

# Concomitant Replacement of Language and mtDNA in South Caspian Populations of Iran

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## Supplemental References

- S1. Quintana-Murci, L., Chaix, R., Wells, R.S., Behar, D.M., Sayar, H., Scozzari, R., Rengo, C., Al-Zahery, N., Semino, O., Santachiara-Benerecetti, A.S., et al. (2004). Where West meets East: the complex mtDNA landscape of the Southwest and Central Asian corridor. *Am. J. Hum. Genet.* 74, 827–845.
- S2. Nasidze, I., Ling, E.Y.S., Quinque, D., Dupanloup, I., Cordaux, R., Rychkov, S., Naumova, O., Zhukova, O., Sarraf-Zadegan, N., Naderi, G.A., et al. (2004). Mitochondrial DNA and Y-chromosome variation in the Caucasus. *Ann. Hum. Genet.* 68, 205–221.
- S3. Nasidze, I., and Stoneking, M. (2001). Mitochondrial DNA variation and language replacements in the Caucasus. *Proc. R. Soc. Lond. B. Biol. Sci.* 268, 1197–1206.

Table S1. mtDNA HV1 Sequence Variability in the Mazandarani and Gilaki Populations and in Neighboring Populations from the South Caucasus and Iran

Population	n	No. of Haplotypes	% of Shared Haplotypes within Group	Haplotype Diversity and SE	Mean Pairwise Difference	Source(s)
Mazandarani	71	58	18.3%	0.992 ± 0.005	5.98	present study; [S1]
Gilaki	87	73	16.1%	0.995 ± 0.003	6.40	present study; [S1]
Other Groups from Iran						
Iranians (Tehran)	79	63	20.3%	0.984 ± 0.008	5.53	[S2]
Iranians (Isfahan)	46	42	8.7%	0.996 ± 0.006	6.17	[S2]
Lur	17	15	11.8%	0.978 ± 0.031	5.52	[S1]
Kurds	20	19	5%	0.995 ± 0.018	6.13	[S1]
South Caucasus						
Georgians	57	40	29.8%	0.971 ± 0.014	5.16	[S3]
Armenians	42	35	16.7%	0.980 ± 0.014	5.22	[S3]
Azerbaijanians	41	37	9.8%	0.995 ± 0.007	5.17	[S3]

Table S2. Y Chromosomal Haplogroup Frequencies and Haplogroup Diversities in the Mazandarani and Gilaki Populations, and in Neighboring Populations from the South Caucasus and Iran

Population	n	Haplogroups											HD
		E*YAP	C*RPS4Y	K*M9	P1M124	P*M45	R1*M173	R1a1*M17	F*M89	G*M201	J2*M172	I*M170	
Mazandarani	50	0.04	0.02	0.06	0.04	0.04	0.14	0.06	0.06	0.14	0.40	0	0.80
Gilaki	50	0.08	0.04	0	0	0	0.22	0.12	0.14	0.1	0.30	0	0.83
Other groups from Iran													
Iranians (Tehran) <sup>a</sup>	80	0.06	0	0.1	0.01	0.04	0.08	0.2	0.03	0.05	0.1	0.34	0.82
Iranians (Isfahan) <sup>a</sup>	50	0.02	0	0.14	0.02	0.06	0	0.18	0.22	0.06	0.2	0.1	0.86
South Caucasus													
Georgians <sup>b</sup>	77	0.03	0	0.03	0.01	0.03	0.10	0.10	0.14	0.31	0.21	0.04	0.83
Armenians <sup>b</sup>	100	0.06	0	0.07	0.02	0.02	0.19	0.06	0.18	0.11	0.24	0.05	0.86
Azerbaijanians <sup>b</sup>	72	0.06	0	0.11	0.03	0	0.11	0.07	0.11	0.18	0.31	0.03	0.84

<sup>a</sup> Data from [S2].

<sup>b</sup> Data from [S3].

