

## Mirrors and Stainless Steel Balls for Macaques: A Discussion

Photo by Marie-Claude Labbe

### Discussion Participants:

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***I'm curious...  
how many of you hang  
nonhuman primate  
enrichment mirrors on  
the inside or on the outside  
of the animals' cages?***

We have all our mirrors hung on the outside with C-clamps that are crimped to secure them on the cage wall. When we started using tunnels and procedure boxes, the mirrors became an obstruction for some techs; now they want to have the mirrors moved to the inside of the cage. I feel this could create a hazard and compromise the true intent behind the provision of a mirror: giving the animal the ability to see around his or her environment. Inside the cage, the mirror could be in the way of the squeeze-back where



it can get stuck or damaged, possibly causing injuries to the animal. These stainless steel mirrors are very thin and bend easily. (Harriet)

We hang the mirrors with short chains outside onto the cage front so that they cannot interfere with the squeeze mechanism. (Jennie, Marcie, Renee, Kate, Jodi)

We also attach them with short chains both on the inside or on the outside of the cage front without ever having any interference problems with the squeeze mechanism. Often we hand the mirrors directly to our

macaques to use them just as they want. (Jenny)

We have decided to leave the mirrors on the outside of the cage but (a) move them down about 3 inches from their original position at the front of the cage and (b) reduce their size from a diameter of 8 inches to 4 inches. This solution should make everyone happy, but most of all our monkeys. (Harriet)

It is a strict rule at our facility to fix the mirrors also on the outside of the front panel on chains that have no more than 3 links. This makes it impossible for the macaques to maneuver

and pull the mirrors—along with a part of the chain—inside and inadvertently block the squeeze mechanism by pushing a mirror behind the bars of the squeeze-back. I love the way the animals manipulate the mirrors to view their surroundings. Also, we have used the reflective balls. Some of our cynos love them, others are indifferent. (Genevieve)

We also hang the stainless steel mirrors on the outside of the cage, and, in addition, give the monkeys reflective balls to use inside their cages. They seem to enjoy both enrichment items very much! (Angelika, Kaile)

Our animals also get the reflective ball—a hit or miss—and a full size mirror placed on the opposite wall of the room. One of our boys loves to look at himself over and over again. He is one of the animals who make use of the reflective ball, so perhaps he's just vain. (Kaile)

**Who is the supplier of these (stainless steel) balls?** (Erik)

We get them from Bio-Serv:  
<http://www.bio-serv.com/product/K3560.html>

Some of the monkeys have become so attached to the balls that they take them along when they are brought to the lab. (Angelika)

**Very cool.**

**For those of you who have experience with the Stainless Steel Balls, can you tell me:**

**(1) What is the life span of a ball?**

**(2) Does it dent easily?**

**(3) If dented, does rust occur?**

**(4) How much does it weigh? If an animal were to drop a ball from an upper perch on another monkey who sits or walks below, could it injure this monkey? A Challenger Ball won't easily render a monkey unconscious, but a metal ball? I don't know.**

**(5) Does the Stainless Steel Ball lose its reflectiveness easily?** (Erik)

Our reflective balls do get dents but there is no rust. They are not heavy. I often see our pair-housed macaques throwing the balls around, and when a ball happens to bonk another partner, we never noticed injuries resulting from these little accidents. These Stainless Steel Balls can get quite dull looking but a good cleaning makes them shiny again. I think they are great enrichment items for monkeys. (Jenny)

The Stainless Steel Ball does get a bit dented and scratched but cleans up easily (no rust). I'm not sure of the exact weight, but it is lighter than the Challenger Ball for sure. It is filled with a bit of sand, so it makes for interesting rolling and shaking. I like the fact that the ball gives the monks control over where they use their toy. This is particularly important for timid monks who want to sit in the back corner and look around, often too scared to come up front to a hanging mirror. (Karena)

I currently have an adult male rhesus who loves his reflective ball so much he tries to take it everywhere with him. I ran into problems with this obsession when he would bring the ball along with him into his training chair and hold it very attentively with his feet. He was so distracted by his toy that he was no longer able to concentrate on the computer task he works with. We finally had to attach the Stainless Steel Ball with a chain to the inside of the cage so he can cuddle with it in his home cage, but he can no longer take it with him to the training chair. When he is on vacation, we give him the free ball so that he can carry it

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around and do with it whatever he pleases. (Erica)

We also had a male rhesus who was very attached to his reflective ball. It was rather cute; he would take it to the corner of the cage with his biscuits and eat with it. After we found a compatible cagemate for him, his obsession for the ball abated. (Kaile)

My guys LOVE both their mirrors and their reflective balls! They use them not only as reflective objects but also as interesting and entertaining toys. (Evelyn)

**Does anyone working with vervets have experience with these balls? I'm thinking they would love them, but before ordering a few, I would like to know if my assumption is correct.**  
(Kelsey)

We have given them to vervets and, yes, they use them just as frequently as the other NHP species. One of the vervets would often hold his ball up in the air for the others of the room to see, as if it were his magic crystal ball. He is very amusing, to say the least. We've had these Stainless Steel Balls for a couple of years, and have only had one crack. I think they are a good investment, considering their usefulness and durability. (Russell)

We had a funny moment when the husbandry techs caught myself and the facility manager playing with a Stainless Steel Ball while looking into it and walking down the hall. It was super fun! Needless to say, they had a lot of jokes about having to remind us which primates the enrichment was for. (Jeannine)

We currently use mirrors attached on the outside of the cages but the NHPs will pull them into the cages if they can, depending on the cage model and its placement. Our mirrors are only reflective on one side, which we purposely chose so that the NHPs could kind of turn the mirror off if they no longer want to see its reflection. I have not used reflective balls, partly because they can't be turned off.

**Has anyone found that NHPs get irritated or frightened by being constantly exposed to a reflecting surface?**  
(Stefanie)

I had this concern when I worked at a facility where it was standard practice to place a large mirror 24/7 on the opposite wall of macaques who had no visual contact with other conspecifics. This procedure didn't sit well with me, because unlike a mirror on a chain or a reflective ball, there was really no way for the monkeys to escape their reflection.

Gradually we phased out that practice. Sometimes I think that we get so concerned with making sure that the monkeys have visual contact that we forget that they occasionally need a break from it. (Genevieve)

This has also been a long-standing worry of mine based upon my observations of macaques attacking their images reflecting from cage walls. However, I've gradually relaxed about this; over many thousands of monkey-observation hours, I've never seen animals who had issues with mirrors on chains. (Kate)

We've used mirrors on chains for 17 years and have never had an issue. After all, the animals don't HAVE to look in such a mirror if they don't want to do so. When watching our animals, I get the impression that they really enjoy it when they can manipulate those mirrors and attentively look at the reflections, perhaps not so much their own but the reflection from areas of the room that they could otherwise not see. (Polly)





I received the steel balls from Bio-Serv a few days ago; WOW, what an awesome toy for the macaques! They absolutely love playing with them. The individual in these photos is Eve, a young adult cyno. She carries the ball with her everywhere and does so many things with it. She pushes it around, tosses it in the air, holds it high up and watches her reflection, shakes it to feel the sand inside swish around—I know that's what she is doing because I did it too before I gave the ball to her :0)—and she appears to use it like a bowling ball, and watches how it wobbles back and forth while it's rolling. Then she lays on her back and playfully lifts it up and down with her hands and feet like she's weight lifting. So much fun watching all of them enjoy this new toy! (Polly)