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ARTICLE

Experiences of Dying Animals: Parallels With End-Of-Life Experiences in Humans

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HIGHLIGHTS

Reports of pet behavior before death often resemble people's end-of-life experiences, suggesting common underpinnings to these events.

ABSTRACT

There has recently been an increased interest in end-of-life experiences (ELEs) in humans, but ELEs in non-human animals have not yet been assessed. In this paper, we present findings from a study we performed to collect and analyze reports about remarkable behavioral aspects of animals during their last phase of life. After public appeals in which we asked for reports about ELEs in animals, we received numerous responses from pet owners. We were able to group these experiences into specific categories, which we termed the *last goodbyes*, *last visits*, *last rally*, *retreating into solitude*, *unusual premonitions of death*, *somatic surprises*, *terminal lucidity in animals*, and potential *near-death visions in animals*. We present 43 case reports pertaining to these different categories. Many of them show striking similarities to remarkable behavior reported by dying people. This similarity between animal and human ELEs might be a sign of a common physiology underpinning such experiences and could also increase the recognition that animals share an inner life similar to that of humans during all phases of life. This could lead to a more respectful treatment of pets, as well as of animals in farms, zoos, and in the wild. However, as our study was of a preliminary character and only the first of its kind, we encourage further systematic research in this field. In the Supplementary Material, we publish 71 additional cases for those who would like to study more examples.

KEYWORDS

Animals, end-of-life experiences, near-death phenomena, terminal lucidity.

INTRODUCTION

There has recently been an increased interest in end-of-life experiences (ELEs) in humans, including terminal lucidity, an unexpected surge of clarity soon before dying. Here, we describe our findings from a collection of reports about dying non-human animals, which show remarkable similarities to the behavior of dying people.

Early scientists who were interested in the study of psychical phenomena relied to a very large extent on reports of spontaneous exceptional experiences that were reported by the general population. For example, the pages of the arguably earliest parapsychological magazines *Blätter aus Prevorst* (published from 1831 to 1839) and *Magikon* (published from 1840 to 1853), edited by pi-



oneering physician, poet, and parapsychologist Justinus Kerner (1786–1862), contain numerous reports of mysterious occurrences related to dying. Similarly, when academic psychical research was established in 1882 by the founding of the *Society of Psychical Research* in England, two voluminous landmark publications were concerned with reports of occurrences that chiefly concerned death-related experiences (Gurney et al., 1886; Sidgwick et al., 1894). Many other treatises on exceptional experiences published in the 19th and 20th centuries covered unusual death-related phenomena. Nevertheless, only in recent decades have these spontaneous phenomena aroused the interest of scientists in mainstream medical settings. Such phenomena include near-death experiences (Cassol et al., 2020; Holden et al., 2009), end-of-life visions or deathbed visions (Claxton-Oldfield & Dunnett, 2018; Depner et al., 2020; Morita et al., 2016), and terminal lucidity (Nahm, 2012; Nahm et al., 2012; Nahm, 2022a, b). The variety of remarkable death-related occurrences has become known by different names, including deathbed phenomena, end-of-life phenomena, or end-of-life experiences (Brayne et al., 2008; Claxton-Oldfield et al., 2020; dos Santos et al., 2017; Shared Crossing Research Initiative, 2022). The study of ELEs can help to improve our understanding of human nature, advance our knowledge about the dying process, and offer perspectives for dealing with spontaneous and often emotionally intense phenomena in near-death states.

Unusual death-related experiences have not only been reported from human beings for a long time but, to a lesser degree, also from non-human animals. Early collections of reports regarding unusual death-related animal phenomena, chiefly animal apparitional and haunting phenomena, were published by Ernesto Bozzano (1905, 1950), Elliott O'Donnell (1913), and Raymond Bayless (1970). Other compilations contained reports that concerned other seemingly psychic faculties and unusual behavior of animals and included accounts from pet owners (e.g., Gaddis & Gaddis, 1970; Schul, 1977; Schwertner, 1984). In general, however, systematic research into faculties suggestive of psi in the animal kingdom has largely been neglected. Facets that have been studied comprise the homing behavior of animals (for reviews, see Nahm, 2015; Sheldrake, 2011), cases of “psi trailing” in which an animal found its owner in a new location that the animal had never visited previously (Gaddis & Gaddis, 1970; Rhine & Feather, 1962; Sheldrake, 2011), the ability of animals to anticipate when their owners return, other animal premonitions, animals that “read people’s minds” and respond to their intentions, as well as animals’ reactions to distant death and danger (e.g., Pleimes, 1971a, 1971b; Sheldrake, 2011; Sheldrake & Morgana, 2003; for an over-

view of such studies, see Sheldrake, 2015).

With the present study, we aim to cover new ground in a virtually untouched field of research into animal life: We address phenomena reported to occur when animals die. Unlike the treatises mentioned above and numerous more recent popular books on death-related aspects of animal life, such as animal after-death communications and the possible afterlife of deceased pets (e.g., Anderson, 2017; Bivona et al., 2004; Warren, 2006) or ways to cope with the loss of beloved pets (e.g., Kowalski, 2012; Wycherley, 2018), we focus directly on behavioral aspects of animals in near-death states. After public appeals in which we asked for reports about ELEs in animals, we received numerous responses from pet owners. In order to draw attention to these phenomena and to raise awareness about their occurrence, we give a variety of examples below. In the Discussion section, we consider aspects of the reported cases in relation to ELEs reported from human beings.

METHODS AND RESULTS

Appeals for information about unusual near-death phenomena in animals were published on Rupert Sheldrake’s website, in his newsletter, via a video created for YouTube, a talk on the US radio station Coast to Coast AM on 14.09.2021, and through personal requests to contribute to our research project. In response, we received numerous case reports via email. Some cases had been reported to Rupert Sheldrake already earlier in the context of his other work on animals and pets. We also found a few cases describing unusual animal behavior prior to dying in publicly available sources such as books and online-entries. Some reports were also related to Michael Nahm in person by people with a general interest in ELEs and terminal lucidity. At the time of writing, our database contains about 150 entries of varying quality in which people described behavior of animals that seemed to be related to their impending death. Many case reports contain features that allowed us to group these experiences into specific categories. Notwithstanding that some cases could be allocated to more than one category, we classified 114 examples pertaining to the classification scheme shown in Table 1, together with the number of cases in each category at the time of writing. Of these 114 case reports, we present 43 representative cases in this publication. The other 71 cases are available online as Supplementary Material, so that readers can review them for themselves. In the following sections, we give examples that illustrate typical examples of these various types of ELE behavior.

TABLE 1. Classification of end of life behaviours in our collection and the number of cases in each category

Category	Number
Last goodbyes	53
Last visits	6
The last rally	28
Retreating into solitude	10
Unusual premonitions of death	5
Somatic surprises	2
Terminal lucidity	7
Near-death visions?	3

CASE EXAMPLES

Last Goodbyes

The dominant feature in many of the case reports is that the pet seeks to say goodbye to their owners or other loved ones. Typically, these pets are already very weak, and they die soon after this final farewell. Gaddis and Gaddis (1970) already reported such a case. During the prime of its days, tomcat Pussy was taught by the couple who kept him to hold out a paw to shake hands. As Pussy grew older, he suffered from severe chronic dysentery and had to be put down. When the vet arrived, the cat dragged himself out of his basket, walked straight to its sorrowful keepers, and held out his paw to each of them in turn. He then crept back into his basket, buried his head in his paws, and awaited his fate. Some of the reports we received are remarkably similar.

