form description to an active and functional description. For example, landscapes traditionally described in terms of color, height, aesthetics, and so forth are now deemed to consist of climbable features, apertures, shelter opportunities, moldable materials, flat surfaces, smooth surfaces, graspable surfaces, attached objects, and nonrigid objects (Brymer et al., 2014). In addition the ED model recognizes that affordances might also be social, emotional and cognitive (Brymer et al., 2014).

The notion of a “form of life” originally proposed by Wittgenstein (Rietveld & Kiverstein, 2014)

describes both the potential and common behavior available to a specific group of organisms (e.g., human beings) and how the group interacts in and with the world around them. This might manifest as a social or cultural tendency or pattern of behaviors (Rietveld & Kiverstein, 2014). For instance, for birds, as a “form of life,” high trees afford shelter and launching pads for flying. However, for monkeys, while the same trees might afford shelter, affordances for flying are not available to the monkey “form of life.”

“Effectivities” are the skills, capacities, and capabilities that an individual (e.g., an individual person with the human “form of life”) might possess (Stoffregen, 2003). These effectivities can be limited by environmental constraints (such as urban design, and cultural or social mores or habits), which might mean that while a form of life has the capacity to realize certain affordances, an individual’s effectivities are potentially impoverished. However, as effectivities can change over time, environmental constraints that support positive change are considered malleable. Effectivities that are complimentary to affordances support the perception of information for realization of affordances.

### Ecological Dynamics and Adventure Tourism

As noted above, a fundamental aspect of the ED model is the person–environment relationship. This notion encourages a more individual approach to adventure tourism and provides a useful framework for operators to make the experience for the tourist more personalized and meaningful. An ED perspective proposes that we are surrounded by a landscape of affordances or invitations for action that can support our continuous interactions with an environment (Gibson, 1979). However, the everyday life context often means that the affordances available to a specific individual are limited in range when compared to the rich potential available to the form of life. As individuals we rarely realize all our capacities and for the most part we only do a small percentage of what we are capable of doing (Stoffregen, 2003). That is, a human being’s everyday effectivities are limited as a result of the everyday life context involving mundane issues. We argue that adventure tourism is an ideal medium for the expansion of effectivities and realization of affordances

not otherwise available to the individual (Brymer & Schweitzer, 2012, 2013, 2017a, 2017b). The increased reliance on technology and the need to make the everyday life context safer means that this trend is increasing (Brymer & Schweitzer, 2013). As such, while the individual becomes skilled at actioning potential affordances in the everyday life context, an expanded landscape of affordances would include a richer array of possibilities. The adventure tourism experience is unique among tourism activities in that it facilitates a dynamic person–environment relationship through the adventure tourism activity. Adventure tourism provides a rich landscape of affordances that augments variability of experience as the tourist learns to adapt his or her behavior in order to realize an array of affordances that might not be available in the everyday life of the individual, but that are nevertheless available to the human form of life (Rietveld & Kiverstein, 2014).

Importantly, this notion recognizes individual and environmental differences by focusing on the person–environment relationship. For example, the environment might afford a deeper relationship with nature for the tourist on a whitewater rafting trip attuned to perceiving and acting upon that affordance. The same environment can afford thrills for the person attuned to perceiving and acting upon thrills, or communion with others for the person attuned to social affordances (Holyfield, 2000; Holyfield & Fine, 1997). A multiday raft trip might provide different affordances for the novice wanting hedonism and excitement compared to those interested in connecting with nature and immersion. Adventure tourism provides access to a landscape of affordances that have relevant “fields” for different people with different needs. As such, while the activity might look the same from the outside the invitations for actions will differ and depend on effectivities of each person. In this way, affordances as relational opportunities are emphasized and the adventure tourist extends their capacity to realize some of the spectrum of affordances available to human beings that might not be available in their everyday life (Bruineberg & Rietveld, 2014). However, as affordances are often hidden from view (Ewert, Sibthorp & Sibthorp, 2014), the role of the adventure tourism provider or leader in these scenarios might be to design tasks that help educate the tourist’s attention towards perceiving and acting to

utilize a broad range of affordances. These efforts may help the adventure tourist recognize, realize, and perhaps even attune to affordances that might otherwise have been missed. The tourist may realize skills and capacities that were potentially available but limited due to the opportunities offered in their everyday life. However, this process requires care and the recognition of individual differences because affordances for good for one person might equate to affordances for ill for another if individual effectivities are not compatible. For example, a remote raft trip might afford communion with others and nature and for those relatively experienced, but might also afford snakebites and drowning for those who are inexperienced. The same process is also apparent for the skilled tourist but in this instance the skilled tourist is able to perceive and act upon a broader range of potential affordances without the need for an educator (although sometimes even skilled adventure tourists may require guides or more experienced instructors). Adventure tourism thus becomes a context whereby the person–environment relationship is emphasized and individuals learn to perceive and action a richer landscape of affordances than available in everyday life, which in turn helps the individual realize their capacity for action and volition and enhances well-being.

