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Title:The Evolution of Sex Differences in Tool Use

Tool use is no longer a defining characteristic of humans – other primates are proficient tool users (e.g. chimpanzees), but several non-primate species are competent tool users and manufacturers as well. Sex differences in tool use have not been well studied, though there has been significant research interest in other behavioral sex differences. A literature review of tool use in ten species of primates (including humans) and three non-primate species (corvids, dolphins, and otters) revealed that bonobos, chimpanzees, and dolphins have more proficient female tool users than male, and that capuchin males are more proficient tool users than females. Ecological factors do not fully explain sex bias in tool use; female-biased species appear to have evolved tool use under sociocultural selective pressures. Several species have the cognitive capacity to use tools but do not use them in the wild, indicating that intelligence alone cannot drive the evolution of tool use.