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The Call of the Wild: The Transformative Nature of Nature

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The Call of the Wild: The Transformative Nature of Nature

Abstract

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Positive psychology is concerned with guiding individuals toward the good life. It does so by defining well-being and providing ways to both measure and increase it. Often this pursuit of well-being requires and results in transformation and growth. Although personal growth can occur in many different settings - nature, specifically the wilderness, provides a compelling environment for just such transformational change. There are two distinct components to a wilderness experience: physical and psychological. Unique factors of the physical wilderness setting contribute to the profound psychological experiences that happen there. Through the lens of positive psychology, this paper will explore the transformative nature of nature. Awe, personal growth and transformation, self-efficacy, resilience, and optimism will be discussed. The author will draw liberally upon her own and other's wilderness adventure experience in order to illustrate the concepts presented. Suggestions for future research will be made.

Keywords

Keywords: wilderness, nature, self-efficacy, awe, personal growth, transformation, positive psychology, resilience, optimism

Disciplines

Community Psychology | Health Psychology | Other Psychology | Personality and Social Contexts

The Call of the Wild: The Transformative Nature of Nature

Karen E. Fetzer

University of Pennsylvania

A Capstone Project Submitted

In Partial Fulfillment of the Requirements for the Degree of

Master of Applied Positive Psychology

Advisor: Bright Dickson

August 1, 2020

The Call of the Wild
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Positive psychology is concerned with guiding individuals toward the good life. It does so by defining well-being and providing ways to both measure and increase it. Often this pursuit of well-being requires and results in transformation and growth. Although personal growth can occur in many different settings - nature, specifically the wilderness, provides a compelling environment for just such transformational change. There are two distinct components to a wilderness experience: physical and psychological. Unique factors of the physical wilderness setting contribute to the profound psychological experiences that happen there. Through the lens of positive psychology, this paper will explore the transformative nature of nature. Awe, personal growth and transformation, self-efficacy, resilience, and optimism will be discussed. The author will draw liberally upon her own and other's wilderness adventure experience in order to illustrate the concepts presented. Suggestions for future research will be made.

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Preview

Heralded by one reviewer as 'One of the most influential books about the natural world ever published.' (Kingsnorth, 2015), *A Sand County Almanac: and Sketches Here and There*, by Aldo Leopold, begins like this: "There are some who can live without wild things and some who cannot." (Leopold, 1949, foreword)

I am one who cannot. I know from many personal experiences that I need the disconnection from everyday concerns, the emersion in the natural world, and the challenge that comes from doing without the comforts of civilized life, in order to reset and renew. Through this paper, I will argue that all human beings can benefit from a more immersive connection with wild things.

Born in 1887, Aldo Leopold is considered by some to be the father of wildlife ecology and the United States Wilderness System. He has been described as an outdoor enthusiast, a conservationist, forester, philosopher, educator, and writer. Perhaps he is best known for the concept of 'the land ethic,' which encourages an ethical and considerate relationship between people and nature. A short excerpt from the book named above reads: "Before our young adventurers pushed off downstream, we learned that both were slated for the army upon the conclusion of their trip. Now the motive was clear. This trip was their first and last taste of freedom, an interlude between two regimentations: the campus and the barracks. The elemental simplicities of wilderness travel were thrills not only because of their novelty, but because they represented complete freedom to make mistakes.

The wilderness gave them their first taste of those rewards and penalties for wise and foolish acts which every [woodsperson] faces daily, but against which civilization has built a

thousand buffers. The boys were on their own in this particular sense. Perhaps every youth needs an occasional wilderness trip in order to learn the meaning of this particular freedom.” I agree with Leopold’s assessment of the impact of the wilderness experience on human development. Positive psychology provides the language whereby we can explain the mechanisms behind how this happens.

I am an avid outdoor adventurer. I’d rather be outside than inside, any day. I attribute my unabashed admiration of nature, in large measure, to my mother, who imparted her love of wildflowers and living creatures to us on countless outings into the mountains of Northern Utah. Later, I worked as a counselor for an adventure camp for kids, Navajo Trails, located in Southern Utah. I taught young people about the many benefits and beauties of the wilderness. From there, I have traveled far and wide, adventuring in fifty countries. I have trekked to Everest base camp and sailed across the Pacific Ocean, twice. My bucket list includes taking an Icebreaker to Antarctica and road biking and trekking through Iceland. It is while participating in outdoor adventure activities that I feel my best, both physically and emotionally. I can attest to the transformative power of the wilderness, for I am one who has been, thereby, transformed.

In answering the call of the wild, I have experienced the sublime, the miraculous, the terrible, and the divine. I have been wet, cold, miserable, and humbled. I have been awe-struck, elated, invigorated, and empowered. I have been pressed to my threshold and then beyond, learning what it means to persevere past perceived personal limitations and ultimately to transcend. The indifference of the wilderness to frailty and fear has taught me responsibility and the importance of being prepared. The indiscriminate nature of nature has taught me respect and appreciation. I have learned how critical perception and interpretation are to a successful

experience, in the wilderness and in general. I marvel at the beautiful metaphor that the wilderness experience is for life.

Introduction

Positive psychology seeks to define and increase well-being, guiding individuals toward greater life satisfaction (Seligman, 1999). Adventure in the wilderness setting often results in personal growth via character development and skill-building. Through the lens of positive psychology, this paper will explore the mechanisms whereby the physical wilderness setting uniquely promotes a powerful psychological experience that leads, through personal growth and transformation, to an increase in life satisfaction. Further, this paper will explore how experiences in the wilderness influence the acquisition and use of character strengths, fostering resilience and self-efficacy, and intensifying meaning and accomplishment. The author will draw on her personal experiences in the wilderness setting, including as a counselor at a wilderness youth camp, Navajo Trails,* and as a participant in the 2019 Transpac yacht race.**

Additionally, the story of climber, Alex Honnold, will be used to further illustrate these concepts. Finally, as an illustration of the author's hypothesis as well as a suggestion for further

* Founded in the 1970's by Don Sampson, Navajo Trails Ranch (NTR) was an adventure camp for kids tucked against the red rock hills just outside of Bicknell, Utah. The summer program was eight weeks long. Kids could come for three, five, or eight weeks. The camp offered week-long trips into the wilderness of Southern Utah where the kids could participate in horseback riding, kayaking, waterskiing, rock climbing, and backpacking activities. The emphasis was on skill-building, character development, and personal growth through mastery experiences in the wilderness setting.

** The Transpacific Yacht Race, or Transpac, is one of yachting's premier offshore sailing races. The idea for the competition was first conceived in 1886 by King Kalakaua of the (then) Sandwich Islands (now Hawaii) as part of the festivities in celebration of his 50th birthday. Twenty years passed before the invitation was accepted, the first race being run in 1906. 2019 marked the 50th anniversary of the race. The competition begins at the Point Fermin buoy just off of San Pedro, California. Two thousand two hundred twenty-five miles later, it finishes in Honolulu, Hawaii. Our team consisted of 10 people. We ran a rotating four-hour watch schedule, meaning that each person was on watch for four hours and off for four, following a specific rotation. This repeated for 24 hours x the ten days that it took us to sail our 70 foot 'racing sled' to Hawaii. We didn't sleep much.

research, the author advances theory by proposing a conceptual model of participant change depicting how spending time in the physical wilderness ultimately leads -through powerful psychological experiences- to greater life satisfaction.

The concept, simplified, looks like this. A graphic depiction and written explanation can be found on page 39.

Individual is exposed to a novel and challenging physical environment that creates a disorienting dilemma → acquisition of new skills, creative problem-solving → cognitive accommodation influenced by peer/leader feedback and self-reflection → determined course of action → powerful psychological response → transformation/personal growth, change in values and behavior → accomplishment/ increase in meaning → life satisfaction.

The Physical Wilderness Experience

Wilderness Defined

The term wilderness tends to resist any specific definition, so subjective is the experience of each individual with the environment that the term conjures. Indeed, there are many nuances to consider when trying to define wilderness. Some of these include the influence of civilization or the remoteness of the area. The definition benefits from a discussion of degrees.

Nelson and Callicott (2008) suggest that an individual's definition of wilderness may have to do with the extent to which they are typically immersed in human culture. For an inner-city child, going to the park may constitute an encounter with the wilderness, whereas someone more familiar with the natural world may need to be well beyond the reach of cellular service in order to consider the environment as wilderness.

