4. Formae (knowing and thinking contents - types).

Content

4. 1 Three types

Three types stand out, namely concepts, incorporated into judgments, as the basis of reasoning.

1.1. Concepts.

Someone finds a gorse full of yellow flowers, looks at it carefully and says: "All the flowers of this plant are yellow." Logically, this sentence is one total concept (the judgment) consisting of sub-concepts, i.e., flowers, plant, yellow, all, these, are, of, and the punctuation (this too is a sub-concept because, as explained earlier, punctuation marks such as periods, commas and the like, mean something and are therefore contents of knowledge and thought).

1.2. Judgments.

The structure (mode of assembling) of judgment, logically speaking, is the following. The subject ("All the flowers of this plant") counts as the original waiting for truth ("information"). The saying ("its yellow") holds as the model that provides truth. The judgment expresses between objects or collections of objects a relation. Immediately it is clear that judgment is fundamentally a matter of truth.

- In logic, a judgment (statement, assertion, proposition) is true, false or conditional. Thus, "A pear is a fruit" is a true judgment. "A pear is an animal" is an untrue judgment. "Is this pear juicy?" Is a question and not a judgment. The expression "x + 4 = 6" is a conditional judgment: it is true only if x has the value 2. For any other value of x, it is false.

If the saying goes along with the subject without more, then there is an affirmative, or affirmative judgment. For example: "All the flowers of this plant are yellow." Or still: 6 = 6.

If the predicate does not accompany the subject, then there is a negation or negative judgment. For example: "All the flowers of this plant are not yellow". Or still: 6 is not 5. If the

judgment is qualified, then the judgment is restrictive or limiting. Thus: "All the leaves of this plant contain spines provided this plant has reached maturity." Or again, as already cited, "x + 4 = 6."

- ***There are definitional, analogical and contradictory judgments.***

In the definite judgment, the second part, the proverb or definite is equivalent to the subject or definite. Model and original are then interchangeable. Thus, we already saw (2.4) that by understanding there is overall similarity between, on the one hand, "the circle" and, on the other hand, "the geometric location of all points lying at the same distance from a fixed center.

- In the other judgments, the analogical and contradictory, the definite (saying) is different from the definite (subject). Analogical judgments are part-identical, contradictory judgments are totally non-identical.

- ***The analogical judgments fall into two types.***

(a)"All flowers are yellow." The saying is a parable because all flowers are similar to each other from the point of view of color.

(b)"All the flowers are from this plant." The saying is a cohesive model because the flowers do not resemble the plant but are related to it.

- A contradictory or inconsistent judgment such as "This is a square circle," (2.1) involves an inner contradiction.

Behold the "materials" from which reasoning is constructed.

2. Reasoning. One must "perceive" the prepositional phrases AND on their reasoning

(conditional) character "test": "What can I infer from that? The afterthought can then be used as

'inference' can be derived. Plato distinguishes two types, 'sunthesis' (deduction) and 'analusis' (reduction). Mind you, purely logical reasoning sentences become like conditional sentences expressed ("If all these flowers are yellow . "; "If all the flowers of this plant are..."), because formal logic, the logic that strictly adheres to deriving logically other sentences correctly from given sentences, is limited to what is related to or similar to concepts. Thus

formal logic is not applied logic. The latter dwells on the inexhaustible wealth of applications of formal or theoretical logic, as found e.g. in everyday life and in the sciences.

2.1. Deduction.

GG. All the flowers of this plant are yellow.

Well, these flowers are from this plant.

GV. What to infer from that?

SOL (solution) : So these flowers are yellow.

If all flowers (universal set) are yellow, then 'this' (subset) is too! The derivation is necessary.

Conditionally worded, "If all the flowers of this plant are yellow, and if these flowers come from this plant, they are yellow."

2.2. Reduction.

When one pays attention to afterthought, there are two main types: similarity reduction and coherence reduction.

Similarity reduction.

GG. These flowers are yellow.

Well, these flowers are from this plant.

GV: Infer what from that?

SOL.: So all the flowers of this plant are yellow.

The final sentence is a 'generalization': one reasons from 'these' flowers (subset) to 'all' flowers (universal set). However, as long as the rest on this plant, beyond 'these' flowers, has not yet been tested for its yellow color, the generalization (distributive amplification) is merely possible (a hypothesis) but probable to some extent.

Conditional wording: "If these flowers are yellow, and if they come from that plant, then all the flowers of that plant are yellow."

Note: "Amplification" is "knowledge expansion" in two forms: distributive and collective. After the distributive amplification mentioned above, collective amplification shows itself in what follows.

Coherence reduction.

GG. These flowers are yellow.

Well, all the flowers of this plant are yellow.

GV: Infer what from that?

SOL: So these flowers are from this plant.

The final sentence is, what might be called by analogy with the word "generalization," a "generalization. One does not now reason from a part of the collection, "generalizing," to the total collection, but from a part of the whole, "generalizing," to the complete whole itself. One goes from "these flowers" (a part of a plant) to "(all) the flowers of this plant" (as to its whole). However, as long as the rest of the environment has not yet been tested for the presence of other plants with the same flowers, the derivation (collective amplification) is merely possible (a hypothesis) but probable to some extent.

Conditional wording: "If all these flowers are yellow, and if all the flowers of that plant are yellow, then these flowers come from that plant."

Coherence reduction is collective generalization. Similarity reduction is distributive generalization. Both are very different. (see further 10.7)

One can see: the basic scheme of reasoning is "GG ^ GV - SOL" (given AND requested (sought), solution (answer)). The sign '^' stands for 'conjunction': the two together. As problem mathematics has done for centuries and centuries: the task (= GG ^ GV) is perceived as prepositional to a postpositional to be found by reasoning (the SOL).

4.2.This chapter summarized:

The object, the essence or identity of "something," of "a being," is a forma. Concepts, judgments and reasonings are the three main types of formae. Ruptured punctuation marks also 'mean' and thus are likewise formae or know-and-think contents. Reasoning is either deductive;

from the general to the particular, and then applies without qualification, or reductive. A reductive reasoning proceeds from the particular to the general, but with the necessary reservations. The similarity reduction generalizes from part of a set to the whole set. The coherence reduction reasons from part of a system to the whole system. By analogy with the word "generalize," one can speak in the latter case of "generalize. Although not ABN, yet we will use this term repeatedly in this sense.