mother [GENERATION +1, FEMALE 1, LINEALITY 1]

father [GENERATION +1, FEMALE 0, LINEALITY 1]

daughter [GENERATION -1, FEMALE 1, LINEALITY 1]

son [GENERATION -1, FEMALE 0, LINEALITY 1]

sister [GENERATION 0, FEMALE 1, LINEALITY 1]

brother [GENERATION 0, FEMALE 0, LINEALITY 1]

grandmother [GENERATION +2, FEMALE 1, LINEALITY 1]

grandfather [GENERATION +2, FEMALE 0, LINEALITY 1]

granddaughter [GENERATION -2, FEMALE 1, LINEALITY 1]

grandson [GENERATION -2, FEMALE 0, LINEALITY 1]

uncle [GENERATION +1, FEMALE 0, LINEALITY 0]

aunt [GENERATION +1, FEMALE 1, LINEALITY 0]

cousin [GENERATION 0, FEMALE unspecified, LINEALITY 0]

nephew [GENERATION -1, FEMALE 0, LINEALITY 0]

niece [GENERATION -1, FEMALE 1, LINEALITY 0]

The semantic components defined:

GENERATION: positive number for ancestors, negative number for descendants, the absolute value for how many generations is the family member away from the speaker. Generation 0 represents the speaker’s contemporaries.

FEMALE: 1 for the gender female and 0 for male.

LINEALITY: 1 for lineal and 0 for collateral relatives.

Binary format is adequate for gender and linearity, for a relative can be either female or male, direct or collateral, binary format is more economical and as informative. But for generation it does not work for there are more than two generations in a family.