Generally speaking, wilderness can be understood as a Western concept (McDonald, Wearing, & Ponting, 2009). In this context, it is described as a large, remote area of uncultivated land, inhospitable and threatening, where plant and animal communities live relatively uninhibited by human influence (McDonald et. al., 2009). Etymologically speaking, the word means the place of wild beasts, aptly describing a non-human environment, such as the sea (Nash, 1967). Furthermore, the concept of wilderness is rich with spiritual undertones and religious symbolism connoting a place of wandering in confusion, without guidance, a place of testing, and ultimately, a place of overcoming (Nash, 1967).

In the time of the Roman Empire, the wilderness provided Jews a safe haven from persecution. In the Judeo- Christian tradition, the wilderness was the playground of prophets; Moses led the Israelites through the wilderness toward the Promised Land, John the Baptist was known as the voice crying in the wilderness, preparing the way for the coming of the Lord, and the Lord, Jesus Christ, spent forty days in the wilderness communing with God.

One soon realizes that what qualifies or disqualifies an area as wilderness is dependent upon prior experience with and understanding of the concept. Given the difficulty of defining the word, and for the purposes of this paper, ‘wilderness’ will be defined as the uncultivated, untamed, outdoor space visited but not permanently occupied by humans, where animals and plants live wild. Wilderness is a subset of nature.

Wilderness: A Shift in Perspective

Although the outdoor wilderness environment has long been considered an optimal venue for learning and personal growth, it hasn’t always been that way. Prior to the conservation movement in the mid-nineteenth century, the wilderness was seen as an entity to tame or to avoid. For early man, the battle with the wilderness seemed unending. His safety, happiness,

and progress felt dependent upon his ability to subdue an environment often looked upon with fear and suspicion (McDonald et. al., 2009). Nevertheless, a major cultural shift began to occur in the 18th century as the industrial revolution brought about unprecedented growth, resulting in unforeseen pollution and poverty. As the ills of industrialization began to plague individuals, the wilderness environment benefited from a new status, being extolled for its health-promoting properties. Philosophers, artists, and poets lauded the simplicity and beauty of a life lived near to nature. Authors such as Henry David Thoreau (Thoreau, 1954) and John Muir (Muir, 1911) romanticized their love of the wilderness environment. Around this time, conservation movements rose up across the planet with advocates speaking out in favor of the preservation of wild lands for the benefit of those wanting to remove themselves from civilized society (McDonald et. al., 2009).

The National Parks Movement heralded the first efforts to preserve wilderness lands for the purpose of providing places of inspiration, solitude, and recreation (McDonald et. al., 2009). Through the conservation interests and legislation of President Theodore Roosevelt, the United States took definitive action in the creation of the United States Forest Service in 1905 (Roosevelt, 1957). Since then, educators have incorporated the power of the outdoor wilderness setting into the teaching of life skills, using the interaction between humans and nature as the space in which to cultivate strengths and encourage positive change.

Benefits of Spending Time in Nature

Davis (2004) conducted a non-exhaustive literature review of psychological research supporting the hypothesis that direct contact with the natural world leads to an improvement in mental health, improved physical performance, and improved psychological development. In spite of the fact that the studied research settings included a wide variety of encounters with nature, ranging from wilderness excursions to tending a city garden, all researchers agreed that

contact with nature is beneficial and desirable (Davis, 2004). Some of the undisputed benefits include: reduction of burnout, faster recovery from stress, (Kaplan & Kaplan, 1989), reduction of mental fatigue, increased rejuvenation and restoration (Hartig, Mang, & Evans, 1991), faster recovery after surgery, improved health and healing, and improved physical performance (Ulrich, 1984).

Unique Aspects of the Physical Wilderness

Although there is no shortage of evidence regarding the physical and psychological benefits of spending time in nature, there does seem to be a lack of understanding regarding precisely what aspects of the natural world impact our well-being and how. Some aspects that set the wilderness apart that are proposed to impact our physical and psychological well-being include:

1. The enormity of natural structures, the power of natural forces, the vastness of natural settings, and the encounters with wild creatures.
2. Nature is indifferent, indiscriminate, unforgiving, and non-judgmental.
3. The wilderness setting is far removed both physically and figuratively from our regular lives, providing novelty, freedom, disconnection, and opportunity.

Hendee and Brown (1987) hypothesize that the wilderness environment provides a mirror that reflects back to us our patterns of personal behavior, values, emotions, and fears. This mirroring comes from the novelty of the environment and the fact that the wilderness is so far removed both physically and figuratively from the influences of our daily lives. This distance from usual responsibilities provides an opportunity and a venue for leaving our old identity behind in favor of a new role or a creative way of problem-solving. Participants are unrestrained by the expectations of others in their customary lives and enjoy the liberation from prescribed

behaviors. This freedom often creates a heightened sense of self-awareness, the first step on the path of change (Hendee & Brown, 1987).

In the wilderness, one has the freedom to make mistakes without judgement. There is only cause and effect, and the feedback is often immediate. If you don't put on your rain jacket when you see the dark clouds moving your way, you may shortly find yourself soaking wet. If you fail to remove the rock from your shoe, miles down the trail, you may be nursing pain that prevents forward progress. If you forget to apply proper sun protectants, you may find yourself suffering from serious over exposure.

The primal influences of nature including exposure to the elements, the sheer size of natural structures, or the power of natural forces distinguish the wilderness as a formidable and unforgiving place for growth. We may be intrigued or terrified by the eerie sounds of the wind, crashing waves, unidentifiable animals, or what might be lurking in the dark. Given the constant changing circumstances inherent in the wilderness setting, as well as the distinct scarcity of options, we must be on constant alert and ready to adapt.

Additionally, nature is indiscriminate and indifferent. It does no good to blame Mother Nature for our inadequacies and there is no complaints department to which to voice our woes. We are completely responsible for our experience there.

Wilderness Experiences as a Rite of Passage

A wilderness expedition can be intense. As such, it is often the stage for powerful transformation and personal growth. So much so, that some people look at a sojourn in the wilderness as a rite of passage. Andrews (1999) illustrates that such a rite of passage involves a personal transformation described as a pivotal moment of transition, resulting in an expanded view of the self and the world. Davis (2003) suggests that the rite of passage in the historical

context, involved leaving the community in search of self, experiencing hardship, overcoming adversity, undergoing personal transformation, and returning as someone of value, earning respect from the group, and benefitting the whole. This value and benefit could take the form of a greater sense of purpose, an increased authenticity, or a specific insight (Davis, 2003). Arnold van Gennep wrote about rites of passage in 1909, describing the process of this universal phenomenon as having three phases: separation, transition, and aggregation (reincorporation). Separation is the removal of an individual from his usual and familiar place in the societal order. Transition is the time in between, during which an experience is had. Aggregation refers to the re-entry into the society. Although Turner (1992) encourages a focus not on the separation or aggregation, but entirely on the transition phase as the space and time where the stirring personal transformation transpires, the author suggests that the personal growth and change can begin to manifest as soon as the separation from the familiar occurs and throughout the aggregation process as accommodation and assimilation characterize the re-entry.

Notwithstanding, in applying Turner's (1992) theoretical framework to the wilderness experience, we can see how it can be construed as a rite of passage. The wilderness experience first requires a separation. Individuals who embark on wilderness expeditions leave family, friends, and familiarity in order to join other participants often in distant and unknown wilderness areas. In separating, they leave their known identity behind, moving into a place where there will be new social rules and behavior norms. Second, the wilderness experience is itself the transition phase, requiring of participants a new level of both physical and cognitive adaptation and accommodation. Because this phase is intended to be transformational, it is best accomplished in a setting that is removed from the familiarity of everyday life (Davis, 2003), making the wilderness an optimal location for the transition phase. Finally, participants return to

their accustomed environment, feeling changed by the experience. Re-entry is often characterized by new thoughts manifesting in different behaviors: the outward expression of the inward evolution (Turner, 1992). The meaning of this rite of passage can be profound.

Dimensions of a Rite of Passage

Andrews (1999) explores three dimensions of the transitional phase of the rite of passage. They each lend meaning to the wilderness experience and the process of transformation. These three dimensions include a sense of community, a sense of self, and a sense of place (Turner, 1992).

