

LONGITUDINAL STUDY DOCUMENTS DEVELOPMENT OF INDIVIDUAL DIFFERENCES IN TERMITE FISHING IN YOUNG CAPTIVE CHIMPANZEES.

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In our 10-year longitudinal study of chimpanzee offspring (*Pan troglodytes verus* and hybrids) at Tama Zoo, Tokyo Japan, we have investigated various factors related to individual differences in development, including tool use skill acquisition. Studies in zoos have much limitation, but they provide background data along with stable environment across long period. Previous analysis suggested that combination of early social experiences and individual cognitive abilities may contribute to the differences. Seven offspring with same father and 6 mothers (♂2, ♀5) were observed shortly after birth to 48 mos., once a month, 30 min avg. Video data were analyzed by PTS113 coding system (DHK, Japan). Coding categories were: motor activities, (fine and gross) and social activities. Results show that individual differences were observed by 6 mos. for both gross motor and social activities. Some mothers were more willing to let offspring to interact with others. Yet, all offspring spend much time away from the mother by 20 mos., and obtained termite-fishing skill between 21 - 35 mos., both earlier than the wild (Lonsdorf 2006). Fine motor activity differences were observed by 16 mos. A set of female and male siblings showed contrasting development processes. Female offspring, A (59 mos.) was early to manipulate sticks (16 mos.), and learned termite-fishing (27 mos.). However, male offspring, M (26 mos.) spend more time in gross motor and social activities and no record of stick manipulation as of now. (We have permission from the zoo for the observational study.)

Keywords: chimpanzee, tool-use, development, zoo