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To cite this article: J. Puig & F. Echarri (2016): Environmentally significant life experiences: the look of a wolf in the lives of Ernest T. Seton, Aldo Leopold and Félix Rodríguez de la Fuente, Environmental Education Research, DOI: [10.1080/13504622.2016.1259394](https://doi.org/10.1080/13504622.2016.1259394)

To link to this article: <http://dx.doi.org/10.1080/13504622.2016.1259394>



Published online: 28 Nov 2016.



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Environmentally significant life experiences: the look of a wolf in the lives of Ernest T. Seton, Aldo Leopold and Félix Rodríguez de la Fuente

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ABSTRACT

A primary aim of environmental education is to promote environmental values. Significant life experiences (SLE) are a powerful, fast and long-lasting way to achieve this objective, but they have received little scholarly attention thus far. As examples to help us characterize SLE and understand their function, the cases of three well-known environmentalists, Seton, Leopold, and Rodríguez de la Fuente, will be studied. All three environmentalists came into contact with wolves and looked them in the eye. These experiences, described as SLE, resulted in major changes in these environmentalists' lives. Although SLE are not reproducible on demand, by studying these cases through the narratives and biographies of these environmentalists, we can shed light on how to facilitate or promote, when possible, the acquisition of deep and lasting values through environmental education.

ARTICLE HISTORY

Received 10 November 2014
Accepted 1 November 2016

KEYWORDS

Environmental education;
environmental ethics;
spiritual intelligence; nature
experience; nature narratives

Introduction: the scope and consciousness-raising potential of Significant life experiences

Environmental education has promoted responsibility and respect for our natural world for many years. Understood generally, although not exclusively, as an education in values (Caduto 1992), environmental education aims to encourage environmentally responsible behavior. Different authors 'adopt widely differing discourses on environmental education, and propose diverse ways of practicing educative activity in this field' (Sauvé 2005). Any educative approach must come to terms with the difficulty of raising students' consciousness about the environment in a way that is both profound and stable to affect lasting behavioral changes and habit formation.

Alternative, complementary types of environmental education are needed to encourage environmental consciousness and environmentally responsible behavior (Tseveni 2011). One such path among those that have been explored is known as 'significant life experiences' (SLE) (Chawla 1998, 1999, 2001; Tanner 1980). The people who have experienced these events may develop a profound pro-environmental interest, sharing a deep concern and engaging in pro-environmental actions throughout their lives (Chawla 1998). SLE can improve some people's sense of interconnectedness with the 'more than human world' (Watson 2006) and lead them to make a strong commitment to the environment.

Tanner (1980, 20–21), who was conscious of the potential that SLE may have for environmental education and of the difficulty in creating and putting these experiences to use, recommended a deeper study of SLE. Such study may help educators learn about the processes involved in SLE to make their

educational tasks more efficient. To this end, Tanner suggested that 'an obvious technique is to examine retrospectively the lives of citizens who have demonstrated amply their informed and responsible activism' (20). Some SLE may be triggered by elements of nature. These are the types of experiences primarily addressed in this paper. Environmentally SLE can occur around a number of 'objects of interest' (Vining and Merrick 2012, 500) that are elements of nature, such as a tree, a leaf, a mountain, a river, the sea, a landscape, the gaze of an animal, or another natural object or event. Focusing attention on these environmental experiences narrows the broad scope of SLE to more directly address the pursuits of environmental education.

An initial challenge is to frame the definition of an environmentally SLE. Williams and Harvey (2001) indirectly referred to SLE in their discussion of 'transcendent experiences' in forests: 'one characterised by strong positive feelings of happiness and freedom, a sense of union with the universe or higher entity, absorption in the moment and a sense of timelessness.' Importantly, some authors do not pay any attention to SLE because they conclude that life experiences appear less important in attaining results than, for example, promoting small class sizes and addressing the challenges associated with low-income students in schools (Stevenson et al. 2014). Although such priorities are valid in educational planning, they do not rule out the potential contribution of SLE. First, the point of studying SLE is not always – or even primarily – to produce SLE among those who are studying them. Second, although SLE may have led to unimportant results in the cases of these authors, SLE have played an important role in the lives of many people and in the overall history of environmentalism.

Environmentally SLE can be approached following Tanner's recommendation of examining the lives of the people who have demonstrated their informed and responsible activism. A particularly powerful category of SLE can be found in the lives of the three environmentalists mentioned in the title. Their encounters with the gaze of a wolf involved a superior level of consciousness-raising, which may have been close to the peak level of consciousness they experienced throughout their lives. These experiences stayed with them in different ways and were sometimes remembered as exceptional encounters that were immediately and forever engraved in fire on their hearts. On other occasions – as in the case of Aldo Leopold – the effect came more as a late realization of the deep meaning of a past event, which was no less powerful, like hidden embers ready to set his inner life and environmental views on fire gradually and in due time. These encounters helped characterize their lives, providing meaning and insight, either consciously from the beginning or in a way that was gradually discovered retrospectively.

These experiences may be considered very close, if not identical, to environmental epiphanies, i.e. 'An experience in which one's perception of the essential meaning of their relationship to nature shifts in a meaningful manner' (Vining and Merrick 2012, 497). This type of experience produces an extremely intense reaction and perhaps an emotional and spiritual state (Hawks 1994) that is highly potent, rarely experienced, long remembered, and unforgettable (Vining and Merrick 2012, 497). These authors also state that environmental epiphanies are 'common occurrences' (485) – not in the sense that they occur frequently in the life of a person but, rather, in the sense that many people will experience them at some point in their lives. In their own words, '... it is obvious that many people have experienced epiphanies and that these experiences have changed their lives in very meaningful ways' (485). Hence, the study of the occurrence of SLE may provide interesting contributions to education. Bearing all this in mind, Vining and Merrick (507) proposed that deeper investigations of this topic should be undertaken because of their potential to advance our understanding of the bond between human beings and nature, which is of primary interest to environmental education. However, environmental epiphanies are rarely studied or mentioned in environmental education literature (Hawks 1994). This may be because their consideration enters into emotional or spiritual realms that are difficult to rationalize or describe, as they may escape the bounds of experimental control, unequivocal verbalization, comparisons among different people, or reproducibility. Regarding the spiritual realm, authors such as Keniger et al. (2013) note the scarcity of studies combining nature and spirituality, even though it is widely recognized that spirituality is a fundamental aspect of human beings and that 'experiences in nature are an opportunity for spiritual growth' (Keniger et al. 2013).

