

A Baboon's Life

MALE-ON-MALE VIOLENCE, AGING,
AND FRIENDSHIP ON THE SAVANNAH

For the past 20 years, I've spent my summers studying the behavior of wild baboons in the Serengeti of East Africa. These baboons are smart animals with individualistic personalities, and they live up to 25-year life spans in large social groups. During my time with them, I've experienced the shock of mortality, watching baboons who used to be terrors of the savanna become hobbled with arthritis and shuddering at the withered state of a male who was a subadult primate (like me) in the 1970s, when I began my work.

They have gotten old on me, and as they've grown gray, I've come to understand the connection between the quality of their later years and how they lived their lives. I've been particularly curious about the odd practice among some elderly male baboons, who run away from home in their twilight years. While initially perplexing, the experience of these aging males turned out to be especially illuminating. It contains a lesson, I think, about how the patterns of a lifetime can come home to roost.

In most primate societies, such as those of baboons, females spend their entire lives in the troop into which they were born, surrounded by their female relatives. Males, on the other hand, tend to leave the troop at puberty, striking out to make their fortune. This pattern is common to most social species, in which inbreeding is avoided when one of the sexes migrates. In many species, the members of one sex are driven out at puberty.

Male primates leave voluntarily. They are possessed of a profound wanderlust, an itch to be anywhere but on the drab, familiar home ground. They leave – and they gradually make their way into a new troop where they are subordinate and unconnected at first.

This is a time of life fraught with danger, potential, fear, and excitement. The mortality risk for a young baboon increases as much as tenfold during the volatile transfer period. Slowly, though, the young males form connections in their new troops as they grow into adulthood. Prime-age males also may occasionally change troops, when there's trouble at home and too much competition for status there. And sometimes even an elderly male primate will transfer, an act that makes little evident sense.

Old age is no time to spend unprotected in the savanna, having left one troop but not yet assimilated into another. Senses are less acute, muscles are less willing and predators lurk everywhere. Even if the old baboon makes the transition to his new troop safely, he'll hardly be on easy street. As he moves into a world of strangers, he will have to learn new social and ecological rules: which big, strapping males are unpredictably violent, which grove of trees is most likely to be fruiting when the dry season is at its worst.

New demands will be harder for him because of the nature of cognitive aging. "Crystallized" knowledge (the recalling of facts and their application in usual, habitual ways) may remain intact into old age, but "fluid" knowledge (the absorbing of new information and its improvisatory application) typically slips. It's an inauspicious time to learn new tricks.

Physical vulnerability, need for continuity, reliance



AN EAST AFRICAN
BABOON, FLANKED BY THE
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by Robert Sapolsky

Essay

on the familiar – these elements all suggest that it is madness for an aging baboon to pick up and try a new life. Why should he ever do so?

A number of scientists have come up with several ideas. Perhaps the aging baboon believes that a move will allow a last hurrah. Maybe aged males return to their natal troop, to spend their final years in the care of their aged sisters. Another theory suggests that aging males may leave the troop when their daughters reach reproductive age, so as to avoid breeding with them. A particularly poignant twist on this idea comes from studies of the sifaka, a Madagascan primate. In a scene that is part King Lear, part bad Marlin Perkins, the reproductive-age females drive out the elderly fathers. No Hallmark cards there for Father's Day.

The data from my baboon studies suggest an additional reason for the occasional transfer of an aged male. He may move on because the current gang in charge will not allow him to step down gracefully. When you examine dominance interactions among individuals in a troop, a distinctive pattern emerges. High-ranking males have their tense interactions with each other – one will force another to give up a piece of food or a resting spot, or will disrupt grooming or sexual behavior.

These high-ranking tusslers seldom bother with a puny adolescent newcomer. But with a former number

1, an aging superstar toppled from power, they will roundly and repeatedly rub his nose in his subordinacy.

When I examined the few males who had transferred into my troop in their old age, they were utterly subordinate, sitting in the cellar of the hierarchy. But they were largely ignored. The aged males who had spent their prime in the troop, however, were subject to more than twice as many dominance interactions as the males who had transferred in.

Why are the prime-age males so aggressive to the deposed ruling class? Are they afraid that the old guys may rise again? Do they get an ugly thrill from getting away with it? It is impossible, of course, to say what is going on in their heads. My studies indicate, though, that the new generation doesn't much care who the aged animal is, so long as he was once high ranking.

