

# Nest-building in finches is a learning process developed through experience

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(Phys.org) —Nest-building is not just an innate skill but a learning process that birds develop through experience, research suggests.

Scientists from the University of St Andrews filmed male [zebra finches](#)' (*Taeniopygia guttata*) as they built multiple nests out of string. Their findings contrast with the previously held belief that birds' choice of nest material is solely dependent on their genes.

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.

Raising chicks successfully in a nest made of flexible string was not sufficient to get the birds to change their mind about what string was better.

Birds' material preference reflected neither the preference of their father nor of their siblings but juvenile experience of either string type increased their preference for stiffer string.

These results represent two important advances:

- Birds choose nest material based on the structural properties of the material;
- Nest material [preference](#) is not entirely genetically predetermined as both the type and amount of experience influences birds' choices.

Learning about efficacy of building would allow wild birds to choose nest materials suited to the habitat in which they find themselves.

The findings, published last week in Royal Society journal *Proceedings of the Royal Society B*, build on previous research carried out by the University of St Andrews; which found that male weaverbirds get better at nest weaving the more they practice.

Report author, Dr Ida Bailey said:

"If genes were the only factor underlying the choices of nest material

that birds make, then experience of building should not have changed our zebra finches' choice of nest material. That this experience made a (big) difference shows that, contrary to popular belief, [birds](#) can learn which building materials work best, much as you or I might learn what materials or tools to use for craft or DIY projects."

Provided by University of St Andrews

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