

Re: Intelligence and Fitness Mutuality in Cappucine Monkeys

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- *From:* "John Edser" <edser@xxxxxxxxxxxxxxxx>
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Passer By sender@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx wrote:-

JE:-

In experimental situations these monkeys share their spoils. If nuts become placed in a sealed jar with a covering that could only be broken by a tool e.g. a flint stone, where one monkey had the stone and the other the jar of nuts where they remain separated by a partition with an arm sized hole for communication, the monkey with the stone tool will pass it to the monkey with the nuts so that it can bust open the jar. The stone receiving monkey will then pass back some of the nuts. Cheating was not observed. This behavior is obviously mutualistic but does not necessarily constitute cognitive mutualised exchange (commonly referred to as "trade") because exchange solicitation which requires bargaining were not observed. After viewing the situation the monkey with the stone simply passes it to the monkey with the jar of nuts who then passes some of the nuts back.

It seems like there were plenty of nuts to share in the jar, what if there were only 1 or 2 or 3? What if the stone would break once used?

JE:-

Both are excellent questions. The experiment described appeared in a David Attenborough documentary. I would have liked to have measured the mean number of nuts reciprocated. I would have been interesting to have slowly reduced the number of nuts in the jar to just 1 to see what proportion gets passed back.

It seems clear to me that the worth of the stone to the monkey without any nuts was less than the nuts so if that monkey did not receive any nuts then the loss to it was not significant. OTOH the worth of the stone to the

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monkey with the nuts in a sealed jar was great because it didn't have anything to open the jar. Can nature select for an implicit agreement that whenever you obtain help to get food then you must also share it? If not, why not? If so, how exactly?

IMO the key questions posed here are:

- 1) Why didn't the monkey with the sealed jar of nuts cheat the monkey who passed the stone to open the jar?
- 2) Would it be accurate to suggest that if the recipient monkey did not pass any of the nuts back then it was behaving "selfishly"? Since it did hand some over can this action be described as "altruistic"?
- 3) Is it accurate to say that the passing over of the stone and the passing back of the nuts constituted "reciprocated" acts of "altruism"?

Regards,

John Edser
Independent Researcher

edser@xxxxxxxxxxxxxx