GENERALIZATION, DISCRIMINATION AND CONCEPT FORMATION

SOME THEORETICAL CONSIDERATIONS

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The following considerations derive from reflections about the thought-language problem in which we distinguish seven steps: The life step, the Gestalt step, Level 1 theory, Level 2 theory, Level 3 theory, Language and Contemplation.

We propose here come reflections about step 4 in which three cognitive outcomes can be distinguished: simple and complex concepts, and sequences of complex concepts.

There is a classification-generalization work at this level which IS NOT OF A VERBAL NATURE.

Concept formation implies non-verbal seggregations of particular portions of the world attributes. Classification, a consequence of concept formation, is traditionally considered an important activity of the human mind. It is related to the order that is introduced in the world. It would imply grouping together what is similar and separating it from that which has different characteristics. These activities do not imply using words. Otherwise, there would be a regressio ad infinitum. Do we really group together what is similar? Is it not true that we feel insecure in any particular situation when consequences are important?

The very concepts of equality and similarity may be questioned.

A is said to be equal to B when there are no differences between them. But, then, according to the principle of the identitas indiscernibilium, the two objects could not be distinguished.

A is said to be similar to B when A is equal to B in certain aspects and different in others. However, since, as was seen, equality does not exist, this distinction has to have a criterium which is that which is unique in each of them. Thus, two (or more) things cannot be said to be either equal or similar but singular or unique and they are distinguished one from the other because of their uniqueness or singularity.

How, then, can we account for the undeniable sensation of similarity? Here are some hints.

a) We should beware of verbal "solutions". It is not correct to say that two things are equal because they belong to a certain class. On the contrary, they, supposedly, were ascribed to a certain class because of their so-called similarities.

b) The eventual attempts at solving the problem of identity or of similarity should basically focus eventual identity or similarity between basic elements. (Cars are combinations of hundreds of elements, each of which poses the identity-similarity problem). This, in its turn, would entail the problem of similarities between atoms, etc..

c) Eventual identity or similarity may refer 1) to properties of two or more objects or 2) to spacial distribution either of basic elements within each object or among a series of complex objects. It is this spacial distribution which gives rise to the so called similarity in shape or form.

Similarity may derive from functional reasons, i.e., since we act in comparable ways in relation to two things, they are considered similar. But we could also say that we behave in similar ways because they are similar. But this would not hold because beings are, fundamentally, as was seen above, singular or individual. There are, besides, individual differences in the judgements of so called similarities. Two things are said to be equal or similar when their uniquenesses do not matter.

Returning to generalization, we say, for instance, that those are cars, trees, etc. We distinguish pens from persons, from cars, etc. This would be examples of generalization within class and of discrimination among classes. However, discriminations are made even in those cases in which, as commonly held we are generalizing. This discrimination process is not so clear when, as was said before, consequences are not important. We are constantly discriminating. This is why a generalization gradient is, in fact a discrimination gradient. The successive discriminations explain, or describe why the y value decreases in proportion as the successive values of x differ from the

training stimulus.

Many so called generalizations are in fact vicarious discriminations, i.e., it is taken for granted that a, b, ...n can each of them be called x. Briefly

a) The so called generalization implies, first of all, perception, i.e., discrimination.

b) to perceive is not to say that A is x (this would be a vicious circle. It is a lived experience and only secondarily a verbalized one. Babies and even insects may react in similar ways to similar stimuli, without, any known language;

c) perception or discrimination is always perception of singularity.

According to what is commonly said, classification is very important since it would be connected with solving problems in the everyday life.

I would affirm, however, that the fundamental task, in this context, is not generalization but a succesion of individual perceptions or of vicarious discriminations which are, undoubtedly, very useful but also misleading in many occasions.

This problem of real perceptions or of discriminations leads us to inquire further about what is it that is taken into consideration when vicarious discriminations occur. It is the creation of a fiction, an Ideally Fixed Individual (an IFI).

The very idea of repetition, of replication or of an eventual identity of elements is, probably, false. As seen, things are not equal nor similar but unique. Therefore, even the identity implied in the previous mentioned IFIs is only a functional identity.

To create this IFI is essentially what is called to theorize. It is not a verbal task. The IFI is anxiety reducing and is used or abandoned in each particular on the importance of the consequences.