Sense of community. The wilderness experience entails being in dynamic and unfamiliar territory that demands new ways of being. The sense of community comes from individuals coming together to cooperatively work through these challenges. Where cooperation is required for survival, the wilderness environment magnifies the importance of working together toward a common cause.

Sense of self. In our usual lives, our identity is defined by the roles we play and the responsibilities we have. Individuals in the wilderness may find themselves in a situation where their prior identity no longer defines them, making room for change and growth. Additionally, the challenges overcome in the wilderness can also lead to increases in self-efficacy and self-esteem, impacting an individual's identity and interaction with the group (Andrews, 1999). The chance to be authentically oneself in this context promotes a greater sense of community as each person evolves individually.

Sense of place. This not only includes a deep and abiding connection to the natural world, feeling a part of a greater whole, but also an altered perception of time and its importance (Andrews, 1999). It refers to both the physical and the figurative wilderness through which one

sojourns in both body and mind. These dimensions of a rite of passage help to illustrate the significant meaning of this type of experience in the wilderness setting.

The Wilderness Magnifies Meaning

Meaning has been defined by positive psychology as being a part of something greater than oneself (Seligman, 2002). Seligman (2002) relates that a meaningful life is one that joins with something bigger than the individual. He further affirms that our lives expand in size comparable to the size of the entity to which we have joined (Seligman, 2002). The wilderness context is just the place for such a connection as it provides an opportunity to experience the enormity and power of the natural world, magnifying the meaning of experiences had therein.

These experiences, when prevailed over, provide strength, comfort, and motivation during future challenges across a lifetime. One experience can become the barometer against which all future challenges are measured. "If I did _____, I can surely get through this." This aspect alone profoundly increases the meaning of the wilderness experience. A personal illustration for me of this concept was my participation in Transpac, one of yachting's premier offshore sailing races.

Two-thousand-and-nineteen marked the 50th anniversary of a race, the idea for which was conceived in 1886 when King Kalakaua of the (then) Sandwich Islands (now Hawaii) invited sailors to race to Hawaii from San Francisco as part of the festivities in celebration of his 50th birthday. Twenty years passed before the invitation was accepted and the first race was run in 1906, from San Pedro instead of San Francisco.

The competition begins at the Point Fermin buoy just off of San Pedro, California. Two thousand two hundred twenty-five miles later, the Diamond Head buoy marks the finish line, in front of Honolulu, Hawaii. For ten days, our crew of nine men and one woman pushed our 70-

foot racing yacht as hard as we dared, following a watch schedule of four hours on, four hours off, for 24 hours/day, for ten days. It was brutal. For the first three days, I suffered seasickness that made me want to jump overboard. Not just once did Nietzsche's words: "That which does not kill us makes us stronger" cross my mind. At the risk of sounding overdramatic, death looked pretty good sometimes. As one soon realizes, in the middle of the Pacific Ocean, mental fortitude has every bit as much to do with survival and success as physical ability; often much more.

Significantly, the wilderness arena, far from usual problem-solving options, provides a sometimes ruthless opportunity for personal growth, specifically, the acquisition and exercise of emotional regulation and mental agility- both factors that build and enhance resilience (Reivich & Saltzberg, 2020).

Wilderness: Physical and Psychological

Nelson and Callicott (2008) describe wilderness as the deprivation of human culture. In this context, they suggest that there are two distinct concepts of wilderness: the physical and the experiential. The physical connotes the natural world and the relationship that humans have with it. Examples of the natural world are numberless and include such things as broad vistas encompassing mountains and valleys, a ladybug alighting on your shoulder, a subdued sunrise over a glassy lake. The experiential refers primarily to the psychological impact that time spent in the wilderness setting has on the individual. The wide array of psychological phenomena felt in the wilderness might include awe and wonder, fear and apprehension, suffering, coping, and overcoming.

Does the phrase 'what does not kill you makes you stronger' really apply to the wilderness experience? Does the meaning or sense of accomplishment increase in proportion to

the level of intensity or risk of the experience? Hende and Brown (1987) postulate that personal growth in the wilderness setting is dependent upon optimal stress, both physical and psychological. Each person who engages in the wilderness experience has a different stress threshold that is dependent in part on prior experience and physical conditioning (Hende & Brown, 1987) as well as perception and interpretation (Nelson & Callicott, 2008). Hence, people experiencing the same physical phenomena can interpret the experience in very different ways. For example, two people experiencing a cold, rainy day may be having the same physical wilderness experience defined by exposure to weather and deprivation of shelter, but coping with it, psychologically, in vastly dissimilar ways. The stress and intensity of the experience may be felt dramatically differently between the two if one is more accustomed to the scenario and exhibits physical skill, coping behavior, and attitudes that mitigate the subjective suffering.

The stress in such scenarios comes from dealing with those aspects of the wilderness that make it so unique and challenging both physically and psychologically: the increased risk and associated danger, the extreme exposure, the inability to control weather and wildlife, and the many other uncertainties. This personal stress threshold must not be crossed if the experience is to be had as positive and productive. If the threshold is crossed, the experience can backfire, manifesting in physical and/or psychological breakdown that can lead to debilitating overwhelm (Hende & Brown, 1987). This is in keeping with Seligman (1975) who found that the inability to control one's environment when exposed to intense stress resulted in helplessness and depression.

Therefore, the objective of a wilderness experience becomes to expose each participant to their personal optimal level of stress, sufficient to allow for successful coping but intense enough to appropriately challenge core behaviors and beliefs. This challenging of beliefs and behaviors

leads to greater awareness on the part of the individual. Subsequently, these beliefs and behaviors are often reevaluated, a process that motivates redirection and personal growth (Hendee & Brown, 1987).

The Psychological Wilderness Experience

The most beautiful emotion we can experience is the mysterious. It is the power of all true art and science. He to whom this emotion is a stranger, who can no longer pause to wonder and stand rapt in awe, is as good as dead.

-Albert Einstein

An Investigation of Awe

Much of the expanding research on awe approaches it as a distinct and powerful emotion. Other researchers propose that awe is less of an emotion and more of an experience (Schneider, 2017; Chirico & Gaglioli, 2018). Regardless of whether an emotion or an experience, researchers agree that awe has a significant impact on several life domains, from promoting well-being (Krause & Hayward, 2015) to fostering social connectedness and promoting persistent, personal change (Chirico & Gaglioli, 2018).

In the foundational research of Keltner and Haidt (2003), they offer a prototype of awe that highlights the two central features of vastness and accommodation. Here, vastness can be either perceptual (looking into outerspace) or conceptual (contemplating eternity) (Yaden et al., 2019). It refers to anything that is perceived as being much larger than self or what typically fits within the common experience of the self. Beyond reference to things of great physical size, vast can also be applied in the context of ability, scope, complexity, even social status. For example, largeness related to social status might refer to rank or prestige, describing movie stars or professional sports figures. It also extends to symbols that connote vastness such as in lavish displays of wealth.

Accommodation refers to the process of mental adjustment. It requires a restructuring of knowledge frameworks including a reassessment of beliefs and causal understanding (Zhang & Keltner, 2015). The integration of vastness and accommodation results in a shift in one's usual frame of reference, a critical component in the experience of awe. (Rudd, Vohs, & Aaker, 2012). Experiences where an individual fails to make accommodation may result in awe being accompanied by feelings of fear or even terror (Keltner & Haidt, 2003). Therefore, one may rightly conclude that accommodation is critical if the awe-inducing experience is to be processed as positive.

In addition to the two primary principles of vastness and accommodation, Keltner and Haidt (2003) propose that there exist five peripheral features that explain the variety and diversity of awe-inspiring experiences. These include: threat, beauty, ability, virtue, and supernatural causality. Taking this explanation one step further still, awe-eliciting situations have been divided into three categories: physical, social, and cognitive. Examples of each include the following: physical- grand vistas, powerful storms, impactful music; social: an encounter with God, admiration of an individual exhibiting great skill or great virtue; cognitive: contemplation of a grand theory.

Elicitors of Awe

Of the three elicitors of awe: social, physical, and cognitive, one could argue that the natural wilderness provides an optimal setting for all three. Notwithstanding, we will briefly explore just the physical and social elicitors of awe-inspiring experiences here.