Our cat lived an incredible 21 years but suddenly became ill. We knew she was beyond her life expectancy but didn't want her to suffer. However, before we could take her to the veterinarian, late one Sunday afternoon, and with all of the family home but in separate parts of the house, she made her rounds to each of us, gently pushing her head against a leg and looking up very lovingly and very softly, meowed, and walked away. Although she was a vocal and very affectionate cat, I can still recall all these years later what a profound feeling I had at the time as she walked away from me. Later as evening fell, we found her dead, peacefully, as if sleeping. Each of us in the family, my wife and two children shared our stories with one another and con-

cluded that the cat said her "Goodbyes" in nearly the exact same manner.

This is the sad but true story of what our family experienced with our dog Foxi. We all loved the dog because it was so friendly, devoted, and loyal, as well as very watchful and clever. When the dog became old, it could not hear so well anymore, ate less, and became weak. Finally, at the age of 14, it could barely move from its resting place. Then one day, the following happened: The whole family sat at the dinner table when the good dog struggled to its feet, went around from one to the next, sadly looked at everybody, and gave paws to each member of the family. Then it trudged back, slowly lay down - and died. You can believe me, we had tears in our eyes after this goodbye scene. The dog had felt the end and pulled itself together for a final goodbye to all of us.

A few years ago, our Staffordshire bulldog "Petie" fell terminally ill. One hour before he died, he came to each member of the family and spent a little time with everybody, one at a time. We thought this behavior odd as he didn't usually do this, at least not to each individual person at one time. He seemed alive and much more energetic than he had been being so ill. After spending a bit of time with each of us, he made his way downstairs to his bed and died peacefully.

Baker, the cat our son and daughter-in-law adopted, was sociable on his own terms and would appear for a while when we visited them and then disappear. Knowing we were family, he was affectionate with us, but briefly. The last time we saw him, as he was clearly dying, he came in as usual. But this time, he made the rounds, sitting in each of our four laps for 15 minutes or so and then moving to the next lap as if clearly saying goodbye. When he died very soon afterward, and I mentioned the incident, each of the four of us said that they had sensed that exact thing at the time: that he was aware of his imminent death and was saying goodbye.

We adopted my first cat Emilia when she was about three months old. She had Feline leukemia and other immunodeficiencies that took her life three years later, despite all our efforts to help her. The night that she was dying on my legs,

around 5 a.m., I thanked her for having accompanied me for those wonderful three years and for having helped me lose my fear of cats. I asked her to join me for another hour to watch the sunrise together. At that moment, almost by magic, she stood up, raised her head, licked my hand, and together we watched the sunrise from my window. And around 6 a.m., the moment the sun came up and touched our window, she looked at me, leaned back on my legs, and exhaled deeply. That was the last breath of her. I am a Nurse of critical patients in Chile, and it is common for us to observe the famous “*mejoría de la muerte*” in terminally ill people or with different pathologies, but in animals, I had never observed it. With Emilia, it was my first time.

When I was a child, our family inherited my great-grandmother’s parakeet, Sugar-Bird. Sugar-bird was a light blue parakeet that had suffered a stroke and was no longer able to use his legs to grasp his perch. My dad installed a batten to replace the perch so the bird could still sit in his spot. One day the bird flew from his cage in the family room to the kitchen while the family was eating dinner at the kitchen table. We were all startled by this as he had never flown outside the cage before. The next day he passed away. We thought at the time that the bird must have flown up to the kitchen to say goodbye to all of us as we were all gathered around the table.

In the cases presented above, the animals visited their loved ones shortly before dying. But in a number of cases in our collection, they also seemed to wait until the loved ones came and visited them. Once they arrived, the pets died. The following case is one example.

Our dog Coyote was dying. The boys were grown and moved away, as it should be. My husband and I were sitting vigil. Out of the blue, our elder son called and said he was driving through town, and although it was late, he wanted to drop in. He lived hours away. Another son called and took a zip car home from the city. My husband and I had been sitting vigil for two days, giving our beloved dog all the care and “permission to go.” Only once the boys were home, Coyote visibly relaxed and crossed over. It seems she could not go until her family/tribe/pack were present. It was uncanny and beautiful. I “know” she called out and called the boys home.

Last Visits

In this category, we included accounts in which animals visited loved ones for a last goodbye. The case reports in this category are very similar to the previous one. But rather than conveying a last goodbye at home, the animals grouped here factually crossed a distance between two different locations. Such a case had already been reported by inventor and futurist Nicola Tesla (1856–1943), according to whom a pigeon he was particularly fond of flew into his room one night with the seeming purpose of informing him that it was dying and to say goodbye (Cheney, 1983). In their book on remarkable aspects of animal life, Gaddis and Gaddis (1970) included an intriguing case that represented a case of psi trailing. A dog found a beloved caretaker in a location it had never been to and then died there. The three cases reported below concern dogs who visited the houses of their former keepers or caretakers and then returned to their present homes. The first of these cases is particularly notable as it involves the comparably rare aspect of psi trailing as well.

For many years I had a mongrel dog called Bruce. When I started courting, I spent less time with him, although I still loved him. In turn, he turned his affection toward a girl who lived not very far away who took him long walks, and occasionally she would ask if she could keep him at weekends. After mother died, my father decided to move house several miles away. What to do with Bruce was a problem, which was resolved when my friend said she would love to have him. Many years later, on a lovely summer’s evening, I heard scratching outside the bedroom window of my new home. I opened it and looking down, I saw the white-haired face of Bruce. You can imagine the excitement in the household. We made such a fuss over him. However, in the early hours of the morning, he made indications it was time to go. I can still see him walking away over the field, stopping and looking back. I met my friend whilst shopping a few weeks later who informed me Bruce had died. He had gone missing one night, returning early the following day – and had passed away three days later. It is especially remarkable that Bruce had never been to the new address, and we had been parted for over five years. The dog had to cross over a bridge and travel over three miles to find me in my new address.

My friend G. had a dog, “Bobby” who was

enticed by a neighbor – maybe even “enchanted” – to move away from his home into her own household. After some time, several years later, the dog Bobby suddenly appeared on G.’s property/home. Bobby focused his gaze upon his former master, G. He asked the pup if he wanted something to eat. “No,” indicated Bobby. Then, Bobby turned away, returned to the “abductor’s” house – and died.