In academic terms, spirituality tends to be approached far more often from the humanities than from within the field of environmental sciences. It is difficult to precisely define what constitutes spirituality when referring to human beings beyond indicating that it involves a set of specifically human qualities that are only partly rational – yet not irrational – and are particularly active in producing or experiencing the arts and any other creative sphere, reality or dimension that is specific and unique to human life. ‘Meaning,’ ‘happiness,’ ‘freedom,’ a ‘sense of union’ or ‘sense of timelessness,’ ‘absorption in the moment,’ an ‘unforgettable experience,’ ‘life-changing’ – all of these expressions indicate how difficult it may be to address the vast array of possible meanings, manifestations and experiences attributable to spirituality. Wolman (2001, 1) defines spiritual intelligence as ‘the human capacity to ask ultimate questions about the meaning of life, and to simultaneously experience the seamless connection between each of us and the world in which we live.’ This formula, which does not intend to settle the debate on spirituality and intelligence, may be interesting for environmental education purposes and useful for framing the research addressed in this paper.

It might be said that spiritual intelligence seeks a personal understanding of the world by responding to questions about its meaning, occasionally through transcendent moments, as occur with some SLE, that perhaps arise during a mere contact with the world or while studying, researching or contemplating it and manifest as either an instant or later powerful realization. Spiritual intelligence may help each individual reach further into the realm of meaning to find the intrinsic and indissoluble union between human beings and nature and to discover this union’s spiritual potential, which intertwines with the dimension of the natural world that scientific study reaches. Ultimately, spiritual intelligence can play an important role in the conservation of the natural world. It has been argued that a lack of consciousness of the spiritual values or dimension of our surroundings may be among the causes that explain the deterioration of our environment (Mallarach 2008, 13).

This article aims to bring together these reflections and contribute to studies on SLE. In chronological order, it examines the analogous and yet dissimilar experiences that the following three outstanding, twentieth century, Western environmentalists had upon meeting the gaze of a wolf: Ernest Thompson Seton, Aldo Leopold and Félix Rodríguez de la Fuente. These environmentalists have had a substantial influence in terms of building environmental consciousness. They all experienced SLE linked to the gaze of a wolf, and it is possible that they underwent environmental epiphanies on these occasions. In what follows, the SLE experienced by the aforementioned environmentalists will be described to shed light on their experiences and testify to the undeniable influence that these experiences had on their environmental biographies.

Ernest Thompson Seton’s (1860–1946) meeting with the ‘green glare’

Seton lived in the Canadian forests from the age of six. Because he had been a hunter of wolves for years, and despite his position at the time, he was called to New Mexico to hunt an extraordinary wolf that none of the local hunters could kill. Abandoning his office job, he returned to hunting to pit his wits against the considerable intelligence of the particular wolf he had been commissioned to kill. The wolf’s resistance to being hunted, which vastly surpassed Seton’s initial expectations regarding the amount of time required (going from two weeks to four months), in addition to the effort and different hunting strategies, such as poisoned food and traps, he employed against this wolf, generated a special interest in Seton.

When he finally trapped the wolf in January 1894 using novel strategies, the wolf’s eyes met his own. He had found him entangled in three separate leg traps. ‘Worn out in hopeless struggle against the traps, the animal did not fight, but accepted his inevitable fate’ (Witt 2012). The wolf was not yet deprived of all his wild strength. ‘His eyes glared green’ at him (Seton 2009), Seton tells us. Now that they had captured him and were about to kill him, Seton recounts having thought, ‘I am sorry for you. I am sorry to do it, but that’s what I am here for’ (Seton 1941, 337). Some trace of self-justification and fatality seems to be hidden in these words. Nevertheless, and maybe because he perceived from the beginning that something was wrong, at the last moment, Seton shouted to his helper: ‘Stay, we will

not kill him; let us take him alive to the camp' (337). Something held back his desire or plan to kill. He no longer wanted to kill the wolf outright. Did Seton know that the wolf's death was inevitable? If so, why extend the wolf's agony? In any case, the wolf was loaded onto a horse and taken from the point of capture to their camp. At that moment, Seton observed that 'His eyes were bright and clear again, but did not rest on us' (Seton 2009).

This gaze would attract his attention again once they arrived at the camp: 'He lay calmly on his breast, and gazed with those steadfast yellow eyes away past me down through the gateway of the cañon, over the open plains – his plains – nor moved a muscle when I touched him' (Seton 2009). The wolf may well represent the image of contemplating nature, which the insightful observer makes his own. This interpretative approach to the episode suggests that the wolf's gaze extended inward, finally reaching somewhere within Seton's heart, close to the place where decisions are made and where behaviors are born and changed. Something deep inside Seton was started, not solely by the wolf or himself but not without them either. 'When the sun went down he [the wolf] was still gazing fixedly across the prairie' (Seton 2009). Seton was entranced for a long time in awareness of the wolf's gaze and of some implied, personal message for the hunter. Reading about this episode with the wolf, we see the depth of that gaze reverberating within Seton, and we can intuit the specifically human and personal dimension that nature encompasses. This SLE, which started with the wolf's gaze but in which the wolf's gaze blended with Seton's own, resulted in profound pro-environmental changes in Seton as if nature, through the gaze of a dying wolf, was effectively teaching Seton new dimensions and ethical implications of valuing and respecting our natural self and surroundings and our role within nature.

When Seton described his first encounter with the trapped wolf, he used the phrase 'Something like pity possessed me' (Seton 1941, 337). A very potent sentiment came over him, which greatly influenced his view of and respect for the environment and the living things that constitute it. Despite wanting to kill him, at that moment, he understood that the wolf was not 'bad' as some popular and mainstream cultures may have believed (e.g. Rodríguez de la Fuente 1970a, 89). 'Almost at once Seton realized that he had made a very big mistake, an error in moral judgement' (Witt 2012). In his experience and narrative, he humanized the wolf, empathizing and connecting with him. From the viewpoint of science, this approach was criticized early on due to its anthropomorphism in the 'Nature Fakers controversy'. Nevertheless, Seton's experience changed him and clearly influenced his contribution to education.

