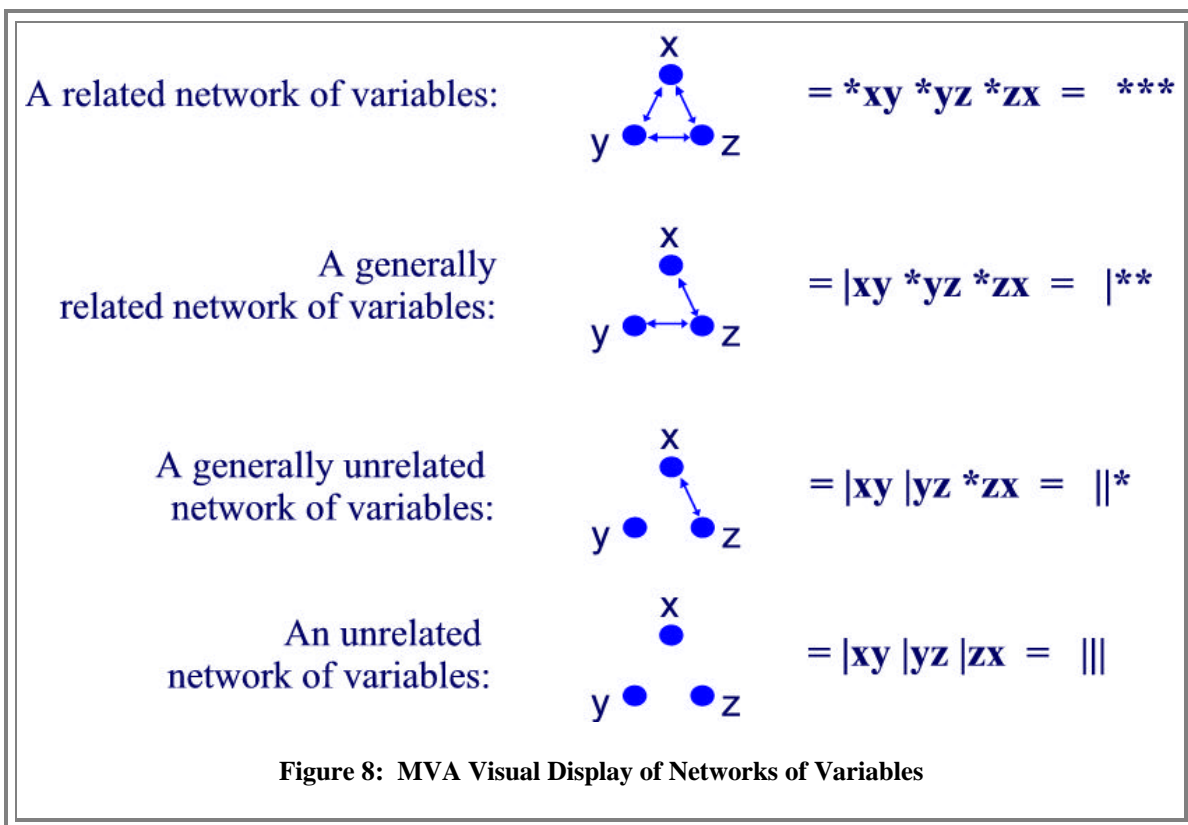


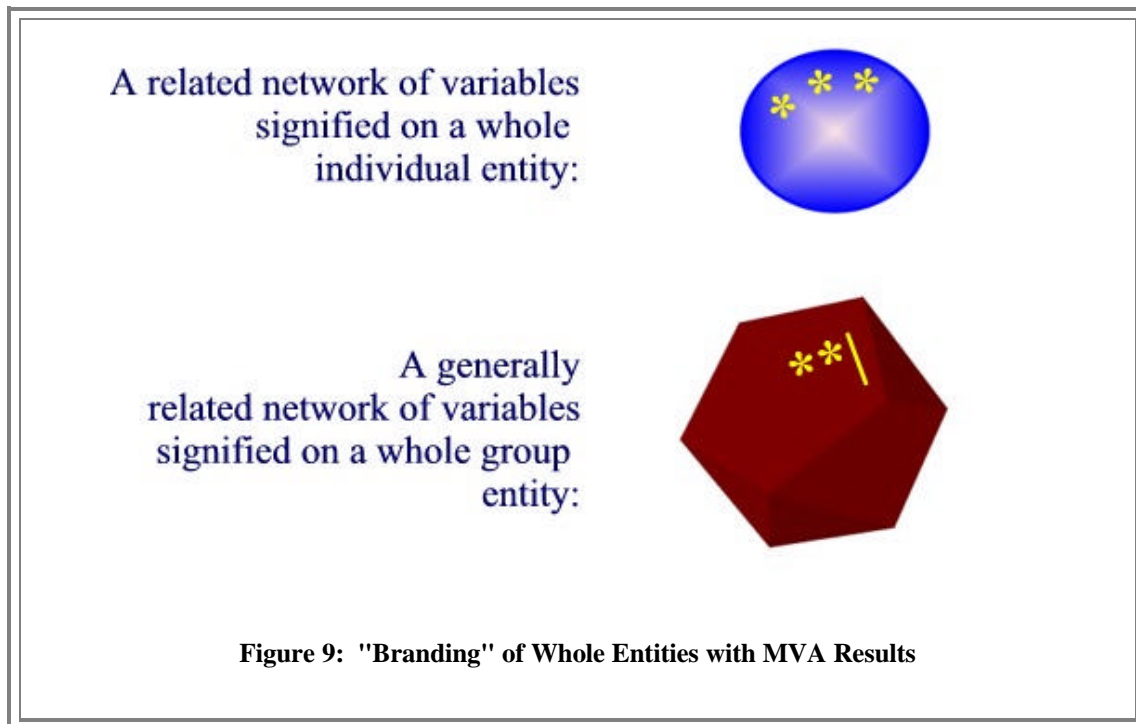
The Third Inferential Component: MVA - Multiple Variable Analysis

Just as MLA extended SLA so that many entities could be considered, so also does MVA move beyond the straightforward two variable case that is found in Section One. Again, to reduce the complexity of this presentation, let us consider the simplest scenario to which MVA would apply: the three variable nomological networks shown in Figure 8.



When using MVA it is not required that a single dependent variable be identified, as in multiple regression. Rather, the association of all variables with the others in the network is considered. There are four possible sets of relationships that have been entered into Figure 8. Notice that two symbols have been adapted for use here: the “ * ” indicates a significant bivariate relationship for the pair of variables indicated, and the “ | ” shows a non-significant correlation. Realize that each of the slots is specific to a particular pair of variables so that *|* does not mean the same as **|.

Because the relationships amongst variables does not take place independent of entities, we can envision a scenario much like that of blood histology when antigens were first discovered. Specifically, just as red blood cells carry an Rh factor, so also does an entity carry a similar “brand” as shown in Figure 9.



Thus, it is possible to simultaneously show specific variables tied to specific entities. More important, additional attributes such as a marker to indicate which entities are high, medium, or low on the variables in question, can be overlaid as another surface feature. Indeed, it is possible to show enough entity-specific information so as to require large mainframes to graphically display the results.

The Fourth Inferential Component: MRA - Multiple Relationship Analysis

The final inferential component, MRA, or Multiple Relationship Analysis, is perhaps the most often overlooked of the four, but it is possibly the one that offers the greatest assistance for modeling complex systems. MRA adds an important tool to the multilevel toolkit by enhancing our ability to test for and detect boundary conditions.