

The Annual

Lecture Series

is proud to present tonight

7:30 pm
for dinner

The Chimp Male:

stud or dud?

starring FIBAN, chief colobus killer, Kasakela Community
; byana m Kubwa, Kasakela Community
; Faben's little brother

& Jomeo, Mike, Hugo, Satan, Evered, Faben, Sherry,
Goblin, Humphrey, Charlie, Godi, De, Hugh,
Willy-Wally, Goliath, Sniff, + David graybeard!

by David Corbin Riss, B.A.

and Curt Daniel Busse, B.S.

THE FIRST ANNUAL [REDACTED] MEMORIAL MALE STUDY LECTURE

THE CHIMPANZEE MALE: STUD OR DUD?

Presented by:

DAVID CORBIN RISS

CURT DANIEL BUSSE

at the

GOMBE STREAM RESEARCH CENTRE

AUGUST, 1974

General Outline

- I. History of the Male Studies at Gombe.
- II. Group outline and composition of the community
- III. Relationships among males
- IV. General activities and influences on the activities.
- V. Predations
- VI. Stranger Contact (Intercommunity Interactions)

The following are lecture notes from the seminar.

I. History of male studies at Gombe.

- Pre-camp days: Jane from the Peak gradual recognition
David Greybeard in-camp
- In-camp observations by Jane and her field assistants
Advantages: good observATIOn standardized environment
Many observations from camp: all activities, predatory behavior
play, interactions, grooming - made possible by
habituation
Recorded in A-Rec Journal
Early studies: Teleki predatory behavior from in-camp bab pred'ns
Mike Simpsons grooming paper
-
- 1969: Out-camp B-records: Ruth Davis, Carole Gayle, Pat McGinnis etc.
- 1969: Hinde and Jane to use more quantitative data collection to
replace notes - A Rec. sampling, Travel & Group, etc.
- Then field assistants from Universities arrive : Bauer, Wrangham
Pusey, Haleprin, Mitzi

- 1971 (1) Bygott: male aggression and dominance. Followed males.
Witnessed HM's rise to alpha position and MK's
downfall and the split of the communities
Writing up at Cambridge on aggressive contexts, terms, dominance, etc
- (2) Bauer: Post-Separation behavior. Reunions and greetings and
displays. Used videotape. At Stanford now.
- (3) Wrangham: Food and ranging ecology of the males. Comparing
good vs. bad dry seasons. Interested in concept of
community, ranging, predatory behavior
- (4) Wrangham & Bauer: Sibling study - looked at FG/FB/FF ; JJ/SH ; GK/EV
1 year study yet or never to be analyzed
- (5) Halperin: Development of Aggression. Witnessed in Aug & Sept 1972
HM's downfall from alpha. Tense-ness of FG/EV relations
~~xxx~~ Interested in components of displays.
any correlations between Dominance/ Aggression and
Grooming, Associations etc. Lots of computer work
- (6) Riss: Halperin predicted that EV would be alpha male after 6
months of struggles.
Riss witnessed FG's rise over EV to the alpha position
Concentrated on FG/FB and FG/EV relationships
- (7) Leighton As Riss followed FG, FB, EV, Mark studied the
adolescent and young adult males - GB, SH, ST
- (8) Clever: Student from Dar University followed MK, HG & JJ - the least
dominant males (at same time as Leighton and Riss)
- (9) Stanford Undergrads to keep long-term records on the males.
- BRIAN COLEMAN attempted and gave up
- Busse 6 months on HM, SH, ST, FG, GB, EV standardized checksheet
- Future?
- (10) Riss SMEG STUDY - particularly interested in the Southern Male
Ecology and Grouping Should be renamed to SEG - Sniff, s
Ecology and grouping 12) TUTIN - copulatory behavior
- (11) Riss and Busse Barf - 50 days on Figan
- (12) FUTURE? Byron Alexander (?) sibling study, HumBio kids?

Emilie!

Pierce

Ken Smith right up to kidnapping time
Emilie

II. Group Outline - Kasekela community

Background info.

