

Assessing spider monkeys' visual size discrimination abilities

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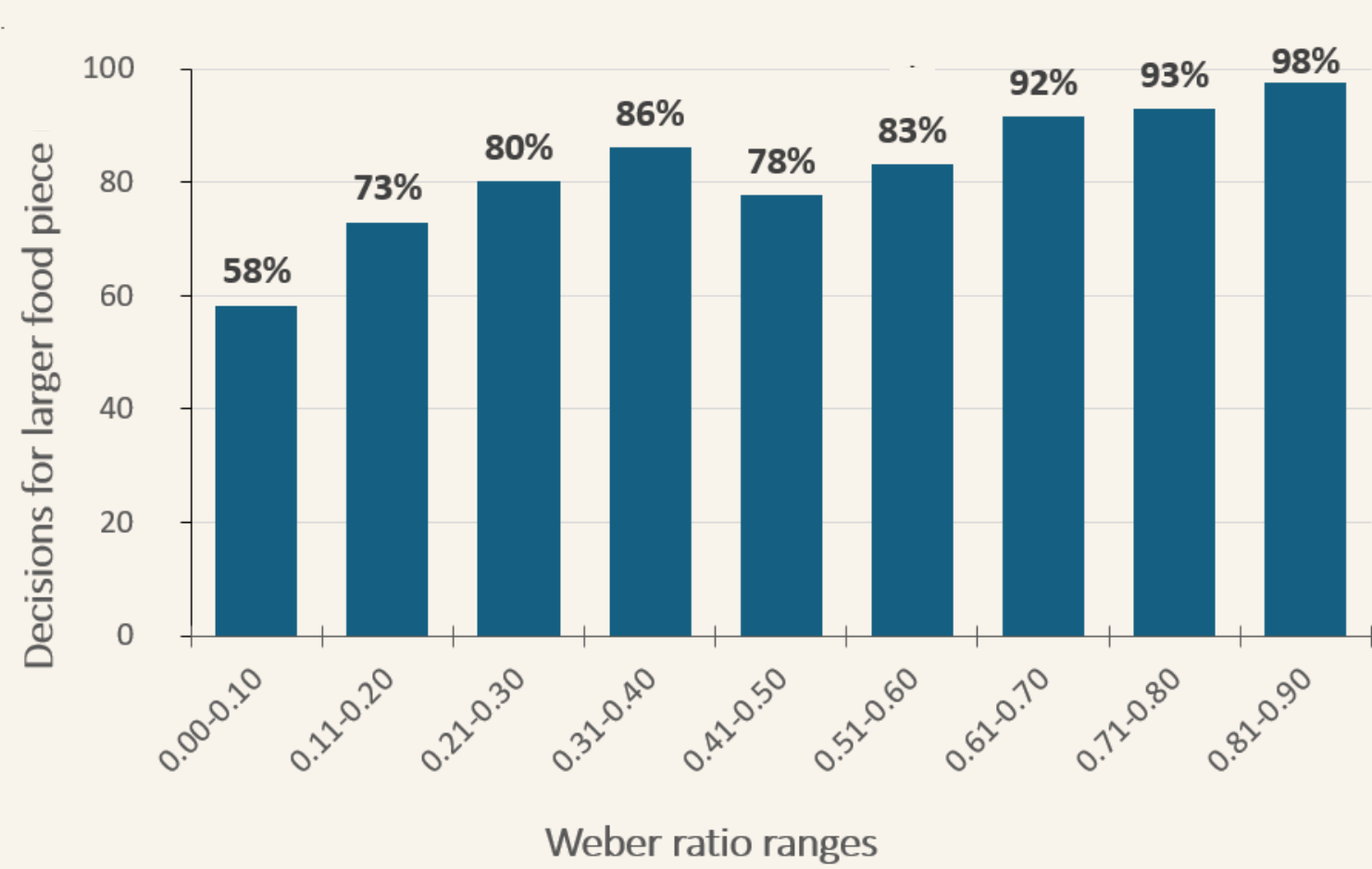
This study assessed the **spider monkeys'** visual discrimination ability between **different sizes of food pieces** and **wooden-blocks** and determine their limits. This ability is advantageous and necessary during food selection and other behaviours to **adapt to changes in natural habitats**.

