Children's Wild Animal Stories: Questioning Inter-Species Bonds

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Abstract

In this paper, I discuss the contemporary dilemma of animals disappearing from the minds and direct experiences of many human beings in Western culture, and the implications of this dilemma for the fields of child development, environmental education and biological conservation. As part of a larger research project, I explored kindergarten and grade 5 children's (N = 177) ideas and stories about three common, familiar and wild, Canadian animals—bats, frogs, and raccoons. In the research process, I attempted to attend to the methodological decisions I made along the way. I reflect upon trends in the children's wild animal stories, and questions they raise about anthropomorphism, kinship, and inter-species bonds.

Résumé

Dans ce document, j'aborde le dilemme contemporain de la disparition des animaux de la pensée et de l'expérience directe de plusieurs êtres humains de la culture occidentale ainsi que les implications de ce dilemme pour les champs du développement infantile, de l'éducation environnementale et de la conservation biologique. Dans le contexte d'un plus vaste projet de recherche, j'ai exploré les idées et les histoires d'enfants (177) de la maternelle et de la 5e année portant sur trois animaux sauvages qui nous sont familiers au Canada : la chauve-souris, la grenouille et le raton laveur. Au cours de la recherche, j'ai tenté de prêter attention aux décisions méthodologiques que je prenais chemin faisant. Ma réflexion porte sur les tendances de la littérature enfantine sur les animaux sauvages et les questions qu'elles soulèvent à propos de l'anthropomorphisme, de la parenté et des liens interspécifiques.

Children's own stories are rarely heard, and as adults we can forget what we once storied and knew. As part of a larger research project that I conducted, I draw upon some of the 531 animal stories and drawings which children in kindergarten and grade 5 created about three common and familiar Canadian animals. I explore how these children narrated ideas about friendship across species, and concerns about animal freedom, and fear between species. I found that the children's storied experiences transgressed in authentic and irreverent ways the boundaries between humans and "other" animals, and productively played with Western ideas about friendship, kinship, and

anthropomorphism.[1] I believe we live in an "ecosystem of stories," as poet Robert Bringhurst describes within this volume, and that children's stories are vital to all diverse and flourishing communities.

Endangered Experiences

Unlike scientists, who Gaston Bachelard asserts "never see anything for the first time" (1969, p. 156), children can and do. Often very young children experience another living being for the first time—an ant, a dog, a bird, etc. By "experience" I mean they attend to another being in embodied, sensory ways, first hand and directly. Direct encounters with wild animals are an increasingly rare form of experience, as opposed to the profusion of detached and remote experiences of animals, such as zoo visits and television shows.

Most children visit a zoo and vicariously encounter captive animals, despite the contentious value of zoos. Often people who visit zoos are negatively influenced by the experience of seeing captive animals and emerge barely more knowledgeable about animal conservation, biology, or behaviour (Berger, 1980; Kellert, 1985, 1987). People rarely emerge wondering what the animal sees, feels, or needs. As Montgomery (1995) astutely points out, children are taught to recognize animals in captivity more than ones they may encounter in their own backyards or neighbourhoods; thus children can become tourists of exotic animals instead of inhabitants of their own bioregions.

On a daily basis, most children have the opportunity to watch television shows about animals. Many children told me they had seen a certain animal, when, with more conversation, it turned out they had only "seen" a representation of it on television. The children's tendency to collapse seeing into one mediated form of visual experience is unsettling, and it left me wondering if they really were confused about the differences between a direct visual experience of an animal and a manipulated camera shot transferred onto a two-dimensional screen. There are several good nature shows, and television viewing is accessible, relatively cheap and does convey informational knowledge, but how does that compare to direct experiences?

Relational knowing through direct experience of animals, as characterized in this research, differs qualitatively and sensuously from relationships with animals through indirect experience (e.g., going to zoos, circuses), or through mediated experiences, such as watching nature shows on television. Although, animals disappear from our lives faster than they have at any other time in the known history of the world I believe animals are increasingly endangered in our minds and in our direct experiences, long before they actually become physically, ecologically endangered. As Bergman (1990) has eloquently stated:

> Endangered species are not simply accidents of our way of living. They are the necessary consequences of our way of knowing animals. Endangered species

> reveal some of the rifts and blank spaces in our ways of seeing, and in those rifts, if we are willing to pay attention to them, I see the possibilities of new forms of knowing, new ways of feeling. (p. 6)

