

Animal behavioral scientists show an efficient way of increasing activity and foraging levels in zoo animals

As the world's focus shifts from infrastructural development to environmental sustainability and species preservation, one thing that often comes up is conservation of animals and their welfare. But what exactly is animal welfare? Science has shown that animal welfare is said to be when the animal is "happy" and it has what it wants.

That said, zoological institutions or zoos are also now moving away from being a source of entertainment to a center of education and conservation. Yet, one major issue that bothers conservationists, zoologists, zookeepers and animal ethologists is how to understand if zoo animals are happy and get what they want. In the case of zoo animals, one good indicator is whether they show the behavior that members of their species would usually show in the wild; this is called species-specific behavior. One way to do that is by "enriching" the zoo animal's environment with certain additions that would help the animal to become more physically active and start actively looking for food (commonly referred to as "foraging"). An interesting new study by animal psychologists at the Brookfield Zoo run by the Chicago Zoological Society shows how simple enrichments can vastly improve the activity and foraging levels in Western lowland gorillas in the zoo. This study was spearheaded by [Dr Lance J Miller](#), Vice President of Conservation Science and Animal Welfare Research at the Chicago Zoological Society

The scientists initially used different treats—such as frozen koolaid & orange juice, sunflower seeds, raisins, peanuts, and cheerios—to manually reward the study gorillas when they completed a task that involved foraging, exploring, physical play, grooming of self and others, and social interactions after training on these tasks twice a day. Later on, they automated the rewarding process by introducing automatic belt feeders inside the study area (the gorilla exhibit in the zoo), which randomly deposited tubes containing different treats inside the gorilla exhibit at random times throughout the day. The scientists then also applied different scents to the tubes, which, interestingly, included well-known fragrances such as Estee Lauder Cinnabar, Estee Lauder Pleasures, and Acqua di Parma Colonia! They also randomly placed wooden boards smeared with peanut butter and jam.

What they found was that the automatic belt feeder strategy increased the activity and foraging levels of zoo gorillas by at least 20-30%—a statistically significant finding. This, they say, could have been because the timings of the automated rewards were unpredictable, and therefore, the gorillas were forced to actively explore the exhibit looking for treats deposited by the belt feeders. What's more, even the contents of the tubes were not fixed; this meant there was another layer of unpredictability which forced the gorillas to look for their favorite treats even more actively.

In sum, this study tells us that different types of environmental enrichment for zoo gorillas increases both foraging and activity levels and this makes them more likely to exhibit species-specific behaviors on a larger scale.