The reign in Spain

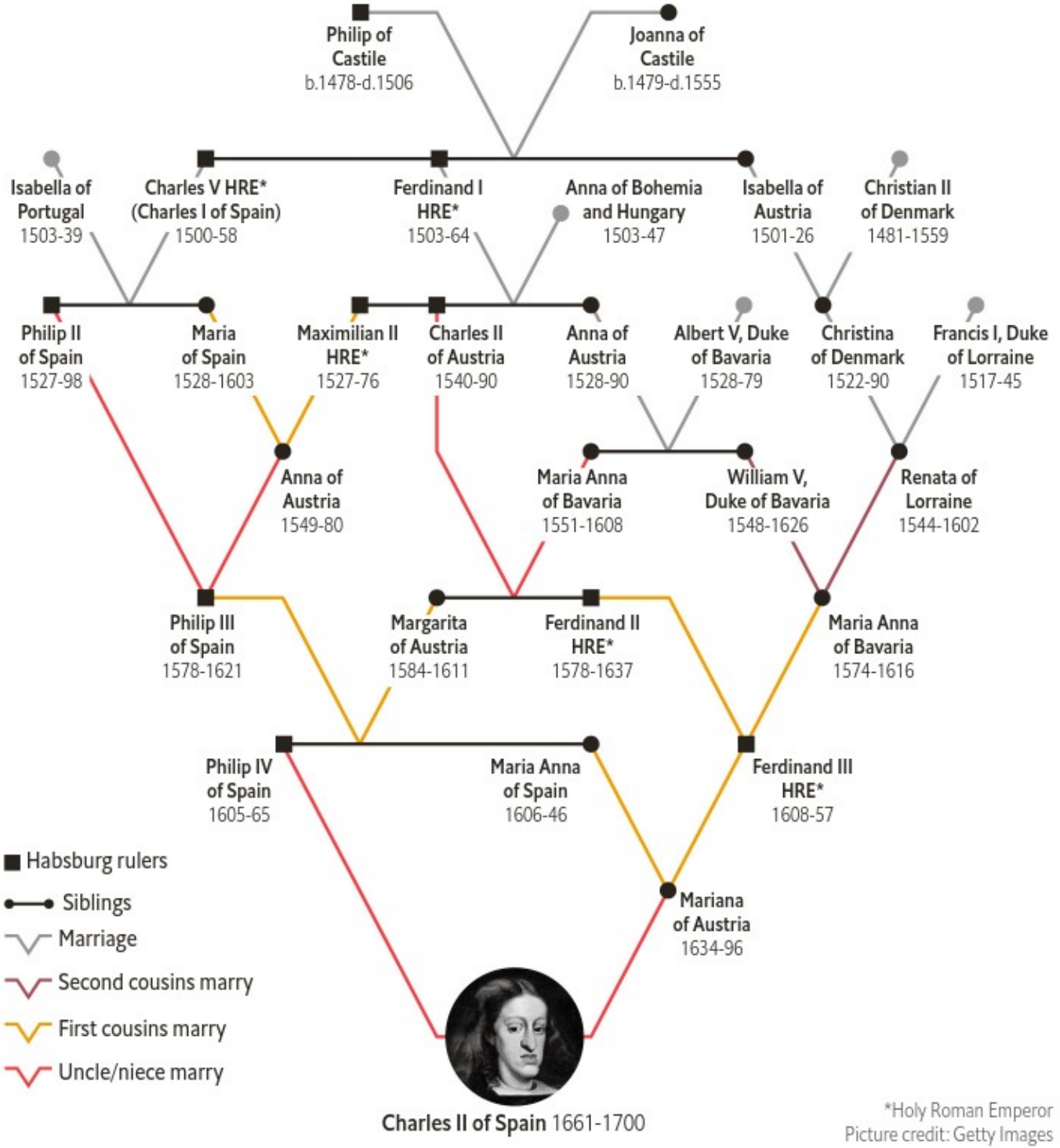
Data on inbred nobles support a leader-driven theory of history

The Habsburg noble family were the kings and queens of much of Europe—and of inbreeding

FEB 20TH 2021

KING CHARLES II of Spain had an underbite so extreme he could not chew, a tongue too big to speak clearly and a body so weak he struggled to support his weight. "The Story of Civilisation", a history of the West, said he was "always on the verge of death but repeatedly baffling Christendom by continuing to live". When he died in 1700 aged 38, the coroner found his body "did not contain a single drop of blood; his heart was the size of a peppercorn; his lungs corroded; his intestines rotten and gangrenous; he had a single testicle, black as coal, and his head was full of water."

