

Genetic Evidence for the Aryan Invasion of India Appendix 12

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<http://www.dalitstan.org/holocaust/invasion/histgene.html>

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History of Ancient Indian Conquest Told in Modern Genes, Experts Say
Robert Cooke, Newsday

Like an indelible signature enduring through a hundred generations, genes that entered India when conquering hordes swooped down from the north thousands of years ago are still there, and remain entrenched at the top of the caste system, scientists report. Analyses of the male Y chromosome, plus genes hidden in small cellular bodies called mitochondria, show that today's genetic patterns agree with accounts of ancient Indo-European warriors' conquering the Indian subcontinent.

The invaders apparently shoved the local men aside, took their women and set up the rigid caste system that exists today. Their descendants are still the elite within Hindu society.

INVADING CAUCASOIDS

Thus today's genetic patterns, the researchers explained, vividly reflect a historic event, or events, that occurred 3,000 or 4,000 years ago. The gene patterns ``are consistent with a historical scenario in which invading Caucasoids -- primarily males -- established the caste system and occupied the highest positions, placing the indigenous population, who were more similar to Asians, in lower caste positions.''

The researchers, from the University of Utah and Andhra Pradesh University in India, used two sets of genes in their analyses.

One set, from the mitochondria, are only passed maternally and can be used to track female inheritance. The other, on the male-determining Y chromosome, can only be passed along paternally and thus track male inheritance.

The data imply, then, ``that there was a group of males with European affinities who were largely responsible for this invasion 3,000 or 4,000 years ago,''

said geneticist Lynn Jorde of the University of Utah. If women had accompanied the invaders, he said, the evidence should be seen in the mitochondrial genes, but it is not evident.

According to geneticist Douglas Wallace of Emory University in Atlanta, the work reported by Jorde and his colleagues ``is very interesting, and is certainly worth further study.''

Along with Jorde, the research team included Michael Bamshad, W.S. Watkins and M.E. Dixon from Utah and B.B. Rao, B.V.R. Prasad and J.M. Naidu, from Andhra Pradesh University.

UPWARDLY MOBILE WOMEN

By studying both sets of genetic markers, the research team found clear evidence echoing what is still seen socially, that women can be upwardly mobile, in terms of caste, if they marry higher-caste men. In contrast, men generally do not move higher, because women rarely marry men from lower castes, the researchers said.

``Our expectations in this natural experiment are borne out when we look at the genes,''

said Jorde. ``It's one of the few cases where we know the mating situation in a population for 150 generations. So it's kind of a test for how well the genes reflect a population's history.''

The ancient story holds that invaders known as Indo-Europeans, or true Aryans, came from Eastern Europe or western Asia and conquered the Indian subcontinent. The people they subdued descended from the original inhabitants who had arrived far earlier from Africa and from other parts

of Asia.

During the genetic studies, in 1996 and 1997, researchers took blood samples from hundreds of people in southern India. The analyses compared the genes from 316 caste members and 330 members of tribal populations, looking for signs of Asian, European and African ancestry.

In the mitochondrial genes passed along by females, Jorde said, they could see the clear background of Asian genes. ``All of the caste groups were similar to Asians, the underlying population'' that had originally been subdued.

But, he added, ``when we look at the Y chromosome DNA, we see a very different pattern. The lower castes are most similar to Asians, and the upper castes are more European than Asian.''

Further, ``when we look at the different components within the upper caste, the group with the greatest European similarity of all is the warrior class, the Kshatriya, who are still at the top of the Hindu castes, with the Brahmins,''

Jorde said. ``But the Brahmins, in terms of their Y chromosomes, are a little bit more Asian.''

So the genetic results are ``consistent with historical accounts that women sometimes marry into higher caste, resulting in female gene flow between adjacent castes. In contrast, males seldom change castes, so Y chromosome'' variation occurs only as a result of natural mutations, Jorde said.

CASTE SYSTEM STILL ALIVE

He added that even though India's ancient caste system was abolished legally in the 1960s, it is still entrenched socially.

``People are very well aware of their caste membership,''

he said, noting that in some cities the housing is still arranged along caste lines. So ``one might argue, unfortunately so, that it (the caste system) does exist in people's minds.''

In terms of who marries whom, the researchers described the Hindu caste system as ``governing the mating practices of nearly one-sixth of the world's population.''

The blood samples taken from tribal people in southern India are still being analyzed, Jorde added.

But so far, ``the tribal populations are more similar to the lower castes than to anyone else, similar to the original residents of India,''

he said.

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