Wild Animals and Children

The groundwork for the research came from the vast terrain of human/animal relationships, which crosses disciplines ranging from sciences, to humanities, and into arts. The experience and observation of animals has historically played a primary role in what it means to be human, in terms of human language, art, science, and consciousness (Shepard, 1978, 1997; Berger, 1980; Lawrence, 1993). On this terrain "animal" is defined in contrast and in comparison to human beings, and as a boundary to, and mirror for, human definitions of self. Comparisons make sense, considering that humans are mammals and share a great deal of evolutionary history with a vast number of other animals. Shepard (1967) claimed that the relationship between human minds and nature is the essential problem in the field of human ecology.

Animals appear in many forms in Western society: wild, feral, captive, domesticated, and companion animals. I am concerned here with wild animals, animals that are free and uncontrolled by humans, although in our interdependent, globalized world even wild animals are still affected, infected, and effected by human cultures. When I asked children, "What is a wild animal?" one grade 5 student replied: "An animal that has no owners or master," while another said: "Something that hasn't come in contact with humans a lot. It wouldn't be a pet or something in a zoo"; and another thought a wild animal would be "something that's not domesticated, doesn't have people to listen to, no owners." Finally, a nine-year-old said, "An animal that probably could live on its own if we hadn't interfered." Kindergarten students often responded by simply listing and describing animals, such as: "A wild animal is some animal like a lion that RRRrrs. The way he is and his teeth and stuff so he can get food."

In the process of socialization, children are integrating their experiences into the dominant cultural stories of how-to-be in relation to other animals. They stand on the boundary of knowing themselves as animals, as alive, and then facing life-long instruction into the cultural norms of being human, complete with particular animal relationships and behaviours specified by each and every culture. This is especially true for pre-school age children, like the five-year-olds in this study, who were just entering the elementary schooling system, which is the most intense acculturation and socialization period of their lives. Researchers have had strong intuitions that children's fascination with animals held some promise of new ways to look at the problems inherent in Western relationships with other animals (Cobb, 1977; Livingston, 1994; Nabham & Trimble, 1994). The most obvious of these problems is that humans seem to be increasing the extinction rate of other animals at an alarming rate (Ehrlich & Ehrlich, 1981).

Methodological Decisions: Possibilities and Constraints

One goal of this research project was to capture a moment in the lives of kindergarten and grade 5 children's understandings of three common Canadian animals. In creating a space for children to tell their stories, I wanted to avoid focussing on animals E.O. Wilson (1992) has called "charismatic mega-fauna" (large, media popular animals like whales, bears, and dinosaurs). Instead, I asked Canadian children to tell me stories about three common and familiar animals—bats, frogs, and raccoons. These three wild animals are easily found in most urban, suburban, and rural settings and all are boundary creatures moving between air, water, and land. The bat is the only flying nocturnal mammal, the frog is an amphibian, and the raccoon is a masked mammal, an omnivore and urban opportunist.

I chose to draw upon quantitative and qualitative methods in my larger research project, which ruffled more than a few academic feathers in both the natural and social sciences. Although my work was clearly transdisciplinary, this decision to use both types of methods seemed to antagonize devotees of both schools. There is controversy about the rigid boundary between qualitative and quantitative methodologies, and differences in their underlying philosophical assumptions (Smith & Heshusius, 1986). Yet, there is a growing "dissatisfaction among quantitative researchers with purely quantified results and qualitative researchers are less defensive about their analysis" according to Strauss & Corbin (1998, p. 167). Decades ago, Glaser and Strauss (1967) addressed this quantitative/qualitative chasm:

> We believe that each form of data is useful for both verification and generation of theory, whatever the primacy of emphasis. Primacy depends only on the circumstances of research, on the interests and training of the researcher and on the kinds of material [needed for] theory. In many instances, both forms of data are necessary. (p. 17-18)

For the purposes of this paper, I will discuss one qualitative wedge of the whole methodological process.[2] I collected three forms of knowledge with each child—interviews, stories, and drawings. Each form offered differing approaches to address the theories and concepts in question, and helped to triangulate the data (Guba & Lincoln, 1983). In individual interviews children talked about their:

- demographic background;
- historical experiences with pets, zoos, camping, media etc.;
- general relationship to, and beliefs about, wild animals and nature;
- story and drawing of human(s) and each animal (bats, frogs, and raccoons);
- historical experiences with each animal;
- beliefs and attitudes about each animal;
- cognitive knowledge of bats, frog, and raccoons;

- hypothetical problem-solving with each animal; and
- preferences for each animal.