Seton described his experience as 'one of the turning points of my life' (Witt 2010, 38). 'It is clear that [for Seton] in October 1893 animals were animals; in February 1894 they were fellow creatures exhibiting feelings and morality' (Witt 2012). Seton's experience could even be called a 'conversion': 'his life and attitudes were forever changed' (Witt 2010, 36). 'Seton underwent a personal transformation from wildlife killer to wildlife protector' (Witt 2012). 'His contention that animals are related to humans in a moral sense would soon lead him to the logical conclusion that we are therefore responsible for their preservation' (Witt 2010, 38) and to his attempts to transmit these ideas through education. In fact, Seton is one of the few people within his time and own culture who stoutly defended wolves (Jones 2002), calling the wolf an 'animal-hero' (Seton 1925, 337) or a 'harmless wild animal' (Seton 1901, 13). In 1898, his experience was chronicled under the title of 'Lobo the king of Currumpaw,' which is the first chapter of his work *Wild Animals I Have Known*. In his narrative, 'In contrast to the wolf, Seton cast himself, the hunter, as the villain, both cruel and treacherous. Within a few years, the former wolf hunter would take a leading role in launching the wildlife conservation movement' (Witt 2012). The creation of 'Woodcraft,' an educational movement for young people in nature, arose from Seton's new concern. He also incorporated the footprint of the wolf as part of his signature. Somehow, that SLE took on a central role in his life and came to form part of his identity, environmental views and commitment to conservation.

How is it that Seton committed himself to nature writing and lecturing, involving his art and organizational skills 'to persuade the world to adopt a new way of thinking about nature' (Witt 2012)? How can we examine the link between his experience and his behavior from that point forward? Witt highlights Seton's encounter with Lobo, the wolf, as an 'important catalyst.' However, the question remains: 'how did he get from Point A to Point B?' To shed some light on this question, Witt suggests that after the wolf

encounter, Seton started questioning his own motives, wondering what made him want to kill wolves. Witt advances that Seton possibly extended the focus of his own questioning to try to understand what motivates humankind to pursue a war against not only wolves but all of nature. From there, Witt (2012) suggests that Seton found an answer to this question that may be of interest to environmental educators: 'He felt that antinature attitudes arose primarily from ignorance and lack of curiosity about the world of the wild.' What did he do from that point forward? He did not attempt to reproduce his SLE in others. Nevertheless, his SLE was significant in an operative way for the educational initiatives he promoted, leading to the pursuit of a certain style and means of education: 'he felt that by introducing children to wild nature, a natural love of learning would be established that would last a lifetime' (Witt 2012).

Aldo Leopold's (1887–1948) encounter with the 'fierce green fire'

Aldo Leopold is one of the best known and most highly reputed environmentalists in the United States. He has been called the 'father of ecological science' (Jones 2002). His famous book, *A Sand County Almanac* ([1949] 1966), includes the well-known essay 'The Land Ethic.' Both works have had a considerable influence that extends beyond the fields of environmental science and environmental ethics. What formed Leopold into the influential man he eventually became? One of his biographers notes among his qualities an exceptional intelligence, a command of ecological science, a gift for observation, a sense of country, and his energy and curiosity. The biographer adds two further qualities as being 'absolutely critical to his making: he was a hunter and he was a working land steward' (Meine 2010, xv). Leopold grew up with frequent contact with the outdoors.

Leopold was first a naturalist and a hunter who later became a forester (Meine 2010, 83). From childhood on, he accompanied his father on hunting expeditions. In 1906, he entered the Yale Forestry School. In 1909, he completed his studies and joined the US Forest Service. Leopold's first job took him to Arizona. On July 1, 1909, he boarded a train at Fort Madison, Iowa, and headed west for Albuquerque. He spent a week there 'learning the district's methods and policies on grazing, silviculture, lumber sales, and operations' (88). On July 13, he received orders to report to the Apache National Forest in the Arizona Territory, where he worked as a forest assistant. Large predators, including wolves, were still in sufficient numbers there, but 'the era of the bounty hunter and government trapper was at hand, and the campaign against "varmints" reaching its climax' (89).

At that time, the wolf was considered an enemy, as were many other predators: 'In those days we had never heard of passing up a chance to kill a wolf' (Leopold 1966, 130). Shortly after receiving his first important assignment, as crew chief of a reconnaissance party, his famous encounter with a dying wolf took place (Meine 2010, 93). While eating lunch high on a rimrock, Leopold and one of his crew saw a wolf and a pack of grown pups. The men went for their rifles and fired at them. Then, they clambered down to inspect the results. One pup was crippled and tried to escape. The old wolf was still alive but unable to move. 'In a final, instinctive upwelling of defiance, the wolf gnashed out and grabbed the rifle butt in its teeth' (94). Much later, Leopold dramatically recounted the deep consequences of the episode for himself, which were not immediately or fully realized at the time of the encounter:

We reached the old wolf in time to watch a fierce green fire dying in her eyes. I realized then, and have known ever since, that there was something new to me in those eyes –something known only to her and to the mountain. I was young then, and full of trigger-itch; I thought that because fewer wolves meant more deer, that no wolves would mean hunters' paradise. But after seeing the green fire die, I sensed that neither the wolf nor the mountain agreed with such a view (Leopold 1966, 130).

After clambering down the rimrock, he found more than he expected. Yes, there were the wounded wolves. However, there was something new in those eyes. What was it? It took him decades to interpret and realize the full meaning that this event had in store for him. He kept it somewhere in his memory and heart. Yet, unlike Seton, Leopold did not change his mind on wolves instantly. In fact, he continued supporting the killing of wolves and other large predators for decades. In 1915, he was elected secretary of the Albuquerque Game Protective Association, which aimed at preserving and restoring wild game

populations. He created a bulletin, *The Pine Cone*. The first issue included an article calling for the reduction of predators: wolves, lions, coyotes, bobcats, foxes, skunks and other 'varmints.' For many or most of the people involved, this call for reduction developed into a practice of unrelenting extermination.

