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Why The Cross Put Chickens On A New Road

This is Scientific American, 60 Seconds Science, I'm Karren Hoptkin.

Why did the chicken Cross the road?

Oh, That's a **philosophical\trans哲学上的** **pickle\trans泡菜**.

But if you want to know why chicken don't get cross at people why they're content being kept in their croops-science can help

Domestic specieces are interesting because they are genetic makeup has changed dramatically as part of the process, of going from wild to dramastic

RL, an evolutionary **geneticist\trans遗传学家** assistant and **anthropologist\trans人类学家** at the University of Oxford and Cambridge。

And indeed when people have compared modern domestic animals with their wild relatives they've identified genes that do show signs of strong recent selection.

One such gene is **thyroid\trans甲状腺** stimulating hormone receptor, otherwise known as TSHR。

In chicken, a variant of this gene that is wide spread in modern populations has been shown to directly cause chickens to be less fearful of humans and also result in reduced aggression towards **conspecifics\同类的**

But when exactly did the selection for these traits and therefore this variant take place

it's been suggested Because of protential use for of massive of this traits domestic setting, that the selection of gene must happened when chickeens were first domesticated around 6 thousand years ago in East Asia

in an evolutionary **timescale\trans时标**,this is just a blink of an eye, and we just dont know and dont have the resolution to tell when exactly between 6 thousand years ago and now the selection happened using data from only modern chicken populations

DNA from archaeological material, we can follow what happened with a gene through time and in theory spot when changes in a population occur

L and his college examine TSAR gene sequences in the ancients remains of about 60 chickens found in the Europe. and estimated that seleciton at this TSHR **locus\trans轨迹** happened only around one thousands years ago at medieval times

that is 5 thousand years after the initial domestication of chicken

Interestingly this time period, coinsides with a substantial increase in chicken consumption known form the archaeological record

Historians suggest that a key driver behind these changes was the rising popularity and spread of Christan traditions, which discouraged and also on occuasions even banned eating meat from four-legged animals

Bur **fowl\trans鸡禽** were fail game.

what is really exciting about this new study is that for the first time we can directly link genetically changes into the domestic animals with cultural shifts in human food preference.

The finding is in the journal Molecular Biology and Evolution.

This kind of **plucky\trans大胆** study is not just for the birds.

L says the team is collecting cannine archaeological samples,so they can look at how man's best friend got divided up into so many different breeds.

There research will no doubt be dogged.

Thanks for listening, for Scientific American, 60 Seconds Science, I'm Karren Hopkin.