Drawing is a comfortable and accessible mode of expression for 5 to 11-year-old children because they can express attitudes and concerns in drawings that they may not yet have words for (Koppitz, 1983). I perceive three benefits of using storytelling and drawing including:

- they are familiar methods for children;
- they can tap a deeper level of attitudinal response; and
- they are less leading than simple questionnaires.

Although, drawings are a controversial projective technique in psychological research with children (Cummings, 1986), environmental researchers have used the technique successfully for its descriptive and quantifiable content (Rejeski, 1982).

The form of narrative analysis used in this study was a combination of quantitative content analysis (Holsti, 1969; Kline, 1982) and qualitative methods based on grounded theory (Glaser, 1978; Rennie, Phillips, & Quartaro, 1988). Grounded theory is quite amenable to both qualitative and quantitative combinations, as Strauss and Corbin (1998) point out. I worked with over 177 children and quantitative content analysis was one way to reliably honour their stories, ideas, and drawings. At the same time, I was mindful of feminist critiques of science and their concern that claims of value-neutrality are often equated with quantification (Haraway, 1989; Birke & Hubbard, 1995), and so I conducted the quantitative analysis with codes generated from a careful reading of the children's interviews and stories.

The children's freedom to join the research, or not, was very important to me, as was the cooperation of the teachers, whose workdays I would be interrupting. A stringent research agreement was signed and approved by the participating Board of Education and ethical approval was granted by York University. In consultation with the Director of Education, four schools were selected with families in the middle socio-economic range. I approached appropriate grade teachers in each school, and they granted me permission to work with their students (88 kindergarten and 89 grade 5 students). Each child's parent or guardian signed an informed consent form. The interviewer also asked children personally if they wanted to participate or not, and their decision was honoured. As it happened, a more frequent problem was that everyone in a class wanted to participate because they heard the research involved animals.

In the selection of children for the study, I decided to establish as much cultural similarity as possible between the informants, so that patterns of similarities could emerge without being overwhelmed by cultural differences. This decision was influenced by my own cultural familiarity, emerging

debates in the environmental justice movement about environmental racism, and the difficulty of interpreting cultural differences, which I did not feel qualified to perform. To try to control for cultural similarity, children were selected who:

- were socialized in Canada (brought up for most of their life in Canada);
- attended Canadian public schools;
- had siblings, (i.e., were not an only child); and
- lived in an urban environment.

Once a sample of children fulfilled the selection criteria, I randomly picked names from the alphabetical class list and assigned them to a control or treatment group. These quantitative words "control" and "treatment" are ugly words for many people. Even for someone trained in science, like myself, they conjure up disturbing images of Harlow's imprisoned monkeys. But in this case, I am using them as an accepted short form for describing two different contexts that the children experienced during the research. In the treatment group, small groups of children (3-4) directly experienced the three live animals. Every child spent the same amount of time with the researcher (20 minutes) but only half of them directly experienced the animals, while the other half spent time observing a native plant instead. This way all the children spent an equal amount of time with the researcher, which can be a mitigating factor, in and of, itself. One week after their experience of the animals or the plant, the children were interviewed individually and extensively. During the interviews, they were asked to tell three stories and draw any pictures they wanted about what would happen if a person met a bat, a frog, and a raccoon.

The actual treatment/control phase of the research or the short-term experience of seeing live animals proved to be highly statistically significant, even though it was neither elaborate nor extensive. Even I was surprised at such findings. Some might argue that 20 minutes was not a sufficient treatment for an experiment. I wonder if we harbor overly linear, cumulative notions of time; the more the better. Yet, most people have experienced things in their life that are very short in duration, but powerful and memorable for the rest of their lives. For instance, John Livingston (1994) writes, "For some of us, the experience of non-human Nature is the most vivid recollection of young childhood" (p. 196). I was working from the assumption that experiences of nature are like a form of biospheric nutrition, and just as one can suffer "experiential undernutrition" (Livingston, 1994), one can also be fed by direct experiences of animals. I do recognize that the children who experienced the animals had different results from those who did not, and their narrative results support the statistical findings.