Many factors led to this 'emotional crusade': the depletion of wild prey, the shrinkage of native habitats, and the alteration of the range and the feeding, behavioral and reproductive habits of most predators and of wolves in particular. Game was scarce, and depredations on stock were rising. Moreover, 'centuries of cultural indoctrination, and an almost complete lack of scientific information on the role of predators in the natural systems' led to the feeling that the 'varmint takes my food' (Meine 2010, 154–155). In 1919, ten years after arriving in Albuquerque, Leopold occupied the second highest position in the district. By then, only the most remote, wily and persistent wolves had survived. It was estimated that only a dozen remained in New Mexico and few or none in Arizona. Nonetheless, Leopold insisted on extermination. Why? He had experienced how quickly some areas of the country had become restocked with wolves (181). It is well known that this policy eventually backfired.

In 1924, S. B. Locke, a forest examiner with the Forest Service, and E. A. Goldman, a senior biologist with the Biological Survey, brought to the fore a most celebrated case of game mismanagement (Meine 2010, 240). After thousands of predators had been cleared by government predator hunters in the forests of the Kaibab Plateau, Arizona, the deer population grew until a few foresters began to notice signs of an overrun of the range in the late 1910s. However, the official policy continued. The ecological problem was building. In 1924, 'by the time Locke and Goldman surveyed the range, the situation was critical, and on the brink of disaster.' It would ultimately force Leopold to reexamine the very basis of his thinking, 'but not until science and management techniques caught up with experience' (241). Discontent with the federal government's predator policy emerged. It was argued that the Biological Survey was causing more harm than good with its campaign against predators.

Leopold began to take his first tentative steps away from his own views of predators in 1925, realizing how little was known about the role of wildlife in the ecology of the forest (Meine 2010, 241). It was not until 1936 that 'he completed his conversion, and was even beginning to think of predators in terms of positive management' (365). From 1935 forward, the 'game' organizations and policies shifted their name and aims toward 'wildlife.' They now aspired to implement the burgeoning wildlife movement. Not everyone in the profession was comfortable with the shift. However, Leopold seems to have adopted it without hesitation (365). He was now ready to take all of his experience as a naturalist, forester, game protector and manager, and wildlife manager and apply it to 'a still broader calling, as a land manager, a land ecologist, and a teacher of both' (363). What made this change possible? A strong inner drive made him 'too independent to be dominated by anyone, or by any idea.' Leopold kept his mind open to fresh ecological knowledge, 'thus ensuring that when new light would be needed, he could help to shed it' (83). Beyond his intelligence, perceptivity, spirit or conviction, 'his greatest asset was his independence,' in Meine's view. New light was indeed arriving in the form of ecological knowledge.

However, what was the role of the 1909 wolf encounter in this 'conversion'? Meine thinks it led him down 'a dramatically different path' (Meine, in the 'Green Fire' documentary trailer, 2011¹), one that did not manifest itself suddenly or only – or even most significantly – at the very moment of seeing the wolf die. It showed its power gradually progressing over time. 'The full meaning of that experience eluded him for many years. (...) It would take 35 years for that moment to emerge in his own writing fully' (Meine, in the 'Green Fire' documentary, 2011). It finally emerged when he wrote of the event recounted above in his essay 'Thinking Like a Mountain,' in which he wrote, 'Only the mountain has lived long enough to listen objectively to the howl of a wolf. (...) My own conviction on this score dates from the day I saw a wolf die' (Leopold 1966, 129). Notwithstanding this progressiveness, the whole power of the event has been described as follows: 'The impact of his own gunshot from a rimrock in Arizona changed Aldo Leopold's own thinking, leading to the key insight that was the culmination of his life's work: a responsibility for its health' (as of July 19, 2015, the Aldo Leopold Foundation, listed on its website).

The gaze of the dying wolf ('a fierce green fire' as he recalled it) may represent the power at work behind Leopold's evolving mindset to a different view of the natural world. In particular, it is noteworthy that he says 'and have known ever since' (Leopold 1966, 129). He never forgot this encounter, and its

importance kept growing and developing over time. This confirms its durability and the educational impact of this personal experience. The most remarkable aspect of this encounter is its progressive consequences. It produced in him a life-changing stimulus that was incorporated into his land ethic, which was determinant in shaping our relationship with nature (Bizerril, Soares, and Santos 2011). His new vision inspired a growing lifelong devotion to the environment, leading, for example, to his promotion of the preservation of wildlife and wild lands by founding the Wilderness Society in 1935. The green fire has been at work 'ever since.' However, it would not burn openly again 'until science and management techniques caught up with experience.'

Leopold's SLE with the wolf touched him so deeply that the expression 'green fire' is now used to signify the tipping point of his ethical thoughts. It could be said that this is the Leopold 'brand,' which has been used in movie and documentary titles about his ideas.² On the one hand, the experience is linked to his ecological scientific knowledge, while on the other hand, it can be more appropriately characterized as 'spiritual.' For example, Jones (2002) sees it as follows: 'The impassioned reference to a "fierce green fire" marked Leopold's ecological epiphany as a spiritual as well as scientific experience.'

Félix Rodríguez de la Fuente (1928–1980) and his encounter with the wolf's amber gaze

Félix Rodríguez de la Fuente is considered one of the most important environmentalists in the Spanish-speaking world. His works and influence are known all over the world. Felix, as he is known in Spain, a contemporary and friend of Jacques Cousteau and Konrad Lorenz³, was an extremely gifted communicator in his own right (Salcedo 2008). His vast legacy, which includes encyclopedias and other publications, television programs and radio shows, can be found in the major libraries of the world.⁴ His visionary philosophy on the relationship between human beings and the earth transformed the environmental thinking of Spanish society during the 1970s and 1980s. One cannot understand modern-day conservationism in Spain without taking his influence into account. Félix arrived at a moment in Spanish history when hunting certain wild animals (mostly predators, deemed 'varmint' at that time) was commonplace, as it had been in the US decades before. Similar to the US government, the Spanish government paid trappers and hunters for the carcasses of wild carnivores. With his major influence, Félix effectively campaigned for Spain to enact laws protecting these species and the whole environment instead of allowing the hunting of predators to continue unabated.

