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CULTURAL VARIATION IN NUT CRACKING BEHAVIOR AMONG NEIGHBORING CHIMPANZEE (*PAN TROGLODYTES VERUS*) COMMUNITIES IN COTE D'IVOIRE, WEST AFRICA.

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Despite growing evidence of cultural behavior in many animal species, observations are rare on how animal populations maintain behavioral differences in neighboring groups with regular individual exchanges, as is commonly observed in human populations. To investigate the presence of cultural variation in western chimpanzees (*Pan troglodytes verus*), we compared the nut-cracking behavior of three neighboring chimpanzee communities in the Taï National Park, Côte-d'Ivoire. These communities frequently exchange individuals, hence show no genetic differences and live in a continuous stretch of rainforest in a similar habitat. Due to their soft shell, *Coula edulis* is the only nut for which chimpanzees have the choice between using stone or wooden hammers. Group scan sampling and 30 minute focal sampling were carried out to determine tool choice of adult community members of both sexes. Used hammers were measured and weighed and we collected data on stone and wooden club encounter rates in all three territories. Members of the same community displayed a strong group affiliated pattern of hammer preferences after controlling for the availability of stone and wooden tool material in each territory. Tool choice material (wood and stone) and size differed significantly among neighboring communities. A high level of group-specific conformity was observed in all adult group members, which supports a cultural transmission process. Since we could exclude genetic variance between communities, while controlling for demographic and ecological differences, we argue that neighboring chimpanzee communities maintain distinct cultural features in spite of regular female transfer between communities.

Keywords: chimpanzee, culture, tool use, conformity