Regarding the physical elicitor, Keltner and Haidt (2003) suggest that awe in response to nature may be the most common experience of the emotion. Shiota and colleagues (2007) specifically list "massive natural entities including oceans, storms, mountains, and vistas" (p.

951) as being prominent physical elicitors of awe. For those who have participated in wilderness adventure, it is easy to expand the list above to include towering rock cathedrals, colorful, artistic displays of wild flowers, mighty waterfalls, stunning sunsets, and rare interactions with wildlife. Nature has no lack of awe-inspiring subject matter.

Although findings of Graziosi and Yaden (2019) suggest that awe elicited by nature may be stronger than awe elicited in the social context, social elicitors of awe occupy a significant place in the discussion. Haidt and Keltner (2003) propose that social elicitors of awe include witnessing an individual exhibiting great skill or unusual virtue or an encounter with a powerful leader, including God. Again, experiences that challenge an individual's normal frame of reference, or way of thinking about the world, will tend to evoke awe (Shiota et al., 2007).

Awe tends to be associated with peak experiences. Described by Maslow (1968) as moments of highest happiness and greatest fulfillment, peak experiences generally involve the illumination of special insight or meaning for the individual. McDonald, Wearing, and Ponting (2009) questioned individuals about peak experiences in the wilderness. Of the 39 individuals who responded via questionnaire, the majority cited the aesthetic qualities of the wilderness setting as being the most influential in their peak experience.

Awe and the Wilderness: Alex Honnold and El Capitan

The wilderness is a context where the physical and the social elicitors of awe collide. A stunning example of a social elicitor that combines a massive natural entity with a display of unusual and inspiring ability is the free solo climb of El Capitan by climber, Alex Honnold. On June 3, 2017, Alex defied the unimaginable, executing what even most expert climbers would have considered impossible. After nearly two decades of working deliberately and relentlessly to control fear and cultivate unfaltering focus, Honnold redefined the limits of human ability as he

ascended the 3000-foot vertical face of the towering granite monolith in Yosemite Valley, California, with only a chalk bag (Miller, 2018). Not only was he without protection of any kind, but he scaled the renowned wall in record time: just four minutes shy of four hours; a jaw-dropping achievement that earned him an Oscar* and reverential respect the world over. It is easy to understand that no achievement in the climbing gym could compare with what Alex accomplished in the wilderness.**

Psychological Benefits of Awe

As the research on awe continues, more benefits are being discovered and attributed to this powerful emotion. Research conducted by Rudd, Vohs, and Aaker (2012) concluded that feelings of awe, compared to happiness, elicited perceptual expansion of time leading to a temporary increase in life satisfaction and well-being. This elongated perception of time lessened impatience and resulted in people choosing more well-being enhancing behaviors including providing service to other people.

Zhang and Keltner (2015) have also gathered evidence of multiple positive psychological consequences of experiencing awe. These include an increased tendency toward spiritual beliefs as well as an increased ability to process information-rich stimuli. Their findings support that awe stimulates curiosity and interest, leading to greater cognitive flexibility and an increased openness to new experiences. This emotion opens the doors to behavior change and personal growth (Keltner & Haidt, 2003).

*Free Solo, a documentary film about the climb, won Best Documentary Feature at the 91st Academy Awards.

**On El Capitan, the average climbing party takes between four and six days to reach the summit and hauls up 100 pounds per person of food, water, and gear.

(<https://www.summitpost.org/el-capitan/150993#:~:text=At%20any%20given%20time%20from,and%20water%20for%20each%20member.>)

Awe and Self Concept

Self-concept is impacted by experiences with awe. After feeling awe, many individuals report feeling small or insignificant, indicating a diminishment of self and a more outward focus. Others reported feeling the presence of something greater than self or feeling more connected to the world around them. (Shiota et al., 2007). Further, awe-prone individuals have more malleable mental structures and a greater willingness to adjust and change these mental structures when they are incompatible with the present circumstances (Shiota et al., 2007). Zhang and Keltner (2015) support these findings suggesting that feelings evoked by the emotion of awe might naturally lead to humility, a diminishing of the ego, and greater inclusion of others. In the wilderness adventure setting, where individuals in a group are often dependent upon each other for support and success, these states of being become important prosocial behaviors, upon which our very lives can depend.

Awe and the Wilderness: Team TRADER Racing Transpac

Our team experienced many such moments of humility and dependence on each other during our ten-day race across the Pacific Ocean. One particular night, our relative weakness and vulnerability stood out in sharp relief against the strength and vastness of the Pacific Ocean. We, a relatively inexperienced crew of 10, were still 1000+ miles from home, pushing our 70-foot sailboat hard toward the finish line marked by the Diamond Head buoy off of the coast of Honolulu, Hawaii. It was pitch black and the wind was picking up. A vexing squall was breathing down our necks, in relentless pursuit. We were flying the 3000+ square foot spinnaker (the large sail that flies out in front of the boat and is used for sailing fast downwind) and it was becoming difficult to control the boat. In fact, we had just rounded up (a phenomenon that happens during sailing where the boat rights itself dramatically and suddenly by turning forcibly

up into the wind-out of the control of the helmsman) ten minutes earlier, with our most experienced sailor on the helm.

Awed by the power of the wind and the strength of the waves, I was feeling small, weak, and exposed. With the sheer size of the sails and force of the wind, things could get out of hand quickly. We seemed to be riding the knife edge between being in control and being overpowered. We needed to execute a spinnaker drop. It needed to happen quickly and it would require every one of us executing our tasks with precision and frankly, luck. We all maneuvered slowly and deliberately into position. Half of the crew disappeared into the darkness as they took their places on the bow. Everyone wore a tether that attached him to the boat. If anyone went over now, a rescue would be very difficult, if not impossible. There was no doubt that our success and safety depended upon each other. There was no room for ego. The call came to ‘spike the tack’, detaching one corner of the gigantic sail from the front of the boat. The sounds of thrashing sails and clanking rigging were deafening. With perfectly executed movements that we had rehearsed together many times, we brought the massive, flailing sail under control, as we dragged it through the space between the bottom (‘foot’) of the mainsail and the top of the boom (a maneuver called a ‘letterbox drop’) and deposited it into the hold of the boat, drenched and withered. We had done it.

Although the mechanisms of awe are not yet fully understood, what has been substantiated is that awe has a transformative power, motivating people to reorient their goals and values (Keltner & Haidt, 2003). Under the influence of this awe, we unified our effort. Given this, Keltner and Haidt (2003) suggest that seeking out awe-inducing experiences may be a fast and powerful path toward personal growth. The wilderness setting is ideal for such experiences.

The Wilderness and the Cultivation of Self Efficacy

Navajo Trails was the brainchild of the legendary Don Sampson. At least he was legendary to me. A man with an idea ahead of its time, he created a camp where kids could come to experience the wilderness, learning life skills through overcoming challenges and problem-solving in an environment indifferent to frailty and fear. He wanted to see kids from the inner-city get lost in the stars of the night sky and join in silly songs around the mountain campfire. He welcomed kids as they came to camp, nervous and hesitant. He championed them as they left, confident and capable.

The camp was tucked against the red rock hills just outside of Bicknell, Utah. The other natural border was a winding stream that serpented its way past an old mill on the corner of the property. The camp had several outbuildings constructed from rough-hewn lumber, one designated as the girls' bunkhouse and two for the boys. A geodesic dome stood under the towering cottonwood tree and was used for crafts. A large dining hall stood in the center of the property and was the hub of the activities- as any good kitchen is. There were plenty of large lawn spaces, good for stretching out in the sun, in between activities, and pastureland for the many horses. It was a little slice of heaven.

Given the unique challenges of the wilderness setting, it is an excellent venue for cultivating confidence and capability. Positive psychology calls this self-efficacy, or the belief in our ability to control and effect change in our lives (Bandura, 1986). It sounds like: "I think I can" and looks like this: belief + specific ability + deliberate action = desired outcome.

This belief is of paramount importance in the achievement of any given objective, for, without the belief that one's actions will produce desired effects, individuals have little

motivation to act (Bandura, 1997). In fact, personal belief in one's own ability trumps the ability itself as a determining factor in the success of the effort (Bandura, 1997). Moreover, the strength of one's belief in one's own ability to accomplish a given task is predictive of how long an individual will persevere in spite of obstacles and challenges (Bandura, 1997). In other words, if you expect to succeed, you will be far more likely to stay in the game for as long as it takes.