Félix had a very special relationship with the wolf: 'I have always felt a true preference for the wolf above all other animals' (Varillas 2010, 367). This relationship first manifested during a wolf hunting trip in 1939 or 1940, when he was 11 or 12 years old. He was not expected to do any of the hunting but, rather, to simply join the fellowship of the hunters. Félix sat for hours listening to an admired veteran, the best hunter in the group, who told the boy stories of his hatred for the wild animal that menaced his livelihood. Wolves, Félix was told, were worse than the devil. They inflicted substantial harm on the land. They were evil and had to be killed. They wanted to take the cattle, which were the life and wealth of those who were now seeking to kill them all. These men would not allow wolves to do this. When the voices of the approaching beaters were heard, the seasoned hunter urged the boy to keep quiet and motionless (109). There, in the middle of the hunt, Félix first encountered the gaze of the wolf. From his hideout, he scanned the area looking for a wolf to be killed. Through his binoculars, he spotted one looking in his direction. Inexplicably, he felt that the wolf was staring directly at him, into his eyes. Then, something entirely unpredictable and against the odds, given the hunting environment that surrounded him, developed.

What I saw ... I will never forget! I saw a beautiful animal; a large grey animal, an animal that was perfectly standing and looking straight towards me. (...). His eyes caught my attention most; an amber, caramel colour. They were eyes that looked at me with nobility; questioning eyes ... Maybe, complaining eyes that were throwing out questions like: 'Why do you persecute me? Why do you want to kill me?' (Pou 1995, 47; see also Varillas 2010, 110).

This wolf elicited a deep questioning in the boy, which prevented a mere utilitarian view of animals and nature, even nourishing or revealing 'deep-seated connections with other life' (Bell and Russell

1999). To the captivated boy, the animal did not look anything like the ferocious, evil, bloodthirsty, and dirty beast that had been described to him. To his young eyes, this was an exquisite animal, with a deep and noble gaze. The wolf was the most complete representation of the strength, liberty, and heartbeat of Mother Nature, as he would describe the encounter years later. Suddenly, in a split second, he decided that the animal could not possibly be evil and that he could not allow the wolf to be taken by the hunter. He made a daring move. Taking advantage of the fact that his old friend was not aware of the presence of the animal and was looking somewhere else, the boy stood without losing sight of the wolf through his binoculars. Immediately, the silhouette of the wolf was lost among the rocks (Varillas 2010, 110–111).

Again, as with Leopold and Seton, Félix ‘never’ forgot the encounter. He was conscious of the importance of this experience, which also cries out to be categorized as an SLE, and of its deep and lasting impact. Félix wrote that it had been a transcendent moment, one of those that influences the whole existence of a human being. He always thought that the encounter drastically changed his life and his conception of the wolf; however, time passed – a great deal of time, more than he wanted – until he had the opportunity to truly become acquainted with the animal, ‘with that wolf I first saw through my binoculars when I was eleven [twelve, in other accounts], at the top of the wasteland beaten by the cold and dry wind’ (Varillas 2010, 343).

He was trained as a doctor and a dentist, but he dropped his medical profession in 1960 with the aim of fully devoting himself to a long-cultivated passion – the art of falconry – that was by then rather forgotten in Spain but immersed him back in nature, as one of his biographers has noted (Varillas 2010). However, it was not until 1965, some 25 years after his first encounter with the wolf, that he finally found the unsought-after opportunity to truly get to know the animal: ‘the wild canines again burst into his life. This time to stay and to immortalize him as the friend of wolves’ (343).

He received a phone call from a friend announcing that he had rescued two wolf cubs that had been stolen from their den by shepherds. The cubs, already showing signs of dehydration, would die unless he took care of them, and he did take care of them. Together with his future wife, Félix ensured that the cubs survived. They were subsequently taken to the falconry center he managed in the Casa de Campo, the largest urban park situated west of central Madrid (Spain). There, as the cubs grew into fully sized wolves, he learned from them first-hand. There, he questioned the wolves in the depth of their gazes (Varillas 2010, 353). His experience was not unconnected with his feeling of unity with the world, which he expressed as an ideal: ‘A world where animals and humans understand and love each other’ (Pou 2008, 162). If Francis of Assisi had addressed himself to ‘brother wolf,’ Félix lived a similar experience when one of the wolves, already an adult, offered him her first prey ever: a pheasant. Then, in her eyes, he read a message: ‘Take it, my first prey. (...) I have realized that you are an old wolf (...) I will kill for you. Take the meat, take my present.’ Then, his she-wolf came to him and leaned her front paws on his chest, then disappeared suddenly, jumping over him from his back, and turned around to him ‘with all the infinite grace of mother nature, of the forests, of the moors, of the steppes.’ At that moment, ‘looking at me in the eyes, [she] said to me: “brother wolf”’ (Varillas 2010, 356).

His love of wolves characterized all of his later environmental work with many wildlife species. However, wolves and falconry were not his only concerns. In addressing the difficult relationship between wolves and humans, he dreamed of attaining a new harmony between humans and nature. From 1964 on, he developed a varied career as what we would now call an environmentalist and environmental educator, first through the radio and then on television, which proved highly influential in fostering environmental concern by inspiring a knowledge and love of wildlife. He was a founding member of ADENA (Association for the Defence of Nature) in July 1968, which became the WWF-International representative in Spain. He campaigned for numerous species and land conservation initiatives across Spain and took a special interest in the environmental education of young people (Varillas 2010, 492). Félix took advantage of his superb communication skills, which have been highly valued in promoting environmental education (Bizerril, Soares, and Santos 2011), and worked efficiently towards that objective with great tenacity and effort until his fatal accident in Alaska.

Of wolves, stares, gazes and humans

It is quite impressive to find such a convergence in the influence of the gaze of a wolf on these remarkable Western environmentalists. Is this simply a coincidence? It can hardly be considered so. The wolf is by no means a nondescript species in many human cultures, especially not to those that once considered the wolf as the enemy or even an evil creature. Perceptions of wolves in stories are generally negative (Prokop, Usak, and Erdogan 2011). B. H. Lopez addressed the multi-faceted, scientific, iconic and cultural nature of wolves in his book 'Of wolves and men' (1978). Lopez's assessment relates closely with the experiences of our three environmentalists: 'The wolf exerts a powerful influence on the human imagination. It takes your stare and turns it back on you,' he wrote (4). Lopez is open to a wide range of cultural views, some of which connect with the three SLE described in the present study: 'The Bella Coola Indians believed that someone once tried to change all the animals into men but succeeded in making human only the eyes of the wolf' (4).

