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Reviewed Article:

Leaf-dropping Sexual Display Exhibited by a Male Bonobo at Wamba

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Introduction

During courtship displays, male bonobos of Wamba exhibit a variety of hand/arm movements (reaching-out, beckoning, touching females softly, branch shaking, etc.) while exhibiting various postures (sitting, squatting, bipedal and quadrupedal standing, and hanging) and body gestures (rocking, rolling, swaying, and jerking). Penile erection always occurs and the eyes are fixed on the target female while he faces her during most of a display series. All those elements are conspicuous and easily detectable even for human observers. This open form of male sexual display may reflect the low level of sexual competition among male bonobos as reported for example by Ihobe¹ and Kano².

A quite different way of courtship was observed in a low-ranking male, MITUO (MO) of the E1 group at Wamba on 21 January, 1991. The present field report is based on the observations of an unusual courtship display. The study group (E1) consisted of 7 adult males (AM), 9 adult females (AF), 2 adolescent males (AdM), 1 adolescent female (AdF) and 11 infants and juveniles (IJ) at that time.

Observation

6:12 on 23 January, 1991, a total of 20 bonobos (4 AMs, 6 Afs, 2 AdMs, and 8 IJs) were confirmed at the temporary artificial feeding site, their nesting site of the previous night. Among

the party females, only MISO (Ms) and SEN (Sn) were estrous. Between 6:20 and 6:48, Ms mated four times with TEN (alpha male), HAZE (infant male) and SENTA (AdM) but Sn had no sexual interactions.

6:58 Ten bonobos were still at the site. MO (4th =bottom ranking male in this party), IKA (IK, 2nd ranking male), HAKU (AdM), and MITU (mother of MITUO) were on the ground. TOSI (Ts: AdF), BIHI (Bh: AF) with her infant, and Ms with two immature daughters were eating sugar-cane at 4m, 6m, and 11m high in a tree on the roof of which MO was sitting.

7:00 IK moved 7 meters away from MO. Then, MO began to climb the tree, passed by Ts and Bh, and sat 1m below Ms.

7:01 MO resumed climbing, passed Ms and then sat on a branch 4m above Ms. He had a penile erection which was unlikely to be detected by IK on the ground since MO sat with his back directed to IK. Ms continued eating, ignoring him. MO reached out and lightly pulled down an overhead branch with his right hand. While holding the branch, MO picked off a leafy tip from the branch by his left hand and dropped it. The twig fell to the ground, passing by Ms who was still eating.

By 7:02, MO dropped three more twigs, 30-40 cm in length one by one at about equal intervals. Each passed down within 1 m of Ms did not show any response except once when she gave a quick glance up to MO.

7:02 MIKI (Mk, 5 year old daughter of Ms) left her mother, climbed to approach MO, sat in front of MO but he showed no interest in her. After several seconds, Mk went back to her mother.

7:03 MO stood bipedally, picked a twig from an overhead branch and dropped it. Several seconds later, he swayed himself to and fro very slowly after dropping another twig. Several

seconds later, he again dropped another twig, and then swayed in the same manner.

7:04 MO sat, shook a twig slowly for a few seconds, and released it. 7:04:24 He repeated the same procedure. 7:04:40 Immediately after that, Ms climbed up the tree with her infant MIHO on her back, approached and presented to MO who then mounted her at 7:04:47 and thrust until 7:05:05 when he dismounted. Immediately after copulation, MO climbed down 11m and sat, still with a penile erection while Ms remained where they mated. About 10 seconds after, he moved down to the ground grunting softly and disappeared.

Discussion

MO's activities were considered to be mating solicitation behaviors directed to Ms. If so, it comprised quite different patterns from those of the normal "open" sexual display usually used by bonobo males. 1) leaf-dropping/shaking and body-swaying were performed in a sneaky and secretive way. 2) Penile erection was inevitable but it seemed to have been concealed from the eye of the higher ranking IK. 3) It is also noted that he did not look down at Ms while soliciting; that is, this courtship display lacked the eye-contact which is inevitable between solicitor and solicitee in normal displays. It may have given IK the impression that MO was only resting, serving as a kind of deception.

Interferences to copulatory activities were infrequent in bonobos: only 5.2% (27) of the total 515 mature copulations recorded at the artificial feeding place between October, 1975 and February, 1979 were aggressively disrupted by other males². However, infrequent aggressive interference by males does not always indicate a low level of sexual competition among males. The record that the top-ranking male in a "subparty" was responsible for most of the observed copulations implies that lower-ranking males may refrain themselves from initiating mating activities in the presence of higher ranking males³.

The above "leaf-dropping" behavior is considered as a counter tactics by the lower ranking male to improve his mating chances. This courtship display is behaviorally similar to the "leaf-clipping" behavior reported from Mahale⁵ in

a sense that leaves are used as a tool for sneaky solicitation by males. Leaf-dropping may, however, represent a more cautious way of solicitation than leaf-clipping because the former was performed in almost complete silence while in the latter a series of slight unnatural sounds is a cue for the target female to notice.

The above instance is the only case recorded so far. There may have been other cases that had been overlooked because of its inconspicuousness. It is true for the observations before 21 January, 1991. However, in spite of very cautious observations of a total 285 hours on four different periods after the above described first record, no leaf-dropping has been detected. Moreover, MO himself disappeared by September, 1992, and is suspected of being killed by poachers⁴. It cannot be, therefore, decided at this moment whether leaf-dropping is a universal but extremely rare pattern of sexual display by male bonobos or if it was idiosyncratic of MO.

Acknowledgements

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