We lived next door to a family who had a female Black Lab, her name was Orio. She was such a gentle dog, and whenever her people would go away and leave her at home, my husband would go over, feed her, and take her for walks. Only once or twice did she come into our house, and only then when her master was with her. About two years ago, one afternoon, she was standing at our front door by herself. As I opened the door, she insisted on coming in, which was very unusual. She walked all over the house and finally came to me in the kitchen and laid down by my feet and stayed there. After a while, I phoned my neighbor to tell her that the dog was in our house. She could not explain how the dog got out of the yard as the gate was closed and she was in no condition to jump over the fence. Later the same day, she turned up at the neighbor across the street. He too, from time to time, looked after her. After he phoned the mistress of Orio she went to pick the dog up and took her home. The next day Orio became very sick, and the mistress took her to their veterinarian. After examining her, it was determined that nothing could be done for Orio. That night she went down into their basement, the neighbor followed her and stayed with the dog. A few hours afterwards she was dead. I am convinced the dog knew that she was to die and came to say goodbye to the people who were kind to her. Still to this day, my heart becomes heavy whenever I think of how that dog came to say thank you and goodbye.

The Last Rally in Dogs and Cats

In some of the presented cases, the animals appeared to muster an extra strength to say goodbye. A pronounced surge of vitality in animals shortly before dying was, in fact, a frequent feature of the cases reported to us, and we, therefore, grouped them into a specific category. Such increased vitality has long been known to occur in some dying people. Typically, it involves enhanced physical vig-

or, but there can also be a surprising improvement in the mental state of people who were previously drowsy, confused, or even comatose, i.e., terminal lucidity. There are various names in different cultures and languages for this remarkable increase in vitality. In English, recent terms that are used in the context of palliative and hospice care include the last “rally” before death (Kastenbaum, 2006; Kemp, 1995) or “pre mortem surge” (Schreiber & Bennett, 2014). Our Chilean correspondent who reported the case of Emilia the cat called it “mejoría de la muerte” (improvement of death). As evidenced in the examples given below, many of our correspondents were deeply impressed by the last rally of their pets. As a veterinarian informed us, such occurrences are not even rare:

In my practice as a vet, experiencing the last rally in dogs isn’t uncommon. It happened already a number of times that when I rang the bell of a house I was called to in order to put a dog down, a vital and barking canine greeted me and jumped around me. I was surprised already more than once that when I asked its owners where the sick dog is that I was supposed to put down, they informed me that this seemingly vital animal would be the moribund dog in question.

We present examples of the last rally of moribund dogs and cats in the following and continue with examples from birds and ungulates.

My little dog Daisy, a Pembroke Corgi, was suffering from terminal cancer and had deteriorated for several days to the point that she could not walk or stand. But on her final day, she “brightened” and followed me everywhere for an hour before passing. It was as if she knew the time was at hand, and she wanted to be as close to me as possible when she passed.

Princess Lavender was my baby girl for 11 years. She had congestive heart failure for eight months before she passed. Her veterinarian prescribed medicines that helped her. On March 4, 2021, she passed away. Around 1 a.m., I was up with her because her breathing was very unsteady, and she was not able to stand on her own. I had to go to work at 3 a.m., and my husband was with her till I came home at 10 a.m. While at work, I called the veterinarian’s office and was told that the vet would see her at 10:30 a.m. We decided to help her pass with the doctor. When I got home, she was her young self, she was run-

ning around, playing, jumping up and down, giving me kisses, just her young self! We went to the vet's office, and the doctor looked at her and told us she would not do what we had planned, that she was doing very well. So, we decided to go on vacation (we had already planned to leave on this day) and drove four hours to the house we were renting. Princess loved the drive. When we arrived at the house, she bounced out of the car and took off running, checking out the place and smelling like crazy. She ate, drank water, took a nap, and then played a little with her ball and me and was doing great. Around 7 p.m., I checked on her and she was not doing good with breathing. I held her for five minutes, telling her how much we loved her, how much we would miss her, and telling her that it was OK to pass on. She gave me a kiss and took her last breath.

We had to say goodbye to our beloved Golden Retriever, Zoey, on July 5, 2021, at the age of 14 1/2 years. Zoey had started to deteriorate rapidly on the week of June 21st. She was barely able to walk the stairs, barely eating and sleeping most of the time. Sometimes she seemed as if she wasn't present if that makes any sense. We had started sleeping in the family room with her since navigating to the second floor, and the bed was not an option. On Friday, July 2, we were unable to rouse her or coax her to eat. After many tears, the decision was made to say goodbye and all vet arrangements were made for the following day on Saturday. On that Friday afternoon, she miraculously got up, walked over to her food bowl and, ate her meal, drank her water. She then went outside in the backyard, walked around, and proceeded to enjoy the rest of the evening. We could not, in good conscience, go through with the appointment. We had a family meeting, as we all stood around and stared at each other in disbelief and cancelled her euthanasia. She had a remarkable Saturday! She ate approximately five small meals, enjoyed some outside time, and slept with our daughter for the last time on the mattress on the floor. She was slowing down on Sunday, as I believe she was out of her last reserves of energy. On Monday, she refused to eat or get up, and I feel waited for my daughter to come home from work. At that time, she collapsed in the backyard and had to be carried inside. We called my son to come home, and he carried her to the car and subsequently to the

vet, where we said our final goodbye.

We were told our rescue dog, a Parsons Jack Russell we named "Piglet" might be around three years of age when we got him, and we had him for over three years. We started noticing Piglet having foul-smelling breath and took him to the vet to have his teeth/gums looked at. He was scheduled for a dental cleaning, but when his pre-surgery lab work was done, we were told that he was in end-stage renal failure and would not survive any operation. His vet then told us that he would steadily decline, and if he started to have seizures, that would be the end. He continued to be his happy self for another six months but then things started going downhill rapidly. He lost his sight and grew gradually weaker. When he stopped eating and drinking, I contacted the vet to have him put to sleep the next day. I slept alongside him that night on the floor so he wouldn't feel frightened or alone. I was dreading the morning. At 7 a.m., I awoke. Our other dogs were up and running around. Piglet jumped up and ran out the doggy door, following the rest of the pack! He did his business outside and came in with the rest. He went over to the water bowl and had a drink. I immediately started questioning our decision to have him put down in two hours. My husband encouraged me to take him to the vet anyway and at least have him checked out, to which I agreed. My husband then left for work. Piglet continued to be lively, even jumping up to his favorite spot on the sofa. I went and got his brush; he jumped down and I proceeded to give him a much-loved brushing. He got down on his haunches, and after about ten minutes, I turned to clean his brush. When I turned back to him, Piglet was lying on his side and seizing violently. I gathered him in my arms, sat down on the sofa, and watched as he passed away in my arms while I told him how much he was loved.

We lost our dog Ollie of over nine years. The few hours before she passed, we knew it would be her final hours due to her different behavior along with physical symptoms of ill health. She sat watching the sunrise for minutes... transfixed, then walked round slowly looking at all parts of the house, garden, etc. This may not seem unusual. But to us, it was a very distinctive behavior that was very different... and we knew it

was her time. The day before, she had an amazing longer walk that she had not been able to walk anymore for quite some time. What reminded us of our other dog Barney who passed at the age of 18. He also had an amazing walk in the morning on the day he passed. He was virtually blind and previously unable to walk a few yards without stopping.