The wolf, like other large carnivores, has been of particular interest to human beings. This fascination can be seen in the varying roles given to wolves in different popular cultures and literatures throughout history and across the world (see Lopez 1978). In many cases and cultures, particularly Western cultures, this species has been considered to have 'vices that really only characterize humans (...). Everything abhorrent, like bloodthirstiness, treachery and cowardice, has been attributed to the wolf through popular culture,' writes Rodríguez de la Fuente (1970b), 277). Conditioned by a conflictive relationship with farmers, wolves have been generally persecuted by them. In some territories and periods of time, wolves have been hunted almost to the point of extinction. In recent decades, however, as a result of a growing ecological awareness forged primarily from ecological science, the negative image of wolves as varmints has been transformed. We have experienced 'first the deliberate extermination and then the canonization of wolves in a little over a century' (Jones 2002, 2010).

In other cultures, there has not been a need for such a change. Among some indigenous cultures in Canada, the wolf is seen in a more positive light. As hunters, wolves may be assimilated with human beings to the point that the line between humans and wolves may fade (Lopez 1978, 88, 98). Lopez's comparison of the views commonly held by Westerners with 'what people who lived in the Arctic among wolves, who had observed them for years in the wild, thought about them' (77–78) and his attention to 'what could be inferred about the behavior of wolves from the lifeways of seminomadic human hunters who face virtually the same problems as the wolf in securing game and surviving the Arctic' (78) may serve to exemplify the broadness and diversity of the experiences and cultural constructions derived from wolves and of the wisdom and biases they may convey: 'I remember (...) recalling Joseph Campbell, who wrote in the conclusion to *Primitive Mythology* that men do not discover their gods, they create them. So do they also, I thought, looking at the notes before me, create their animals' (5). Interestingly, some of these cultures integrate spiritual dimensions into the world around them: the hunters must treat the animals with respect, hunting is holy and game animals are holy. 'The killing of animals, then, entails tremendous spiritual responsibility' (92). In any case, 'Native American perceptions of the wolf varied largely according to whether or not a tribe was agricultural' (102).

Since Lopez's book, much has been said about wolves by innumerable cultures and much remains unknown. Realizing the impossibility of covering all the richness and unpredictability of wolves, Lopez wrote, 'To be rigorous about wolves—you might as well expect rigor of clouds' (1978, 4). Yet there is a remarkable point to bear in mind, and the work of Lopez may help in doing so. The different cultural constructs surrounding wolves as a natural reality and a powerful species have been very potent. These cultural constructs did not first – or primarily – emerge from environmental science. If this absence did not prevent the development of wisdom in some native cultures, it may have led to major mistakes in many Western popular cultures before the awakening of ecological science and awareness. 'The truth is we know little about the wolf. What we know a good deal more about is what we imagine the wolf to be' (3). This is so, in part, because 'What wolves do excites men and precipitates strong emotions, especially if men feel their lives or the lives of their domestic animals are threatened' (2).

Wolves can be considered according to more positive or more negative views or approaches, but they undoubtedly have exerted a great emotional influence across cultures. Relevant testimony of this power can be found in the encounters of Seton, Leopold and Rodríguez de la Fuente and in the interest in wolves that has been aroused in their readers. In all three cases, SLE occurred with a wolf and, specifically, through the gaze of a wolf, which triggered what we can term a 'calling,' 'manifestation,' 'spiritual revelation' or 'spiritual upheaval.' This change is classified as a *calling* because it describes something beyond what is contained only within oneself, which promotes reflection and invites the person who experiences it to perform environmentally sound actions. It is a *manifestation* because it appears suddenly when experienced, even when the realization involves otherwise well-known realities, as though we were discovering something new and deep in what we thought we already knew. It can be described as a *spiritual revelation* because it opens the person to new and previously unnoticed realms of consciousness and depth beyond mere rationality but that is not irrational in any of the three cases. It can be termed a *spiritual upheaval* because it normally leads to or accompanies personal changes, which are sometimes radical and can last a lifetime.

Discussion

Animals represent an area of emergent interest in the field of environmental education (Oakley et al. 2010). They have the potential to trigger the 'acute moral awareness' that Balcombe (2010, 13) considers 'one of humankind's greatest achievements.' Animals have led some authors to endorse an 'ethics-based epistemology [...] where all entities deserve consideration' (Jickling 2005), even as individuals (Balcombe 2010; Spanning 2016). Furthermore, individual wolves triggered the experiences studied in this work.

Seton, Leopold and Rodríguez de la Fuente lived at different times and in different cultures.⁵ The wolf's gaze unites them all. This remarkable, enigmatic coincidence may leave a track to those who wish to follow it. It is as if nature, with all its biodiversity, was insisting for once on repeatedly using the same language or resource, the gaze of a wolf, and producing an analogous effect in three influential environmentalists to convey a core message to the protagonists and, by extension, to their readers. Although we cannot voluntarily reproduce SLE, we can learn some piece of wisdom on how to progress from the visual and the sensory into the realm of deep realization, effective commitment and behavioral change from these environmentalists' narratives. The accounts of Seton, Leopold and Rodríguez de la Fuente show that there are very different human ways, levels and depths of seeing. Through the gaze of a wolf, our protagonists correct and enrich their own previous knowledge with an awareness of a union with the creature they are looking at (Rautio 2013). Inseparably in their lives, a new consciousness arises, reaching their conscience and behavior. This power of the gaze, whether it is a human gaze [see, e.g. (Kuhl 2011)] or the gaze of a wolf, may guide the attention of our own gaze to see and learn about nature more deeply.

