# Social Rejection Exclusion and Shunning Among the Gombe Chimpanzees

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*From the observations at Gombe over the past 23 years it appears that group punishment of deviant behavior through ostracism, as practiced in human groups, has not yet evolved in a truly sophisticated way in chimpanzee society. However, cases of "social .rejection or exclusion" have been observed in three different behavioral contexts. Most frequently, a chimpanzee is the target of hostility as the result of competitive interaction within the community; in such cases, social cohesion counterbalances rejection, typically leading to integration within a relatively stable pattern of dominance and social interaction. The occasional departure of an individual who has been the target of aggression-like the withdrawal of Evered after repeated attacks by Figan and Faban seems due to persistent hostility by a few males rather than general "ostracism" by the group as a whole. A second form of exclusion concerns outsiders found in the home range of -the group: in these cases, hostility is more generalized, particularly in response to the attempt of an adult female with offspring to join the community. Finally, there are the rarely observed instances of shunning a group member whose behavior seems abnormal - the social rejection of Pepe and Old Mr. McGregor after they suffered from polio.*

## INTRODUCTION

Cases of "social rejection or exclusion" observed at Gombe over the past 26 years occurred in three rather different behavioral contexts:

1. competitive interaction between members of the same social group or community (a term synonymous with the unit-group preferred by Japanese scientists (Nishida 1968);

2. interactions between members of different communities; and

3. abnormal behavior of a group member .

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Only incidents in the first category are commonly observed and these relate less closely to ostracism per se since the individual who becomes the target of hostility does not actually diverge from the group norm, and there is only occasionally a form of "coordinated or imitated response by the members of the group. "Strangers," the targets of aggressive exclusion in category 2, can be expected to show some difference from group norms of behavior and sometimes do provoke a coordinated hostile response from a number of group members. Incidents falling into the final category , where group members have been ostracized or shunned as a result of clearly abnormal behavior and/or appearance, have been observed least often of all. A major point of this article is that the social bonding mechanisms of the chimpanzee are extraordinarily powerful and, in most cases, strongly counteract aggressive patterns that might otherwise lead to a total rejection or exclusion.

## COMPETITIVE INTERACTIONS BETWEEN GROUP MEMBERS

To understand fully the competitive process that may *result* in rejection by, or exclusion from, the social group, it is first necessary to consider the infant. From the time the mother begins to deny her child access to the nipples, riding during travel and so on, she becomes increasingly rejecting until the youngster eventually becomes independent-at least physiologically-when her next baby is born. This rejection by the mother *encourages* the inte- gration of the youngster in the wider social group. At the same time, by repeatedly offering reassurance *in addition to* rejection, the mother also ensures that the bond between herself and her offspring of both sexes will remain close, probably throughout life.

Gibbons form monogamous pair bonds and each pair rigorously defends a small territory .In this species maternal rejection continues and becomes intensified *beyond* weaning; this leads to the eventual *exclusion* of the young female from her family group. In the case of the young male, maternal rejection is subsequently replaced by paternal hostility, so that he, too, eventually leaves his family during adolescence. The offspring then seek out mates and territories of their own (e.g., Ellefson 1968).

### The Male

In chimpanzee society, infants of both sexes are initially extremely well tolerated by adults. But the male, as a late juvenile and adolescent, increasingly elicits aggressive responses from his seniors, sometimes simply by coming too close. As a result, the late-adolescent male tends to become more and more peripheral; he no longer "dares" to join in activities such as social grooming involving a cluster of mature males and he spends long

periods quite by himself. This is the male attitude towards young, potential rivals of the future which, in gibbon circles, results in the father driving away his own son. Paternity is not clear-cut for the chimpanzee in the wild, but the overall behavior of the males to all youngsters growing up in their community can be compared to that of the gibbon father. Once again, it is the powerful bonding mechanisms that counteract this tendency toward peri-pheralization, which, carried to its logical conclusion, would result in exclusion. The young chimpanzee male does not, like his gibbon counterpart, leave his mother and "fathers": he remains highly attached to his mother and increasingly attracted by the adult males. Even when he is most scared of the adult males, they exercise powerful fascination-he spends long periods watching their behavior, he follows and even imitates them. Gradually he moves *back in* from his peripheral, semi excluded position and becomes sa fully integrated member of adult male society.

This integration, however, is seldom accomplished without some rivalry .as the young male competes with his seniors for social dominance. I describe fully elsewhere (Goodall, in preparation; see also Riss and Goodall 1977) .how status rivalry between adult males can lead to severe and repeated fights, between the various competing males: at Gombe, as for the chimpanzees of " the Arnhem Colony described by de Waal (this issue), the presence or absence of coalition partners may be crucial in determining the outcome of each conflict. At Gombe, again as at Arnhem, tension between rivals may " be greatly reduced by means of reassurance contact, particularly social grooming.