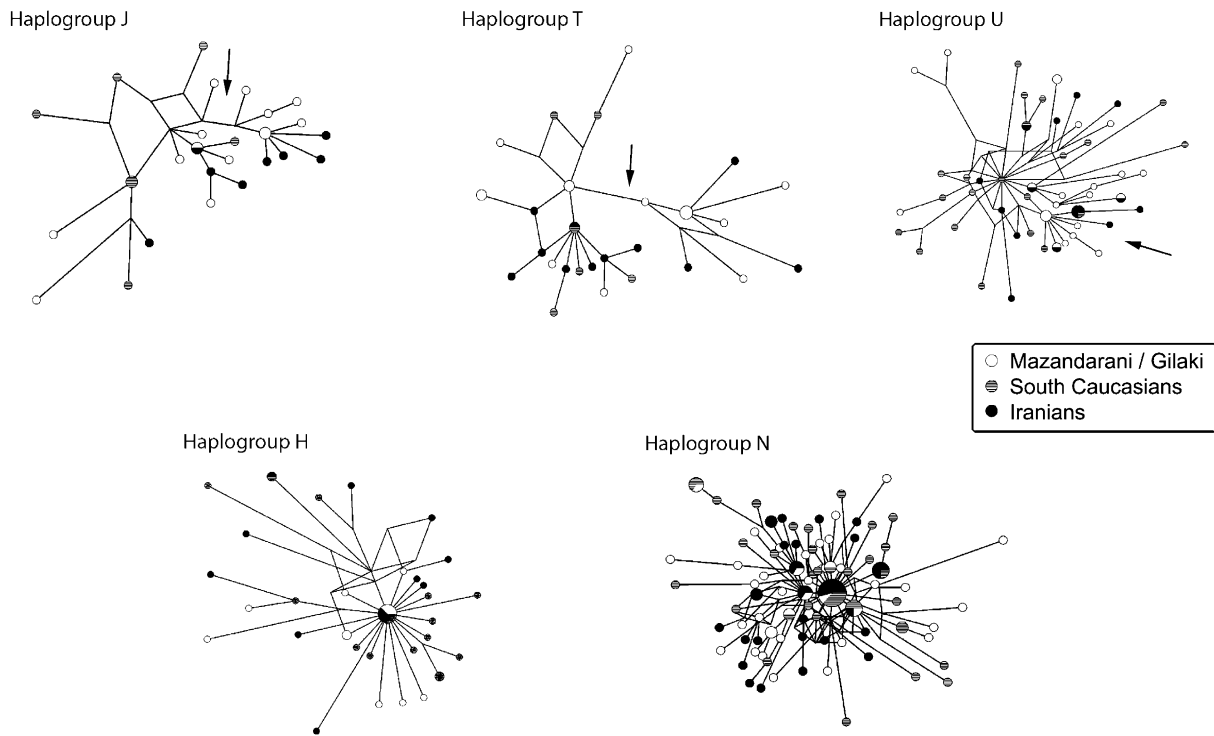


Figure S1. Median Networks Constructed for mtDNA HV1 Sequences Grouped According to mtDNA Haplotypes  
White circles: mtDNA haplotypes from Gilaki and Mazandarani; shaded: haplotypes from the South Caucasus; black: haplotypes from Iran.  
Arrows indicate clusters consisting mainly of Mazandarani/Gilaki and Iranian haplotypes.

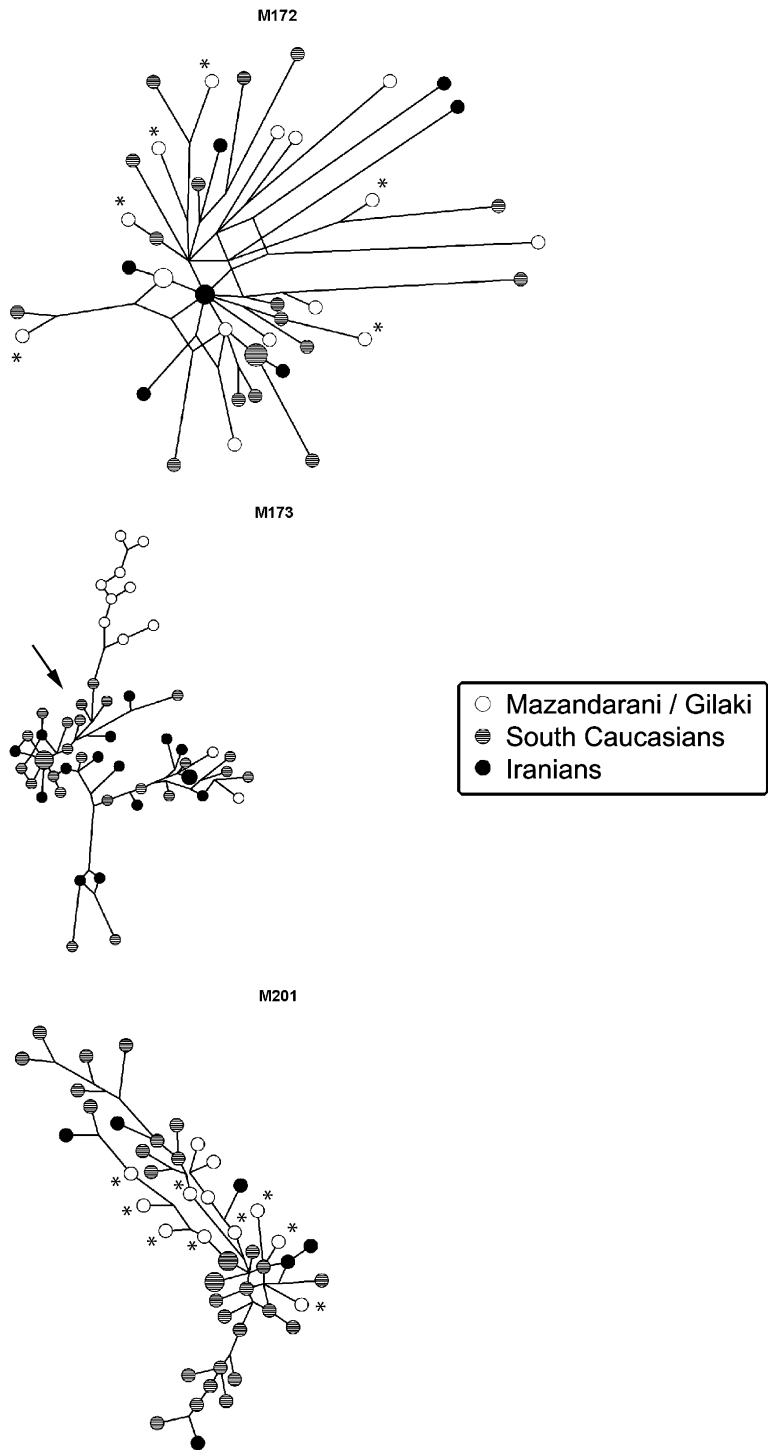


Figure S2. Median Networks Constructed for Y-STR Haplotypes on the Background of Particular Y-SNP Haplogroups

Groups are designated as in Figure 3. The arrow in the M173 network indicates a cluster of Mazandarani/Gilaki haplotypes of probable South Caucasian origin; asterisks in the M172 and M201 networks indicate Y-STR haplotypes in the Mazandarani/Gilaki that are most closely related to South Caucasian haplotypes.