

HOW DO YOUNG WESTERN GORILLAS ACQUIRE INFORMATION ON FOOD, AND PLANTS WITH BIOACTIVE PROPERTIES?

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Primates evolved a natural hesitancy towards eating novel foods probably to minimize risks of being poisoned, however habitat variability and social context may decrease such neophobia. Understanding social influences on dietary flexibility alongside habitat changes is important to evaluate resilience of endangered species. Infants show dietary flexibility and a low degree of neophobia during their development. Observational learning and synchronized consumption with the mother are considered responsible for food preference transmission between generations in primates, but plant chemicals may also play a role particularly in unstable environments. Western gorillas have a flexible diet due to seasonal changes in food availability. This study (April-July 2008/November 2008-March 2009) aimed to investigate how young western gorillas of one habituated group in Bai-Hokou, Central African Republic, acquire an adult diet and avoid/use toxic/bioactive plants. We simultaneously took into account the influence of social context (neighbours' activities-interactions) and food characteristics (bioactivity-nutritional value-availability) in developing plant choice criteria. Data on plant consumption from different age-sex classes were collected integrating continuous (N=1106 hours) and 10-minute scan sampling (N=6386). Interventions by the mothers were not observed. Immatures acquired food information from the mother's feeding-remains by feeding synchronization. Associative learning may be responsible for distinguishing noxious/medicinal plants as infants sampled plants not consumed by adults. In contrast to other primates, observational learning does not appear to be a strong trait in western gorillas and may only play a role in the acquisition of food-extraction skills.

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