By and large, reversals in the relative rank of two males, while they may involve violent fighting and may lead to quite serious wounds, are resolved without the loser being driven from his social group or-as the extreme penalty for failure-killed. In the natural habitat an individual facing unusually severe persecution has the option of evading his rivals-he can simply escape to a peripheral area of the community range. This happened on one (observed) occasion at Gombe when the two brothers (Figan, alpha; and Faben) formed a powerful coalition and repeatedly attacked Figan's main rival, Evered. Seemingly, in response to this rather brutal persecution, Evered began to spend more and more time roaming in the far north of the ...community range; when he returned to the central core area (after 1-3 months), he was again attacked by the two brothers-and again left (Riss and Goodal1 1977; Riss and Busse 1977). In the Mahale Mountains (100 miles south of Gombe), Nishida and his colleagues (1983) have observed two cases *r* where previous alpha males left the central areas of their unit-groups. One of these, a member of K-group (which numbered only three adult males at the time) was-like de Waal's Luit-victim of a coalition between the other two adult males; he left after being badly wounded on a number of occasions. There are no details regarding the expulsion of the alpha male from the much larger M-group.

This was the course of action-withdrawal and complete avoidance-

that was denied to Luit, at Arnhem, by the conditions of his captivity. Because he was unable to leave the enclosure he could not avoid the other males and he paid with his life (de Waal, this issue).

At this point I want to make it clear that when Evered moved away from the central part of his home range, it was due to the persecution of two community members only--.Figan and Faben. It is true that, on a few occasions, other chimpanzees who happened to be present during one of the attacks, joined in, siding with the alpha male. But no unusual aggression was directed towards Evered in the absence of Figan and Faben. Indeed, after Faben's disappearance and presumed death, Evered-though still highly submissive to Figan-nevertheless returned to the central area and resumed his position in adult male society (Goodall, in press). The male who left K-group also returned, after some 15 months, and resumed his alpha position (Nishida 1983). (The male from the large M-group, however, was still wandering about by himself in a peripheral part of the range nearly 2 years after he left.)

The strong desire for reestablishing friendly relations after a fight on the part of both victim and, often, aggressor, as also described by de Waal, is a very striking aspect of intragroup aggression in chimpanzees. In the natural habitat, where the adult males together patrol a common territory, and together protect their females, young, and food resources, this char- acteristic is obviously of great adaptive value. Adult males cannot often afford to exclude one of their number from their close-knit "club" since this renders them, as a team, less powerful and might give their neighbors an important advantage.

**The Female**

Just as the young male, as he grows older, provokes increasing aggression from older males, so too does the female from older females. In other respects, however, her situation is very different. She is not, like the young male, attracted to the adult society of members of her own sex, except occasionally when she appears to be motivated by a desire to interact with their infants. Instead, she becomes increasingly integrated into adult male society with the onset of estrus. She remains (at Gombe) even more closely bonded to her mother than does the young male. Her mother typically sup- ports her during her aggressive interactions with older females; if the mother is high ranking, then a mother-daughter coalition may be very strong indeed.

If her mother dies, however, the adolescent female may go through a period of social rejection. One young female, Skosha, 13 years old at the time of writing, lost her mother when she was 5 years old and her' 'foster mother" 5 years later. Since this second loss, she has been subjected to repeated extremely hostile attacks by the members of two high ranking families, including juvenile and adolescent male offspring. It appears at times that these families are actively trying to drive Skosha from the community.

Two other high ranking females, however, are highly tolerant of Skosha and, while they have not been observed to support her against her persecutors, they allow her to travel and feed 10 their company. Thus there IS no *concerted* female movement against her, and the males, while not supportive, are not !, overly aggressive either: Skosha is still firmly entrenched in the central part .of the range. It is not yet clear whether the unusually aggressive behavior repeatedly directed towards Skosha by these families is, in any way, a result of her orphaned status as such (which might have induced slightly atypical behavior), or is simply because, with no senior female to support her, she offers a particularly vulnerable and' 'safe' , target for competitive aggression. f. Analysis that is underway with regard to the general behavior of orphans .may help to clarify the matter.

## HOSTILITY DIRECTED TOW ARDS THE EXCLUSION OF NEIGHBORS ENCOUNTERED WITHIN THE HOME RANGE

These hostilities fall into two very different categories. First, let us consider the young immigrant female. In chimpanzee society, it is the female, rather than the male, who may leave her natal group during adolescence and transfer, temporarily or permanently, into a neighboring community (Pusey 1979; " Nishida and Kawanaka 1972). The behavior of resident adult males is directed towards recruiting such females and, to some extent, protecting them " once they have been acquired. Protection is necessary because resident females usually show quite violent hostility, at least initially, towards young 4 immigrants (Tutin 1975; Pusey 1977). It is quite possible that the repeated aggressive encounters with resident females may cause a prospective immigrant to "change her mind": many young females at Gombe visit neighboring males during periods of estrus, but return, in between, to their own communities where they eventually raise their offspring.

