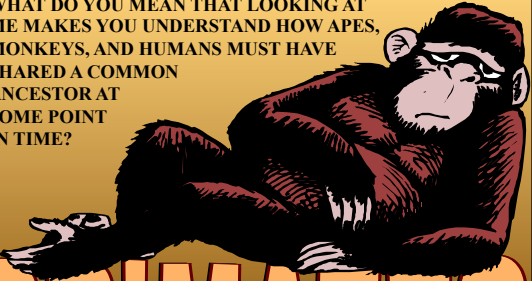


WHAT DO YOU MEAN THAT LOOKING AT ME MAKES YOU UNDERSTAND HOW APES, MONKEYS, AND HUMANS MUST HAVE SHARED A COMMON ANCESTOR AT SOME POINT IN TIME?



**PRIMATES**

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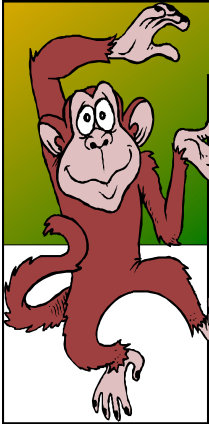
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**COMMON PRIMATE TRAITS**

- **PHYSICAL FEATURES**
  - ARBOREAL (TREE-LIVING) EXISTENCE
  - OMNIVOROUS IN DIET
  - SPECIFIC CHEWING TEETH
  - PREHENSILE (GRASPING) HANDS WITH OPPOSABLE THUMBS
  - LARGER PORTION OF BRAIN GIVEN TO VISION RATHER THAN SMELL
  - SPECIFIC REPRODUCTIVE SYSTEMS




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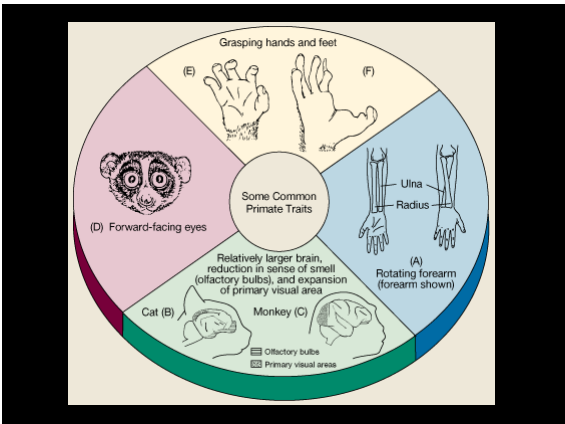
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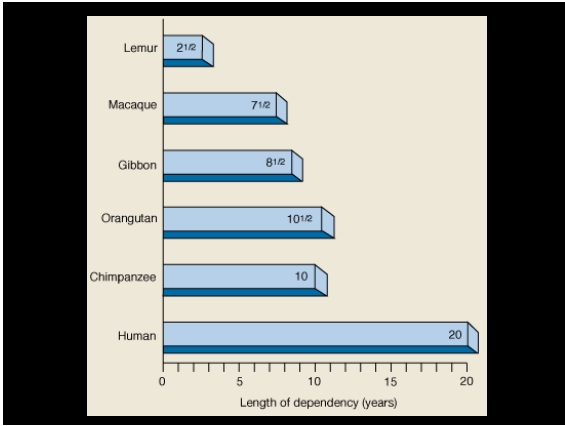
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## THE SOCIAL PRIMATE

- **SOCIAL LIFE, ESPECIALLY FOR DIURNAL PRIMATES, IS VERY IMPORTANT FOR SURVIVAL**
- **MOST PRIMATES HAVE AN EXTENDED LENGTH OF DEPENDENCY DURING WHICH TIME THE YOUNG CAN OBSERVE AND LEARN FROM ADULT MEMBERS**
  - PLAY IS AN IMPORTANT PART OF THE LEARNING PROCESS FOR PRIMATES
  - SOME RESEARCH HAS NOTED THAT CHIMPANZEES LEARN FROM OBSERVATION AND IMITATION
- **PECKING ORDER AMONG PRIMATES IS GOVERNED BY RULES OF CONDUCT**
  - SUBORDINATES SHOWING RESPECT

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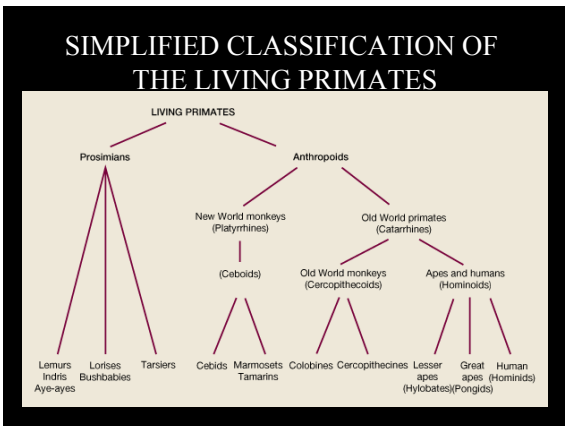
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# CLASSIFYING PRIMATES