The gaze of a wolf led our protagonists to new ways of seeing, sensing, perceiving and assessing not only wolves but also our integration within the whole of nature. The separation or even severance between human beings and the nonhuman world causes multiple environmental problems (Bell and Russell 1999). Interestingly, nonhuman beings may elicit positive changes in human behavior and improve our relationship with nonhuman nature and our belonging to a shared world (Balcombe 2010). Animal encounters in particular (Oakley et al. 2010) and direct experiences with animals may help in improving our relationship with this nonhuman world (Watson 2006). Animals may remind us of the powerful aspects of the fact 'that we are animals ourselves, embedded and dependent on natural systems' (Oakley 2011). Animals, and the knowledge and narratives around them, may educate us on the ways in which we already are a part of nature as human animals, particularly when finding and composing connections to our surrounding nonhuman world (Rautio 2013). Ecopsychology has been opening new roads for understanding the interaction between the natural and, specifically, human worlds: 'Ecopsychologists are drawing upon the ecological sciences to reexamine the human psyche as an integral part of the web of nature' (Brown 1995). More incisively, and more daringly, it has been said that 'Perhaps, what is being asked of us now is to create an alignment between natures, between

souls in persons and soul in the world, a correspondence necessary for the health of all who live on planet Earth' (Aizenstat 1995). This approach blends very well with the possibility that Seton, Leopold and Rodríguez de la Fuente might have suddenly understood many of the commonalities that humans and wolves share in terms of biology and natural history, powerfully signified by the account of the 'brother wolf' by Rodríguez de la Fuente.

Whatever the link between humans and nonhuman nature may encompass, there are some things of primary importance that should not be overlooked in environmental education within the cultures that suffer some degree of estrangement from the land. Human beings may well need much more direct contact with nature than what many cultures afford today. The link between human beings and nonhuman nature is rooted in and testified to by our bodies. We share atoms, molecules, genes, our animal condition and our dependence on the land with nature. These facts of science, all these natural compatibilities, communications and continuities with the nonhuman, reveal our ecological identity. Unfortunately, more than half of the world's population lives in urban environments or according to lifestyles that tend to reduce our direct contact with nature. The powerful effects of the wolf encounters on our protagonists may well emphasize the importance of stressing direct contact with nature in environmental education.

There is a dramatic tone, even a poetic ring, in the Seton, Leopold and Rodríguez de la Fuente narratives, which opens to the depths of the ineffable. These environmentalists were not only knowledgeable but also had a talent for narration. The three tales of the gaze of a wolf suggest a reflection on the educational power of harmonizing narratives of SLE, triggered by animals or other elements of nature, with the process of acquiring scientific knowledge about the natural world. Research in the area of environmental behavior does not endorse certain traditional theories in the field of environmental education, which suggest that teachers can foster changes in behavior simply by increasing students' knowledge. Rather, such research suggests that a variety of variables influence behavior. The incorporation of spirituality – which, understood in Wolman's sense, seems an appropriate term to categorize SLE and their narratives – would provide 'an additional way for students to construct knowledge, make meaning of experiences, and move toward authenticity, all contributing to transformation' (Crowe 2013). It has been written that the wild animal stories of Seton operate at the intersection of the complex relationship between literary representations of animals, scientific studies of animal cognition, and practical and theoretical work advocating animal protection and that the potential of these animal stories to facilitate reciprocal communication has not been recognized due to their damaged reputation within literature as a consequence of the Nature Fakers controversy. Thus, the interactions between literary and scientific researchers that may have been of interest to environmental education have, unfortunately, been neglected (Allmark-Kent 2015).

Nonetheless, is it appropriate to make use of these particular narratives of SLE in present-day education? It has been written that 'if we are going to use significant life experience research at all, then we need to be investigating the experiences which have been significant to youth at the end of the twentieth century, not the experiences of those who were youths decades ago' (Gough 1999). We do not share the same times and cultures as Seton, Leopold or Rodríguez de la Fuente. Wolves and wolf narratives may not always be adequate for connecting with youths or adults today (Roy, Petty, and Durgin 1997). Moreover, youths and adults may differ greatly in their outlook on wolves (Hermann and Menzel 2013), and there are many other possible approaches and positive experiences to consider in education involving wild animal encounters (Bell and Russell 1999; Fawcett 2002; Jickling 2005; Watson 2006; Black and Rutberg 2007; Bizerril, Soares, and Santos 2011; Prokop, Usak, and Erdogan 2011; Fawcett 2002; Oakley et al. 2010). Nevertheless, wolves continue to be used in education (Kowalewski 2012; Oliveira et al. 2015). The SLE chosen in this paper, and wolf tales, may be insignificant to a number of readers and certainly not as significant as they were to their protagonists. Notwithstanding, there remains an interest in studying the very fact of the importance wolves had for these influential environmentalists and many of their readers because these narratives show that it is possible to learn how to improve our role in nature from a trigger that elicits an appreciation of nature – and in more depth than apparent at first sight. Educators will have to judge for themselves

whether they use the wolf accounts or any other narrative or object of interest in each educative context.

To some extent – given the short history of recent Western environmentalism – we can refer to our protagonists as environmental classics. The increase in citations of Aldo Leopold's *A Sand County Almanac* in recent years may well testify to this (Leopold 2004). The value of classics – and the very possibility of their existence – partly resides in what we hold in common with those who lived in different times or cultures. Reading the accounts of the three encounters helps provide an understanding of turning points in the lives of Seton, Leopold and Rodríguez de la Fuente. Even when the readers do not connect or sympathize with these stories about the gaze of a wolf, some analogous lesson may remain. The readers can appreciate, for example, that everyone should be open to transformative learning, even though it may not occur with wolves. Regardless of whether wolves are significant to any given reader today, the study of the narratives shows some of the processes that may be involved in transformative learning. Furthermore, they are relevant in education towards improved behaviors: an acute personal or social crisis (a disorienting dilemma); emotional self-examination; critical assessment of one's assumptions; the exploration of options for new roles, relationships, and actions; planning a course of action; learning new skills and knowledge to implement one's plan; building competence; and reintegration into one's life (Walter 2011).