When a female does transfer permanently, she is likely to persist in associating, or trying to associate with the very high ranking females who are the most aggressive. By sheer persistence she may, eventually, wear down the resistance of her most dangerous "enemies" (Goodall, in press). Once again we see that the mechanisms of cohesion and social bonding, compensate for the powerful aggressive behaviors triggered during competition between individuals of the same sex.

The hostility directed toward a stranger *mother* (i.e., an older female with at least one dependent, usually two or more) who is encountered within the community range is usually (at Gombe) of a very different nature. In this case, the adult males are the primary aggressors (although females may join in) and the savage attacks may result in the death of the female's infant or even the mother herself (Bygott 1972; Goodall et al. 1979). That these older females are perceived as being "different" from group females is sug-

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gested by the following incident: A number of adult males had surrounded a stranger female and her infant (clinging ventral) who had been encountered near the periphery of the home range. The males were showing behavior similar to that observed when they hunt arboreal prey. Whenever the female moved out along the branches, clearly trying to escape to a neighboring tree, the males positioned themselves so as to cut off her escape routes. When she kept still-so did they. During one of these tense pauses the victim, very nervous by this time, approached the adult male Satan and, uttering submissive sounds, reached out to touch him-a gesture of submission and appeasement. Instantly Satan moved from the contact, picked a handful of leaves, and vigorously scrubbed his hair where her hand touched it. This female was eventually attacked fiercely by all males present. Her infant was seized, flailed by the alpha male, and subsequently died of the inflicted wounds (Goodall 1977).

Similar attempts at appeasement were observed in another of these older female strangers; they were equally unsuccessful. It appears that the behaviors that help to strengthen group cohesion *within* the social group Were powerless to help in communications between members of different communities (adolescent females always excepted), so that strangers are tuth- lessly excluded, and group integrity and group resources protected.

## SHUNNING

In 1966 an epidemic of paralytic disease, almost certainly poliolmyelitis (Goodall 1968) struck the Gombe chimpanzees. A number of the afflicted individuals were forced to adopt a variety of abnormal and sometimes bizarre patterns of locomotion. One young male, Pepe, lost the use of one arm and both shoulders. During the first days after his illness, he shuffled along in an upright squatting position, his buttocks almost touching the ground. Three chimpanzees were in a camp (where bananas, at that time, were fed on a daily basis) as Pepe slowly moved towards them up the path, his useless arm trailing behind him in the dust: almost certainly this was their first sight of him since his affliction. "They stared for a moment and then, with wide grins of fear, rushed for reassurance to embrace and pat each other, still staring at the unfortunate cripple Pepe, who obviously had no idea that he himself was the object of their fear, showed an even wider grin of fright as he repeatedly turned to look over his shoulder along the path behind him- trying to find out, presumably, what it was that was making his companions so frightened. Eventually the others calmed down, but though they continued to stare at him from time to time, none of them went near him-and presently he shuffled off on his own" (GoodalI1971, p. 216). He was next seen about 2 weeks later-his companions, by then, had grown used to his condition and no longer showed fearful or avoidance responses.

Old Mr. McGregor's plight was far worse, since he lost the use of both

legs. He moved by inching his body, backwards, between his arms (his buttocks were raw from this type of progression); or by lying on his tummy, r seizing branches or roots ahead, and pulling himself forward along the ground; or by seizing the vegetation and, using the strength of arms and trunk, moving forward in a series of bizarre somersaults, each one ending r with two thuds as his useless legs slammed anyhow to the ground. Because he had also become incontinent he was continually surrounded by a great swarm of flies that buzzed loudly and angrily when disturbed.