- **PROSIMIANS - "PREMONKEY"**
  - GREATER RELIANCE ON SMELL THAN ANTHROPOIDS (THUS LONGER SNOUTS)
  - MOBILE EARS, WHISKERS, FIXED FACIAL EXPRESSIONS
- **ANTHROPOIDS - INCLUDE THE MONKEYS, APES, AND HUMANS**
  - ROUNDED BRAINCASES; NONMOBILE OUTER EARS; SMALLER, FLAT FACES; DEXTEROUS HANDS
  - **TWO MAIN GROUPS**
    - PLATYRRHINES (FOUND IN THE NEW WORLD)
    - CATARRHINES (FOUND IN THE OLD WORLD)
  - LET'S TAKE A CLOSER LOOK.....

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## PROSIMIANS

- **GENERAL CHARACTERISTICS:**
  - QUADRUPEDS - MOVE ON ALL FOURS
  - VERTICAL CLINGING AND LEAPING
  - ACTIVE DURING THE EVENING (NOCTURNAL)

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## LEMUR-LIKE FORM

- Includes LEMURS, INDRIS, and AYE-AYE
- MADAGASCAR AND THE COMORO ISLANDS
- GIVE BIRTH TO A SINGLE OFFSPRING



Lemurs



Lemurs



Indris



Aye-Aye

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## LORISLIKE FORMS

- Includes: LORISES & BUSHBABIES
- SOUTHEAST ASIA AND SUB-SAHARAN AFRICA
- ARBOREAL, NOCTURNAL, AND GENERALLY GIVE BIRTH TO SINGLE OFFSPRING



Loris



Bushbaby

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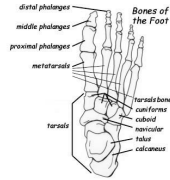
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## TARSIERS

- THE PHILIPPINES AND INDONESIA
- INSECTIVORES AND CARNIVORES
- CONTROVERSY AS TO WHETHER TARSIERS SHOULD BE CLASSIFIED INTO PROSIMIANS OR ANTHROPOIDS.



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## NEW WORLD MONKEYS

- NEW WORLD MONKEYS
  - MARMOSETS AND TAMARINS
  - SMALL, HAVE CLAWS, GIVE BIRTH TO TWINS, AND CALL FOR TWO OR MORE ADULTS FOR CARE FOR TWO YEARS
  - ADULTS MAY PRACTICE MONOGAMY OR POLYANDRY
  - THREE PREMOLARS
  - COMPLETELY ARBOREAL
  - SOME HAVE PREHENSILE TAILS



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## OLD WORLD MONKEYS

- MANY ARE TERRESTRIAL OR GROUND-LIVING, BUT CAN BE TREE- OR GROUND-LIVING IN NATURE
- ONLY TWO PREMOLARS
- TWO MAJOR SUBFAMILIES
  - **COLOBINE MONKEYS** - MOSTLY TREE MONKEYS WITH DIET CONSISTING MAINLY OF TREE LEAVES
  - **CERCOPITHECINE MONKEYS** - MANY SHOW A GREAT DEAL OF SEXUAL DIMORPHISM (SEXES LOOK VERY DIFFERENT); CALLOUSED BOTTOMS FOR SITTING COMFORTABLY IN TREES OR ON THE GROUND FOR LONG PERIODS OF TIME

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### Colobine Monkeys

- Includes: COLOBINE MONKEYS, PROBOSCIS MONKEYS, and LANGURS



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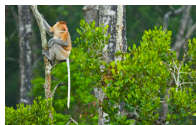
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Proboscis Monkeys

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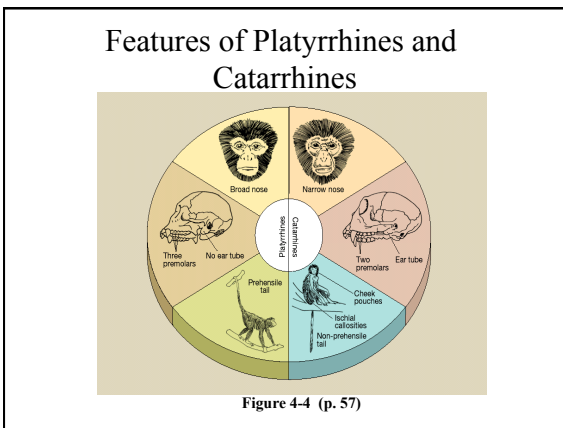
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## THE HUMANOIDS