Some three years ago, our black Labrador Shadow had been suffering for some weeks/months with his back legs where he would be in pain and often struggled to get up or walk. Initially, we were able to medicate, which mitigated the worst symptoms for a time. Sadly we eventually learned from the vet that he had a very large tumor pressing on his spine, which was causing all the symptoms, he was also by now off his food, so it was decided that he would be put down to spare him the suffering. Inexplicably, on the morning that he was due to be euthanized Shadow was full of energy, greeting us all and wagging his tail, and was tucking into his food with enthusiasm which naturally made it very hard to proceed with the procedure.

Five weeks ago, my cat was dying, not eating or drinking for days, hiding under the bed. Then the next day, she suddenly perked up and was very active. She was jumping on furniture, following me around, and acting like she was healthy and young. It went on for hours; I felt it was a gift. But the next morning, she was back hiding under the bed, refusing to eat or drink. We had a vet come to the house two days later to put her down. I've had multiple pets in my 77 years and never experienced anything like this.

On November 2021, my beloved cat Balou received euthanasia because his terminal illness left no other choice. He was about ten years old. Regarding his health, Balou had had a difficult life with many severe diseases and operations, but his condition could always be stabilized through applying a mix of conservative and alternative healing practices. He was a happy, lively cat and moved freely in our house and garden. At the end of October, his health deteriorated rapidly. His hind legs became unstable, and he occasionally tipped to the side. The diagnosis was a bilateral rupture of the coronary ligament; surgery was not possible due to his pre-existing diseases. Two

weeks later, Balou developed a fever and renal dysfunctions. He was in severe pain and showed first signs of dying: Refusal of food and water for several days, extreme lethargy, weakness, difficulties walking and climbing stairs, no interest in going into the garden. Outpatient and inpatient treatment didn't improve his state. Furthermore, an inoperable tumor that was already purulent and necrotic was diagnosed under his tongue. In consultation with the vet, we scheduled euthanasia for the next day. After returning from the vet, Balou hid in the closet all day, only came out to go to the toilet and to eat. In the evening, he sought my company, and after a new injection of painkiller, we fell asleep together, holding hands side by side (he stretched out his paw to my hand – he had never done that before). The next morning, however, Balou was out of the blue vital again. He didn't sleep and withdraw, but came to me on the couch, cleaned himself a lot, and lay down on my lap (like he always did when he was healthy), he even ate a lot again, although the oral ulceration had worsened further. We went to the garden together and watched birds there like so often before. He even climbed stairs independently without tipping over. In short, we spent the day as we had routinely done in the many years before, but which hadn't been possible during the previous weeks. Until the vet arrived, we cuddled together on the couch. It was a very peaceful atmosphere and a loving farewell. The contrast in behavior between the last day and the time before was so obvious that I was aware that it must be a case of what is sometimes called "the last rally." He had also never held my hand before. Therefore, I am convinced that he knew (even if unconsciously) that he was going to die.

The Last Rally in Birds

Our second budgie, whom we called Jockel, was very much unlike the first one. He never wanted to learn new tricks and was completely uncommunicative. He even rarely left his cage, only when forced. My family named him "half-wit," but I just said he had character (I had picked him, after all). After some years, Jockel became sickly. His cage always was in the eat-in kitchen, next to the big living room – about 18 meters distance all in all. One night I sat in the living room and read a book. This was the best time for me

since all the others were in bed. Suddenly there was a strange sound. The door leading towards the dark kitchen was not completely closed, and I noticed that our little jockey walked on the floor, forcing himself through the door and turning into a room totally unknown to him, toddling on the slippery parquet floor towards me in the middle of the night. Spellbound, I observed how he managed the last five meters to me, stopped at my feet, and looked up to me. He let me pick him up – which was unthinkable before – and I caressed him gently. In a low voice, I talked to him, and he closed his eyes, dying in my warm hand. And I believe he made himself immortal at that moment. He must have sensed that his end was close.

I have a bird story that is almost hard to believe because it is about our family's parakeet who lived 20 years, seemed to adore my mother, and exhibited skills and traits seemingly impossible for a creature with a brain the size of a pea. The years came and went, and I am at a loss to know how to explain all the wonderful things we learned from this cheerful, loving green being. The last day inevitably came, and he sat in a stupor on his perch for hours without eating, drinking, wing-stretching, or chirping. We just sat there by his cage, wondering if he was suffering or if there was something we should do for him. Suddenly he awoke bolt upright, exited the open door of his cage, and managed to fly to my mother's hand. He never moved again. He returned to a stupor state for another two hours as she held him. Then he was gone. We never knew how he found the strength to make that final flight. He knew he was dying, and he wanted to spend his final moments with my mother.

The Last Rally in Ungulates

We had an old mare who spent her last days barely acknowledging her surroundings until her last day. She brightened up considerably and asked to be let out of her stable and into the field with her friends. She spent a few minutes interacting with them all before walking up the field to her favorite dozing spot, where she just laid down and passed peacefully. My years of experience with horses suggest that they "know" when their time has come, and they generally go peacefully. My old stallion spent the last few minutes of his life parading up and down like a

youngster before doing exactly the same as the mare.

I run a very large animal sanctuary in Australia and oversee every soul who passes. They usually know when they are going. I had a race-horse who was dying of snake bite with us frantically trying to save her. Suddenly she got up, and we were able to lead her to a stable. We thought she was healing. But she died the next day. This type of rally, for me, is part of the dying process. Dying animals will get very active. We just lost a beloved old goat who wandered up to the hay shed and gorged himself. We knew it was his last rally.

My beautiful gelding, named Kid, had the most wonderful fun personality and was full of energy, playfulness, and curiosity. I got him when he was four years old when I was in my twenties. He passed when he was 25 years old. Kid stopped eating and was lying down in the pasture one rainy day. He didn't want to get up and was in pain, so I called the vet. The vet came out and did not know what was wrong with him. She thought maybe he was colic and treated him for that, but the treatment did not help. He became very lethargic, almost like in a coma-like trance, with his eyes open and standing up. We gave him injections of morphine to help him with his pain. He would get a little burst of energy, walk around and graze on grass, then go back into just standing there. He made it through the night, and the next day he was in the yard. I went out with him for a while and went into the house – and then, he had disappeared. As it turned out, Kid had gotten out of the property, walked down our gravel road about half a mile, then went about another half a mile down the paved road to where he knew other horses he had visited in the past lived at my boyfriend's uncle's house. He died in the middle of the street in front of their driveway and the other horses. I could not believe he had walked that far in his condition. He wanted to be with other horses when he passed, and he made it to them.

Retreating Into Solitude

Another seemingly typical phenomenon reported from animals is their retreat into solitude before dying. Gaddis and Gaddis (1970) reported an account concerning

a dog that was badly mauled in a fight. After its wounds had been treated and it seemed to recover, it disappeared one day. Soon after, its owner had a vivid dream of the dog in which it appeared to stand on a particular knoll. The dog was found later on this knoll; it was dead. As the following examples from our collection illustrate, animals sometimes gather enough physical strength to bid farewell to their loved ones prior to leaving.