Finally, there were four decisions that, in hindsight, seemed critical to the treatment and control group interactions in my research:

- I designed a transactional experience whereby the children could ask whatever they wanted to know, and were not given a prepared lesson;
- I offered the children a multi-sensory approach—they could touch, feel, hear, smell, and see the animals and plant;
- I was comfortable and enthusiastic about all three wild animals and the plant, and was a keen model (important attributes in terms of social learning theory); and
- I was not one of their regular teachers, and may have been perceived as an expert.

Inter-Species Bonds

Two major trends and complexities emerged when the stories were examined in terms of the children's age and group. Three researchers coded the stories and our interrater reliability was 92%. In the first trend, grade 5 children (10 and 11 years old), in the control group told stories characterized by:

- fear, running away, and acts of harm between the people, bats, and raccoons;
- popular misconceptions about bats being blind and flying into people's hair; and
- more overall anxiety and chasing episodes in the story-lines. These older children had no direct experimental experience with the three animals.

The second trend involved kindergarten children in the treatment group who told stories about friendship between the humans and all three animals, and had less stereotypical attitudes about the animals' capabilities. These younger children with direct experience of the three animals told friendship and kinship stories.

Apparently, even a 20 minute multi-sensory, transactional and institutionalized experience of another animal makes a difference in the short-term, and perhaps in the long term. This interaction between the age of the children and a simple experiential treatment brings into question the controversy between human developmental and cultural models and environmental experience. Thus, one of my essential findings is about the importance of direct experience for positive human and other animal relationships, and the implications of this for biological conservation and environmental education.

For the kindergarten children in the group that experienced each of the three animals, friendship themes abounded throughout their stories. No matter which animal they discussed, friendship between the animals and the humans, and the attribution of subjectivity to the animal, were prevalent themes, as the following examples show. A six-year-old female told this bat story:

> I think bats are awake at night so the person would have to meeted (sic) it at night-time. Maybe the bat wanted to know if the person flew like bats do. Maybe the person wanted to know what bats eat. The bat told the person what he eats. The bat is happy because he has a new friend now. The person also feels happy because she has a friend. They were playing in the park.

This young girl recognized difference; there were acts of reciprocity between she and the bat before they became friends. She met the bat at night and they wondered about each other's different habits before they became friends.

A five-year-old boy told the following story, again illustrating the subjectivity to the animal:

> The person's going to be an angel, so it can fly just like the bat.
>
> The angel and the bat meet when they are both flying in the sky. They both lost their balance and then they both get up and went for a walk. And then they both went down the path to the little boy's house and they both could have peanut butter and jelly sandwiches and the bat could have bugs in his. The boy is happy because he's got a pet. The bat is happy to because he got a friend too.

In contrast to the kindergarten children, the grade 5 children had feelings of fear, harm and anxiety, towards the bats. The following story is a classic example, as it reproduces the misconception that bats are blind, and that they fly into people's hair. A 10-year-old boy related this story:

> The bat saw the person and the person got scared because bats like to go into people's hair and get caught. I think. And they're blind and they can't really see that good. The bat got caught in the person's hair and he couldn't get it out so he had to go to this other person's house to try and get it out. They had to cut the person's hair in places to pull it out. The person was kind of sad because he had to get his hair cut and it didn't look too good and it hurt because the bat was pulling - the bat was trying to get out too. The bat was pretty scared because he didn't know where he was because they're blind, almost perfectly blind.

The fear of bats often led to their death as this 10-year-old tells:

> Sometimes when a person meets a bat they get really scared. A bat swooped into our house and swooped around all over and I hid underneath a table. My Mom was huddled in a corner. And my Dad used his tennis racquet to swat at the bat. And he swatted it. I think my Dad killed it and put it in a bag and chucked it in the garbage. (After reflecting on her drawing, she added), I think the bat's more afraid of us than we are of him.

I wondered why there was such a difference between 5-year-olds and 10-year-olds, and if it had to do with age or schooling. Older children know more facts about animals (as the knowledge scales I developed show), but they also believe more of the folklore about the animals. Their age gives them greater access to buy dominant cultural currency in Western ideas about animals. Why does this cultural currency seem to reproduce—negative, anxious, fearful

notions about common and familiar animals? Surprisingly, it was a young child that was conscious of the negative media image of bats, as his story illustrates:

> The boy got lost and he went into a tunnel because he was sad and he met a friendly bat and the bat told him, "I'll show you where a home is so you can live." The boy ran away because he was scared of bats because he watches T.V. and there's mean bats on the cartoons. The bat felt sad because the boy ran away and he was just being really nice.