Naturally, we rely on our self-efficacy to accomplish tasks and make progress on goals. Efficacy mediates the relationship between knowledge and action. Therefore, self-efficacy is necessary to sustain the continual effort that is required for personal success in any endeavor (Bandura, 1986).

At Navajo Trails, the campers, ages 7-17, would choose each Sunday evening the trip they wanted to go on the following week. Monday morning, all of the groups would leave the camp for five days of horse camping, kayaking, rock climbing, water skiing, mountain biking, or backpacking. The setting was the rugged and stunningly beautiful wilderness of Southern Utah. During the week, we counselors would teach the respective skills to the campers, many of whom had never been in the wilderness, let alone tried the activity being offered. It was gratifying to see those who put in the effort realize personal success by the end of the week. We witnessed confidence and capability growing in the kids over the course of the summer program.

Were we just imagining the impact that being in the wilderness setting was having on the kids? Could they have learned the skills in a different environment? Perhaps. Nevertheless, in 2005, Holman and McAvoy answered the call for more research to substantiate the link between wilderness program components and program outcomes. Their study objective was to increase understanding of the integrated wilderness adventure experience. Specifically, they wanted to know which program components contributed to which participant benefits. They provided each

of the participants a questionnaire following the completion of a wilderness experience. Of 193 participants questioned, 51% noted an increase in confidence in their abilities. Being in the wilderness was also noted as one of the essential attributes of the experience (Holman & McAvoy, 2005).

Sources of Self-Efficacy

Bandura (1977) proposed a theoretical framework wherein he identified four sources of information from which individuals derive efficacy: personal performance, vicarious experiences, verbal persuasion, and physiological states.

Personal performance. On a fundamental level, the development of self-efficacy is dependent, in part, upon the responsiveness of an individual's environment (Maddux, 2009). If an individual is successful in manipulating or controlling their environment to achieve a desired effect, self-efficacy grows. This personal performance is the most effective method for cultivating self-efficacy (Bandura, 1977). Predictably, experiences seen as successful increase self-efficacy while failures result in the opposite. Because multiple successes can, over time, mitigate the negative impact of failures, the building of self-efficacy through personal performance is dependent upon the pattern and ratio of success and failure (Bandura, 1977). Moreover, failures which are overcome by deliberate, sustained effort can strengthen persistence when subsequent success is attributed to this increase in effort. Cultivating competencies, referred to as mastery experiences, helps to build a resilient self-efficacy. This task-specific self-confidence generalizes to other situations both similar to and different from the situation where the self-efficacy was acquired (Bandura, Adams, Beyer, 1977). Therefore, it is reasonable to expect that personal mastery experiences in the wilderness setting and the resultant increase in self-efficacy can generalize to other aspects of an individual's life.

Vicarious experiences. Whereas personal performance is direct evidence of one's ability to achieve a certain result, vicarious experiences rely on the actions of others to influence behavior. Modeled behavior that illustrates that others can achieve results through persistence and effort communicates to individuals that achieving the same results may be possible for them if they are willing to engage in the same behavior (Bandura, 1977). "If she can do it, I can too". This is most effective when modeled behavior produces distinct and clear outcomes rather than ambiguous results. Although vicarious experiences are still effective in fostering efficacy, this source fails to deliver the same results as personal mastery experiences primarily because it relies on inferences from social comparison (Bandura, 1977). Nevertheless, the successful efforts of others can be very motivating.

A striking example of modeled behavior motivating similar and successful behavior in myself was on day two of the Transpac race. I was lying on one of the settees in the main cabin of our 70-foot sailboat, barely able to lift my head off of the damp jacket that I had been using as a pillow. My alarm was going off, signaling that my turn on watch would begin in 30 minutes. Thirty minutes is usually quite a reasonable amount of time for the average person to get dressed. In this case, thirty minutes was pushing it. I would need to add back the three layers that I had worked only 2 hours earlier to remove. Wet, heavy outer jacket and bib trousers (called foulies), an additional fleece mid layer, rubber boots, leather gloves - still soaked, my offshore inflatable PFD (personal flotation device) complete with harness, tether, and AIS (Automatic Identification System- a tracking system used by sailing vessels), and sunglasses. Before all of that could be reassembled, I would need to use the head ('bathroom' in boat language) and apply sunscreen to the few parts that were actually exposed. All of this happened at 20 degrees of heel* with constant movement. It might have been OK had it not been for the fact that I was horribly

seasick. I learned that this is how it went for me. The first three days of any open ocean experience, I was virtually worthless with nausea and vomiting and generally wishing I were dead. Nevertheless, as a member of a 10-member racing crew, in the middle of Transpac 2019, I couldn't afford to be worthless. I was going on watch in 30 minutes and I would need to take my place at the helm. Plus, I was the only female member of the crew and definitely didn't want my gender to ever be seen as an excuse not to perform in a male-dominated sport. I raised my head again and caught sight of Erik, our designated navigator. I knew that he was suffering with seasickness as badly as I was, yet he was sitting in position at the navigation station, plotting our next way point. If he could do it, I could, too. Seeing Erik doing what he had committed to do, I garnered a tremendous amount of efficacy; enough to help me overcome what initially felt insurmountable.

Verbal persuasion. This source of information involves the verbal encouragement of someone that they can cope successfully with a situation that has overwhelmed them in the past. This sounds like: "I think YOU can." Although this technique is widely used because of its ease and availability, it also lacks strength in building self-efficacy and producing desired behavior change. This lack of strength comes from the influence of personal experience that contradicts the verbal persuasion (Bandura, 1977). If an individual has had significant failure through personal experiences, these memories can easily override the positive but temporary effect of verbal persuasion. Nevertheless, verbal persuasion, when coupled with task-enabling, results in greater effort expenditure than task-enabling alone. Specifically, when socially persuaded that

*Simplified, the heel angle of the boat refers to the degree to which the boat is tilting away from directly upright. The heel angle makes moving about on and in the boat quite challenging. For example, using the head (bathroom) at a heel angle of 20 degrees requires anchoring oneself in position with a foot on the door frame.

one has the skills necessary to successfully accomplish a task and is then provided with the elements necessary to engage in the task, the effort expended is greater than that of individuals provided only the performance aids (Bandura, 1977).

Physiological states. Threatening and stressful situations often result in emotional arousal. We get nervous when we have to do something new that we perceive as being difficult or frightening. Depending upon the level and interpretation of the emotion, this state can communicate competency or lack thereof. Generally speaking, we feel more self-efficacious when we are calm (Maddux, 2009). Additionally, individuals perform better while in low states of arousal. Therefore, the use of strategies to keep emotions in check while attempting new behaviors will sooner result in success-promoting behavior and a rise in self-efficacy (Maddux, 2009).

This is where Alex Honnold shines. Even as he consents to undergo a functional MRI (Magnetic Resonance Imaging) scan to determine whether his brain really is different from the rest of ours, Alex actively resists the suggestion that he is fearless. Not only does he admit to feeling fear, but he tells stories of being really, really scared while climbing. In Alex's case, scientists propose that a well-honed regulatory system results in his frontal cortex calming his amygdala (the fear center of the brain), preventing it from firing and sparing him the physiological sensation of fear (MacKinnon, 2016). What enables this, they suspect, is the approach that Alex has taken to fear.

For years, bordering on two decades, Alex has incorporated several strategies to help manage fear and mitigate the negative physiological response: lack of mental clarity, involuntary muscle spasms, racing heart, sweating. First, he keeps a climbing journal wherein he records every move required to successfully complete each climb. He makes notes about things he can

do better and revisits these notes frequently. Second, in addition to physically executing the moves on the rock, he also incorporates what Maddux (2009) proposed as a fifth source of efficacy information: Visualization. Alex will relentlessly rehearse every aspect of the climb in his mind, executing each movement with perfection. According to neuroscientists, over time, situations that evoke fear can be re-experienced as non-fear inducing, building self-efficacy and reducing the systemic, physiological impact (MacKinnon, 2016). By his own admission, Alex states matter-of-factly that, “Through ten years of practice, I have desensitized myself to certain levels of stimulus” (Honnold, 2019). Essentially, he has been methodically pushing his personal physical and psychological threshold out in front of him. The result has been more confidence and capability on the rock. Interestingly, the fMRI of Alex’s brain did show that, when exposed to certain ‘fear-inducing’ stimuli, his amygdala doesn’t light up like the rest of ours would. Alex has cultivated a resilient self-efficacy.