- **GIBBONS AND SIAMANGS**
  - SPECTACULAR BRACHIATORS
  - LONG ARMS AND FINGERS ALLOW HAND-OVER-HAND SWINGING THROUGH TREE COVER
- **ORANGUTANS**
  - MOST LIVE SOLITARY LIVES; UNUSUAL AMONG HIGHER PRIMATES, BUT GOOD FOR SELF-PRESERVATION (HIDE FROM HUMANS)
- **GORILLAS**
  - KNUCKLE-WALKING IS THEIR COMMON "ALL FOURS" FORM OF LOCOMOTION
- **CHIMPANZEES**
  - MOVE BEST ON THE GROUND WITH KNUCKLE-WALKING FORM
  - GROUP LIFE EBBS AND FLOWS, DEPENDING UPON ENVIRONMENTAL CONDITIONS, E.G., AVAILABILITY OF FOOD, DEFENSE, ETC.
- **HOMINIDS**
  - MODERN HUMANS WHO SHARE OVER 90% OF THEIR DNA WITH CHIMPANZEES AND GORILLAS

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Gibbons & Siamangs



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Orangutans



Borneo                      Sumatra

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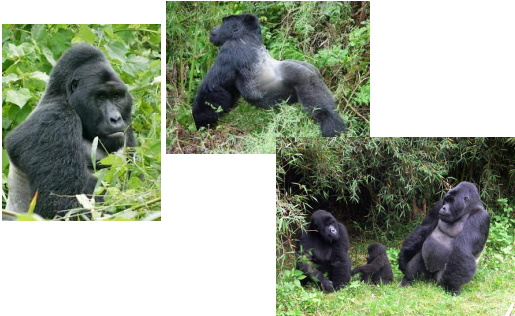
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Gorillas



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## Chimpanzee



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### VARIABILITY IN PRIMATE ADAPTATIONS

- **BODY SIZE**
  - WHAT ACCOUNTS FOR SUCH DIFFERENCE?
    - THE TIME OF DAY THE SPECIES IS ACTIVE
    - WHERE THE SPECIES IS ACTIVE
    - THE KINDS OF FOOD EATEN
- **RELATIVE BRAIN SIZE**
  - RATIO OF BRAIN SIZE TO BODY SIZE
  - LEAF EATERS TEND TO HAVE SMALLER BRAINS BECAUSE AMOUNT OF NUTRIENTS NEEDED FOR LARGER BRAINS (GLUCOSE) IS MISSING
- **GROUP SIZE**
  - NOCTURNAL MONKEYS HAVE SMALLER BODIES AND GROUP SIZE, FEEDING ALONE OR IN PAIRS
  - TERRESTRIAL GROUPS MAY BE LARGER DUE TO THE NEED FOR MORE EYES AND EARS FOR PROTECTION; MORE TEETH AND STRENGTH TO DEFEND AGAINST PREDATORS

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## **BEING HUMAN**

### DISTINCTIVE HUMAN CHARACTERISTICS

- **PHYSICAL TRAITS**
  - BIPEDALISM - USE OF TWO FEET FOR WALKING AND RUNNING
  - LARGER, MORE COMPLEX BRAIN
    - CEREBRAL CORTEX - CENTER FOR SPEECH AND OTHER HIGHER MENTAL ACTIVITIES
  - CONTINUOUS FEMALE SEXUALITY
- **BEHAVIORAL ABILITIES**
  - TOOLMAKING - HUMANS ARE UNIQUE FOR USING ONE TOOL TO MAKE ANOTHER ONE

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•LANGUAGE

–ONLY HUMANS HAVE SPOKEN, SYMBOLIC LANGUAGE, BUT THE VERDICT IS STILL OUT AS TO WHAT DEGREE OTHER PRIMATES MAY USE LANGUAGE (OR ARE CAPABLE OF LEARNING AND USING LANGUAGE)

•OTHER HUMAN TRAITS

–ONLY HUMANS HAVE HUNTED VERY LARGE ANIMALS  
–HUMANS ARE COMPLETELY TERRESTRIAL  
–HUMANS HAVE THE LONGEST DEPENDENCY PERIOD OF ANY OTHER PRIMATE  
–HUMANS HAVE COMPLEX DIVISION OF LABOR, OFTEN DIVIDED BY SEX

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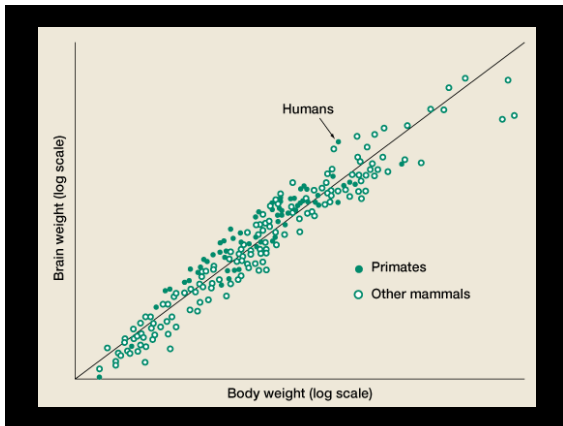
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