Our cat Anton was the classic tabby house cat. We received him when he was a little kitten. He was 16 years old when in the Summer of 2008, his health declined drastically. For weeks, Anton had only lain in the shade under a big bush near our house in the garden. I fed him minced meat with my fingers, and from time to time, I gave him a cracked egg, which he licked from the bowl, remaining in his procumbent position. One evening, on another balmy summer evening, when the front door was open, and I was doing the dishes, he dragged himself into the house and joined me in the kitchen at his feeding place. I turned to him, and we looked at each other briefly. Then I knelt on the floor, and he rubbed his head against my leg. He was very loving and strong, like in healthy days, so full of devotion – that really touched me a lot. I stroked him for quite a while. He purred barely audibly. His body felt relaxed, although he had become only skin and bones, and his fur was so shaggy. Then, abruptly, he rose and limped outside again. I closed the front door and knew that he would die very soon. The next morning his place under the bush was empty, and I could not find him in the surrounding area. Our son, who came to visit on August 21, 2008, went to search for him. Finally, he found him in the back of the garden, still breathing shallowly, surrounded by flies. I was surprised how much strength Anton had mustered to cover this distance since he had not been able to walk for weeks before. Our son sat next to him. Two hours later, our son came into the house and wanted to call the vet to finally release Anton from his misery. Then, the classical scenario developed that is also reported frequently from dying people: They die exactly at a time when they are finally alone, e.g., when their caregivers need to go to the restroom or fetch a cup of coffee. When our son and the vet arrived at Anton, he had already taken his last breath on his own.

We had a Collie many years ago. In the final months and weeks, it was just lying passively on the floor without energy. Then one day it came running to each family member to greet us, jumping like in joy, etc. Then it took off to the woods, where it chose to die in solitude. We found it later the same day. Without a doubt, it knew that now the time had come to say goodbye.

Pepi was a forest dog, a collie/Labrador mix, bright and strong in his prime. He was a family pet when the children were growing up, but he also accompanied my husband and me when we did forest surveys. In his fifteenth year, he started to slow down and was diagnosed as having a liver tumor. Still keen to come with us, we made allowances so that he could continue to enjoy his forest outings as much as possible. We lifted him over ditches and sometimes carried him between sites. While we took measurements, he lay on a wax jacket nearby. On what turned out to be his last day with us, however, he suddenly got up, started barking like his old playful, joyous self, eyes shining and cocking his leg so liberally roundabout I had to tell him to stay clear of my boots for heaven's sake! I turned to height a tree, and the next time I looked around, Pepi was nowhere to be seen. I called to my husband if Pepi had come to him. He had, briefly, but now he was gone. We thought he couldn't have gone far but started looking for him immediately in case he had fallen and lay somewhere. But however much we searched and called, we could not find him. We checked the whole compartment and didn't stop till it got too dark to see under the canopy. Back at the car, we shone the headlights into the forest in case he was making his way back after us. He never came. The next day a friend brought his two tracker dogs. They didn't find Pepi. The following day, coming out of the forest, we met an old crofter who lived nearby. We told him about Pepi and asked him to keep a lookout for him. "You won't find him, he will have made sure of that," the old boy said. "I have had two sheepdogs take themselves away like that to die. The third, when he got old, was sneaking out the same way, but I caught him and shut him in the barn. The next morning I found him dead there. I wish I had let him do what his instinct told him."

My dog came and said goodbye to me before

he died. He woke me up in the middle of the night by licking my face. Then he ran off and was found dead the next day.

Our dog Paddy is no longer with us. A year ago, he became deaf and obviously felt old and tired, and his hind legs were weak. I remember thinking tomorrow I will take him to the vet and he will decide his future, but that afternoon he walked out of the house and I never saw him again. I searched frantically for two days. Friends told me if he wanted to die in your arms he wouldn't go off by himself. Was it his wish to behave like most wild animals who wander away from the herd to die quietly and with dignity – alone?

My cat Ripp and I were a very happy couple for 18 years. Then one warm August evening, Ripp and I were sitting on the front porch – he was sleeping, and I was reading. Then, my telephone rang, so I got up and went in the house to answer. As the phone rang, Ripp got up and climbed into my lap. I was sitting in kind of a lotus position, so he sat right in the middle. The phone kept ringing, and Ripp sat on his haunches, put his two front paws directly on my shoulders, and stared at me (and vice versa), nose-to-nose. We just stared at each other for what seemed like forever, and I said to Ripp, “I’ll be right back – I have to answer the phone.” So, I went in the house, but whom-ever it was had hung up by then. So, I went back outside to resume my session with Ripp. But he was gone. Nowhere to be seen. I was only gone about 45 seconds between the time I excused myself from Ripp, went to the phone, and then came back to the front porch, where Ripp and I had been staring at each other, eyes-to-eyes and nose-to-nose. I called him, but no Ripp. I went around the house, looking under bushes and shrubs. I walked up and down the block, looking in the yards of all the houses in the neighborhood. But no Ripp. I went door-to-door, asking if neighbors had seen him. Nobody had. Given that this whole escapade had taken almost literally seconds, and given how “drowsy” Ripp had been as we stared at each other at such a close distance, I was certain he hadn't just bolted away while I was answering the phone. There were no thieves who were waiting for me to leave so they could snatch him. I swear, it was as if he had just disappeared. In fact, he HAD just disappeared –

really disappeared. And I never saw him again, although I kept looking for a few weeks.

Unusual Premonitions of Death

Several of the previous case reports indicated that the moribund animals knew that their lives were about to end. These premonitions are quite remarkable, given that even the minds of higher mammals such as dogs and cats are often thought to be not developed enough to be able to form a concept of dying and their own death. Nevertheless, the animals in the presented examples had been very old and/or ill already and might have felt their powers fading. They also might have reacted in response to altered physiological processes and left their “pack” out of a biological instinct. It is, therefore, even more intriguing that we also received reports that concerned comparatively healthy animals that nevertheless displayed premonitions of their impending threat to their lives, such as the following two cases.

It happened during the Second World War in Houffalize, Belgium, probably in 1944. An old man who owned sheep had died. He had no family. My grandfather decided to lead the sheep into his garden and into a kind of veranda or greenhouse near the main building. The sheep didn't have a problem with living in this new environment for a few days. But one evening, they all began to bleat very loudly all night through. The eight children who lived in the house (including my mother) didn't understand what was happening and considered the sheep's behavior very curious. It was difficult, if not impossible, to sleep. Early in the morning, a bomb hit the greenhouse and killed all sheep. My mother told me this story. It was impossible for her to forget it. [Authors' note: The little town Houffalize suffered from an intense bombardment in December 1944.]

In the summer of 1997, my daughter was working on a grant under Dr. [...] at a university in California. Part of her duties was to retrieve the cage with the lab rats. They were part of a cancer research program and, as such, had been injected with live cancer tumors and then different medicines to study the results. Each of the rats was color dotted to determine how long they had been on the medications. And, every so often, the rats would be “sacrificed” so the cancer and the organs could be studied. My daughter, not really sympathetic to lab rats, became concerned when

she noticed a regular phenomenon. On the day the rats were to be sacrificed, unlike days when they were being weighed and measured, the rats would all gather in a corner, heads facing the center of a circle, and they would be squeaking and showing signs of alarm. As my daughter said to me, "Mom, they know. Somehow, they know."

