

For economic success, channel your inner bonobo

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As we look for ways to avoid future economic problems, Professor Marc Hauser says we should acknowledge the impulsive, aggressive inner chimpanzee that got us into this mess, but mirror our patient, altruistic inner bonobo to avoid a repeat. Image: Jon Chase/Harvard Staff Photographer

Psychology Professor Marc Hauser dispels misconceptions about human and ape behavior with regard to patience, impulsiveness, and economic interactions in Harvard Museum of Natural History talk.

As we look for ways to avoid future economic problems, Psychology Professor Marc Hauser says we should acknowledge the impulsive, aggressive inner chimpanzee that got us into this mess, but mirror our patient, altruistic inner bonobo to avoid a repeat.

Hauser, who spoke before an audience in the Geological Lecture Hall

Thursday (Oct. 8) evening, spent an hour dispelling myths about human emotional and economic superiority over our ape cousins, and discussed experiments with human children designed to test capacity for patience and altruism.

The picture that science reveals is how, contrary to prevailing wisdom, we're not so different from apes in key respects.

Hauser, whose talk was sponsored by the Harvard Museum of Natural History, punctured two main assumptions, long held despite a lack of scientific underpinning. The first is that apes are more like other animals than humans in their ability to be patient for a reward, and the second is that the considerable human capacity to wait for a reward — illustrated in experiments involving money — is stable in different contexts.

For most animals, research has shown that even a few seconds' delay in receiving a reward is too long for them to maintain interest. Recent research conducted on two closely related apes — chimps and bonobos — showed they're more like humans than other animals in this regard, however. Both exhibited an ability to wait in an experiment that rewarded two pieces of food immediately or six if they held off, with bonobos waiting an average of a minute and chimps twice that long.

Hauser said that makes sense when considering the differing characteristics of the two species. Chimpanzees are tool-users and hunters, requiring greater patience for each, while bonobos feed on abundant resources on the forest floor.

When a similar experiment is conducted on humans and chimpanzees, the surprising results are humbling. Ninety percent of chimpanzees waited two minutes in order to receive a greater reward, showing a patience exhibited by only 20 percent of humans. Both humans and chimpanzees had fasted for several hours and were faced with a favorite

treat. For the humans it was two M&M's now or six later.

Similar experiments conducted by Harvard economist David Laibson, Goldman Professor of Economics, using juice instead of candy, showed similar results, Hauser said. Together, Hauser said, the experiments show, first, that apes are not more like other animals than humans in these capacities and, second, that humans behave differently when faced with a currency — a representation of a desired object like food — or the object itself.

Hauser said bonobos are also more risk-averse than their chimp cousins. He described an experiment where treats were provided in two bowls. One bowl, which was consistently the same shape and color, always had four pieces of food. The second bowl sometimes had one piece of food and sometimes seven. Most of the bonobos, roughly three-quarters, picked the safe choice, while fewer than half of the [chimps](#) did.

The finding that primates treat currency differently from the real item was illustrated in another experiment, conducted on animals trained to recognize numbers. In the first trial, they were presented with two plates, one with two bits of food and one with four. In the experiment, the animals pointing to the plate with the lesser amount of food got the one with the greater amount. Over numerous trials, Hauser said, the animals never pointed to the smaller one. When cards with the numbers two and four are placed on top, however, they understood and began pointing to two to get four. When the cards were removed, however, they were back to pointing to the bigger plate and getting nothing.

Experiments involving [human](#) children have shown that the ability to wait for a delayed reward not only varies by individual, but that the responses are indicators of future behavior. Children who showed the greatest capacity to refrain from eating a single cookie in exchange for five reported years later higher SAT scores and greater marital stability.

Other experiments showed that children will deny themselves a reward if, when paired with another child, the rewards for them and others are not equal.

While Hauser's talk highlighted ways that humans and [apes](#) may be similar in some characteristics, that doesn't mean humans aren't unique in many ways. Animal intelligence, he said, is like a "laser beam," where animals are able to focus on a problem important to their survival and solve it. Humans, on the other hand, have intelligence more like a floodlight, where mental capacities originally evolved for other purposes can be pulled into consideration of a variety of problems.

In applying the results of recent research to the economic crisis, Hauser said, we need to acknowledge that at heart we're like [chimpanzees](#), risk-prone and violent against outsiders. He said we need to nurture the risk-averse inner bonobo, keep in mind the illusion of currency, which makes us look more patient than we really are, recognize inequality, and fight for justice.

Provided by Harvard University ([news](#) : [web](#))

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