An important aspect of culture, the core concept of anthropology, consists of shared cognitive representations of semantic structures that reside as localized functional units in the minds of individuals. The structure of semantic domains, e.g., such as the names of colors, animals, or kinship terms, is defined as the arrangement of the terms relative to each other in a spatial model. In this space, items that are judged as more similar are placed closer to each other, than items that are judged less similar. Techniques have been developed to measure (using multidimensional scaling and cultural consensus analysis), with known accuracy, the extent to which "pictures" or cognitive representations in the mind of one person correspond to those in the mind of another. Research on various semantic domains has demonstrated that typical members of a culture have virtually identical "pictures" in their minds. In this paper we discuss the cognitive and biological foundations for a model of culture as shared cognitive representations. Empirical evidence for predictions derived from the model is summarized.