Group much larger in the early days- as many as 15 adult males at once
Two major factors involved in the decrease in no. of males in the community

- 1) Polio and flu epidemics 1966-1969 9 adult males die
1966- JB, McD, McG, Hornby (Polio)
1968- David, Pepe (Flu)
- Rix, Huxley, Worzle also die

- 2) Split of the community
7 males go South.

-Perhaps they originally came from 2 communities
Banana attraction?

-Southern male camp attendance declines when b. feeding reduced
-HM's sudden rise to alpha male 1971
-antagonism w/ CH & HH

16 males gone from community since 1966

-female composition has stayed reasonably constant

Many young males have now come into adulthood

young group now. 7 adult males. 2 wazees

What are the effects of the b. feeding?

Perhaps the community has now stabilized.

Sketch of Males now - Importance of individual differences.

Wazees

HG (40-50) grooming and feeding

MK (40-45) past alpha-male. now very submissive. guts

Adults (prime)

HM (35) past alpha male. now no. 3 crazy - brain tumor?

EV (23) beta male

FB (25) polio 1966. FG's brother. Flo family. Unclear dominance

FG (20) alpha male 1 year - smartest chimp? Flo family scream

ST (15-16) superior physique. lady-killer. challenging HM
big groomer.

JJ (17) largest male. most submissive. best drummer. big on
intercommunity interactions

SH (12-13) JJ's brother. just entering adulthood. DE's murderer

Adolescents

GB (10) starting to develop displays and display at females.
idolizes FG.

Also MU AL FD PF, WL MM

III. Relationships among Adult Males

A. Definition of Adult.

- 1) physical maturity at about 12-14
leave mother 8-10 ejaculation 9-10
 - 2) male starts attacking females GB,AL now SH often
 - 3) Male becomes an adult when:
 - a) attacks another male (usually mzee)
 - b) mutually grooming with adult males
- Prime adult males - 18-25 years
Longevity - HG,MK now perhaps as old at 45 years.

B. Dominance Structure

- Why? a set of orderly, predictable relationships is established
-minimizes aggression

General characteristics

- 1) age and sex considerations
- 2) not absolute! -not strictly linear
Status of an individual may vary according to who is present at the time of an interaction. Moods of various chimps. Special circumstances
 - a) importance of alliances
suspected male siblings help each other out
 - b) there are situations in which the normal order of things appears to be reversed
 - le) when normally subordinate male is in possession of meat. (MK)

All mature males may periodically be the highest ranking individual in a group.

The Alpha male

- a) What characterizes a high-ranking male
Directs aggression towards a large % of other individuals, and is seldom himself threatened or attacked by others.
Receives submissive ~~behavior~~ behavior from a large % of others, and seldom himself directs submissive behavior towards others
Many displays
Can obtain right of access to food or females, etc.
(doesn't have to push it).
- b) What is the adaptive significance of the alpha position in a community? The chimp alpha male doesn't seem to have a "role" like the alpha males of so many other primate species.
- c) History of alpha males.
Remarkably individualistic alpha males at Gombe
 - 1) GOLIATH - not huge. good display. David's support
 - 2) MIKE - sudden rise to alpha position. Use of kerosine cans to enhance displays and intimidate others
Despite removal of cans, MK stayed alpha male from 64-71
JB support. Rapid drop after finally attacked by HM
 - 3) HUMPHREY - big and brutal but no support. Never stabilized.
Separation of communities. Remained dominant after downfall.
TRANSITION PERIOD - HM no longer alpha male after being attacked by FG in Sept 1972.
8 month period of tension between FG and EV .
 - 4) FIGAN - defeated EV in June, 1973 . Support of EV
FG's motivation to better his status

The other Prime Adult males

- 1) BETA -EV. Large disparity between FG and EV now.
EV is probably the most submissive animal to FG. -bob, pg, fog
FG display rate shoots up when EV is present /avoidance

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EV has been avoiding camp and FG recently. 2 brutal attacks

- 1) FG/FB attacked EV in June, 1974
- 2) FG, FB, HM, HG, GG, GB attacked EV in July, 1974

- 2) HM, ST, FB all of nearly the same rank below ~~xx~~ EV.
FG displays frequently at STM, HM . both avoid and pg frequently
FB ~~will~~ display at EV when FG is present
may

FB doesn't seem to be so motivated to better his status.
FG/FB mutually supportive. FG gets added display power.
FB's dominance goes up when with FG.