Adopting this perspective means that adventure tourism is no longer solely defined by environmental characteristics, distance traveled, or the activity alone, but also by dynamic relationships between people, tasks, and environments. For example, one raft trip might emphasize some or all affordances for *comunitas*, connection to nature, thrills, skill development, survival information, social connections, and so on depending on individual tourists. The role

of the provider is to ensure that important individual characteristics are determined in order to design tasks and/or interactions with the environment to enhance the important relational features. An example of this is working with the tourist to cocreate experiences in order to realize affordances important for developing a meaningful adventure tourism experiences (Weiler & Black, 2015). Therefore, as perception, action, and realization of affordances could also change over the life span, this process is dynamic and ongoing. While providers might need to develop opportunities for individuals to realize different affordances even as part of a group, researchers might focus on determining key affordances offered through adventure tourism for specific goal outcomes. For example, this view on adventure tourism might also develop existing and emerging markets, such as adventure tourism for health and well-being, or urban parkour and urban snowboarding as adventure tourism (Beedie, 2016; Immonen et al., in press).

Based on conceptual arguments, we propose that adventure tourism is distinctive among tourism activities in its capacity to balance the relationship between people, task, and the environment (see Fig. 1) in a manner that enhances the well-being of people and the environment. Adopting an ED framework would allow adventure tourism operators to individualize the experiences to avoid homogenized, “one size fits all” approaches. Particularly relevant is the creation of an affordance landscape, which involves inclusivity and an emphasis on different fields of affordances being available for exploration. From this perspective, adventure tourism becomes an essential provision in modern society where time, safety, and technology have contributed to limiting human interactions with the world around them

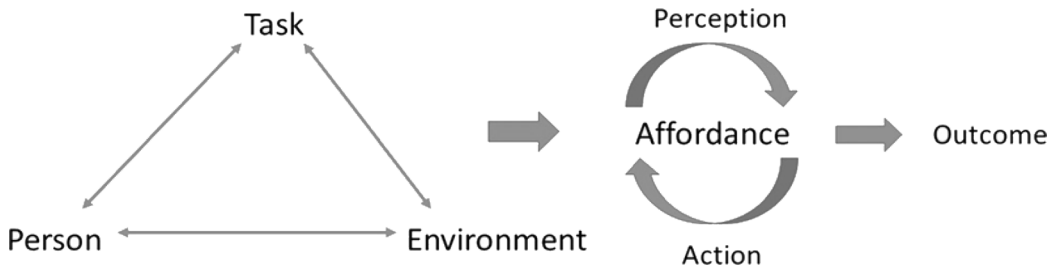


Figure 1. Proposed conceptual model of adventure tourism applying an ecological dynamics perspective.



and reducing the interactions with the landscape of affordances available. Based on this model, adventure tourism is no longer dependent on definitions that focus on distance from home, perceived risk, or the need for natural terrains but about the relationship between people and their environment (whether urban, natural, or anything in between) and the capacity to facilitate the perception and action of a rich landscape of affordances.

### Conclusion

The traditional perspective on adventure tourism has emphasized the adventure tourism activity and the environment, most often focusing on risk and natural terrain. Critiques of these perspectives have pointed out that the risk focus is problematic and that adventure tourism can also take place in urban or man-made environments. Critics have also called for a more nuanced understanding of the adventure tourist. Individual motivations are varied and not just about thrills and risk-taking. Motivations for adventure also include other factors such as health and well-being, mastery, and connection with the environment. In this article we proposed ecological dynamics as a theoretical framework for understanding adventure tourism that focuses on the person–environment relationship. From this perspective, adventure tourism is distinctive in its capacity to facilitate the realization of affordances that are potentially available to the human form of life but are often not available in the everyday life.

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