1. SPONTANEOUS PREFERENCE TEST



Presenting differently-sized melon pieces
Monkeys chose 1 of the 2 melon pieces
Ball, semi-sphere and cube-shaped food pieces

Mean number of decisions for larger food piece for the group



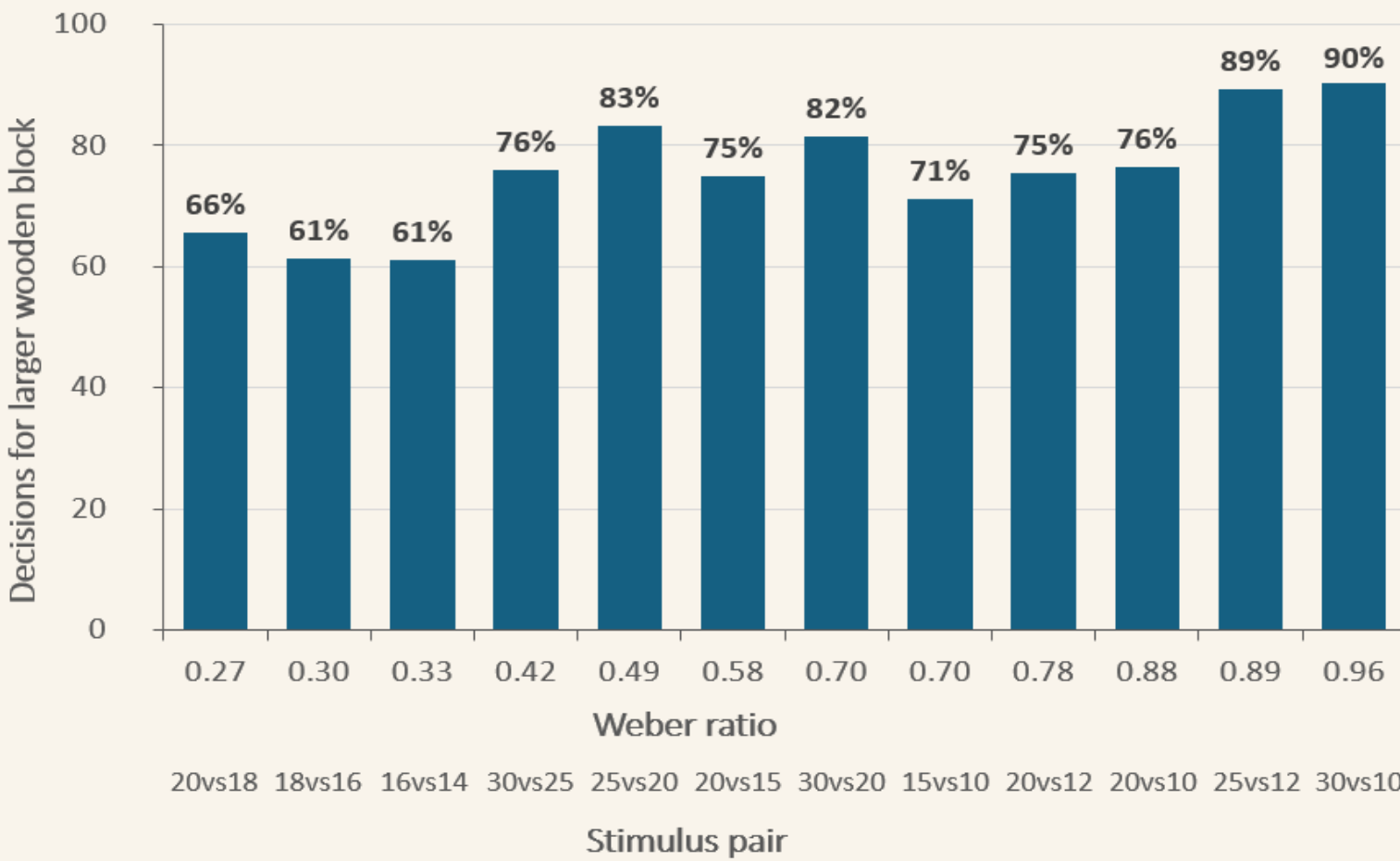
- All 10 animals **preferred the larger food piece with increasing size difference**. Most decisions for the larger food pieces when these were ball-shaped

2. OPERANT CONDITIONING TEST

13 wooden cube pairs
Small block vs Large block
Monkeys chose 1 of the 2 boxes with wooden block
Food reward when larger block was chosen



Mean number of decisions for larger wooden block for the group



- All 9 animals displayed a **higher number of correct decisions for the pairs with the biggest size differences** than for the smallest size difference pairs

- Spider monkeys have the ability to visually discriminate between different sizes of food and wooden-blocks
 - Variation was found in individual performances across both experiments
 - My findings are consistent with previous research on visual size discrimination in primates
 - The ability to visually discriminate between different sizes is essential to the spider monkeys' adaptive capacities and survival in their dynamic habitats