Building Resilience in the Wilderness

The wilderness experience is an effective way to test and build resilience. Masten, Cutuli, Herbers, and Reed (2009) define resilience as patterns of positive adaptation in the setting of past or present risk or adversity. Risk and adversity define the wilderness environment. In the context of human development, Masten and colleagues (2009) discuss three strategies for fostering resilience including reducing risk, building strengths, and mitigating adversity through the use of adaptive systems that protect and enable future development. These same strategies can be applied effectively to experiences in the wilderness setting. For example, consider our rock climbing example. One can significantly reduce the risk associated with this activity through first building strengths by learning the required skills in a climbing gym. Here, unlike in the wilderness, many critical aspects of the environment are controlled. The temperature is set at

a constant, comfortable level. Weather variability is a non-issue. There are no bugs or wild animals to contend with. The parking and access to the gym is easy. Specific measures have been put in place to ensure the safety of each participant. Should an accident happen, qualified help is close by. All of those factors, when controlled for, allow individuals to focus on the acquisition of skills in a safe and relatively distractions-free environment. The application of these many measures constitutes the adaptive systems that both protect and enable future development. Nevertheless, one can only progress so far in such a controlled environment. Accomplishment and meaning have trouble transcending the ceiling of the climbing gym.

When discussing human development in children, the risk-reducing plan calls for an overall reduction in exposure to hazardous situations. This is also important but not always possible in the wilderness setting. There, proper planning and thorough preparation undergird risk mitigation. For example, someone backpacking in bear country cannot control bear behavior but can prepare for bear encounters by bringing bear spray and by tying food into bear bags and using proper gear storage techniques.

One form of adversity that increases risk in the wilderness setting is the weather. Weather is the great equalizer, imposing a level of difficulty on all outdoor adventurers indiscriminately. It cannot be controlled, only prepared for, or avoided.

Many times, at Lake Powell, where we taught the Navajo Trails campers waterskiing, we would have sudden rainstorms. Often these storms happened during the middle of the night. This was particularly inconvenient because we all slept outside under the sky. There, away from the comfort of our homes, we had to create our own solutions. Those were great opportunities to teach the kids problem-solving skills. We would run tarps around the pontoon boat that we used for sun shade during the hot days, making a protected shelter. Then we would fire up the stove,

pass around hot tang, and sing songs and tell stories until the sun came up. We tried to illustrate that part of building resilience and increasing meaning is choosing to see things through an optimistic lens.

Explanatory Style

The way we think about and describe the positive and negative events or circumstances in our lives can either empower and inspire us, building resilience to help us overcome challenges and achieve success OR our thoughts and explanations can erode our confidence, dampen our enthusiasm, and leave us vulnerable to depression (Abramson, Seligman, & Teasdale, 1978). Seeing things through an optimistic lens often involves reframing the situation at hand, attributing a more affirmative meaning to the experience. This reframing—the way we explain the cause of events that happen in our lives— is identified by positive psychology as explanatory style- and can be either optimistic or pessimistic (Peterson & Steen, 2009).

Both positive and negative events can be explained in terms of these two different styles. When negative events are expressed using internal, stable, and global language, this is described as a pessimistic explanatory style. Optimistic explanatory style is characterized by attributing negative events to causes that are external, unstable, and specific (Seligman, 2006).

Interestingly, when describing positive events, the opposite is true. This means that optimistic people tend to describe positive events with language depicting an internal, stable, and global perspective while pessimistic individuals explain positive events as external, unstable, and specific (Seligman, 2006).

Clarifying terms have been associated with each of the three dimensions. External vs internal refers to personalization. Stable vs unstable is also thought of in terms of permanence.

Whereas global and specific is in reference to pervasiveness (Seligman, 2006). Personalization is about self vs others. Permanence is about time. Pervasiveness is about space.

As an example, refer back to the rainy day above, where the person who was less accustomed to the scenario and perceiving it as a negative event would describe it pessimistically in the following way: “My vacations invariably get rained out! That’s just that way things always happen for me. I must live under a black cloud.”

Table 1

Explanatory Styles (Seligman, 2006)

	Positive events	Negative events
Optimistic explanatory style	internal, stable, and global	external, unstable, and specific
Pessimistic explanatory style	external, unstable, and specific	internal, stable, and global

Many things influence an individual’s explanatory style, including genetics, parental examples, teacher interactions, trauma, and the media (Peterson & Steen, 2009). Optimism is another factor that builds resilience (Reivich & Saltzberg, 2020). Significantly, positive psychology research has linked optimism to good mood and positive morale, achievement in several domains, and effective problem solving with increased perseverance (Peterson & Steen, 2009), all of which can combine to help create a positive wilderness experience.

Strength Spotting in the Wilderness

The wilderness setting provides a unique environment in which to discover and develop strengths. As identified above, building strengths is a strategy for building resilience. Positive psychology encourages the identification and cultivation of strengths of character. Beginning in 1998, together with 50+ social scientists from around the world, Chris Peterson and Martin Seligman searched across time and culture to understand what character traits and values have

been necessary for thriving on this planet. Using information gathered during their years-long exploration of human excellence, they constructed a scientific classification of human strengths and virtues. Identified in this classification are twenty-four character strengths nested under the six virtues of wisdom, courage, humanity, justice, temperance, and transcendence (Peterson & Seligman, 2004).

At Navajo Trails, we, as counselors, were encouraged to strengths spot in the campers- although that is not what we called it back in 1986. We were aware of Don's vision for each of the campers and tried to do our part in identifying and helping them build upon their strengths. One way we did this, aside from encouraging dialogue throughout the week, was to sit in a 'power circle' on the last night of the trip. We would gather the kids around the campfire and outline the rules of engagement. We identified one object that we would pass between us as we took turns sharing what we enjoyed about the trip. Only the individual who possessed the designated item was permitted to talk. It was during these circles that we tried to highlight each camper's strengths as we had experienced them during the week.

Consequently, these circles became a favorite part of the campers' Navajo Trails experience, increasing the meaning of their time in the wilderness. Importantly, through the lens of positive psychology, Navajo Trails can be considered a positive organization under the umbrella of the positive institution of education. The influence of positive institutions helps build resilience (Reivich & Saltzberg, 2020). Strategically so, because after more than fifteen years of research, Reivich and Schatte (2003) have determined unequivocally that resilience matters.

The Wilderness as a Venue for Personal Transformation

Models of Change

D'Amato and Krasny (2011) found that participants of Outdoor Adventure Education (OAE) programs attributed their personal transformation, in part, to the physical aspects of nature that inspired awe, promoted connection, and promoted psychological well-being. Additionally, the radical change in lifestyle and the challenge and intensity of the experience, both facilitated by the wilderness setting, were mentioned as significant.

Mezirow (2000) describes the phases of transformation as beginning with “a disorienting dilemma” (p.22) followed by a period of self-examination that is accompanied by a range of emotions including fear, guilt, or shame. Next comes a critical evaluation of assumptions, an exploration of new options and the identification of a new course of action (Mezirow, 2000). The wilderness setting is an optimal venue for encountering ‘a disorienting dilemma.’ The mechanism through which this happens is that the wilderness provides a setting that is so different from typical life and presents such unusual challenges that require new ways of thinking and being. This ‘disorientating dilemma’ necessitates not only cognitive accommodation but often immediate physical response in order to stay safe.

In complement to Mezirow’s phases of transformation, Walsh and Golins (1975) and Gager (1977) provide theoretical models of participant change that were still providing the foundation for many wilderness-based experiential adventure programs at the turn of the millennium (Ewert & McAvoy, 2000).