What knowledge do the younger children have that they potentially lose, or perhaps bury as they are schooled and institutionally regulated by dominant cultural texts and media stories? What does this have to do with questions of friendship between species?

Inter-Species Friendship

Friendship is a very particular everyday relationship, involving one subject to another. The innumerable stories about friendship between the younger children and the animals were not about nature as spectacle.[3] Nor were they the basis of a "spectator epistemology" complete with its unequal power balance and potentially imperial use of empathy (Code, 1995, p. 130). Their stories contained the acknowledgement of difference, and elements of mutual empathy and imagination. Many of these children storied the animals as other subjects, like and unlike themselves, subjects capable of reciprocity and agency.

As a researcher and environmental educator, I feel a responsibility to the storied experiences between these children and their animal "others." I believe that greater understanding of children's own culture in general, and particularly the stories of these children and animals, are critical to more emancipatory forms of environmental education and ethics, whether the plots are about fear or friendship.

Child Development and the Role of Animals

It is perplexing, though, that as more live animals disappear we continue to inundate children with animal symbolism. We give them stuffed animals to cuddle up beside before they go to sleep, live animals as companions, elaborate zoo visits, endless animal allegories, stories, movies, and cartoon animals to teach them implicit morals and values while entertaining them. Then, as these humans "grow up" we encourage them to separate from animals, to disappear animalness from their lives, (unless they become field biologists). It has even been claimed that children may dream about animals, but mature adults should no longer have animals in their dreams (Van de Castle, 1983). It is a common belief in Western culture that human maturity involves a critical separation from the animal part of us. As psychiatrist Aaron Katcher

(1982) analyzes, the child must die to give birth to the adult. What if this version of the "death" of the child is one of the reasons there is a lack of humane remedies for the disappearance of other life forms?

Psychology, as a predominately humanistic endeavour, emphasizes the importance of human role models, institutions, and social influences for child development. Even when social development researchers consider the complexity of a child's world, which includes the immediate environment, home, peers, the ideology of society, and media influences (Bronfenbrenner, 1977), they often fail to consider anything other than human interactions. Scant attention is paid to the social and cognitive role other species (like wild animals) may play in child development.

An exception is Edith Cobb's (1977) book, *The Ecology of Imagination in Childhood*, an extensive work on the autobiographies of geniuses, which demonstrates children's bodily involvement with the living world and their sense of interdependent belonging to a more-than-human world (Abram, 1996). Cobb believed that the flowering of human genius is actually rooted in a child's perceptual relations with the natural environment. (Her notion of genius was very broad and inter-disciplinary.) Using psychoanalytic principles, Shepard (1982) proposed a three matrix theory of child development, through three bondings and separations—a spiral developmental model:

- Matrix I: bond to principal caregiver;
- Matrix II: bond to nature (natural history of home); and
- Matrix III: bond to community and cosmos.

Shepard argued that human development is incomplete and infantile, largely because Matrix II in Western culture—bonding to nature is thwarted. Shepard believed that Matrix II, the least theorized and understood of all the developmental levels, is the critical phase in which children immerse themselves in natural history and their environmental surroundings. This immersion elicits a sense of continuity with natural processes and life itself. In Shepard's last work (1997), he argued that the roots of our very humanity (language, identity, and cognition) depend on the presence of wild animals in our lives.

The fact that these animals are wild, not domesticated, or captive, also matters. When I gave half the children the opportunity to experience these wild animals alive, they were much more likely to attribute subjectivity and agency to the animals in their stories. In *The Social Creation of Nature*, Neil Evernden (1992) writes that a child's miraculous encounter with another species:

> might be marked by delight, fear or amazement. But more important by far is the impact of the realization that there is an other, something in experience which cannot be contained in the self and is, therefore, uncanny—and wild. To encounter the wild other, to greet another "I am," is to accept the other's existence in one's life world. (p. 112)

I am not interested in dressed-up animals that speak to children to teach them "right" ways to be a good human being. I am deeply intrigued by some people's capacity to "belong" to their animalness, not in a colonizing, imperial way, but in embodied, sensory and imaginative ways. The size and dimensions of human empathy and imagination are what limit accounts of animal subjectivity. Children's own stories offer a rich, more diverse diet than much of the children's literature does.[4]

Anthropomorphism

This is about where anthropomorphism raises its troublesome head. Part of growing up and becoming good Western citizens (particularly good Western scientists) is that you kick any feelings of anthropomorphism out of your self. There is a lengthy history to the Western scientific taboo against anthropomorphism and the followers of this taboo are deeply entrenched in current cultural practices and ideas. After the medieval approach to empathy as a kind of knowing, questions about human kinship and anthropomorphism were banished by many of the Renaissance abstracters who sought "the removal of any trace of fellow-feeling in pursuit of an utter withdrawal from nature" (Evernden, 1992, p. 51).