5) CHARLIE

The WAZEES

Out of the dominance picture? They aren't really a threat to the younger ~~adult's~~ adult's dominance interaction.

They are usually the first to be attacked by the adolescent males who are making the transition into adulthood.

Both MK and HG are very social animals - groom etc.
they don't seem to travel very frequently with the group to border areas of the range. Predatory activity restricted.

INDIVIDUALITY IS TO BE STRESSED HERE

One must be very careful before making generalizations and characterizations of the various positions and relationships.

GOL, MK, CH, HM, FG all differ

e. AGONISTIC INTERACTIONS

- 1) Community organization
temporary association with a constantly changing membership
nomadic. often travel alone.

A highly organized dominance structure has developed.
structure reflected by ASR.

Purpose of the structure dependent perhaps on community organization. - relationships are more predictable - reduces physical aggression?

- 2) The nature of an agonistic encounter depends on
 - duration of separation
 - duration of ~~pre~~ present association, prior to interaction
 - group composition - very important

AGGRESSION = components and contexts of male aggression.

Most aggression is in the form of displays and lesser degrees of aggression (arm-threats)

Very little physical contact during aggression - few attacks
most attacks by males.

Mostly bluff!

Contexts of attacks and displays

- 1) Status conflicts - FG/EV SH/MK
- 2) To better social status. SH attack on females
Rainfall, Waterfall, streambed display?/
- 3) Redirection - infrequent.
- 4) Non-response to communication signal (female doesn't present or /safari)
- 5) Competition over females. infrequent (FG attack FB)
- 6) Food competition - especially bananas and meat-eating.
- 7) Strangers. DE - GI
- 8) Social contagion. however, sometimes chimps are irritated when they see an attack and will move to break it up.
- 9) If one animal just doesn't like another. (ST/MZ)
- 10) Long separation EV attacks. Males coming back from safaris - possible purpose to keep females in the group. (Hamadryas)

Differences between chimp $\sigma\sigma + \text{ff}$

① main one is smaller range: idea of female home range with overlapping σ ranges

② cycling ff associations, travels, foods, what they do with spare time are similar - some ff sleep keep peripheral

M-i have infants to ^{play} groom, etc but rest + groom + interact also

③ different associations perhaps ^{mothers} ff travel with other mothers or solitary m*ore*

during F6 - we saw MF FF AT alot

NU PS NP WK M L SW few times.

④ perhaps frequency of hunting, stronger contact

Differences between chimp $\sigma\sigma +$ baboon $\sigma\sigma$

① larger, diversified range

② groom together - less agonistic behavior as a % of total interactions

③ little consorting in chimps

④ relationships with infants

⑤ stronger - how they deal with them

⑥ they don't transfer.

spacing

③ also to find food ④ when or safety - avoid other males.

not the communities are the southern chimps "strangers"
Last time seen in camp - August 72.

the communities mainly avoid each other.

except aggressive encounters

De
bodi

MB with He, UK

We don't have enough information to ask the following questions:

- ① Are there peaceful intercommunity interactions
- ② how does ♀ transfer occur without brutal attacks
- ③ When is travel to non-safe areas most likely - big groups cycling ♀♀, time of year, food availability
- ④ when + why are the chimps quiet or vocal

Behavioral Activity What does a \rightarrow clump do?

We take behavioral activity every 5 minutes +

distances every 5 minutes from target
travel + group charts show ranging, fast & associative

① they associate with others.

Structure: In nomadic, wandering, temporary associations
being examined + analyzed at Stanford: T+6s

② Simple statements: male siblings seem to have higher
rate of association than non-siblings

brothers-sisters ie F6/FB/FF + GK/EU
no clear cut associative preference
now.

