## Taxonomies and Paradigms, Grouping and Classification

For the purpose of illustration consider the following data:



Below is a taxonomic classification which assigns all of these instances to one of seven classes. Because this is an example, the data are massaged to fit our purpose. Nonetheless, the essential features of a taxonomy are represented.



Not all classes are defined by the same number of characters; none of the distinctions are dimensional beyond the confines of a single contrast set or opposition.

On the following page a paradigm has been created that generates the same seven classes. It is less elegant in that to generate the seven classes it must generate a lot more classes which have no members in the original data set. On the other hand, it is capable of generating 0 values, something that does not occur in the taxonomy



This three dimensional paradigm generates the seven classes from the previous page. *Note that it does so without using exactly the same set of attribute* classes and that it also generates five empty classes in the process. The same paradigm is shown below as a "tree", but note the order of the oppositions is arbitrary and each opposition appears throughout the entire classification setting it apart from the taxonomy.



After comparing these classifications with the taxonomy on the previous page you might then consider the effect of adding new data, i.e., additional objects, to the set. What would, be the effect of adding (1) and adding (2) to the taxonomy and to the paradigm?

(2) (1)