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DEVELOPING A COGNITIVE RESEARCH PROGRAM FOR MANDRILL MONKEYS (*MANDRILLUS SPHINX*)

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Very little is known about the cognitive and perceptual abilities of mandrill monkeys. We have been working with seven adult mandrills (3 males, 4 females) to assess their ability to complete a series of cognitive tasks using a touchscreen-mediated system. All subjects were initially touchscreen naïve and were therefore first shaped to select a large blue square presented on the monitor. As proficiency with the touchscreen increased, we decreased the size of the blue square and presented it at varied positions on the monitor. All subjects learned to make efficient stimulus selections using the touchscreen. Subjects were then exposed to two discrimination tasks. In the color discrimination task, subjects had to locate the blue square among an array of three other distracter squares (red, yellow, green). All subjects attained an 80% correct performance criterion, but even at mastery there was a clear bias toward selecting the red distracter stimulus when errors were made. In the shape discrimination task, subjects had to select the blue square from an array of three distracter shapes (circle, triangle, diamond). All subjects attained criterion performance on this task as well, but analyses revealed that there is a strong bias toward selecting the diamond stimulus when errors were made. Findings from tasks such as these are building our knowledge of the perceptual world of mandrill monkeys. By understanding the features of stimuli that are salient to these animals, we can make better decisions regarding their management, facility design, and enrichment protocols.

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