



A Comparison of Social Hierarchy Amongst Primates



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BACKGROUND

A society is a functioning social group that consists of multiple members that live together, comprising shared social norms and hierarchical statuses. Social societies exist amongst most primates and usually include social stratification and learned social behavior. The purpose of classifying members of a social group into organized structures serves as a mechanism to control the distribution of scarce resources such as food and potential mates. This posits allocating the best means of survival to those at the top of the social pyramid. While human social structures are the most difficult to analyze due to the complexities of our nature, the basis of human society quite closely resembles that of other primates, including Chimpanzees, Baboons and Bonobos. While humans split from Baboons 25 million years ago, Chimps 5-7 million years ago, and Bonobos around 2 million years ago, our social groups remain incredibly similar.

HOW ARE PRIMATE GROUPS STRUCTURED

Average Group Size	
Chimpanzees	15 - 150
Bonobos	15 - 70
Baboons	5 - 250
Humans	5 - 150

Most primate societal groups share the same fission-fusion structure, with members belonging to a large group with multiple subgroups that break off during the day to do specific tasks. Humans, Bonobos, Baboons, and Chimpanzees share this structure. Societal groups among primates also consists of a comparable troop size. While the social group of a human is debatable, Anthropologist Robert Dunbar argued that the average human social group is 150 people, after this limit the sustainability of close connections begins to fail. Dunbar observed this number in offices, the military, early hunter-gatherer societies, and communities. Male dominance is another key characteristic in primate social groups. For chimps and baboons, males are at the top of the social pyramid controlling the group and its resources. Much of human society is also male dominate. However, like bonobos, there are cases of matriarchal societies among humans. Like bonobos, the Mosuo of China is a matriarchal society where the oldest female is the top ranked member of the group who is in charge of everyone else in her group.

SIMILARIES AMONG PRIMATE SOCIAL INTERACTIONS



Resource Access
Higher status = better food, safer shelter, more mates



Grooming & Social Bonding
Strengthens relationships, reduces tension, and reinforces social ties.



Learned Behavior
Young members learn social rules through observation and interaction



Status Inheritance
Status is often inherited but can be improved through behavior



Dominance Hierarchies
Clear ranking systems determine access to resources and mates



Alliances
Relationships and alliances help individuals gain and maintain status

Among bonobos, baboons, humans and chimps, there is a period of cultural assimilation for babies and new group members. From birth, infants are taught socially how to live within their society. For Humans and chimps, this means learning to how to “play nice” with others, how to care for themselves, and how the social group functions. Humans and chimps also share conformist behavior. In human society, this is observable in high schools and among migrants. For chimps, this is observable when a new chimp enters a troop. While the chimp may have his own hunting/nut-cracking methods, he will adopt the new methods introduced to him by his new troop. Chimp females, like human females, migrate to new troops after reaching maturity. For the chimps, this means wandering on their own until they find a troop; for humans, this means marriage. Like humans, bonobos tend to flaunt their sexual exploits, especially with higher-ranking females, in order to boost their desirability and social status. For bonobos, this means making loud sex sounds; gossip is the human equivalent. Finally, both baboons and humans commit infanticide. Male baboons will often do this to kill the offspring of another alpha in order to then impregnate the female. For humans, infanticide exists among the lower class who cannot afford children.

HOW SOCIAL STATUS IS ACHIEVED



Social skills & relationships



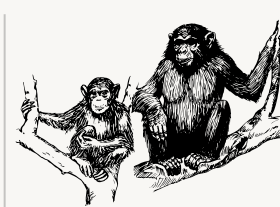
Support from allies



Strength & ability



Strategic behavior



Cooperation & reciprocity

HOW HIERARCHY AFFECTS THE INDIVIDUAL

At the individual level the rank of a primate within its troop determines the details of its survival. Individuals who have a higher rank have better access to scarce resources. Those higher ranked are given the best quality and quantity of food compared to those of lower rank. As well individuals receive better mates, females with the best ability to reproduce and with a high status of their own. Low ranked individuals also have poorer physical and mental health. This is best exemplified through a study of Baboons conducted by Neuroendocrinologist Robert Sapolsky. He determined that male Baboons of lower rank have “elevated resting levels of stress hormones” (Sapolsky) due in part to the mistreatment and hostility received from the dominant males of the group.

This is visible in human society as well with individuals in the lower stratum experience higher levels of stress compared to their higher rank counterparts.

CONCLUSION

Comparing social hierarchy between humans and other primates is important in understanding why our society operates the way it does. It debunks myths in human society such as “males are naturally meant to dominant in society” and that humans are “the only species intelligent enough to have social structures”. Through my research I have concluded that human social structures are similar to that of bonobos, baboons and chimpanzees. We live in fission-fusion structures, migrate to other groups when mature, are male dominated, and express conformist behavior. Our higher ranked counterparts are treated the best, receive the most respect, food and mates. Our low level society members have poorer health and relationships. Our status can be changed through our behavior and ability to form relationships, yet ultimately our status is inherited by our parents. Understanding how our society is comparable to other primates allows us as a species to acknowledge that not much sets us apart from other primates socially.



Chimpanzees

- Male dominated societies
- Fission-fusion groups
- Female migration
- Strong male alliances
- Status through dominance and relationships



Bonobos

- Female coalitions
- Egalitarian interactions
- Peaceful conflict resolution
- Matriarchal



Baboons

- Strong, linear hierarchies
- Male dominant
- High levels of aggression
- Status often inherited



Humans

- Complex, multi-level societies
- Status influenced by birth, behavior, and achievement
- Social networks & alliances are key to mobility

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