Somatic Surprises

Sometimes, the last rally or terminal vitality goes hand in hand with physical improvements or movements that seemed inconceivable before because of the animals' handicap or injury. Below we present two examples.

I have a story about a cat that I found on the road with a broken neck and brought home to die. It was with me three days and never moved, just panted. Just before it died, it got up, stretched, meowed very loud, purred into my hand, and then lay down dead.

I want to share an experience with our 16-year-old dog Lucy. Lucy's hips were giving up, and she dragged her right leg to walk. We made arrangements for a home visit to end her pain. We had a carpet laid out in the backyard for what turned into a beautiful ceremony. After the doctor arrived, Lucy immediately walked outside with no limping to the carpet and lay down.

Terminal Lucidity in Animals

The mental pendant to somatic surprises is terminal lucidity, the already mentioned unexpected improvement of mental alertness or faculties shortly before death in creatures that have previously been in a drowsy, confused, or even unconscious state. Naturally, somatic surprises and terminal lucidity can occur concomitantly, as in the following example. It concerns the aftermath of a sudden accident involving a bird that seemingly turned unconscious and motionless after the accident. Although the bird's final malaise was only of comparably short duration, this case can still be counted as an instance of terminal lucidity.

One day a bird crashed into the cabin I live in, and I ran outside to see about it. As I picked up this bird, a large thrush, it just lay still in my hands, its eyes closed, and I assumed it had broken its neck and was dying. I began to say a small prayer for its soul and put my thumb on its heart as its beat got slower and slower. And then, just

as the heart was about to stop, this bird, with a broken neck, managed to turn its head and open its eyes and look right into mine for a few moments. Then it closed its eyes again, turned its head to the side, and was dead. Was it making contact with life for one more moment? This has long haunted me.

Because the communication of animals is more difficult to decipher than that of other human beings, it is hard to determine whether an animal is confused or demented, and thus, if a last goodbye or rally before death also implied an instance of terminal lucidity. Nevertheless, we received a number of case reports according to which the mental state of the moribund animals was clearly impaired before they seemed to brighten up for a very last time and provided them with the opportunity to bid farewell.

My pet was a six-year-old Chihuahua that developed a brain tumor. He was basically out of it, did not respond to my wife or me, and was having occasional convulsions. The night before, he was to be put down at the vet for a brief time, about 30 minutes, and he was completely normal. He jumped up in my lap, wanted to play like everything was normal, then went to my wife and did the same thing. All of this happened in about a 30-minute time frame, and then he went back into "out of it and convulsing." We told the vet about this, and he said he had never heard of this before and that the dog would not recover. Anyway, that did happen, and my wife and I believe he was saying goodbye.

My cat Cleo was dying, and I was sitting with her. She was nearly comatose, not moving, her eyes glazed over unseeing. Her legs were very cold. This state had been progressing upon her for days, and because of the coldness of her legs, I felt she might be very close. But I was just sitting there, mostly, not even really petting her. Suddenly she woke up. She put her paw upon my hand and gazed into my eyes with intensity. She was saying goodbye to me. That was perfectly clear. Within an hour, she had passed.

We had a dog, a Yorkshire Terrier, greatly loved, especially by my sister. She had digestion issues, which meant that she was put on a restricted diet, and as she aged, she lost a lot of weight. My sister would carefully carry her from

the house to a nearby field every day when she became unable to walk the distance herself, allowing her to take whatever bit of walking she could manage and bring her back. Her last couple of days, though, she could hardly move, and we knew she wouldn't last long. Her last night, she went into a totally inert state, with her breathing altered, her mouth in an unusual shape, totally limp, and seemingly unaware of us or anything else around her. She really couldn't move at all at this stage. My sister was very upset and had been holding her for some time when all of a sudden, the dog raised her whole body and head as if nothing was wrong, looked straight into my sister's face for a few moments, then dropped her head and died. I don't know if this explains it all well, but what I'm trying to convey was that she went from a dying state that had really lasted all day, then into a couple of hours where there hardly seemed to be a sliver of life in her, and then this was all entirely lifted for those few moments when she raised herself up from this state and seemed to say goodbye or take her leave of my sister.

My husband and I had a 17-year-old Basset hound girl who was terminally ill. Her health was deteriorating each day, and we knew her time was near. She had stopped eating and moving about except to go to the door each morning and sit, waiting to go on our morning walk, but could not move beyond the door when we'd open it with her leash in hand. So, we'd all stay inside with her. One morning before Lee (my husband, a philosophy professor) was preparing to leave to teach, she came and laid in a sphinx position between my husband, who was standing in the hall near the door, and I, who was sitting. It was unusual for her to so determinedly sit in a way that drew our attention without seemingly requesting it. We both looked at her, wondering what was up. We noticed then that her breathing seemed a bit labored, so together, we decided we should not go into work but stay with her. We carried her to her doggie bed, which on that day we'd taken upstairs so we could keep her close between where we sat and watched and talked to her. It became clear that she was on her way out because of the odor being emitted with each of her increasingly rapid breaths. It became so strong that I had to get up and move downstairs for a break. I was gone for about ten minutes

when I heard Lee call down, "there she goes." I hurried up to find her no longer in her sphinx position but lying on her side. There was no sign of life. She had no pulse, and by the look of her unmoving chest, was no longer breathing. Her eyes were closed, and I watched for a few moments, and then again, to confirm she wasn't breathing, I put my hand near her nostrils. From the time Lee had called up until the time I put my hand in front of her nose, about two and a half minutes had elapsed. Immediately she bolted up into her sphinx position, looked me in the eyes for a few seconds, and then fell back on her side. She was gone (again?). In spite of my deep sadness, I felt exhilarated that she'd "come back" to say goodbye as I'd so wanted to be with her when she passed ... and so I was.

Near Death Visions in Animals?

Among ELEs known from human beings, near-death visions are a prominent feature. In these experiences, sick people report glimpses into what appears to them as a transcendental afterlife realm. Frequently, they perceive apparitions of deceased loved ones or spiritual figures who come to prepare them for their transition (Claxton-Oldfield & Dunnett, 2018; Depner et al., 2020). In the vast majority of cases, these experiences are regarded as very comforting and soothing. Sometimes, near-death visions go hand in hand with terminal lucidity and a transiently improved physical strength. It is intriguing that judging from their behavior, also some of the moribund animals in our reports might have experienced a similar vision. This is particularly evident in the first example.

Our dog Snowy died on 30 June 2004. She was in a coma for several hours: Initially, her level of consciousness fluctuated somewhat, and she was calmed. Then she fell into a deep coma in which she was unresponsive to sound stimuli, from about noon that day until her eventual death at 11:45 p.m. At about 6 p.m., she was more clearly very weak and had altered consciousness. She did not respond to tactile stimuli, which were not painful (we did not perform painful stimuli for humane reasons). At about 7 p.m., Snowy suddenly sat upright, looked as if she was looking at an object very, very intensely, and followed that object with her eyes, her head moved slightly from side to side. If a dog could smile, she would smile. You could see a certain happiness radiating from her. She started wag-

ging her tail for a few seconds, then collapsed and fell back into a coma. All four members of my family witnessed this. My wife, myself, and two teenagers (my daughter and my son), although I and my daughter were particularly aware of this. We both independently and immediately noticed that it was a very strange thing happening. We spoke almost simultaneously, recording our amazement. I interpreted this as a possible near-death vision.¹

In the following two cases, the animals' keepers were convinced that their pets were perceiving something only they could see, but they were less evidential.

