

Session 2 (October 9th, 2010)

Biologic evolution and Human Paleobiology

Table 2.1: Taxonomy and phylogeny of the Eurasian peopling

East Asian origins of Altaic, Uralic, and Yeniseian populations: Perspective from Y chromosomes

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Altaic, Uralic, and Yeniseian are three main ethnic families distributed in the north of the Eurasia. Some anthropologists also think that these people are related to the Sino-Tibetan people in East Asia. Some similarities were found among Altaic and Sino-Tibetan languages by comparing the core word components. There were also linguistic studies suggesting Yeniseian and Sino-Tibetan languages might have a common origin. In the genetics aspects, the Y chromosome phylogeny is reconstructed to afford higher resolution of population history. A recent study indicated that Y chromosome haplogroup N, which is dominant in Uralic populations inhabiting North and East Europe, originated in southwestern part of East Asia. Another Y lineage, haplogroup Q reached its highest frequencies in Eurasia among Kets (~95%), a Yeniseian population. Another study of haplogroup R, prevalent in the western branch of Altaic Turkic populations, implied a possible origin of R1b1b1 in East Asia. As the ancestral lineage of Q and R, haplogroup P might have migrated northward via East Asia. Taken all these together, we speculate that the Y chromosome lineages of Altaic, Uralic and Yeniseian might have originated from Sino-Tibetan populations. And the eastern valleys of the Tibetan Plateau are most likely the place of origin. People living in North Asia and North Europe might have a genetic affinity with the ancestor of Sino-Tibetans.

从 Y 染色体的角度看阿尔泰、乌拉尔和叶尼塞族群的东亚起源

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阿尔泰、乌拉尔和叶尼塞是分布在欧亚大陆北部的三大族系。有观点认为这三个族系早期可能与东亚的汉藏族系有关。在语言学研究中, 通过比较核心同源词比例, 发现阿尔泰语系与汉藏语系有相似之处。同时也有观点认为叶尼塞语系和汉藏语系可能同源。在遗传学方面, Y 染色体谱系构建能够更容易的解析群体历史。对北欧和东欧的乌拉尔语系人群的 Y 染色体研究发现, 单倍群 N 为这些人群中最常见的 Y 染色体类型, 起源于东亚的西南部。Y 染色体单倍群 Q 是叶尼塞语系人群的主要类型, 在叶尼塞的褐语支人群中的分布达到 95% 的高频。R 型在阿尔泰语系西支突厥人群中也很常见, 有研究指出 R 的下游单倍群 R1b1b 起源于东亚。Q 型和 R 型共同的上游类型是 P 型, 单倍群 P 也是经由东亚北上的。因此我们推测欧亚大陆的阿尔泰、乌拉尔、叶尼塞族系的 Y 染色体类型可能都起源于东亚的汉藏族系, 青藏高原东侧河谷地区最可能是这四大族系的发源地, 北亚、北欧群体和汉藏的共同祖先群体有着密切的遗传关系。