

INNER LIVES

ANIMALS PASS DOWN CULTURAL TRAITS THROUGH GENERATIONS // BY JONATHAN BALCOMBE

AFTER THEIR RECENT TRANSFER from Denmark to the Edinburgh Zoo, a group of chimpanzees eventually changed their grunts to match those of the resident chimps. It may be the first instance of an animal picking up a new regional 'Scottish accent.'

It's also an example of culture. Cultural traits are nongenetic phenomena passed across successive generations, usually through either observational learning or teaching. There is no gene for baking cupcakes; we learn it from others.

We commonly think of culture as exclusively human, but examples of animal culture abound. Tool use is usually culturally transmitted. Thus, social orangutans living in northwest Sumatra learn to use a stick to open a favorite fruit protected by stinging spines. Information



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transfer is rarer among the more solitary, non-tool-using orangutans on the neighboring island of Borneo. If the Sumatran orangs disappeared, so too would their stick-using skill. As researcher Carel van Schaik says: "You can reintroduce orangutans into the wild, but not a culture."

A quirky feature of human culture is that we may cling irrationally to inefficient or unhealthy traditions. Think: cigarette smoking. Fish show a similar propensity. Having learned a route to a foraging patch by following more knowledgeable individuals, guppies continued to use that route long after their entrenched elders were removed. The old path even persisted when a new, more direct route was made available to them. But only for a short while. The travelers soon adopted the shortcut, which goes to show that a fish is not a blind slave to tradition.