These three figures reveal that nature sends not only universal messages of science but also individual and personal messages that may demand openness on the part of listeners. These messages may at times be partially or completely incommunicable to others. The route by which they reach us is not easy to investigate, and it seems to demand receptivity by their receivers. In this way, the audience might more easily learn that to be human is not only to live 'on nature' or simply use nature but also, following Leopold, to live 'by nature' personally, to be attentive and respectful personally, 'observant of and in tune with its nonhuman processes and activities.' To be human is to look at nature, listen to it, and to personally accommodate to it humbly and voluntarily: as expressed by Leopold 'But after seeing the green fire die, I [personally] sensed that neither the wolf nor the mountain agreed with such a view.' This attitude of personal openness to the unknown, to these messages that may be individually sent to many but seem to be received by few, may nourish and express the capability that Wolman (2001) has characterized as 'spiritual intelligence,' the human capacity to ask ultimate questions about the meaning of life and to simultaneously experience the seamless connection between each of us and the world in which we live. The SLE that these authors experienced may remind us that knowledge of the natural universe may produce a better educational fruit – namely, commitment – when it is shown to, born or made personal and meaningful to the individual. Nevertheless, these SLE were experienced by well-respected, environmentally wise people or scientists. Thus, it appears that the thirst for learning from nature can make it easier – or sometimes be indispensable – to come up against 'something more.' This is where a deeper understanding of Leopold, Seton and Rodríguez de la Fuente would be particularly helpful. They are perfect examples of environmentally knowledgeable people whose education depended on being open to both science and to the spirit. Their writings repeatedly show how dangerous it is to separate these perspectives and how important it may be to join them in educational initiatives.

Finally, in the lives of our protagonists, there is a clash between what they were told and once believed they knew of wolves – and nature – and the wolves themselves. This conflict between provisional or partial knowledge and reality is important in education and transformative learning. The fact that direct experience and built knowledge may not coincide does not deny science or spirituality. Rather, it denies insufficient or wrong knowledge from any source. More importantly, it stresses that learners need direct experience of the natural world in environmental education and to remain open to its spiritual dimensions alongside the acquisition, accumulation and transmission of scientific knowledge.

There are two spiritual dangers in not owning a farm. One is the danger of supposing that breakfast comes from the grocery, and the other that heat comes from the furnace.

To avoid the first danger, one should plant a garden, preferably where there is no grocer to confuse the issue.

To avoid the second, he should lay a split of good oak on the andirons, preferably where there is no furnace, and let it warm his shins while a February blizzard tosses the trees outside. If one has cut, split, hauled, and piled his own good oak, and let his mind work the while, he will remember much about where the heat comes from, and with a wealth of detail denied to those who spend the week end in town stride a radiator (Leopold 1966, 6).

Conclusions

There are very different human ways, levels and depths to human seeing. The respective SLE of our protagonists, and their narratives, cannot be separated from the way they conducted all their subsequent activities and lives. The similarities in the SLE of Seton, Leopold, and Rodríguez de la Fuente (the power in the gaze of a wolf, the change caused in their views of wolves and the human-environment relationship, their respective captivating accounts of these experiences and the role that these SLE had on their lives) invite us to consider such coincidences as highly educational themselves. Their experiences permeated the core of their future educative and environmental activism, nourishing them to achieve very meaningful and long-lasting learning, and not only through their narratives, although they certainly used the narratives for their respective purposes. More importantly, the unexpected and personal wolf encounters strongly influenced the very making of such purposes. Seton, Leopold and Rodríguez de la Fuente were the first to be enlightened and educated individually by their respective experiences.

The gaze of a wolf gave life to something new within each protagonist, changing their mind and behavior. Their SLE overturned their previous perception of wolves and nature and nourished their future interaction with them. They triggered a powerful, lasting, and all-around sensitivity towards nature in our protagonists and fostered environmentally friendly attitudes and behaviors in them, which spread among many of their readers. From then on, they better appreciated the continuities between humans and nonhuman nature and their moral implications in relation to human behavior. These experiences may thus improve the human perception of the nonhuman world and the human respect and behavior it deserves.

The language that Seton, Leopold and Rodríguez de la Fuente used in recounting their SLE on occasions of animal encounters reveals inseparable spiritual dimensions in the words of knowledgeable environmentalists. Spiritual intelligence theory offers an interesting framework for considering the depth and significance of SLE and narratives of SLE while preventing them from being disengaged from the scientific language describing nature.

As for their readers, SLE are not 'controllable' in the sense of being caused or reproducible on demand. These SLE cannot be communicated as experiences – only as narratives. Environmental education should neither focus on *producing* SLE nor despise or overlook the potential they may possess, even simply as narratives. Perhaps the most relevant lesson of the SLE of our protagonists is how these experiences demonstrate their openness to a change in consciousness, which led to a change in behavior. These effects reappear in their narratives as implicit, compelling and personal invitations to be considered and embodied by each reader, even readers that may not be keen on wolves and wolf tales. The mere accounts of Seton, Leopold and Rodríguez de la Fuente convey some of their insight and openness to learning from any source of nature and to change their behavior accordingly. Through these accounts, the three environmentalists subsequently communicated both their rich knowledge of life and the environment and their commitment to it. Those who pay attention to the accounts and lives of these three environmentalists may reach a greater understanding of the environment and our relationship to it and develop some of the conviction that leads to a similar commitment even if they have not experienced similar phenomena themselves. These SLE thus offer an interesting educational resource and field of study.

From the gaze to the commitment and transformation of personal behavior, through science, direct experience of nature and spirituality – perhaps this summarizes the human and ethical challenge and possibilities of learning and teaching that SLE and their narratives may convey. From them, we may learn to personally look at natural things in their own depth, with a scientific eye and a spiritual openness of mind while we are in direct contact with nature. We may thus improve our contemplative skills and

better understand our belonging to the earth and our oneness with the land, which could facilitate the discovery of our duty to care for and cultivate this union.

Notes

1. <https://vimeo.com/8669977>
2. <http://www.aldoleopold.org/greenfire/>.
3. Konrad Lorenz shared the Nobel Prize for Physiology or Medicine in 1973 with the animal behaviorists Karl von Frisch and Nikolaas Tinbergen.
4. His work *World Fauna* (also known as *Encyclopedia Salvat of Fauna*), started in 1969 and prologued by Konrad Lorenz, is composed of 12 volumes, edited by Salvat Ed. Overall, 40 million volumes have been sold in 30 countries all over the world, an unprecedented success in this domain, and the volumes have been translated into 16 languages. <http://elrectanguloenlamano.blogspot.com.es/2013/03/felix-rodriguez-de-la-fuente-awarded.html>.
5. The authors are aware that the chosen environmentalists are Western white men, but attending to any potentially racialized and gendered histories of environmentalism and environmental education is beyond the scope and focus of this paper.

Disclosure statement

No potential conflict of interest was reported by the authors.

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