Figure 1

Walsh and Golins (1975) Theoretical Model of Participant Change (Ewert & McAvoy, 2000, p. 16)

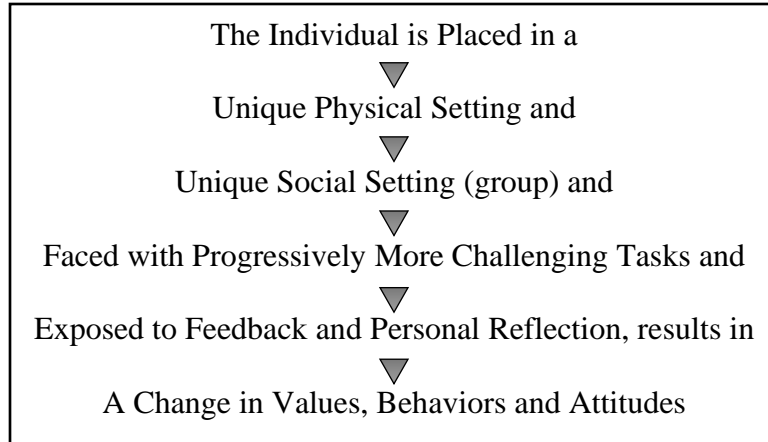
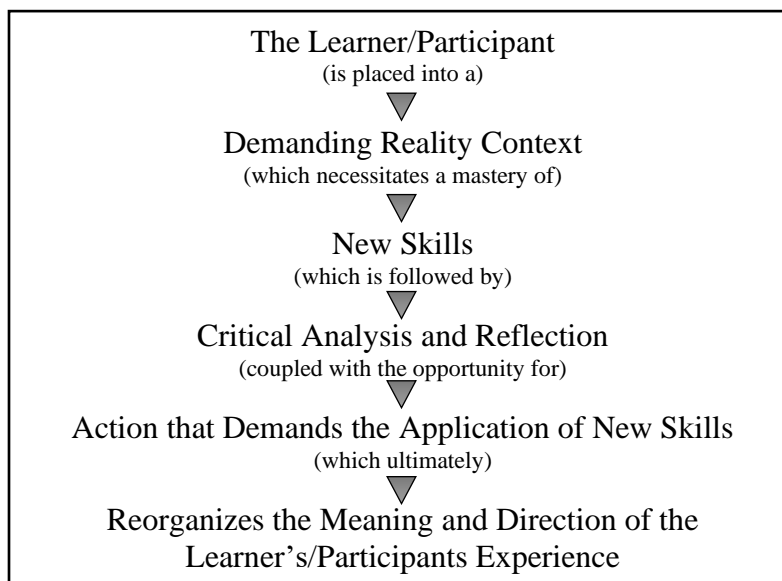


Figure 2

Gager (1977) Theoretical Model of Participant Change (Ewert & McAvoy, 2000, p. 16)



Hendee and Brown (1988) propose a more complicated model that supports their theory by which the wilderness experience facilitates personal growth. Here, personal growth is defined

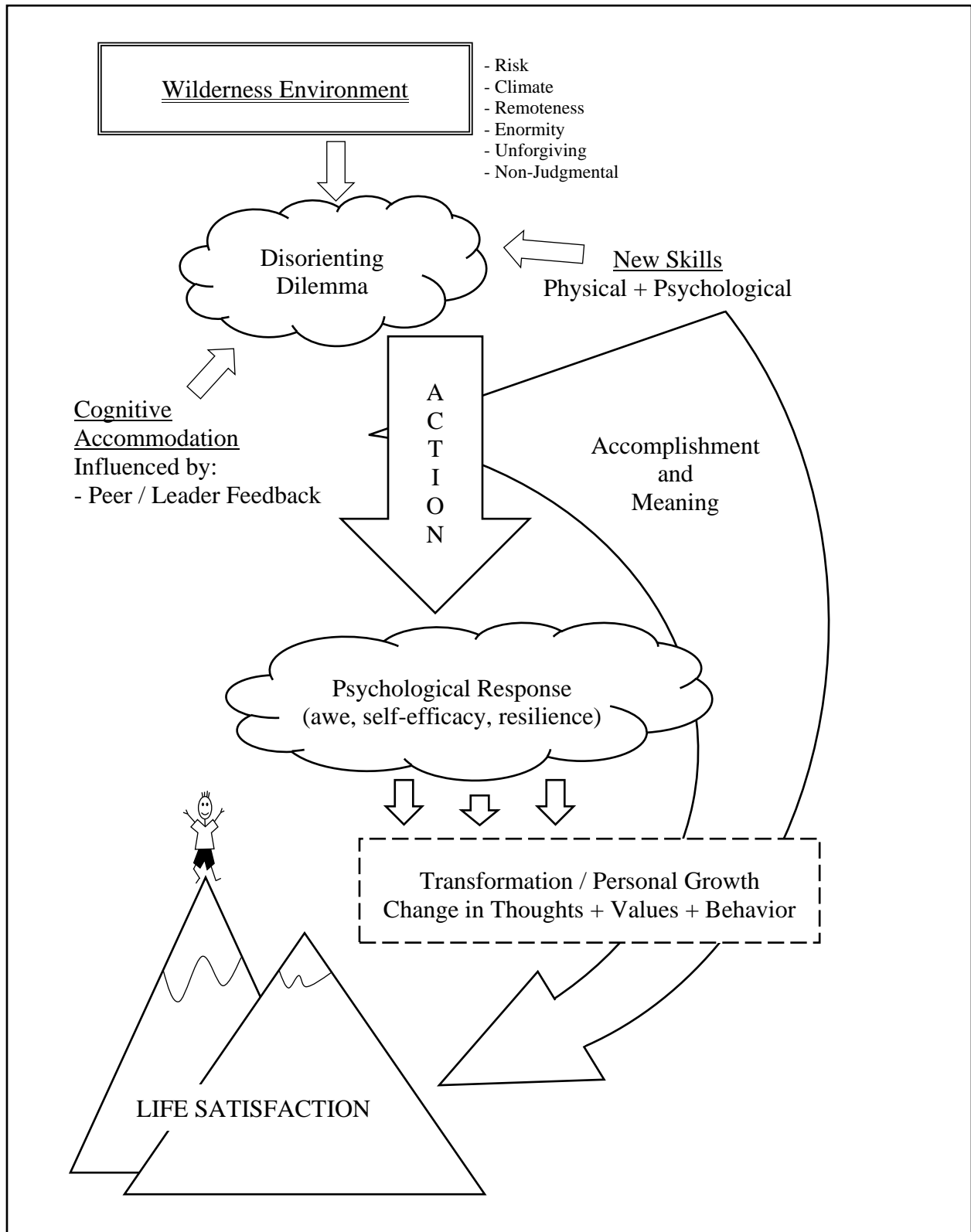
in terms of a range of awareness and willingness to make changes in fulfillment of one's potential (Hendee & Brown, 1988). The proposed continuum, simplified, looks like this: increased awareness of needs, desires, values → clarified purpose → life transformation through a change of direction. Personal growth, they argue, is dependent upon four postulates: receptivity, optimal stress from the wilderness experience, change and attunement, and metaphors. In turn, they further propose four hypothesis that they suggest are true under the assumptions of the four postulates. These are that wilderness experiences: 1. increase personal awareness, which leads to 2. a threshold of growth motivation, resulting in 3. an increase in social awareness, all of which is enhanced by 4. the personal experience with the natural world.

Building on the influential models presented above, the author proposes a theoretical concept, advancing theory with the hypothesis that beyond personal growth and transformation, individuals can ultimately find greater life satisfaction through participation in wilderness experiences. Significant to the realization of increased life satisfaction, however, is the process of identifying and building upon the psychological responses that undergird the experiences had in the unique physical setting.

In this concept, a participant is placed in the wilderness environment which, due to its very complex nature, provides a disorienting dilemma. This dilemma, a new challenge, requires cognitive accommodation as well as the acquisition of new physical and psychological skills. This may mean learning how to read a compass or use an ice axe, as well as learning how to look at a challenging situation through a more optimistic lens in order to promote creative problem solving and perseverance. Action is required to put these new skills into use. The result of action in this context is a powerful psychological experience. This may involve the acquisition of self-efficacy as one overcomes the challenge at hand. It might result in an increase in

Figure 3

Conceptual Model: From Wilderness to Life Satisfaction



resilience as one realizes that one's capability can be stretched to accomplish difficult tasks. This powerful psychological experience leads to transformation and personal growth through a change in thoughts, values, and behavior. This growth and transformative change lead to an increase in life satisfaction. Multiple steps of the process are influenced and undergirded by meaning and accomplishment. Action drives accomplishment. The psychological response and personal growth magnify meaning. Meaning and accomplishment both lead to life satisfaction.

