

HZT4UE – Theory of Knowledge

UNIT 4: LANGUAGE

4.1 Categories and Classification

A group of a hundred things may have characteristics A, B, and C in common, and may be called an X (X being anything that has A, B, and C); but the group may also have D, E, and F in common, and may be called a Y (Y being whatever has D, E, and F). You thus could classify an object in the group as an X or as a Y with equal correctness. How we classify the object depends not only on its characteristics but also on our interests. There is a practical interest in classifying snakes as poisonous or nonpoisonous, but no particular interest in classifying them as more than eight inches in diameter or less than eight. Animals are classified in one way by zoologists, in another way by the fur industry, and in still another way by the leather industry. Houses are classified in one way by an architect, in another way by a gas inspector, and in still another by the fire department. There are as many possible classes in the world as there are common characteristics or combinations thereof that can be made the basis of a classification. We could classify animals by their colour if we choose, but it would not be a very suitable classification.

We speak of “natural” classes, when (for example) one organism has features A, B, C, and D and its offspring also have A, B, C, and D (although perhaps differing in G and H). Dogs give birth to other dogs and cats to other cats. The features that are transmitted are (in general) the features that we take to be defining of the bone structure, for example, but not colour.

There are also “person-made” classes, such as bicycles and cars belonging together due to transportation. Classes exist “out there” in the sense that the characteristics things have in common exist in the world, waiting (as it were) to be made the basis for a classification but they are manmade in that the act of defining the word depends on us selecting from the infinite reservoir of characteristics that we think are important due to our subjective needs and interests.

When we want to give a name to a class of things that is like – but not quite like – one for which we already have a name, we have a choice. Shall we extend the old name to include the different but related things, or shall we keep the old name and devise a new one for the new class. Shall we call the new antitank weapons “guns” (with a qualifying adjective in front) on the basis of their similarity to the things we already call guns, or shall we call them by a new name, “bazookas,” because of their differences from most of the things we call guns? Shall we call communism a religion because of certain qualities of devotion, fanatical loyalty, and submergence of the self in a common cause that it shares with ways of life and thought we already call religions, or shall we deny it the word “religion” because communism professes no belief in a supernatural? What of a chemical element that possesses every characteristic usually associated with a name, except its atomic weight? Shall we consider it a new class and distinguish it with a new

name, or shall we retain the old name and say that they all belong in the same class, and then distinguish this group from the rest of the class by using the word "isotope"?

We can, of course, do either. If we use the same word for both, we shall be calling attention to the similarity between the new class and the old; but at the same time we shall be obscuring the differences between them, and many will assume that they are alike because they have the same name. But if we use a new word we shall be in danger of losing sight of the features they have in common. Sometimes the decision is made in the interests of preserving an entire system of classification: Mendeleef's Table of the Elements was an immensely fruitful basis for classification of the chemical elements, and we tend to classify in such a way as to preserve a system of classification that has already proved its worth.

Questions on Categories and Classification

1. Choose any two different objects outside a window. Classify each according to one "natural class" and one "person-made" class.
2. Think of five ways can you classify the noun "gun."
3. How would you classify the following words: freedom fighter; progress; wealth?
4. I have invented a synesthetic machine that emits colour whenever a sound is heard. How would you classify this object?