I do have an experience that struck me as noteworthy, involving our elderly family dog, Prince Moonshadow, who seemed to achieve something akin to a state of joyful enlightenment in the weeks after he'd had a series of mini-strokes, and before he died. He smiled continuously every moment he was awake for the last weeks of his life – about the last couple of months. He'd been having mini strokes prior to that. I felt when looking at him, resting and smiling in the garden, that he was seeing heaven. And when I said the same thing, I'd said to him every day for 14 years, "I'll love you forever," in those weeks, he consistently would do something very different than he'd ever done before. He met my gaze with a look that showed he knew that I meant it – and that he was experiencing this as if he was partway there. He was extremely lucid, even though he'd had many strokes.

A very close friend of mine's beloved cat Teddy Boo died a month ago. He was 16 years and eight months old, and his kidneys and other organs had been failing beyond repair. The day came when he stopped eating, and we knew the end was near, so we made an appointment for euthanasia for a couple of days later. The night before, he was in a very weakened state and found it difficult just to stand or make it across the room. He also had stopped drinking water a day before. I spent a good eight hours with him that afternoon/evening, just he and I (I was at my friend's place). He seemed to be going in and out of consciousness but didn't show overt signs of pain. His favorite spot had become the bathtub, where we had put lots of soft blankets and makeshift

steps so he could get up into it. He was so weak I had to place him in it this time — I could see he wanted to get in. Anyway, I was just in the other room, sitting at a desk working on my computer, and the inside of the bathroom was in eyeshot. Every 15 minutes or so, I would check in with him and talk to him in a sweet voice. At one point, when I checked in, he opened his eyes and partially sat up and looked at me with an astounding look that I had never seen from him before. The best I can describe it is a beatific, blissful smile of sweet ecstasy. He did not look at me with recognition, which was strange and hard to describe. I didn't sense that he specifically recognized me in that look, but rather that he was coming back into our world from some other dimension and staring up at what he saw as some kind of angelic energy field or something. It was a very beautiful experience for me. This state of being and this "look" he was giving lasted a couple of hours. I left a couple of minutes before my close friend returned home. We happened to be on the phone while she was entering her apartment to see Teddy. I didn't mention anything about the look he gave me. And while I was on the phone, I could hear her say, "Wow! What is this amazing look he's giving me???" I could hear it in the tone of her voice that she experienced it just exactly as I had experienced it, and just like me, she knew how unusual this was. He had never been like this before. We spoke more about it afterwards, and we shared the same feelings about it and experience of it. It really felt like a blessing to me. And it made me ponder just exactly what the dying process is to someone or to some animal going through it. I would have loved to have been in his head for just a few minutes while he was in that beatific state of consciousness.

DISCUSSION

The case reports presented above constitute the first collection of ELEs in non-human animals. For those familiar with ELEs in human beings, it is intriguing that these ELEs in animals show many parallels to those reported by humans. This concerns especially the *last rally before death* and the additional characteristics that we classified into *last goodbyes*, *somatic surprises*, *terminal lucidity*, and potential *near-death visions*. The literature on ELEs in humans describes numerous aspects of this last rally. One of them is an increased desire and renewed ability to eat (Klein et al., 2018; Schreiber & Bennett, 2014). In our

collection, we find indications of this behavior in the cat Balou, the Golden Retriever Zoey, the Labrador Shadow, and the goat that “gorged” himself before dying. Likewise, it has been observed on a regular base that the last rally provides an opportunity to express final goodbyes or obtain closure with family members (Callanan & Kelley, 1992; Schreiber & Bennett, 2014). In this context, waiting until absent loved ones arrive at the deathbed before dying, as in the case of the dog Coyote that seemingly waited for two sons of the couple who kept him before he let go and died, is also reported from humans (Callanan & Kelley, 1992; Claxton-Oldfield & Richard, 2020).

The literature on human ELEs furthermore contains examples of somatic surprises. For example, a man born deaf-mute was said to have uttered his first intelligible words during his last hours (Schubert, 1808); a man suffering from high fever and grave articular rheumatism lost his fever and rheumatism after having had a near-death vision, ate a copious meal and died on the same evening (Geley, 1927); a woman in a nursing home with severe spinal fusion which was able to only look down to the floor for several years noticed one day with surprise that she was able to look out of her room window for the first time – and died soon after (Brayne et al., 2008). In another case, a man dying from lymphatic cancer, who had been unable to move his arm for over a year, moved his arm while he experienced a near-death vision (Fenwick & Fenwick, 2008; for other examples, see Nahm, 2012).

Similarly, the already mentioned unexpected surge of mental clarity shortly before dying – terminal lucidity – has been reported for centuries and across cultures (Claxton-Oldfield & Dunnett, 2018; Lim et al., 2020; Nahm, 2012; Nahm et al., 2012; Nahm & Greyson, 2009). Because terminal lucidity frequently goes hand in hand with near-death visions in humans, it is not too surprising that some pet owners held the opinion that their moribund animals experienced something similar. However, while last goodbyes, last visits, last rallies, somatic surprises, and terminal lucidity are accessible to external observation and can be documented, it will always remain difficult to gain insight into the mental state of animals that seem to experience near-death visions. It is nevertheless noteworthy that other ELEs known from human life, such as crisis telepathy and crisis apparitions, and even after-death communications, appear to be paralleled in the life of pets as well. Unfortunately, however, systematic research in the latter field is practically absent, even though respective experiences do not seem to be uncommon. Although there are several recent popular books on such occurrences, the case collections published by Italian parapsychologist Ernesto Bozzano (1905, 1950) still contain some of the best-documented examples.

Regarding the category of *unusual premonitions of death* or of grave danger, the literature on psychical research contains numerous examples already, both in people and in animals. Regarding animals, for example, members of various vertebrate and invertebrate species have been reported to anticipate natural catastrophes such as earthquakes, volcano eruptions, and tsunamis (Gaddis & Gaddis, 1970; Pleimes, 1971b; Schrödter, 1960; Schul, 1977; Sheldrake, 2005, 2011). Moreover, just as in our example of the sheep that had been killed in an air raid in Houffalize during the Second World War, several people have reported already that animals displayed very unusual behavior during war times. This behavior was often – and apparently correctly – interpreted as a premonition and warning of immediate danger. In Freiburg in Germany, for example, the conspicuous and alarming behavior of a duck warned many people who lived in its surroundings that an unexpected air raid was about to strike their quarter in November 1944. Many inhabitants were able to save their lives, but the duck was killed by the bombs. In 1953, the township erected a memorial for the bird in a public park (Schrödter, 1960; for more examples, see Sheldrake, 2011). In fact, the extraordinary behavior of animals that indicated the anticipation of danger while people did not notice anything unusual, and also their sometimes frightened behavior in contexts of hauntings, has made many people speculate about the possibility that animals possess psychic abilities that surpass those of humans in our modern reason-dominated Western civilizations (e.g., Bozzano, 1905; Gaddis & Gaddis, 1970; Mattiesen, 1936-1939; see also Nahm, 2007, 2016; Sheldrake, 2011).

