

Zebra finches learn the structural efficacy of nest material

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It is generally assumed that birds' choice of structurally suitable materials for nest building is genetically predetermined. We tested that assumption by investigating whether experience affected male zebra finches' choice of nest material. After a short period of building with relatively flexible string, birds preferred to build with stiffer string while those that had experienced a stiffer string were indifferent to string type. After building a complete nest with either string type, however, all birds increased their preference for stiff string. The stiffer string appeared to be the more effective building material as birds required fewer pieces of stiffer than flexible string to build a roofed nest. Birds did not change their preferences as a result of their reproductive success and while material preference of first time builders did not reflect either the preference of their father or that of their siblings juvenile experience of either string type increased their preference for stiffer string. As through their own experience these birds learned which was the more structurally appropriate nest material, nest material preferences cannot be entirely genetic.