## VILLAGE TIES:

Village, district and province ids should be in order.

n is the number of villages m is the number of districts p is the number of provinces

If village, district, and province numbers are already sequential and use all numbers 1 through n (m, or p) then we can use the existing id numbers.

In all cases we will ignore village/district/province numbers that are not legitimate. These will illegitimate ids not be coded in any way. For example, if a village lists another village for a given relation, but the named village's id is not legitimate, we will ignore it.

## **Sociomatrices**

There will be three sociomatrices for each kind of relation:

**X** with entries  $x_{ii}$  is a village by village sociomatrix of size n by n

**Y** with entries  $y_{ij}$  is a village by district sociomatrix of size n by m

**Z** with entries  $z_{ii}$  is a village by province sociomatrix of size n by p

We will let i be the index/number of the responding village and j be the index/number of a village (district or province) mentioned by the responding village. Initially all entries in the sociomatrix  $(x_{ij}, y_{ij}, \text{ or } z_{ij})$  will be equal to 0. Usually we will then set the entry  $(x_{ij}, y_{ij}, \text{ or } z_{ij})$  equal to 1 if responding village i (row) names village/district/province j (column) for a given kind of tie. In some cases we will increment  $x_{ij}$ ,  $y_{ij}$ , or  $z_{ij}$  by adding to the value of the tie (thus producing a valued relation). The coding instructions specify how ties are coded.