The examples of our animal categories *last visits* and *retreating into solitude* appear to be absent in the literature on the death and dying of the Western world. At least, we are not aware of reports about sick people who suddenly and unexpectedly showed up at the homes of friends and relatives for a last visit to say goodbye, and died shortly after. However, this lack of such case reports in humans might be culturally determined. In our present Western culture, sick or decrepit people usually stay at home, in nursing homes, or in hospices and are visited by their kin rather than the other way around. Means for arranging visits to sick people are often readily available, and conversations including last goodbyes can also be held via telephone. In addition, family members often live too far apart from each other to enable the old and sick to visit them unexpectedly. Therefore, it is neither necessary nor possible to pay unexpected last visits to loved ones in contemporary Western life. Nevertheless, cases of crisis telepathy and crisis apparitions from dying people often fulfill the role of conveying a last farewell to somebody at

a distance (Gurney et al. 1886; Fenwick & Fenwick, 2008; Shared Crossing Research Initiative, 2022).

As with *last visits*, *retreating into solitude* is hardly possible for terminally ill humans. It would be very difficult and often impossible for such a person to suddenly leave their home in order to walk away and find a lonely place where they can lie down and die. The notion that the circumstances of death in the modern Western world provide reasons for the apparent lack of typical accounts of *last visits* and *retreating into solitude* in this culture is supported by a report about how an old Australian Aboriginal died:

One morning, the man, who worked in a tannery, came to work and went to all his workmates, shook hands with them, said he was glad to have worked with them, and expressed his hope that he wouldn't be forgotten. Because he had never behaved in this manner before, his colleagues didn't know what to make of this. However, he was found dead later that evening, seated alone at an old church of the mission. It seemed as if he knew that his time was over (Rose, 1968).

The anticipation of dying at a given time has also been reported in Western patients (Callanan & Kelley, 1992; Klein et al., 2018), but premonitions of death in the absence of physical threats such as natural catastrophes might not only be due to passively received impressions. It is known from tribal societies, including Australian Aboriginal people, that they seem able to induce their own death, e.g., when they think they have been influenced by sorcery or voodoo practices (Kelly, 2007; Rose, 1968). Severe psychologically driven effects on one's body that may even lead to death have also been reported from the West (Kelly, 2007; Nahm, 2012; Reeves et al., 2007). Thus, an active component of psychophysiological influence on the body could also play a role when people and animals seem to anticipate their own death, including *retreating into solitude*.

This behavior might, furthermore, have a parallel in humans in that moribund patients sometimes seem to wait until they are alone, if only for a moment, and then die in this brief time span (Callanan & Kelley, 1992) – as also highlighted by our correspondent who reported the case of Anton, the dying cat. In the animal kingdom, the final retreat to a lonely place could represent a biologically driven instinct in order not to contaminate the kin's favorite dwelling place with a rotting corpse or not to hinder their wandering and hunting activities. Among wild animals, such behavior might even be more pronounced and pertain to sick and injured individuals as well because

undisturbed resting in solitude can have beneficial effects on healing processes. William Long, an experienced naturalist, observed that “every stricken bird or beast seeks instinctively to be alone and quiet while his hurt is healing” (Long, 2005, p. 88/1919).

Our case collection is, as far as we know, the first of its kind and is necessarily limited in its scope. Most reports were received in response to a privately initiated call that was chiefly addressed to English-speaking people. We also made no attempt to verify the contents of these self-selected reports through interviews with different witnesses. Still, we consider the data obtained in our survey sufficiently robust to draw the conclusion that ELEs reported from animals are remarkably similar to those reported from human beings. The close similarity between animal and human ELEs might be a sign of a common physiology underpinning such experiences. In fact, there is increasing evidence supporting the notion that on a general level, the mental life of non-human animals, such as higher vertebrates and cephalopods is similar to that of humans. This is evidenced by similarities in cognition, play, and problem-solving, including the use of tools and emotional behavior that involves the secretion of the same types of neurotransmitters and hormones known to correlate with specific emotions in humans (for an overview of these topics, see Brensing, 2018).

Hence, just as the interest in studying ELEs, including terminal lucidity in humans, is currently increasing, we believe that further studies into ELEs in animals could elucidate facets of their lives that have so far received only little attention among scientists. At the very least, it would help to understand facets of the dying process in animals, and especially pets, better, the loss of which can be felt with similar or even greater grief than the loss of human family members (Kowalski, 2012). We would like to encourage further research in this field. It seems certain that performing systematic and large-scale studies in different languages will elicit many more reports about unusual occurrences regarding animals during their last phase of life. They might even include characteristic groups of cases not yet covered in our preliminary classification. Apart from addressing pet owners and animal keepers of various kinds, including pet-loss groups in social media, possible research strategies could include asking vets how often people called them for euthanasia and then said their pet has rallied or displayed other ELEs, or how often the vets have observed animal ELEs themselves. Likewise, people who look after sick and dying animals in sanctuaries may well have much relevant experience that they could share. Similarly, one could ask rat room technicians whether they have noticed rats or other animals behaving differently soon before they are

to be “sacrificed” or ask farmers if they have observed any difference in the behavior of farm animals before they are due to be slaughtered. Ideally, the sketched possibilities for further lines of investigation would entail a prospective study design. One might also conduct systematic studies into animal after-death communications and even suspected cases of animal reincarnation. We are convinced that there is still a lot we can learn from our animal companions.

IMPLICATIONS AND APPLICATIONS

Because our study is the first of its kind and is limited in scope, we recommend further research in this field. We are confident that such studies would elicit many other reports about remarkable behavioral feats of animals during their last phase of life, thereby elucidating facets of their lives that have so far received only little attention but help to understand the dying process in animals better. The conspicuous similarity of end-of-life experiences in human beings and non-human animals could also increase the recognition that animals share an inner life similar to that of humans, which could lead to a more respectful treatment of animals. In the Supplementary Materials, we make all the case studies in our collection available for anyone who would like to study further examples.

AUTHOR CONTRIBUTIONS

Rupert Sheldrake: Conceptualization, Methodology, Investigation, Writing – Reviewing and Editing. ORCID: 0000-0001-8814-4014 **Pam Smart:** Data curation, Formal analyses. **Michael Nahm:** Writing – Original Draft, Methodology, Investigation. ORCID: 0000-0003-1930-9692.

NOTES

¹ This case was reported by Vernon Neppe on the website of the Near-Death Experiences Research Foundation; https://www.nderf.org/French/snowy_nele.htm.

Supplementary materials associated with this article can be found at: <https://www.sheldrake.org/research/end-of-life-experiences>

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