③

typical - travel in group or alone looking for
food; travelling someplace (camp, food source)
they come across others; sometimes they join
others; sometimes others join them; sometimes they
just pass each other by, greeting only or no greeting

there are ph which serve to say "I am here"

or "or" "I am here, where are you?"
or "here is some groovy food" + in ^{mere} excitement, etc.
which alert:
fy attract others.

④ they wait for others FB/FG FG/FB/66

⑤ they associate with swollen \rightarrow alot
66/F6/FB/66 graphs.

Activities

(1) they feed: 25-85% of the day; very variable
(Show chart)

(2) they travel during ^{Many influences - many foods} ~~BARE~~ follows 14 major foods with at least 10 minor foods

(a) sometimes stop + go, looking + finding known or unknown locations of food

(b) sometimes direct, from food source to food source; food to camp; camp to food to peripheral areas

(Show EU 17-18 June map) Sometimes lots of travel in 1 day - sometimes little
influenced by ♀ like (66) Wingham heavy on they have to travel - ?tebaku

(3) they range: our male's valley: Linda, Kasakela, ^{lower} Kakote

they utilize for food: Rutunga, Sleeping Valley, Mkenke + Kahomhe

and have been observed: Kahama, Biscidi-

~~Show resting~~ [Show F6 travel hourly]

(4) they come to camp

why (1) for food - bananas once a month

(2) to display - social reasons - like a coffee house

(over)

⑤ they have sex

① most ♂ get fair share — Corvine Tutin analysis
perhaps interest in sex decreased with age — ?
little aggression

adolescents hard time sometimes 6B/SW/ST story
66/68 now
afraid of adult males:

♂ keep peripheral → ↓ freq. of sex
that we see — probably behind the shrubs.

⑥ they rest

Sometimes up to an hour
more on ground than on trees
usually — specially summer.

⑦a they groom
Mike Simpson

Sometimes up to 5 hours
mostly 1-2 hour sessions;
some stop + go grooming

In ASR sequences

Sometimes in large groups of 5-6 males — males groom together more than with ♀♀?

Some animals like grooming more than others

where — in camp
midday — after feeding — during travel.

⑦b self groom —
little terminating
they hunt

F6 grooms FB probably 8x as much as
FB → F6
Some clumps groom or are groomed more than others

⑧ they nest

show {nest map} : yet to be analyzed
F6 nest grounds, etc.
Usually not in same tree — perhaps close by.

Contexts of Aggression

Status conflicts - EV, FG

To Better social status - SH

Redirection - infrequent

Incorporate infants into displays. / just don't like.

Non-response to Communication signal - ^{find} GG doesn't present.
- safari.

Competition over Females - not row; FG attack FB
GG, ST / GB

Irritation - FG breaks up PI/FF fight
Infrequent - Usually join in.

Food competition - esp bonas + meat-eating
ML predation

Stresses - DE - GI

Long separation - EV attacks, Males coming back from safaris
- possible purpose to keep females in group
- Social contagion

- Lesser degrees of aggression also occur in most of these contexts.

- Attacks mostly by males - FF/PI GG, ST/GB

- Displays often in non-agonistic contexts.
Rain, Waterfall, Stumbled. - better social status

♀ GG waterfall display
♀ SW display

Displays of announcement

Drumming displays to announce arrival

why announce

- provides for more cohesive group?
- ^{to win} unless
- feeding announcement - survival value

- Submission - by less dominant animal need not be triggered by aggressive behavior.

- can merely be a reaffirmation of status

- mostly gestures - little contact.

- Range of responses.

- post-quent, close-fou

- bobbing

- ~~post~~ crouch, screaming, fear grim during attack

- Seeking reassurance

- presenting

- arm extends

- Reassurance

- touch

- mount

- embrace

- kiss

ASR ^{- good model}

- not a rigid system.

Most interactions

don't entail complete ASR.