He first appeared at the edge of the camp clearing in the late evening of 27 November. The unusual movements attracted the attention of the five chimpanzees who were in the camp: Flo, with three of her offspring, and a young adolescent female. They approached very cautiously, standing upright every so often to peer over the long grass, uttering the soft *huu* call of unease or puzzlement. Flo never went closer than 10 meters, but the two youngest, juvenile Fifi and infant Flint, approached within 3 meters, peering towards r the cripple and sniffing the grass. There were no interactions of any sort between the old male and his "visitors" and, after 12 minutes, they left him. During the 6 days that followed (after which he was shot, for humane, reasons, as he dislocated one arm trying to climb a tree), Gregor never left -the area immediately below camp. Observations were made for a total of 24 : hours when one or more other chimpanzees were within 10 meters of his .various resting or feeding places. (He was given a pile of bananas, palm nuts, and other wild foods twice a day ) Of the total number of 32 adult and adolescent chimpanzees who visited camp at the time, 17 approached the " crippled male (10 of 18 males; 7 of 14 females). Only nine adults approached closely (3 meters or closer) and of these only four actually touched him (two aggressively). In addition, three juveniles and one infant approached very closely, and all of these actually touched him. One adult male, Humphrey- possibly his biological nephew (Goodall, in press) "visited" ten times during these 24 hours; juvenile Fill visited five times; two adult females three .times each; and the others only once or twice. Of particular interest was the fact that Humphrey was within 10 meters of the old male for about 80% (20 hours) of the observed 24 hours. This compares with about 31 hours for Fifi and the old male Huxley, who spent the next longest periods near Gregor. Humphrey was the only chimpanzee who sometimes slept within 20 meters of the stricken male (on four of seven nights). And he sometimes tried to persuade Gregor to follow him, shaking branches in the manner of a male signaling to a reluctant female during a consortship.

Three of the adult males were initially aggressive when they approached Gregor (probably the first time they had seen him in that state, though we cannot be sure). They displayed towards and around him as he cowered on the ground, his face split by a huge grin of fear. One of them actually stamped on him, seized his shoulder and tried to roll him over. These were similar to the reactions shown by adult males to the sudden death of an adult male when he fell from a tree and broke his neck (Teleki 1973). That the displays

were the result of fear is suggested by the fact that one of the males, after displaying around Gregor twice, suddenly rushed over to Humphrey and the two males, both with grins of fear, patted each other frenziedly, time and time again, as they sought reassurance.

Perhaps the most striking aspect was the fact that not once in the 24 hours was Gregor involved in a session of social grooming. Three chimpanzees on three separate occasions each made one or two grooming movements on the old male, but that was all. It was on the sixth day that Gregor, for the first time, made a deliberate attempt to try to join in a session of social grooming. Two adult males, one of them Humphrey, groomed in a tree some 45 meters from where the old male lay. With great determination he managed to cover this distance in 10 minutes. As he pulled himself up the bank toward the trunk of the tree the second male, Hugh, suddenly left Humphrey and moved to a position further distant from Gregor. Humphrey also moved away, but not so far. For the next 2 minutes Gregor sat on the ground, occasionally glancing up. Humphrey began to groom himself with rapid, nervous movements, twice, very briefly, glancing toward the old male below. Then Gregor began the laborious (and incredible) business of pulling himself up to the lowest branch by his arms. At the very moment that he began this, Hugh moved rapidly to the far side of the tree. When Gregor finally got his rump level with the lowest branch he relaxed and sat still: he was in the very place where, a few minutes before, Humphrey and Hugh had been grooming; For the next minute, Humphrey continued his nervous self-grooming. Suddenly he moved very fast towards Gregor, made two cur- sory grooming movements on the old male's back, and then hastened after Hugh who (perhaps also as a kind of diplacement activity) was constructing a rough nest. The two groomed each other for just over I minute and then Hugh just sat and Humphrey lay in the nest. Five minutes later Gregor, after staring intently towards the two males, laboriously lowered himself to the ground. During a 24-hour period picked randomly from 10 days (in camp) during the month prior to his illness, Gregor was involved in nine grooming sessions lasting for a total of 3 hours and 46 minutes. Four of these sessions (I hour 33 minutes) included Humphrey.

As Eibl-Eibesfeldt (1.979) points out, avoidance of conspecifics showing abnormal behavior may be highly adaptive since it reduces the risk of spreading contagious disease.

## CONCLUSION

In human society, of course, we most often think of ostracism, or cold shouldering, as an informal group response to socially undesirable behavior in one or more of its members: an expression of disapproval that is liable to be highly effective (during my school days we sent our victims "to coventry" and it was indeed a dreaded treatment). As we have seen, things do

not really happen that way in chimpanzee society. The attempts made by resident females to exclude young immigrants from their society perhaps come closest-since almost *all* the senior females will join such an endeavor at one time or another. The newcomer must persist over quite long periods of time before she can begin to relax among the adult females of her new group. Until quite recently, newcomers (or "foreigners") who moved into a traditional English village were seldom really accepted by the majority of residents until they had lived there for a good many years. The initial fear, followed by avoidance and shunning of the polio victims, " also finds its parallel in human behavior, particularly, though by no means only, among children. In both chimpanzee and human society, the crippled or disfigured' 'victim', will usually be accepted once he has become thoroughly familiar .

But group sanction, group punishment of deviant behavior through ostracism, as practiced in human groups, has not yet evolved in a truly sophisticated way in chimpanzee society - at least as observed at Gombe over .the past 26 years.

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