The ancestry of Charles II of Spain



Charles II of Spain 1661-1700

*Holy Roman Emperor

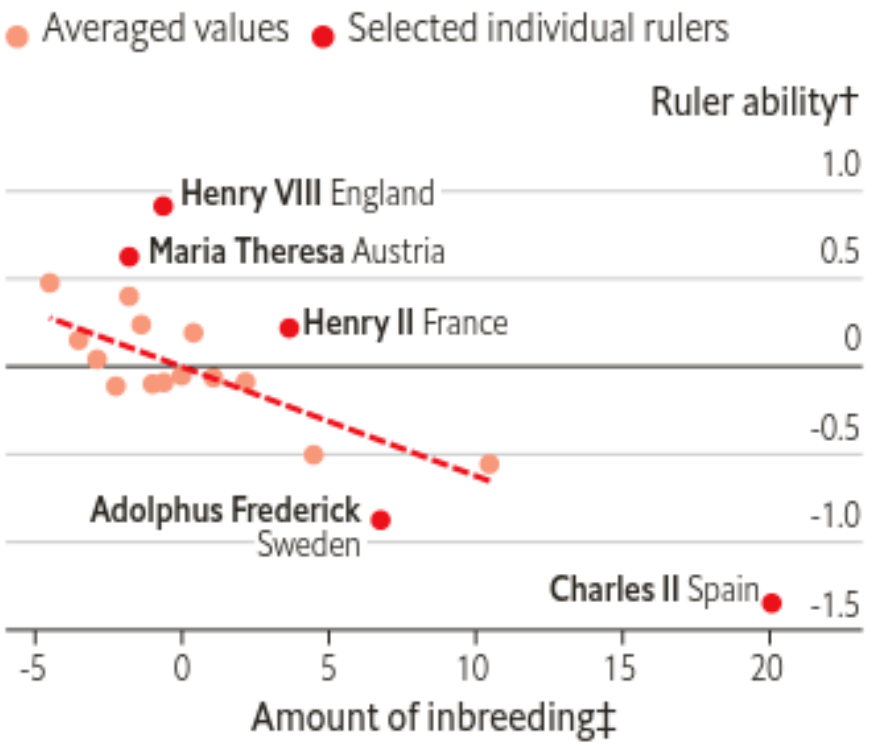
Picture credit: Getty Images

Charles was more inbred than an average child of a brother-sister pairing: his parents, both born to first cousins, were uncle and niece. And Spain fared poorly under his reign. His failure to produce an heir set off a war that cost the country parts of modern Belgium and Italy.

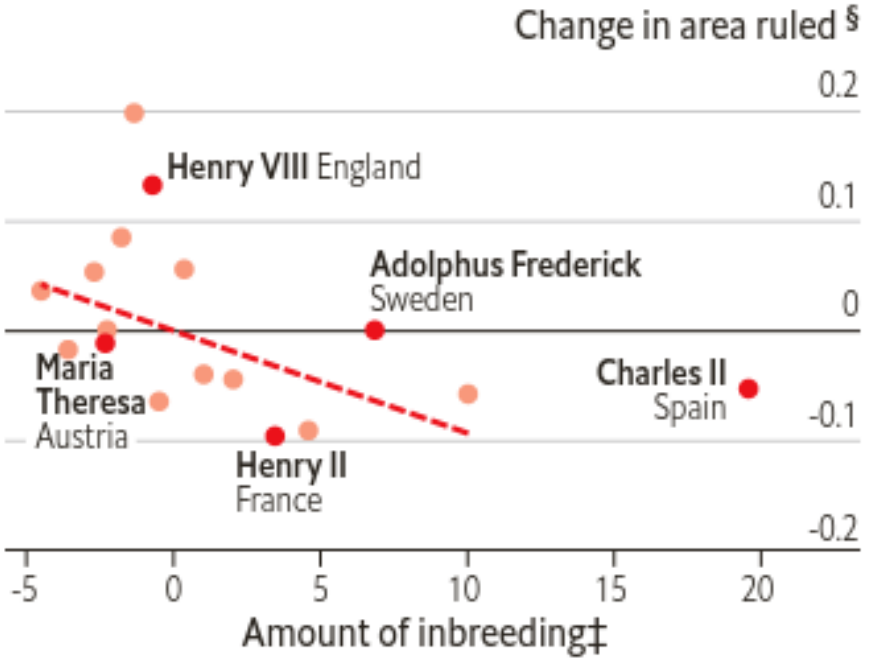
Was Spain's misfortune under Charles a coincidence? Its power was already in decline beforehand. Perhaps a different king would have done even worse. Determining how much credit or blame to assign to rulers for their countries' fates has long been seen as an unresolvable debate. But a recent working paper by Nico Voigtländer and Sebastian Ottinger of the University of California at Los Angeles argues that leaders' impact can indeed be isolated—thanks to the genomes of kings like Charles.

For centuries, European nobles often married close relatives. This practice, at which Charles's Habsburg clan excelled, kept power and titles closely held. It also led to the copying of recessive genes, which can cause rare diseases and reduce cognitive ability. In theory, each round of inbreeding should have made monarchs slightly stupider—and thus worse at their jobs. This yields a natural experiment. Assuming that countries' propensity for incest did not vary based on their political fortunes, the periods in which they had highly inbred (and probably dim-witted) leaders occurred at random intervals.

Amount of inbreeding v subjective assessment of ruler ability†, relative to country average, 990-1795



Amount of inbreeding v change in European land area controlled by ruler§, relative to country average 1100-1795



†Qualitative assessments from Frederick Adams Woods's "The Influence of Monarchs". Scored from -1 to +1 before comparison with country averages ‡Probability that both copies of any given gene are identical (offspring of siblings=25%), %-point difference from country average §Change in natural log

The authors analysed 331 European monarchs between 990 and 1800. They first calculated how inbred each ruler was, and then assessed countries' success during their reigns using two measures: historians' subjective scores, and the change in land area controlled by each monarch. The authors only compared each ruler against their own country's historical averages.

Sure enough, Spain's tailspin under Charles was predictable. Countries tended to endure their darkest periods under their most inbred monarchs, and enjoy golden ages during the reigns of their most genetically diverse leaders. The change in their land areas tended to be about 24 percentage points greater under their least inbred rulers than under their most inbred ones.

Incestuous monarchs and fluid borders sound remote from modern politics. Yet the study's finding—rulers who preside over setbacks tend to be relatively unintelligent—has timeless implications. Voters may overestimate governing parties' influence over what happens on their watch. But absolving leaders of responsibility entirely would probably be a worse error. ■

Source: "The effect of European monarchs on state performance", by S. Ottinger & N. Voigtländer, NBER working paper, 2020

This article appeared in the Graphic detail section of the print edition under the headline "The reign in Spain"