One might expect what goes around to come around, that males who were particularly brutal in their prime should be the ones most subject to indignities. But I did not observe this pattern. The brutalizing of elderly males who remained in the troop was inde-

pendent of how aggressively they had behaved in their heyday. All that seemed to matter was that they had once been dominant and that they no longer were.

Even against this grim backdrop, more than half of aging males did not leave their bands. Instead, they finished their lives in the troops where they suffered this mistreatment. My data suggest that they were sustained through their later years by simple friendship – friendship offered not by other males, but by females in the troop.

Female baboons spend their whole lives in the same troop, surrounded by relatives and nonrelatives with whom they've had decades to develop relationships. Social rank in females is hereditary and, for the most part, static over a lifetime. Jostling

for higher rank is not a feature of a female's life.

Males typically spend their adult years apart from relatives and the primary focus of their social interaction is male-male competition. In such a world, it is a rare male who has friends. Only rarely have I seen adult males grooming one another.

When males form friendships, it is with females. Often these relationships have nothing to do with sex. The female friend is an individual whom the male grooms



AN AGED MALE BABOON BASKS IN THE SUN

and who grooms him in return. He sits touching her when either is troubled by some tumult and plays with her infant or carries it protectively when a predator lurks.

Primatologist Barbara Smuts, of the University of Michigan, published a superb monograph a decade ago, analyzing the rewards and heartbreaks of baboon friendships. She found that the males who develop friendships are ones who have placed a high priority on them throughout their prime adult years. These are males who put more effort into forming friendly affiliations with females than into making strategic fighting coalitions with other males. These males have a history of reproductive success through covert matings (with females who prefer them) rather than overt matings (that come as a reward for successful male-male conflict).

Males who develop these friendships might even have walked away from high rank in the prime of life, voluntarily relinquishing dominant positions – thus avoiding being decisively defeated or crippled at their Waterloo. When I compared males who remained in their troops in their later years with those who left, the former were the ones with the long-standing female friendships – still mating, grooming, being groomed, sitting in contact with females, interacting with infants.

Relatively few species on earth get old and vulnerable as we do, though no one really knows why. Even among those that do age, relatively few individuals live anywhere near the theoretical maximum for their species. Teeth are lost that would help in foraging, immune systems are weakened past the point of protecting against an injury, legs become a bit too feeble to outrun a predator. Survival is a young vertebrate's game.

Yet old individuals occasionally survive and even thrive. In general, they are found among the more social, complex, ecologically successful and adaptive species. Elephants live in large social groups, their lives filled with social complexity, support, and care: A truly ancient animal may remain alive by dint of her cumulative knowledge and the help of her family and friends.

In our human society, women tend to outlive their husbands while men often outlive their perceived role as



WITH ASSISTANT HUDSON OYARO AT A CAMPSITE ON THE RIVER'S EDGE



OBSERVING BABOONS AS THEY DESCEND FROM THE TREES THEY SLEEP IN



RELAXING AT CAMP WITH THE NEIGHBORING MASAI

breadwinner only to discover that they never made any true intimates along the way. By the time they've aged, women and men differ dramatically in the numbers of intimates they still have. Having intimate friends is so rare for an older man that, in itself, it is taken as a salutary health marker.

Many gerontologists now emphasize "successful aging" – how to spend our later lives healthy, satisfied and productive. They've come to see that successful aging also reflects how one lives daily life before reaching the threshold of old age.

Health care professionals are increasingly concerned about the difficulty humans have in performing small, incremental daily acts that constitute good preventive medicine. In this realm, quick medical fixes won't help, nor will a spate of resolutions about eating right, relaxing more and getting some exercise starting first thing tomorrow.

When it comes to taking the small steps needed to build lifelong affiliations, your average male baboon isn't any good at it either. But at the risk of being accused of anthropomorphism, I'd suggest that we may have something to learn from reflecting on the later lives of aging baboons.

One key conclusion from 20 years of study among them is this: The males who age most successfully do so by stepping down from power before they are toppled. They buffer the indignities heaped upon them by younger males with the support and friendship of females and ongoing contact with infants.

In short, these males have worked to become part of a community – and the nurturing they receive from this supportive social network helps them through their final years. When life circles to a close for baboons, as with people, it is bonds of friendship that matter most. **sr**

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