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## Reading Article G1

### **Article #8: GAMES ANIMALS PLAY**

While scientists study the serious business of animal play behavior, their subjects are having a ball

by any scientific measure, Pigface the turtle, who succumbed to old age in October 1993, had no business playing basketball. The enormous African soft-shell was, at 50-something, much too old to be belting a ball around his aquarium with his snout. And while having fun is common among mammals and birds, cold-blooded reptiles aren't exactly party animals. Prewired at birth for survival, they rarely exhibit what scientists classify as play behavior.

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Full of new interest in ball-whacking turtles, monkeys splashing one another, and moose chasing windblown leaves, scientists are looking beyond the endearing anecdotes to more controlled studies of just why animals play. The subject remains both complex and puzzling.

When University of Alaska biologist Robert Fagen first observed the fawns of white-tailed deer running repeatedly through water, twisting their bodies and shaking their heads, "my immediate response was that they had gone mad or that I was seeing things. Only later did I realize that the fawns had been playing."

Researchers generally define play in three basic ways: mock chasing and fighting, repetition of locomotor skills, and a tendency of young animals to take dangerous risks.

Many animal antics echo children's games. Monkeys play leap-frog, otters love king-of-the-hill, young hyenas engage in tug-of-war contests, and young vampire bats play tag, chasing and slapping one another with their wings.

Birds and mammals in the same ecological niche seem to share similarities in their play. Woodpeckers, parrots and warblers play mouse like hopping games of chase. Young hawks, owls and eagles often toy with dead prey just as cats, martens and bears do.

But animal play isn't always fun and games. In the wild it can be dangerous. Not only are playful young animals sitting ducks for predators, they can hurt themselves. In Africa baboons lie in wait for young vervet monkeys horsing around and nail them as snacks, while Siberian ibex young take injurious, sometimes fatal, spills romping on rocky terrain. Yet despite such dangers, play may be a way of firing up the engines of survival.

Ground-breaking evidence from University of Idaho zoologist John Byers and others

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benefit at minimum cost."

For many animals, however, playing also serves elaborate functions of social bonding and establishing rules. "Animals that play together stay together," is how Marc Bekoff of the University of Colorado at Boulder puts it. Indeed, new studies show that through play animals learn how to negotiate with their own species and just how far they can push.

Take harbor seals, who, for reasons known only to them, don't like being touched. John W. Lawson, an ethologist at the Department of Fisheries and Oceans in St. John's, Nfld., has spent years observing colonies of harbor seals on nearby islands. When they rested, he noticed, they always separated a seal's length from one another. Once, Lawson inadvertently dropped a plastic bag, which blew over and grazed a juvenile. "He freaked out," says Lawson. "He ran into an adult, who bit him and bumped into another. The entire group ended up fleeing into the water."

This same touchiness appears in young harbor seals at play. Youngsters congregate offshore and “torpedo” themselves towards land, splashing the loudly objecting adults with ocean spray. The trick is to stop just short of touching a grown-up to avoid getting bitten. Says Lawson: “The animals seemed to be learning what they could and couldn’t get away with.”

Maxeen Biben, a zoologist who studied primate play at the National Institutes of Health in Washington, D.C., says play for young monkeys is a way to get experience in social roles “without getting killed or injured.” Call it natural selection’s idea of fair play.

Youngsters deliberately choose playmates they can dominate in wrestling and then allow the playmates a turn dominating. These games give practice for adulthood, letting both participants hone movements and social skills they will need later.

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beneficial rewards from all this play? Was Pigface, the basketball-swatting turtle, actually bubbling an aquatic “ahriight” after each slam dunk into the water lilies?

Indeed, some scientists are reluctant to classify any animal behavior as play until they have studied it exhaustively. Among cats there is a phenomenon some researchers have called “play of relief,” in which a young feline flings its catch savagely about for an hour or more. To some this activity appears to be a celebration. But is it more than just play? Does it have something to do with a predator’s prewired survival mechanisms being forced into overload?

Similarly, are otters repeatedly sliding down a snowy bank into the water having fun? Or is zooming down the slope just a response to the terrain built into otter brains as a successful locomotion trick for an otherwise land-impaired species?

Field biologists often see such a distinction as hairsplitting. They view an otter on a water slide as analogous to, say, a kid charging gleefully around the school yard, waving a stick. In defining play, says Marc Bekoff, "you can call it peanut butter or chicken soup, but there's no mistaking it."

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