(2) HM pg

to FG (10)

- Individual differences SH

Various behaviors don't all fit neatly into categories

~~FG screaming~~

~~Contexts - often similar to those for attacks~~

~~- arrivals, activity changes, greetings~~

Sexual Behavior

Courtskip - copulation

- inspection

Grooming

functions

- cleanliness
- role of maintaining relationships - social factor
- related to age or dominance - individual differences
- can be a sign of changing social status
 - esp in males SH.

Play

HM-ST

(GB)

EV

IV. GENERAL ACTIVITY

- what are activities - DAVE

- Complex relation between Activity, Association, Group size, No. of cycling females, Food availability and seasonal factors, Comp. all interrelated

1) Associations.

Chimps have antagonisms + preferences FG, FB, EV

Great individuality - social, non-social animals

- Effects group size and activity ~~also~~ (Preferred grooming partners)

- Comp effects -

2) Group size, - aggression, Predations, stronger contact long distance travel, grooming

Group size affected by (3.5)

1) Food availability Mabungo - Mubasha (7/4)

- Calls - when likely Ngazi.

- Meat-eating

- Effects activity

2) Cycling females - a) larger groups long travel

b) safaris

GG data

GG GB FB graphs

3) Seasonal - primarily effects Food availability

- Conserve energy in dry season

- Resting

PREDATIONS

⑧.

I History

Predation File 1968

Early B feeding	Bab	16 kills	11 kill
		21 attempts	13 attempt

Colobus Predations kills 49

attempts 22

- attempts less likely to be seen.
- Mostly a male phenomenon
- females GG, PI, MB (4)

Other Predations 34 kills

Rips bucks, birds, monkeys, squirrels

II. What is Predation like.

Example - Triple predation

III. Hunt.

A) Why - salt? - why leave mother?

B) When - opportunistic, group size
Daily, seasonal, monkey organization

C) Who - group size
1 - male can catch FG, SH

D) How - isolate on animal - tactics - COLOBUS
Cooperation, - bab cooperation
apparent cooperative hides on underlying selfishness

Predations

Cycle? seems to be mostly opportunistic

Not the big question

More important are travel patterns,
group size.

Perhaps a latent period after a catch

COLOBUS

It is clear that recent predatory ~~behavior~~^{experience}
can stimulate subsequent predatory behavior when
the opportunity arises.

4 cases of ~~multiple~~ ~~pred~~ colobus predations in
which 2 or more monkeys caught

SF 1 kill and 3 attempts in 4 consecutive days.

FG twice attempted 2 times in some day.

SH ~~first~~^{A. times} attempted to predote on still
nearly colobus troops after others have
caught colobus.

Food sharing - chimps basically selfish

There is food distribution
respect other's property

Stranger Contact

As Jane has pointed out, until individual chimps can be reliably identified & followed over time, the nature of their associations within + between communities is extremely confusing.

♀ at adolescence sometimes transfer; neighboring ranges have some overlap, but for the most part utilize such overlap areas when their neighbors are elsewhere.

Why travel to "non-safe" peripheral areas?

→ ① to patrol the range

① last year - even ^{N-E-S} went to skinny dip one impressive night

② usually noisy or quiet

③ quiet - (read pb article)

display at nests

small fees, waders, trees, etc.

tension release by displaying when returning -

saying "Ha! Ha!" I've been here + this is to let you know I have - better watch out -

④ to attack other chimps - usually quiet -

Nature of their associations within + between communities is extremely confusing.

♀ at adolescence sometimes transfer; neighboring ranges have some overlap, but for the most part utilize such overlap areas when their neighbors are elsewhere.

Why travel to "non-safe" peripheral areas?

→ ① to patrol the range

① El last year - even ^{N-E-S} went to skinny dip one moonless night

② usually noisy or quiet

③ quiet - (read Bob article)

display at nests

smell feces, waders, trees, etc.

tension release by displaying when returning -

Saying "Ha! Ha!" I've been here + this is to let you know I have - better watch out -

→ ② to attack other chimps - usually quiet - large groups

tension release -

We have witnessed

3 major attacks -

① large group attack
② large attack by
③ small # De

Title food eating

Consideration