In earlier work, I conceptualized anthropomorphism as a metaphorical process where one compares humans to animals, a typical, ordinary occurrence. Anthropomorphism should not be a closed or fixed thing but rather an alive and open process of comparing living beings. Still this does not mean it is innocent, nor without consequences for all involved.[5] Evernden (1992) has helpfully differentiated three types of anthropomorphism and the accompanying insights and dangers:

- the attribution of human form,
- the attribution of human characteristics, and
- the attribution of human cultural abstractions (p. 54).

I would have preferred he collapse these three into two categories because I am loath to reproduce the separation of the human body from its thoughts and feelings. These differences aside for now, our entire medical system is based on experimental analogies between humans and other animals—the attribution of human form and characteristics to animals. So clearly we benefit from this active practice of medical anthropomorphism, although it is not an act of mutual benefit for the animals.

It is the last form, the attribution of cultural abstractions onto nature, which is the most dangerous and culturally loaded. Social lives based on selfish individualism, norms of rampant heterosexuality, and economic laws of competitive advantage from the capitalist marketplace are but a few of the

cultural abstractions one can find read into science texts. This third type of anthropomorphism is alive and well and thriving while the first two are considered sinful at worst, and a sign of romantic silliness at best.

Many of the children I worked with had learned by age 10 to fear animals and to banish notions of friendship from their storied experiences. Why? Are the stories of friendship too anthropomorphic for mature children, must they differentiate themselves so absolutely from all other living beings? In the meantime while eating the cultural soup the older children have learned more of the "false" folklore about animals (i.e., bats are blind and fly into your hair). I want a world that includes and celebrates these children's voices and their storied experiences of animal others as active subjects friends, foe, or kin. And to do so requires active resistance to the "epistemological policing of Nature that is the concern of the modern system of education in the West" (Evernden, 1992, p. 55).

Western culture often teaches children to divorce themselves from their "animalness." This work is situated in the context of a larger project to explore the notion of radical otherness, an exploration of the notion of the "other" across not just class, race, and gender but across the species boundary. The opportunity to experience other living beings, to differentiate between diverse animals, is integral to a child's sense of self, as a human, above and beyond being an individual. I think children come to know themselves as human mammals by comparing themselves to other humans, and then other non-human members of their wider biotic communities. In the largely human-centred (read anthropocentric) social sciences it is feminists like Lynn Nelson who shift the emphasis from individual knowledge making to epistemological communities—or communities of knowers (in Code, 1995, p. 226). I contend that the community of knowers, and what is to be known, is a multi-species community. We know ourselves as human, and know about our existence, only in so far as we live in connection with, and experience other-than-humans. As one child said in an interview ". . . the world wouldn't be alive if there were no animals." We do want the world to be alive.

Notes

1 Throughout this paper, I refer to Western dominant cultures and practices not to homogenize the huge diversity of cultural offerings in Canada but rather to situate myself in my own context.

2 The quantitative aspect involved a four factorial research design: age/grade (2) by Gender (2) by Group (2) by Animal (3), investigated with a repeated measures four way analysis of variance. The full research design and methods are explained in greater detail in L. Fawcett, 2002.

3 For further reading, S. Davis (1997) *Spectacular Nature: Corporate culture and the Sea World experience*.

[4] There are wonderful exceptions to this generalization, such as Dr. Seuss's fantastic stories and the recent children's trilogy by Philip Pullman (1998). In Seuss's *On Beyond Zebra* the child refuses to be limited by the English alphabet and says: "In the places I go there are things that I see/That I never could spell if I stopped with the Z" (in Raymo, 1993, p. 23). Excellent examples of bat fiction include Kenneth Oppel's (1997) *Silverwing* and *The Bat-Poet* by Randall Jarrell (1996).

[5] See L. Fawcett, 1989.

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