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Decision making and selectivity by wild capuchin monkeys using stone tools

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Wild bearded capuchin monkeys (*Cebus libidinosus*) living in Fazenda Boa Vista (FBV, Piauí, Brazil; a dry forest habitat) use hammers and anvils to crack open nuts and access their nutritious kernels. Observational and experimental studies on the cracking activities of two groups of capuchin monkeys show that monkeys perform tool use throughout the year and use proportionally large stones (on average, 1 kg) in relation to their body mass (an adult female weighs about 2 kg, a male up to 4.5 kg). We found that the nuts are very difficult to crack because their thick, tough shell and that stones suitable as hammers are very rare in the habitat where capuchins live. Furthermore, experimental evidence has shown that the costs involved in lifting the hammer stone, and especially in transporting it to the anvil, are very high for the capuchins. Finally, several experiments demonstrated that capuchins are very selective in their choice of stones, nuts, and anvil sites. Our findings challenge notions that selectivity, transport and physical skill in tool use are characteristic only of humans, human ancestors, and great apes. Stone tool use by capuchin monkeys opens up a new reference point for thinking about tool use across species and across evolutionary time.