Many conclusions are drawn within this conceptual model, some of which have been substantiated in the literature and in this paper, while some are on the leading edge of the research on this topic. Much could be done to further clarify and substantiate the relationships between each of the components in this newly proposed concept.

Building a Bridge: Integrating the Physical and the Psychological

As mentioned earlier, facilitating a wilderness experience that challenges limiting beliefs and physical ability, up to but not beyond a participant's true personal threshold, is effective in inspiring personal change and transformation. To this end, the author proposes building a bridge between the physical experience and the psychological experience as a way of integrating one with the other. The objective of the integration is to magnify the meaning of the overall experience, not only increasing the lasting impact of the insights gained but also encouraging the application of those same insights into life beyond the wilderness experience. Essentially, the integration process infuses the experience with staying power.

There are likely many ways of building this bridge. One suggestion is to facilitate a workshop-type forum where dialogue promotes integration. First, gather participants, following a physically and emotionally challenging experience, into a group similar to a power circle described earlier. Then, facilitate a dialogue wherein both the physical challenges and the

psychological (emotional) responses are acknowledged and discussed and where new insights are discovered and highlighted. Use the wilderness experience as a metaphor for life beyond the wilderness, identifying specific ways that the insights can be applied in that setting. Incorporate strength spotting in the dialogue. Encourage further self-reflection through guided journal writing.

Conclusion

For Transpac, we hired a coach, Sean. He is a local guy, 30-something, born in Hawaii, who has been sailing all of his life. His accomplishments in the sailing arena are long and varied. Among his accolades, he enjoys the distinction of having been the youngest skipper to complete Transpac. (He was 18 years old.) Based on his past experience, he has acquired not only an impressive set of physical skills but also some very specific psychological skills, all of which enable him to cope effectively in the wilderness setting of the open ocean. Over his lifetime, he has gradually pushed his personal threshold out in front of him.

Recall the example, provided earlier, of the rainy day- where both participants were experiencing the same physical circumstances but coping with them in vastly different ways. I often observed Sean and myself in this context during our training sessions as well as during our race. I was amazed by his cat-like reflexes that enabled him to move about the boat with confidence and ease, regardless of the boat heel or the wind strength. He wasn't intimidated by the conditions. I admired his ability to stay positive and cheerful in spite of the challenging environment, the heel of the boat, the wet gear, and the lack of sleep. Surprisingly, he appeared both physically and emotionally comfortable all the times. It was awe-inspiring, frankly.

In contrast, I fumbled around down below deck, trying to determine the best hand and foot holds to keep me safe, as the boat pitched and rolled. Being sick for the first three days, I

was really suffering physically and psychologically, questioning my ability, and sometimes wondering why I had done this to myself. I had to work hard at being cheerful and feeling confident while Sean's confidence permeated the atmosphere of the whole boat, increasing the self-efficacy of the team as a whole. Of the many things that I learned from Sean, one was that success in the wilderness, like in life, is a continuum. The more we push our own personal boundaries, the farther we track along the path of personal growth and transformation. Meaning and accomplishment accompany our sojourn, guiding us toward greater life satisfaction.

Through my own experience, I can attest to the fact that greater life satisfaction can come through participation in wilderness adventures. In that context, I have pushed my personal threshold beyond what I thought was my limit, only to realize greater meaning, accomplishment, and self-efficacy on the other side. It is important to note that success is not always the result when one pushes past a perceived personal limit. Sometimes things can go very wrong, indeed. Nevertheless, occasionally we are surprised by what we can do, given the right circumstances.

Positive psychology drives individuals toward well-being and greater life satisfaction. The unique aspects of the physical wilderness setting facilitate profound psychological experiences that lead to personal growth and transformation. This happens through experiencing powerful emotions like awe that evoke feelings of humility and lead to greater group engagement. It happens through personal mastery experiences that increase self-efficacy, leading to more meaningful accomplishment. It happens through both objective and subjective suffering that encourage optimism and build resilience. Inherent in the wilderness environment are risk and adversity, making planning and preparation imperative for a positive experience. The meaning derived from successful experiences in the wilderness can motivate and sustain individuals through a lifetime of challenges.

Appendix A: Positive Psychology

At the approach of a new millennium, the United States of America sat poised to continue its pursuit of economic and political wealth and influence- potentially to the exclusion of its people's broader needs and the well-being of the world at large (Seligman & Csikszentmihalyi, 2000). It was observed at the time that the social and behavioral sciences were positioned to play a critical role in a dramatic shift of focus.

Before World War II, psychology had three clear objectives: to cure mental illness, guide individuals toward more productive and fulfilling lives, and identify and nurture human excellence (Seligman & Csikszentmihalyi, 2000). Following the war, economic incentives were provided to psychologists who treated mental illness and to academics who studied pathology. Consequently, the mission to cure mental illness became psychology's most prominent objective. Although that arrangement resulted in many significant strides in both the understanding of and the mitigation of mental illness, it did have a downside. Because of the exclusive focus on pathology, the other two objectives of psychology atrophied over time. Psychology came to see itself as a subfield of the healthcare professions and shifted to a disease-focused framework of alleviating individual suffering and repairing damage (Seligman & Csikszentmihalyi, 2000).

In 1998, Martin Seligman was appointed president of the American Psychological Association. Having studied learned helplessness and optimism for decades, Seligman had already been asking questions about how to empower individuals and amplify human strength. Concurrently, Mihalyi Csikszentmihalyi, a Hungarian-born psychologist trained at the University of Chicago, was promoting the scientific approach to understanding what was known and what could be known about human behavior. Additionally, it was becoming clear that 50 years of focus on the disease model did not move psychology toward the prevention of the

serious conditions that it was treating (Seligman & Csikszentmihalyi, 2000). The time was ripe for a shift.

During his inaugural address, Seligman (1999) issued to the profession a call to action. He invited a reorientation of the science of psychology from an historic and noble focus on pathology and curing mental illness back to the original three-pronged mission. He proposed a proportionate balance with time spent on the study of human excellence and those things that lead to productivity and fulfillment (Seligman, 1999). What has emerged over the ensuing years has been a new science of well-being known as positive psychology.

In the early development of positive psychology, it became apparent that psychologists knew very little about what makes life worth living or about how to define the good life (Seligman & Csikszentmihalyi, 2000). Seligman and the late psychologist, Chris Peterson from the University of Michigan, began asking questions about what enables happiness, how health is affected by optimism and hope, and what aspects of individuals, communities, and societies drive flourishing. They turned from a problems-based approach to a strengths-based approach, investigating the process of amplifying and nurturing strengths rather than focusing on the elimination of weaknesses. Seligman and Peterson recruited scientists from across the globe to help identify and classify values and strengths that appeared in religious, cultural, and academic texts throughout the centuries. They studied everything from the Bible to the Boy Scout oath, eventually developing a scientific classification system that is for positive psychology what the Diagnostic and Statistical Manual (DSM) is for psychology (Peterson & Seligman, 2004). The book, known as *Character Strengths and Virtues*, provides a language with which to discuss human character.

Over time, positive psychology has organized study efforts under three related topics: positive individual subjective experience, positive character, and institutions that foster positive experiences and cultivate positive traits (Seligman & Csikszentmihalyi, 2000) These topics have broadly guided progress in positive psychology. In addition to the creation of the manual described above, positive psychology has inspired the development of positive interventions. Positive psychology interventions (PPIs) are practices or strategies employed by individuals, groups, or organizations, designed to promote flourishing by building on strengths. They are rigorously tested and validated through randomized, placebo-controlled studies (Seligman, Steen, Park, & Peterson, 2005).

Positive psychology is a work in progress. Acknowledging the remarkable impact that positive psychology has had on psychological practice and research over the past two decades, there is still much work to do in clarifying its core concepts (Pawelski, 2016). Nevertheless, the benefits of the science of well-being have, to date, been numerous and far-reaching.

Appendix B: Transpac Team Finish



Team TRADER finishes as 1st Hawaii Boat off of Diamond Head, HI July 2019



Team TRADER dockside



Team TRADER Transpac Award Ceremony

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